



Program

26th International Congress for Conservation Biology

Connecting Systems, Disciplines, and Stakeholders

Baltimore, Maryland, USA • July 21-25, 2013

www.conbio.org/2013

2013

Baltimore, Maryland, USA

2011

Auckland, New Zealand

2010

Edmonton, Alberta, Canada

2009

Beijing, China

2008

Chattanooga, Tennessee, USA

2007

Port Elizabeth, South Africa

2006

San Jose, California, USA

2005

Universidade de Brasília, Brasília, Brazil

2004

Columbia University, New York, New York, USA

2003

University of Minnesota, Duluth, Minnesota, USA

2002

University of Kent at Canterbury, United Kingdom

2001

University of Hawaii, Hilo, Hawaii, USA

2000

University of Montana, Missoula, Montana, USA

1999

University of Maryland, College Park, College Park, Maryland, USA

1998

Macquarie University, Sydney, Australia

1997

Victoria University, Victoria, British Columbia, Canada

1996

Brown University, Providence, Rhode Island, USA

1995

Colorado State University, Fort Collins, Colorado, USA

1994

University of Guadalajara, Jalisco, Mexico

1993

Arizona State University, Tempe, Arizona, USA

1992

Virginia Tech, Blacksburg, Virginia, USA

1991

University of Wisconsin-Madison, Madison, Wisconsin, USA

1990

University of Florida, Gainesville, Florida, USA

1989

University of Toronto, Toronto, Ontario, Canada

1988

University of California, Davis, Davis, California, USA

1987

Montana State University, Bozeman, Montana, USA



About the International Congress for Conservation Biology

Welcome to our international forum for addressing conservation challenges. The International Congress for Conservation Biology is the global gathering spot for presenting and discussing new research and developments in conservation science and practice. From North America to Asia and Oceania to Europe, ICCB moves around the world and is recognized as the most important global meeting for conservation professionals and students. Most importantly, the ICCB connects conservation professionals and serves as the premier networking opportunity for anyone interested in conservation.

About the Society for Conservation Biology

Dedicated to advancing the science and practice of conserving Earth's biological diversity, SCB is a global community of conservation professionals with members working in more than 100 countries. The Society's membership comprises a wide range of people interested in the conservation and study of biological diversity: resource managers, educators, government and private conservation workers, and students.

SCB publishes the flagship peer-reviewed journal of the field, *Conservation Biology*, and the cutting-edge online journal, *Conservation Letters*. The Society provides many benefits to its community, including local, regional, and global networking, an active conservation-policy program, and free online access to publications for members in developing countries. SCB also administers a postdoctoral program, the David H. Smith Conservation Research Fellowship Program, sponsored by the Cedar Tree Foundation.

www.conbio.org



26th International Congress for Conservation Biology

ICCB 2013 Congress Guide

Introduction to the Congress

1. CONGRESS THEME	2
2. WELCOME	3
SCB President & SCB Executive Director	3
ICCB Chair	4
ICCB Scientific Program Chair	5
SCB Board, Editors, and Staff	6
The Oriole Bird	7
3. LOCAL ORGANIZING COMMITTEE	8
4. ACKNOWLEDGMENTS	10-11
5. SPONSORS	12-13
6. LOCAL INFORMATION	14
City of Baltimore	14
Congress details: <i>wireless, speaker room, etc.</i>	16
Transport	17
Practical Information	18
Dining options, Discounts, Groceries	20-21
7. FIELD TRIPS	22
8. ECO-FRIENDLY ICCB	24
9. SCB CARBON OFFSET PROJECT	25
9. SCHEDULE AT A GLANCE	27
10. PRESENTER INFORMATION	28
11. MODERATOR INFORMATION	29
12. SPECIAL EVENTS	30
Summary	30-31
Pre/Post Congress Workshops	32-33
Plenary Speakers	34-37
Chapter Activities	38
SCB Awards	40-41
Student Activities	42-43
Lunchtime Workshops	44-45
Silent Auction	46
Closing Reception	47
13. EXHIBITORS	48-52

Full Congress Schedule & Program

MONDAY, JULY 22	54
Poster Session	78
TUESDAY, JULY 23	88
Poster Session	112
WEDNESDAY, JULY 24	122
Speed-Poster Session	140
THURSDAY, JULY 25	146
NOTES	167
CONFERENCE CENTER MAPS	173



A central graphic for the ICCB 2013 poster. It features a large orange crab in the foreground. Behind it is a dark grey rectangular area containing the text 'ICCB 2013', 'Baltimore, MD, USA • 21-25 July, 2013', 'www.conbio.org/2013', and 'Society for Conservation Biology'. The background of the graphic is a sunset over water with silhouettes of a city skyline, a sailboat, and various birds and plants. The entire graphic is set against a background of a sunset over a body of water with wooden pilings in the foreground.

ICCB 2013
Baltimore, MD, USA • 21-25 July, 2013
www.conbio.org/2013
Society for Conservation Biology

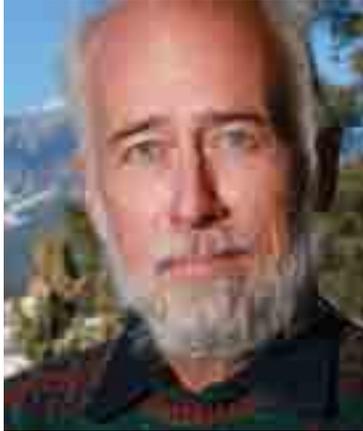
Connecting Systems, Disciplines, and Stakeholders

SCB's International Congress for Conservation Biology (ICCB) is the most important international meeting for conservation professionals and students. ICCBs are a forum for addressing conservation challenges and for presenting new research and developments in conservation science and practice. Most importantly, ICCBs connect our global community of conservation professionals and are the major networking outlet for anyone interested in conservation.

The Chesapeake Bay region, rich in cultural and historical heritage and conservation challenges and success stories, provides the perfect setting for the theme of ICCB 2013. The effective maintenance and restoration of Earth's biological diversity requires an integrated approach to conservation. Only by "*Connecting Systems, Disciplines, and Stakeholders*," can we effectively slow and reverse the continued loss of biodiversity.



Society for Conservation Biology



Dr. Paul Beier

SCB President 2011-2013
Professor, Conservation Biology
and Wildlife Ecology, School
of Forestry, Northern Arizona
University

Welcome to Baltimore, Maryland, also known as “Charm City,” because of its welcoming and friendly people. Established in 1729, Baltimore is part of the Patapsco River estuary, an arm of the Chesapeake Bay. It is a busy seaport and a major center of scientific research and development. We hope you will take time to enjoy its rich history, interesting places, and diverse people during the 26th International Congress for Conservation Biology. Whether you are attending your first ICCB meeting or your 16th (like Paul), the local organizing committee has organized outstanding symposia, workshops, plenary sessions, field trips, and social gatherings, including a pub crawl and a crab feast.

Our theme, *Connecting Systems, Disciplines and Stakeholders*, highlights the importance of an integrated approach to conserving and restoring Earth’s biological diversity. Reversing the decline of biodiversity demands that we work together, integrating systems, disciplines, and stakeholders. During the next few days you will be seeing and hearing about the work and achievements of other conservation biologists, and sharing your stories. This sharing won’t occur only in the formal sessions, but also in the hallways, coffee shops, the exhibit hall, poster sessions, and many social gatherings. Each event at the Congress is an opportunity to build a community of scientists dedicated to conserving life on Earth. From pre-conference workshops to post-Congress gatherings you will have the opportunity to laugh, dine, and toast your successes and commiserate about conservation challenges still ahead. There is still space available on a few field trips—check at the registration desk for opportunities to observe local conservation challenges and successes.

The ICCB is a true celebration of life on Earth and our individual and collective efforts to make a difference in our local, regional, and global communities. At the Congress we will reflect on our accomplishments and challenges, and we will experience pride in being the Society for Conservation Biology. Maintaining and restoring Earth’s biological diversity by generating science, disseminating science, advocating for the use of science, and informing conservation policy is who we are and what we do. Enjoy the conference. Continue your great work until we meet again.



Anne Hummer

SCB Executive Director

Paul Beier, SCB President 2011-2013
Anne Hummer, SCB Executive Director



Welcome from ICCB Chair



Department of Biological Sciences
100 College Drive
Allentown, PA 18104
Phone: 610-606-4606
www.cedarcrest.edu

6 May 2013

Dear Delegates,

Welcome to the 26th International Congress for Conservation Biology (ICCB). Past ICCBs have been the premiere meeting for conservation professionals, practitioners, educators, and researchers. And this ICCB will be no different. There will be workshops, short-courses, focus groups, symposia, and contributed presentations that cover the full-range of our discipline, and exciting plenaries that will inspire us all.

The theme for this Congress, *Connecting Systems, Disciplines and Stakeholders*, recognizes that the effective maintenance and restoration of Earth's biological diversity requires an integrated approach. Only through the integration of systems, disciplines, and stakeholders can we effectively slow and reverse the continued loss of biodiversity. The theme is well represented by the many interdisciplinary and integrated presentations and sessions at the Congress. I am especially gratified to see the numerous sessions and presentations on Citizen Science, community-driven conservation, capacity building, and education because I believe that all are key to conservation. We chose to highlight the important role that Citizen Science can play by dedicating one of the plenary talks to Citizen Science. Our other plenaries highlight other topics of importance to conservation. One will provide an overview of the evolution of conservation biology from its earliest historical roots and will look at the challenges of the present, including the continuing roles of ESA and CITES, emphasizing the critical need to combine action with research. A second plenary will focus on the importance of increasing human diversity in conservation. Lastly, a unique plenary session that will help train conservationists to effectively communicate to the public.

I would like to thank the organizing committee for the Herculean effort in pulling this Congress together. There were two significant challenges that were faced during the planning phase of this year's congress, the foremost being a lack of time. Due to the change in venues (and countries) fairly late in the cycle, we had much less time than we would have liked to plan the Congress. This meant that we were in constant scramble mode to meet deadlines, leading to long days, nights, and weekends. Exacerbating this was the fact that the "local" organizing committee was not local. We were spread from Maryland, Virginia, and Pennsylvania, to Massachusetts, and Colorado! The second major hurdle was a financial one. The negative economic climate significantly affected sponsorships and, thus, registration fees (both pre-Congress and Congress). This was a struggle for us. We had an obligation and responsibility to make sure that the Congress was financially viable but we also were committed to keeping the cost down to keep the Congress as affordable as possible. We realize that for some, it was ultimately too expensive and we are sorry about that. But overall, we were able to keep the costs comparable to the cost of meetings of peer societies.

So, a big thank you to the local organizing committee: Chris Parsons, Vice-Chair and Chair of the Scientific Program Committee, Keryn Gedan, Anne Hummer, Executive Director of SCB, Lauren Krizel, David Morimoto, Katheryn Patterson, Chair of the Student Programming Committee, and Nate Spillman, Chair of the Communications Committee. A very special thanks goes to Heather DeCaluwe, who worked tirelessly, even through the birth of her first son! Thanks also to our intern Christine Gleason, and to Rebecca Fazzari and Becky Malave of Meetings Management Group.

I hope everyone has a stimulating, enjoyable, and successful meeting.

John A. Cigliano
Chair, 26th International Congress for Conservation Biology



The 2013 ICCB Scientific Program

As this program goes off to press, despite governmental budget cuts for conservation in the US, Europe and other parts of the world, and a harsh economy, it's increasingly looking like the 2013 ICCB will be one of the largest yet.

For this meeting we had 46 proposal submissions for workshops, focus groups and short courses, of which 35 were accepted (a 76% acceptance rate). There was a record number of symposium submissions (88) leading to great competition for the limited number of symposium places and 39 were accepted (44%).

For the contributed part of the meeting we had 1046 abstracts submitted, of which 78% requested spoken presentations. All proposals and abstracts went through a peer review process, being reviewed by up to four conservation natural/social scientists. Again space in the program was limited and unfortunately we were only able to offer speaking presentation slots to 66% of those who requested them (of which 90% were able to accept).

As we go to press 486 spoken presentations have been scheduled in the contributed part of the program, in addition to 73 speed presentations, with an additional 237 poster presentations, for a total of 796 presentations in the contributed part of the meeting. As we began planning the program, it looked like we would only be able to accept less than 50% of the abstracts that were submitted to us. However, thanks to flexibility from the SCB Governors and staff, sponsorship from exhibitors, and some creative scheduling, we were able to find enough space to allow 76% of those who submitted abstracts to present their work. In total, with the spoken presentations in symposia, there will be well over 1,100 delegates presenting their work at this meeting.

Because of government budget cuts in the US and lack of funding abroad, there are many delegates who have requested us to hold places in the program for them while they search for funding. As we go to press we are still holding some spaces in the schedule to accommodate last minute funds, grants or permissions as they become available for these presenters. There may be a few holes in the program so please bear with us.

I'd like to thank all of those who have helped diligently with organizing and pulling together the 2013 scientific program, especially the hundreds of hours of work put in by John Cigliano, Rebecca Fazzari, Becky Malave, Autumn-Lynn Harrison, Nate Spillman, Lauren Krizel, Katheryn Patterson, David Morimoto, Keryn Gedan and David Patrick, and not to forget all of the hundreds of reviewers who graded proposals and abstracts. Special thanks also to our much beleaguered intern Christine Gleason and to SCB's Executive Director Anne Hummer.

Chris Parsons

ICCB 2013 Program Chair

Marine Section President (2009-2013) and SCB Governor

Associate Professor

Department of Environmental Science & Policy,

George Mason University, Fairfax, Virginia, USA



BOARD OF GOVERNORS

Ron Abrams
Andr s B ldi
Karen Beard
Paul Beier
Luigi Boitani
Nora Bynum
Carlos Carroll
Catherine A. Christen
Alex Dehgan
Dominick DellaSala
Nigella Hillgarth
David Johns
Beth Kaplin
Andrew Knight
Carolyn Lundquist
Rodrigo Medellin
Adina Merenlender
Edward Nector Mwavu
Simon Nemtzov
Owen T. Nevin
Barry Noon
Chris Parsons
Sadie Ryan
Cagan Sekercioglu
Gary Tabor
Mariana M. Vale
James Watson

BOARDS OF DIRECTORS

AFRICA
Edward Nector Mwavu
Ron Abrams
Ademola Ajagbe
Fola Babalola
Benis Egoh
Caroline K. Lumosi
Grace Mwaura
Kevin Yana Njabo
Belinda Reyers

ASIA

Simon Nemtzov
Jedediah Brodie
Christie Lai Ming LAM
Kashif M. Sheikh
Carl Traeholt
Krithi Karanth
Ellen Hines

EUROPE

Andr s B ldi
Barbara Livoreil
Rapha l Arlettaz
Margherita Gioria
Tibor Hartel
Pierre L. Ibisch
Bengt Gunnar Jonsson
Gabor L vei
Rob Marrs
Mikko M nkk nen
Guy Pe'er
Piero Visconti

LATIN AMERICA & CARIBBEAN

Mariana M. Vale
Rurik List
Patricia Majluf
Anthony Giordano
Ana Luz Porzecanski
Luis Gonzales Torres
Karla Pelz Serrano
Carolina Garcia
Carlos Roberto Chavarria
Olivier Chassot
Sandra Pompa Mansilla
Clinton Jenkins

MARINE

Chris Parsons
John Cigliano
Samantha Oester
Miguel D. Fortes
Keryn Gedan

Thomas P. Good
Hedley Grantham
Mandy Lombard
Leslie Cornick
Katheryn Patterson
Martin Robards
Jacob Levenson
Brett Favaro

NORTH AMERICA

Dominick DellaSala
Karen Beard
Carlos Carroll
Bogdan Cristescu
Brett Dickson
Judy F. Jacobs
Niel Lawrence
Andrew MacDougall
Jessa Madosky
Alettris M. Neils
Paul Paquet
Sarah Reed
Benjamin Sikes
Tom Sisk

OCEANIA

Carolyn Lundquist
Vanessa Adams
Rosalynn Anderson-Lederer
Stephen Garnett
Stacy Jupiter
Richard Kingsford
Jean Yves-Meyer
Tanya Zeriga-Alone
Emily Weiser
Gary Howling

WORKING GROUP ECOLOGICAL ECONOMICS & SUSTAINABILITY SCIENCE

Walker Young
Julianne Mills Busa
Abigail R. Whittaker

Felipe Estela
Tajudeen Okekunle Amusa
Ioan M. Ciumasu
Ian Craigie
Anthony Giordano
Claudia M nera
Scott Joseph Sveveien

FRESHWATER WORKING GROUP

Brenda Rashleigh
Ana Filipa Filipe
Viktor Lagutov
Sukhmani Mantel
Wendy Palen
Harmony Christine Patricio
Priyadarsanan Dharma Rajan
Maureen Ryan
Raymond Timm

RELIGION AND CONSERVATION BIOLOGY WORKING GROUP

Narayan Dhakal
Fabrizio Frascaroli
Stephen Mufutau Awoyemi
Chantal Elkin
Paul Simonin

SOCIAL SCIENCE WORKING GROUP

Tara Teel
Daniel Miller
Thomas Heberlein
Meredith Gore
Aurelie Delisle
David Hoffman
Robin Roth
Ashwini Chhatre
Douglas A. Clark
Crista Johnson
Catherine Christen

STAFF

Anne Hummer
Margaret Flagg
Shonda Foster
Lauren Krizel

Ellen Main
Cathy McIntosh
Nathan Spillman
Geri Unger

EDITORS

CONSERVATION BIOLOGY
Mark Burgman
Steve Brechin
Michael A. McCarthy
Tim McClanahan
Javier A. Simonetti

CONSERVATION LETTERS
Andrew T. Knight
Phillip Levin
Ashwini Chhatre



World Champions 1983, 1970, 1966
American League Champions 1983, 1979, 1971, 1970, 1969, 1966
American League East Division Champions 1997, 1983, 1979, 1974, 1973, 1971, 1970, 1969
American League Wild Card 2012, 1996

To the Society for Conservation Biology:

Welcome to Birdland! On behalf of the Orioles, we're happy that you've come to Baltimore. While we wish we could be with you in Charm City this week, we have games to win in Texas and Kansas City. Though we can't host you at a game at Oriole Park at Camden Yards, we encourage you to visit The Ballpark That Forever Changed Baseball while you're here. From the Warehouse to Eutaw Street, Oriole Park offers plenty for you to explore even while the team is on the road.

Let me tell you a bit more about my home. Oriole Park at Camden Yards became the official home of the Orioles on April 6, 1992 and seats 45,971. It is located 12 minutes west by foot from Baltimore's Inner Harbor and only two blocks from the birthplace of baseball's most legendary hero, George Herman "Babe" Ruth. The ballpark is state-of-the-art yet unique, traditional and intimate in design. It blends with the urban context of downtown Baltimore while taking its image from baseball parks built in the early 20th century.

The Orioles have played in Baltimore since 1954, and the team has won the American League pennant six times and the World Series three times, most recently in 1983. Six men have been inducted into the National Baseball Hall of Fame as Orioles, including Cal Ripken Jr., Eddie Murray, Jim Palmer, Brooks Robinson, Frank Robinson and Earl Weaver. These men were immortalized in larger-than-life sculptures unveiled in 2012 in the bullpen picnic area and the area is open each day year-round for fans to enjoy. Last season the team won 93 games and made the playoffs, winning the American League Wild Card. This season, we're off to another great start and we hope to be playing baseball well into October in 2013!

I hope you enjoy your stay in Baltimore and can find time to take a tour of my beautiful home, Oriole Park at Camden Yards. For information about tours or to purchase tickets to a future home game, visit www.orioles.com.

Thanks for visiting Birdland, and again, welcome!

Sincerely,

The Oriole Bird



ICCB 2013 Local Organizing Committee

From setting conference dates and registration fees to planning field trips and social events, the Local Organizing Committee is in charge of planning ICCB and arranging logistics before, during and after the conference. The committee is excited to welcome delegates from around the world to Baltimore and is committed to organizing a first-rate conference that incorporates local flavor into this global meeting for conservation biology.

CHAIR

John Cigliano, *Department of Biological Sciences, Cedar Crest College*

VICE CHAIR AND CHAIR OF PROGRAM COMMITTEE

Chris Parsons, *Department of Environmental Science & Policy, George Mason University*

COMMITTEE

Heather DeCaluwe, *Society for Conservation Biology*

Keryn Gedan, *Biology Department, University of Maryland*

Anne Hummer, *Society for Conservation Biology*

Lauren Krizel, *Society for Conservation Biology*

David Morimoto, *Natural Science & Mathematics Division, Lesley University*

Katheryn Patterson, *Department of Environmental Science & Policy, George Mason University*

Nate Spillman, *Society for Conservation Biology*

MEETING MANAGEMENT

Rebecca Fazzari, *Manager, Meetings Management Group*

Lizzy Bear, *Volunteer and Meeting Manager - Meetings Management Group*

Becky Malave, *Registration Manager, Meetings Management Group*

John Woodstock, *Meetings Management Group*

ICCB INTERN

Christine Gleason, *Department of Environmental Science & Policy, George Mason University*

MASCOT

Clawdia the Blue Crab, *Chesapeake Bay Inhabitant*



Visit the SMSC Booth (#504) in the Exhibit Hall

Smithsonian-Mason School of Conservation

TRANSFORMING CONSERVATION BIOLOGY LEARNING IN THE 21ST CENTURY

Undergraduate, Graduate and Professional Programs



The Smithsonian-Mason School of Conservation (SMSC) provides training in the tools, knowledge, and skills you need to address today's most pressing conservation challenges.

Specialized training opportunities focus on biodiversity conservation and human dimensions and offer access to one of the most respected and unique conservation sites in the US.

- Two residential undergraduate Smithsonian-Mason Semesters
- Courses for conservation professionals and graduate students
- New state-of-the-art academic and residential facilities in Front Royal, Virginia, USA

Upcoming Courses Fall 2013 Include:

- | | |
|----------------|--|
| Sept 9-20 | Ecology and Conservation of Migratory Birds |
| Sept 30—Oct 11 | Spatial Ecology, Geospatial Analysis, and Remote Sensing for Conservation |
| Oct 7-14 | Conservation Breeding Centers for Wildlife Sustainability |
| Oct 21—Nov 1 | Applied Climate Change: Gaining Practical Skills for Climate Change Adaptation |

For more information and additional courses go to

smconservation.gmu.edu



Find us on Facebook: www.facebook.com/SMConservation





Thank you!

The 26th International Congress for Conservation Biology would not have been possible were it not for the generous help of our volunteers. Their hard work has not gone unnoticed and we would like to recognise them here.

Abstract and Proposal Reviewers

Rachael Abbott	Abbey Camaclang	Paul Ferraro	Odindi John
Amber Abrams	Apolinario Carino	Joe Figel	David Johns
Ron Abrams	Michelle Cawthorn	Linda Fink	Nditapah Juscarl
Bhoj Acharya	Jorge Celi	John Fitzgerald	Hemanta Kafley
Vanessa Adams	Pankaj Chandan	Miguel Fortes	Sristi Kamal
Ismaila Aderolu	Suchana Chavanich	Elizabeth Freeman	David Kaplan
Alonso Aguirre	Basundhara Chettri	Paul Funston	Aventino Kasangaki
Andrews Agyekumhene	Adriano Chiarello	Victor Galvan	Biba Kaur
Habib Ahmad	Arpita Choudhury	Keryn Gedan	Amanda Keledjian
Munemitsu Akasaka	Catherine Christen	Jonas Geldmann	Corinne Kendall
H. Resit Akcakaya	Ai-Chi Chung	Sophie Gilbert	Christian Kerbirou
Oluyinka Akintunde	John Cigliano	Louise Glew	Marieke Kester
Olabisi Alamu	Amy Cobden	Caren Goldberg	Andrew Keth
Jacob Solomon Aluri	Sheila Colla	Lucas Gonçalves	Ahmad Khan
Tajudeen Amusa	Erin Conlisk	Tom Good	Shujaul Khan
Anupam Anand	Tara Cornelisse	Hit Goswami	Vhalinavho
Heather Arnold	Leslie Cornick	Hedley Grantham	Khavhagali
Hossein Arzani	Ian Craigie	Andrew Gregory	Laur Kiik
Stanley Asah	Lorelei Crerar	Malgorzata Grodzinska-	Stanislaus Kivai
Clare Aslan	Patrick Crist	Jurczak	Valentin Klaus
Maria Asmyhr	Georgina Cullman	Carla Guenther	Gary Kleppel
Ibukunoluwa Ayodele	Anthony Cummings	Gurutzeta Guillera-Arroita	Andrew Knight
Helen Bailey	Annabelle Cuttelod	Sushma Guru	Katrina Knott
Megan Bailey	James Danoff-Burg	Samson Gwali	Noriyuki Koizumi
Natalie Bailey	Emily Darling	Michael Habberfield	Mary Beth Kolozsvary
Ariele Baker	Andrea Davalos	John Hadidian	Prasanna Kolte
Jennifer Balachowski	Eric Davidson	Suzanne Hagell	José Lahoz-Monfort
Nabin Baral	Brian Day	Aaron Haines	Tien Lee
Jyotiskona Barik	Christmas de Guzman	Marwa Halmy	Allison Leidner
Purnima Barman	Plauto De-Carvalho	Alasdair Harris	Heather Leslie
Manali Baruah	Paula Decker	J. Berton C. Harris	Jacob Levenson
Brooke Bateman	Jessica Deichmann	Nyeema Harris	Ya-Wei Li
Amy Bauer	Aurelie Delisle	Brett Hartl	Wei Liu
Andrey Bazdyrev	Dominick DellaSala	Aaron Hartmann	Xuehua Liu
Karen Beard	Amielle Dewan	Vera Hausner	Diego Lizcano
Paul Beier	Dipayan Dey	David Hayman	Mandy Lombard
Samson Belachew	Nidhi Dharithreesan	Matt Hayward	Carlos López Fletes
Joe Berg	Dori Dick	Arup Hazarika	Jorge Manuel
Oded Berger-Tal	Brett Dickson	Jacob Heilmann-Clausen	López Calderon
Igor Berkunsky	Alia Dietsch	P.H.M. Anushika Herath	Carolyn Lundquist
Subodh Bhatnagar	Leo Douglas	Missaka Hettiarachchi	Zhenhua Luo
Phil Bishop	Megan Draheim	Jeffery Hill	Federico M. Pouzols
Ashok Biswal	Chris Draper	Sean Hoban	Rick MacPherson
Bernd Blossey	Joshua Drew	Anne Marie Hoffman	Francine Madden
Luigi Boitani	Katherine du Plessis	Matthew Hoffman	Jessa Madosky
Temitope Borokini	Narasimha Murthy	Test Hopson	Bruktawit Mahamued
Janice Bossart	Elagonda	Patrick Huber	Aishwarya Maheshwari
Eugenia Bragina	Emily Elston	Austin Humphries	Stanley Makindi
Donna Brewer	Marco A. Enciso	Makoto Inoue	Silvio Marchini
Andrew Bridges	Brett Favaro	Pricila Iranah	Erwin Martí
Jennifer Buff	Jillian Fazio	Judy Jacobs	Barbara Martinez
Sebastien Calvignac-Spencer	Prithviraj Fernando	Tania Jogesh	Robert Mazurek

Julie-Beth McCarthy	Elizabeth Oriel	Valentin Serebryakov	Brajesh Tiwari
Shawn McLaughlin	Israel Osunsina	Katherine Seto	Catherine Toline
Karen McLeod	Jacob Owens	Jennifer Sevin	Christopher Tonra
Tsitsi McPherson	Moses Oyatogun	Craig Shafer	Marie Tremblay
Yolanda Melero	Chris Parsons	Danielle Shanahan	Maggie Triska
Adina Merenlender	Jennifer Pastorini	Uri Shanas	Laura Trout
Kristine Metzger	Harmony Patricio	Graeme Shannon	Kimberly Tucker
Christine Meynard	Katheryn Patterson	Ghanashyam Sharma	Jared Underwood
Daniel Miller	Esteban Payan	Kartik Shastri	Suraj Upadhaya
Vanessa Mintzer	Karla Pelz Serramo	David Shiffman	Jenny Urbina
Sabrina Miranda	Nathalie Pettorelli	Jennifer Shirk	Renzo Vargas-Rodriguez
Eleanor Mitch	Zahoor Pir	Kevin Shoemaker	Diogo Verissimo
Miranda Mockrin	Mark Pokras	Gabriela Shuster	Ferenc Vilisics
Vik Mohan	Tal Polak	Mxolisi Sibanda	Amy Villamagna
Md. Ariful Haque Mollik	Ana Pont	Mohammad Abdul Momin	Piero Visconti
Tamal Mondal	Ana Porzecanski	Siddique	Voranop Viyakarn
Federico Montesino Pouzols	Hugh Possingham	Samantha Sifleet	Thong Vu Dinh
Donald Moore	Catherine Price	Catarina Silva	Jessica Walsh
Kara Moore	Melissa Price	Beatriz Silva-Torres	Sheila Walsh
Craig Morley	Andrew Pullin	Zina Skandrani	Fang Wang
Katherine Moseby	Dianne Quigley	Benjamin Skolnik	Yun Wang
Martin Muir	Samuel Quinn	Piotr Skorka	John Ware
Leena Muralidharan	Archi Rastogi	Jordan Smith	Michael Wasserman
Melanie Murphy	Chaminda Ratnayake	Sunny Snider	Martin Wegmann
May Murungi	Christopher Raymond	Durojaye Soewu	Emily Weiser
Onnie Mutanga	John Read	Opeyemi Soewu	Jeffrey Wells
Edward Mwavu	Jonathan Rhodes	Nate Spillman	Sarah Whitmee
Ganga Nakarmi	Agnes Richards	PJ Stephenson	Christopher Whittier
Tapan Nath	Jonathan Richardson	Juliana Stropp	Cynthia Wilkerson
Ilona Naujokaitis-Lewis	Kate Richardson	Raman Sukumar	David Wilkie
Simon Nemtsov	Rafael Riosmena-Rodriguez	Kulbhushansing Suryawanshi	Lisabeth Willey
Owen Nevin	Larry Rockwood	Ingrid Suter	Citt Williams
Helen Newing	Claudia Rodriguez	Alexandra Sutton	Matthew Williamson
James Nichols	Jon Rodriguez	Katalin Szlavecz	Heiko Wittmer
Jun Nishihiro	Kathryn Rodriguez-Clark	Nathan Taremwa	Eric Wood
Joseph Northrup	David Roon	Alice Taysom	Andrew Wright
Claudien Nsabagasani	Chris Ruck	Tara Teel	Lan Wu
Egide Ntakirutimana	Gaspard Rwanyiziri	Wendy Tejada	Rae Wynn-Grant
Felicia Nutter	Pranabesh Sanyal	Rachel Tennant	Anna Zavadskaya
Janet Nye	Theresa Satterfield	David Theobald	Guy Ziv
Jason O'Bryhim	Jame Schaefer	Antony Thomas	Anna Zivian
Georgina O'Farrill	Judith Schleicher	Sumin Thomas	Gustavo Zurita
Adekunle Ogunjinmi	Dirk Schmeller	Alan Thornhill	
Nabaghan Ojha	Lisa Schreffler	Jennifer Thornhill	
Mercy Ojoyi	Ajay Sehgal	Lindsey Thurman	
Malvika Onial	Sarah-Anne Selier	Morgan Tingley	

All Moderators

.....

There are undoubtedly several individuals not listed here who contributed their time and effort to make this conference successful, including those who are volunteering on site during the Congress. To anyone we may have missed: your hard work was greatly appreciated and we are glad you were a part of ICCB 2013!



Sponsors

We owe our gratitude to the following groups for their generous support.

Baltimore Platinum



Wiley

Wiley is the leading society publisher. Our scientific, technical, medical and scholarly business publishes on behalf of more societies and membership associations than anybody else, and offers libraries and individuals, 1250 online journals, thousands of books and e-books, reviews, reference works, databases, and more.

www.wiley.com



ESRI together with NatureServe, The Nature Conservancy, Audubon, and Wildlife Conservation Society

ESRI

Esri helps organizations map and model our world. Esri's GIS technology enables them to effectively analyze and manage their geographic information and make better decisions. They are supported by an experienced and knowledgeable staff and an extensive network of business partners and international distributors.

www.esri.com



NatureServe

NatureServe is a non-profit conservation organization whose mission is to provide the scientific basis for effective conservation action. NatureServe and its international network of natural heritage programs and conservation data centers are the leading source for information about rare and endangered species and threatened ecosystems.

www.natureserve.org



The Nature Conservancy

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people.

www.nature.org



Audubon

Audubon's Mission: To conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the Earth's biological diversity. For more than a century, Audubon has built a legacy of conservation success by mobilizing the strength of its network of members, Chapters, Audubon Centers, state offices and dedicated professional staff to connect people with nature and the power to protect it.

www.audubon.org



Wildlife Conservation Society

The Wildlife Conservation Society saves wildlife and wild places worldwide. We do so through science, global conservation, education and the management of the world's largest system of urban wildlife parks, led by the flagship Bronx Zoo. Together these activities change attitudes towards nature and help people imagine wildlife and humans living in harmony. WCS is committed to this mission because it is essential to the integrity of life on Earth.

www.wcs.org



Skipjack Gold



Rufford Small Grants Foundation

Rufford Small Grants for Nature Conservation (RSGs) are aimed at small conservation programmes and pilot projects.

www.ruffordsmallgrants.org



National Fish and Wildlife Foundation

Established by Congress in 1984, the National Fish and Wildlife Foundation (NFWF) sustains, restores and enhances the nation's fish, wildlife, plants and habitats. Working with federal, corporate and individual partners, NFWF has funded more than 4,000 organizations and committed more than \$2.1 billion to conservation projects.

www.nfwf.org

Raven Bronze



UNIVERSITY OF CHICAGO PRESS

Since its founding in 1891, the University of Chicago Press has embraced as its mission the obligation to disseminate scholarship of the highest standard and to publish serious works that promote education and foster public understanding. Chicago Journals delivers original, peer-reviewed research from international scholars to a worldwide audience.

www.press.uchicago.edu



YELLOWSTONE TO YUKON CONSERVATION INITIATIVE

Connecting and protecting habitat from Yellowstone to the Yukon so that people and nature can thrive.

www.y2y.net



Welcome to Baltimore!

www.baltimore.org

The famed Inner Harbor, great restaurants, world-class attractions, museums, and outstanding sports venues are part of the city's compact and convenient "convention community."

SAVOR OUR CUISINE

Baltimore is known for its crab cakes. But with culinary accolades in *Gourmet*, *Food & Wine*, and *Bon Appétit*, Baltimore has emerged as a hot spot for foodies. Whether it's a casual bite at one of the city's restored historic markets or four-star farm-to-table cuisine, even a crab feast to remember, Baltimore's culinary scene is not to be missed.

ARTS AND CULTURE FOR EVERY TASTE

Not only does Baltimore have several cultural attractions a few steps from each other, but many of these attractions are uniquely Baltimore. You'll find museums for all interests, such as the American Visionary Art Museum, The Walters Art Museum and the Baltimore Museum of Art, featuring the world's largest Matisse collection; the Baltimore & Ohio Railroad Museum, Geppi's Entertainment Museum, the Babe Ruth Birthplace Museum, the National Great Blacks in Wax Museum and so many more. In the evening, the art scene comes alive with live theater, the symphony and opera.

EXCITEMENT AROUND EVERY CORNER

Discover Baltimore's electrifying nightlife in the unique and diverse neighborhoods that surround the Inner Harbor. Whether it's a relaxed lounge in Mt. Vernon, corner pub in Fell's Point or dance floor that doesn't stop in Federal Hill, Baltimore's neighborhoods are filled with the after hours fun to suit any taste. Plus, when the sun sets, Baltimore's Power Plant Live! features live music from national acts with sizzling sounds.

Explore all that Baltimore has to offer on a new interactive map at <http://baltimore.org/maps>.

Historical Attractions

USS CONSTELLATION (HISTORIC SHIPS OF BALTIMORE)

The USS Constellation is one of the many historic ships that you can visit in Baltimore Harbor. Commissioned as a sloop-of-war in July of 1855, since 1999 the USS Constellation has made Baltimore Harbor her home. Between these times the Constellation has served as an active military and training vessel. Constellation has had a successful career. After the first shots of the United States Civil War, the Constellation participated in blockading southern ports. During this blockade the Constellation captured the brig Triton accounting for one of the first U.S. Navy's captures of the Civil War. Constellation's most famous moment in history, however, occurred during her time as the flagship of the U.S. Navy's African Squadron. Constellation captured the barque Cora which carried 705 slaves. For more information regarding USS Constellation or other historic ships you can visit in Baltimore go to: www.historicships.org/constellation.html

FORT MCHENRY

A prominent feature in Baltimore Harbor is Fort McHenry. Originally built in 1799 and named after James McHenry, who would become Secretary of War under President George Washington; it is a uniquely shaped five-pointed star fort. Fort McHenry is most famous for the Battle of Baltimore, during the United States' War of 1812. It was during the Battle of Baltimore that Francis Scott Key wrote the poem that would one day become the United States' National Anthem. Today you can see the Francis Scott Key Buoy moored in the harbor where the vessel Key was retained on was anchored. Key, a lawyer, had come to negotiate the release of a civilian prisoner of war, witnessed the bombardment from a ship of truce. Fort McHenry remained in military use until World War II. In 1939, it was designated a National Monument



and Historic Shrine. Today it is a United States' tradition to first fly a newly designed national flag at Fort McHenry. If you visit the fort, you can see the official first flags with 49 and 50 stars. For more information on Fort McHenry go to: www.nps.gov/fomc/

Day Trips

CALVERT CLIFFS STATE PARK/CALVERT MARINE MUSEUM

Calvert Cliffs State Park has many amazing features; however, the most prominent is the cliffs themselves. Located on the Patuxent River, the cliffs formed approximately 15 million years ago when all of southern Maryland was a shallow sea. The cliffs cover 30 miles of the Chesapeake Bay's shore and contain many remains of prehistoric species including sharks, whales and seabirds. Many of these fossils can be viewed at Calvert Marine Museum in Solomon's, Maryland. Here visitors can view prehistoric sea shelled animals, fish, turtles and many land mammals. The real show stopper, however, is the 35 foot (10.5 meter) skeletal restoration of the extinct giant white shark (*Carcharodon megalodon*). Additionally the museum offers a live Estuarium which includes species such as the economically important striped bass, or rockfish, (*Morone saxatilis*) and blue crab (*Callinectes sapidus*). Furthermore, you can also learn about the men who harvest these species, the watermen (fisherman), of the Chesapeake Bay.

For more information for either site go to:

Calvert Cliffs State Park: www.dnr.state.md.us/publiclands/southern/calvertcliffs.asp

Calvert Marine Museum: www.calvertmarinemuseum.com

ANNAPOLIS, MARYLAND

www.visitannapolis.org

Annapolis, Maryland has been welcoming visitors for over 300 years and is one of the many exciting cities Maryland has to offer. Located on the western shore of the Chesapeake Bay the city has been coined as America's sailing capital. The historic dock of Annapolis has been welcoming vessels since the 17th century and hosts bay fisherman and sailing vessels alike. To capture a glance of the docks during the height of fishing visit the lobby of the downtown Annapolis Marriott. Sailing is only one of the many attractions this city has to offer. The United States Naval Academy is located in Annapolis and welcomes visitors (to plan your visit go to: www.usna.edu/visit.htm). Annapolis is also rich in the arts, including theatre and ballet companies. Museums in the Annapolis area include the Banneker-Douglass Museum which explores African American heritage and is the state's storehouse of African American material culture (to plan your visit go to: www.bdmuseum.com). For more information regarding this historic city go to: www.annapolis.com or www.ci.annapolis.md.us.

WASHINGTON, D.C.

www.washington.org

Founded on July 16, 1790, Washington, D.C. is unique among American cities because it was established by the Constitution of the United States to serve as the nation's capital. From its beginning, it has been embroiled in political maneuvering, sectional conflicts and issues of race, national identity, compromise and, of course, power. Only in D.C. can you see the original U.S. Constitution and stand where Martin Luther King, Jr. said "I have a dream." From touring The White House to attending School for Spies, we've got once-in-a-lifetime attractions you should make part of your history.



Finding your way around the Congress

• CONGRESS VENUE

The ICCB 2013 scientific programme will take place at the Baltimore in downtown Baltimore.

<http://www.bccenter.org/>

Address: One West Pratt Street | Baltimore, Maryland 21201

Pre-Conference sessions will take place at either the Sheraton Inner Harbor Hotel or the Renaissance Baltimore Harborplace Hotel. Please refer to the schedule or visit the registration desk for venue/room information for specific meetings and events.

• VOLUNTEERS:

Look for the orange t-shirts

Volunteers can be easily identified by their orange ICCB t-shirts. Please do not hesitate to ask them for assistance as they are here to help and direct you.

Volunteers: Please check in at the Registration desk on the 100 Level, Charles Lobby, outside, Hall A of the Baltimore. Check-In with Elizabeth Bear or Beth Donaldson for scheduling and other details..

• REGISTRATION DESK

The registration desk will be located on the 100 Level, Charles Street Lobby of the Baltimore directly across from the entrance to Hall A. At registration you can receive your badge, registration materials, purchase tickets for pre & post conference sessions, field trips, Wednesday Dinner Cruise and guest tickets for the Opening & Closing Receptions.

Hours:

Sunday, July 21: 7:00 A.M. – 8:00 P.M.

Monday, July 22: 7:30 A.M. – 7:00 P.M.

Tuesday, July 23: 7:30 A.M. – 7:00 P.M.

Wednesday, July 24: 7:30 A.M. – 6:00 P.M.

Thursday, July 25: 7:30 A.M. – 2:30 P.M.

• INFORMATION BOOTH

An information booth will be set up adjacent to the registration booth. An ICCB volunteer will be available at the registration desk to help with any conference-related enquiries.

• MESSAGE BOARD/JOB BOARD

Located near the registration desk, look for the message/job board. Congress participants can post messages to colleagues about get-togethers or meetings. We also encourage advertising job opportunities of any level, including graduate student openings. Please limit messages/ads to one piece of paper as we will not be able to accommodate or distribute multiple brochures or pamphlets on the message board.

• WIRELESS ACCESS

Wireless Access will be available in the Baltimore in Hall A and in the meeting rooms. Participants can connect to the wireless network by the following steps:

1. Open your wireless network connections
2. Select the SSID provided: **ICCB2013**
3. Click in the SSID – Once the SSID have connected
4. Enter the password (all lowercase): **baltimore**
5. Click onto your browser to access the internet.

• SPEAKER READY ROOM

All speakers must pre-load their talks at least one day prior to their talk. The speaker ready room where you can upload your presentation will be located in the Ballroom VIP Suite East, near the Grand Ballroom I&II, on the 4th floor of the Baltimore. A computer tech will be in the room to assist you with uploading your presentation.

Hours:

Sunday – Wednesday: 7:00 A.M. – 6:00 P.M.

Thursday: 7:00 A.M. – 2:00 P.M.

• MEDIA REPRESENTATIVES

We request that any media representatives contact Nate Spillman, Marketing and Communications Coordinator for SCB at (202) 413-7115 or at nspillman@conbio.org. We will also have a Press Office located on the 100 Level, in the Charles Street VIP Suite located in Hall A of the Baltimore, and also accessible from the Charles Street Lobby.

Transportation

As the saying goes, when you're in Baltimore you're always "two feet" away from almost everything. Most of Baltimore's hotels, attractions, and restaurants are located within walking distance of each other. All ICCB events are happening within a small area near Baltimore's central Inner Harbor.

TAXI

Out late and need to get back to your hotel safely? Yellow/Checker Cab operates 600 taxi cabs in Baltimore and accepts credit cards. Call or request a taxi:

www.yellowcabofbaltimore.com

410-685-1212

.....

BUS

If you want to explore the city past the Harbor, hop on a Charm City Circulator bus. With a fleet of 21 free hybrid electric shuttle buses with four routes connecting major points of Baltimore, you can get around the city in an environmentally-friendly and budget-friendly manner.

www.charmcitycirculator.com

.....

TRAIN

Looking to take a day trip to Washington, DC? Hop on the Penn line MARC train at Penn Station (just a few blocks from the) for \$7 to get to DC within the hour. The Maryland Transit Administration also operates light rail, commuter buses, and a subway system in and around Baltimore.

<http://mta.maryland.gov>

.....

WATER TAXI

For a more scenic way to get around, take a blue-and-white water taxi to more than 30 attractions and Baltimore neighborhoods. An all day adult pass for unlimited on-off service is just \$12.

www.baltimorewatertaxi.com

410-563-3900

.....

SUPER SHUTTLE TO AIRPORT

When it's time to depart after ICCB, Super Shuttle has a quick and inexpensive service to BWI and other area airports. You can reserve a seat online or by phone:

www.supershuttle.com

800-258-3826

.....

PARKING

If you choose to rent a car in Baltimore, there are many affordable parking garages close to the and downtown.

Interactive map of parking garages: <http://baltimore.org/maps>

Download a printable map of parking garages: http://www.godowntownbaltimore.com/docs/Parking_Web_Map.pdf



Practical Information

TELEPHONE

- Country code for United States: 1
- Area code for Baltimore: (410) or (443)
- To place a call outside of United States, dial 00 +country code + area code + local number
- To call a Baltimore number from outside of city but within United States you need to dial area code + local number
- To receive a call from outside United States, caller must dial country code (1) + area code +local number

EMERGENCY NUMBERS

Emergency services (Police, Ambulance, Fire) may be reached by dialling 911. There is no charge for this from a public phone or cell phone.

MEDICAL CARE

In case of emergency, dial 911.

- The nearest major hospital to the convention centre is:
University of Maryland Medical Center
22 S Greene St, Baltimore, MD
(410) 328-8667

CURRENCY, BANKS AND EXCHANGE

The unit of currency is the dollar, with coins of 1, 5, 10, and 25 cents. You can visit any major bank for currency exchange. Currency exchange is also available at the airport. ATM (“Instant Tellers”) are available throughout the city and most should allow you to withdraw money from your account back home but note that this usually involves a fee. Credit cards are widely accepted.

CLOTHING AND WEATHER

Be prepared for warm and sunny days – the average high temperature for Baltimore in July is 30 C (87 degrees F) with average low of 19 C (67 degrees F) (15 C).

Dress is generally casual, and shorts and t-shirt is accepted attire in most places, although note that some restaurants and bars will insist on more formal wear and appropriate foot-wear.

CHILDCARE AND BABYSITTING SERVICES

SCB is unable to offer on-site care for children of delegates as we do not have licensed facilities available. Nannies and babysitters can be hired through www.care.com or Sittercity.com for an average of \$10-\$15 per hour.

ACCOMMODATION

- Brookshire Suites
120 E. Lombard Street
Baltimore, MD 21202
Telephone: 410-625-1300
Email: info@brookshiresuites.com
Web: <http://www.brookshiresuites.com/>
- Renaissance Baltimore Harborplace -
ICCB Headquarters Hotel
202 E. Pratt Street
Baltimore, MD 21202
Telephone: (410) 547-1200
Fax: (410) 539-5780
Web: www.marriott.com
- SpringHill Suites Baltimore Downtown/Inner Harbor
120 E. Redwood Street
Baltimore, MD 21202
Telephone: (410) 685-1095
Fax: 1-410-685-1094
Web: www.marriott.com
- Days Inn Baltimore – Inner Harbor
100 Hopkins Place (Pratt Street & Lombard Street)
Baltimore, MD 21201
Phone: (410) 576-1000
Fax: (410) 659-0257
Web: www.daysinn.com
- Sheraton Inner Harbor Hotel
300 S. Charles Street
Baltimore, MD 21201
Phone: (410) 962-8300
Web: <http://www.sheratoninnerharbor.com/>

ACCESSIBILITY SERVICES

The conference venue is situated on four floors, with elevators and escalators providing access between levels. Access to the center is at street level through the main entrance on Charles and on the second level at Pratt Street.



RUFFORD SMALL GRANTS ARE AIMED AT SMALL CONSERVATION PROGRAMMES & PILOT PROJECTS

A RANGE OF GRANTS ARE AVAILABLE

THE RUFFORD FOUNDATION HAS SUPPORTED IN EXCESS OF 2,000 PROJECTS IN 140 COUNTRIES



<http://www.facebook.com/pages/Rufford-Small-Grants-Foundation/163603430348415>



@ruffordgrants



Projects Featured: Pedro Henrique Cipresso Pereira, Jigme Wangyal, Angela Maldonado, Mitko Karadelev, Malavika Narayan, Michelle Thorn, Paul Webala, Usama Ghazali Mohammed, Kathryn Shutt, Andrea Loayza, Anirban Datta-Roy, Norvis Hernandez Hernandez, Tatiana Ivkovich, Malini Pittet & Micheal Joseph Liles

Charity Number: 1117270



Lunch and Dining Options

BREAKFAST

On your own, but may be included in your accommodation package. Please inquire at your hotel's information desk for more details.

BREAKS

A morning coffee break will be held from 10:00 - 10:30 A.M. each day. Afternoon refreshment breaks will be held from 3:30 - 4:00 P.M. on Monday, Wednesday, and Thursday. Tuesday, the afternoon break will be held from 4:30 P.M. to 5:00 P.M. Hot beverages will not be served at the afternoon breaks.

Monday-Wednesday, breaks will be held in Exhibit Hall A. On Thursday, breaks will be held in the Prefunction Space outside Rooms 307-310.

LUNCH

Lunch is on your own. In the Conference Center, lunch may be purchased in the Exhibit Hall or at the Marketplace on the 3rd level of the Center. Or for outside options, walk down to the Baltimore Inner Harbor (5 minute walk) for local options.

DINNER

On your own all four nights except for the closing reception at Power Plant Live (ticket required). The Baltimore Harbor Dinner Cruise does include dinner. A large number of dining options are available within walking distance of the Convention Centre; please see the Concierge Desk (hosted by the Baltimore CVB from 10 A.M. to 5:00 P.M. each day) or information booth for a list of possible places. Some area restaurants will provide a discount to attendees if your conference badge is shown. Please see facing page.

APPETIZERS

Light appetizers will be served at the opening ceremony and poster sessions. Dinner is not provided at these events.

NEARBY GROCERY STORES

Fresh & Greens

222 North Charles St
Baltimore MD 21201
410-962-5262

*Located 4.5 blocks from the center

Whole Foods

1001 Fleet St
Baltimore MD 21202
410-528-1640

*Located about 10 minutes walk
through the Harbor in Harbor East

Shoppers

857 East Fort Ave
Baltimore MD 21230
Inside Southside Marketplace
410-727-1246

*5-10 minute drive from the center



The following restaurants are offering you a special discount July 21-25, 2013.

Just show your badge for the discount.

SCB's 2013 Participants

Caesar's Den Restaurant
223 South High Street; 410-547-0820
15% off food portion of bill

DaMimmos Finest Italian Cuisine in Little Italy
217 S. High Street ; 410-727-6876
10% off your entrée, enjoy entertainment nightly and complimentary limo service from hotel and back

Frank & Nicks West End Grill
511 West Pratt Street; 410-685-6800
10% off food

Gordon Biersch Brewery Restaurant
1000 Lancaster Street, Suite B; 410-230-9501
10% off your entire entrée- Including alcohol

Hard Rock Café
601 East Pratt Street; 410-576-2210
Referred seats and \$5 off \$25 purchase

Heavy Seas Alehouse
1300 Bank Street; 410-522-0850
15% off of food & beverage purchase

Howl at the Moon
22 Market Place; 410-783-5111
Free Admission

Langermann's & Langermann's on Light
2400 Boston Street and 1542 Light Street
410-534-3287 & 410-528-1200
15% off total bill

Lebanese Taverna
718 South President Street; 410-244-5533
\$5.00 off \$30.00(not including tax) purchase
*one coupon per table- cannot be combined with any other promotions

Leinenkugel's Beer Garden
34 Market Place; 443-208-3316 \$3
Leinenkugels and \$3 Rail Drinks when you show your badge

Luckies Baltimore
10 Market Place; 410-564-5477
\$3 Domestics, \$4 Imports, and \$5 Well Drinks

Marble Slab Creamery & Great American Cookies
201 East Pratt Street; 443-835-1873
20% off store wide

Mex Tequila Bar
26 Market Place ; 410-528-0128
½ price apps, \$3 Miller LTs, and \$4 Call Drinks

Morton's The Steakhouse
300 South Charles ; 410-547-8255
Free New York Cheesecake

PBR Baltimore
43 Market Place 443-680-9433
\$2 Miller LT Drafts and \$3 Rail Drinks
Phillips Seafood 601 East Pratt Street
410-685-6600
15% off your total bill

Pickles Pub
520 Washington Blvd; 410-752-1784
Free basket of Baltimore Fries

Queenstown Premium Outlets
441 Outlet Center Drive; 410-827-8699
Complimentary VIP coupon book

Regis American Bistro
1002 Light Street; 410-539-7344 ext. 1
\$10 Gift Card

St. Mary's on Paca Street
600 North Paca Street; 410-728-6464
Free Admission

Supano's Steakhouse
110 Water Street
410-302-3395
20% off dinner

Sullivan's Steakhouse
1 East Pratt Street; 410-962-5503
Offering a 3 course menu all day in both the main dining room and in the bar for only \$39

TATU
614 Water Street; 410-244-7385
50% off select sushi and starters, \$3 Miller LTs, \$4 Rail Drinks, \$5 Call Drinks

The Owl Bar
1 East Chase Street; 410-347-0888
10% off regularly priced food

UNO Chicago Grill
201 East Pratt Street; 410-625-5900
10% off food purchases (dine in or take out)

Wine Market Bistro
921 East Fort Avenue; 410-244-6166
10% off in the dining room. Offer cannot be combined with any others (including the 3 course prix fixe menu for \$33 Tuesday-Thursday).

Baltimore is bursting with unexpected museums and attractions all around town. And, we are opening our doors to Society for Conservation Biology July 21-25. Just show your badge at the participating establishments to receive a special promotion or discount. For more information or to plan your itinerary, stop by the Convention Concierge at the Baltimore or the Baltimore Visitor Center on the Inner Harbor. Baltimore's restaurants have drawn rave reviews from around the globe and this is your opportunity to savor our culinary delights.

Offer Restrictions for Show-Your-Badge-Program (all will apply):

- Convention Badge must be presented at time of purchase.
- This discount is not valid with any other coupon or reduced price offer.
- Discount is not redeemable for cash or gift card purchase.
- Applicable taxes paid by bearer.
- Certain restrictions may apply to individual restaurants.



Field Excursions

The field excursions are designed to allow delegates time to experience the nature and culture of the Chesapeake Bay area. Below is a listing of scheduled field excursions taking place before and after the Congress. Trips are designed to be cost neutral for the Meeting budget to allow you a low cost, tailored trip to enhance your visit to the Chesapeake Bay!

Blackwater National Wildlife Refuge

Sunday, July 21, 8:00 AM - 5:00 PM

Includes: transportation, box lunch

Cost: \$115.00

Maximum: 25 Participants

In the morning, we will take a wildlife and marsh ecology tour through marsh restoration sites and Delmarva fox squirrel woods. We will observe a dramatic example of tidal marsh erosion where several thousand acres of *Schoenoplectus americanus* marsh have eroded since the 1930s to create a lake four miles long and over a mile wide. Small scale marsh restoration plots in this lake can be viewed from the tour as well as a recent area of natural sediment deposition where new marsh is becoming established. In the afternoon, we will tour marsh migration sites and traverse a large expanse of eroding *Spartina/Schoenoplectus* marsh where salt marsh birds, including saltmarsh sparrow, seaside sparrow, and black rails, as well as diamondback terrapins can often be seen and heard. We'll also traverse a tidal marsh-loblolly pine forest ecotone that is actively migrating due to sea level rise.

Inner Harbor Floating Wetland

Sunday, July 21, 12:00 PM - 4:00 PM

Includes: transportation, box lunch, kayaking

Cost: \$35.00

Maximum: 25 Participants

Biohabitats staff will lead a tour and an interactive examination of a mature floating wetland. Currently, ~2000 ft² of floating wetlands are deployed in front of Baltimore's World Trade Center in the Inner Harbor. This is an expansion of the original pilot project, which consisted of ~200 ft². The floating wetlands are constructed on a float of bundled plastic water bottles collected from the Harbor. Local students and business volunteers helped assemble and place the wetlands, stimulating a lot of stewardship buzz among the local community and visitors to the Inner Harbor. This was an effort with strong local community involvement and support, including the Baltimore Harbor Waterkeeper, Living Classrooms Foundation, National Aquarium of Baltimore, Maryland Port Administration, Maryland Sea Grant, Baltimore City, and Biohabitats.

The tour will include a detailed discussion of the merits of floating wetlands and the retrieval and dissection of one of the floating wetlands. Previous efforts documented a large and diverse community using the floating wetlands, including wetland vegetation, waterfowl (nesting and feeding), wading birds, fish, eels, mussels, bryozoans, etc.

SCB GROUP MEETINGS
The stage is set for you to get involved.



**REGIONAL SECTION,
WORKING GROUP &
CHAPTER MEETINGS**
Set the agenda and path
forward for conservation



Every day from 12:30 – 2:00 P.M. (except where noted), SCB Groups will have business meetings to discuss activities, upcoming events, membership and related SCB issues. All are welcome and you do not need to register to attend.

MONDAY, JULY 22

SCB Chapters • Room 306
Working Group for Ecological Economics and
Sustainability Science (EESS) • Room 310

TUESDAY, JULY 23

Africa Section • Room 306
Marine Section Meeting • Room 301
Europe Section • Room 304 at 5:00 – 6:00 P.M.
Social Science Working Group • Room 304

WEDNESDAY, JULY 24

Latin America and Caribbean (LACA) Section • Room 306
North America Section • Room 309

THURSDAY, JULY 25

Asia Section • Room 304
FreshWater Working Group (FWWG) • Room 306
Oceania Section • Room 301



ECO-FRIENDLY ICCB 2013

Large conferences usually mean a significant environmental impact. However, the Local Organizing Committee has worked hard to minimize this impact. After all, we are the world's leading conservation society.

Reducing our impact starts with our venue, the Baltimore. The center is committed to supporting "Green Initiatives" both at the Center and throughout the community. Here are some of the initiatives at the center:

ENERGY

- Recycle paper, plastic, bottles, and cans.
- Exterior glass and skylights allow for the use of natural light to reduce electricity costs.
- Photo sensors in the public lobbies reduce the need for artificial light.
- Lighting and motion sensors in meeting rooms reduce the need of artificial light.
- Meeting room tables are made from 30% recycled products.

CATERING

- China service is utilized to help reduce waste.
- Reusable service equipment is used on buffets and break stations.
- "Farm-to-Table" program buys locally, whenever possible, thereby conserving energy and creating less pollution when foods travel fewer miles to reach the.
- Coffee stirrers along with beverage cups and sleeves are made of recycled materials, all of which are biodegradable. Plates, spoons, forks, and knives all are made of recycled plastics.

WASTE REDUCTION

- Solid Waste Reduction System, SOMAT, reduces solid catering waste by 90%.
- SOMAT transforms reduced solid waste into a soil amendment product that is in turn used for the upkeep of the grounds and flower-beds.
- Currently the system has transformed over 18,000 pounds of waste into slightly over 2,000 lbs of usable soil product.
- 60-65% of cleaning chemicals are Green Seal Eco-friendly certified.
- Active ion system is currently in use for hard, solid surfaces. This system transforms tap water into a product that cleans 99.9% of bacteria.

CURRENT PROJECTS

- The outside terrace has been converted into a green roof.

ECO-FRIENDLY INITIATIVES BY THE LOCAL ORGANIZING COMMITTEE

- Since many of us have a large number of bags from previous conferences, we try to follow the lead set by the 25th ICCB asking delegates to bring their own bag, and if they have extras, to donate them to other attendees.
- Again, following what was done at the previous ICCB, to reduce the amount of paper used, we are only printing hard copies of the program for those who order it in advance.
- Abstracts will not be printed but will be given, to all delegates on a USB stick and will also be available online.
- All food served at the ICCB is sustainable, local, and/or organic sources whenever possible.

AND, OF COURSE, IF YOU WISH TO FURTHER REDUCE YOUR IMPACT, YOU CAN DONATE TO SCB'S CARBON OFFSET PROGRAM!



ICCB 2010-2013 Carbon Offset Project

WILD ROSE CONSERVATION SITE

To offset carbon emissions caused by travel to ICCB, from 2010-2013 the Society for Conservation Biology has invested in a project to sequester carbon into grassland soils in southern Alberta.

SCB entered into an agreement with the Alberta Conservation Association (ACA) and the Alberta Fish and Game Association (AFGA) to assist in the purchase and management of the Wild Rose Conservation Site, a 390-ha property south of Lethbridge on the Milk River Ridge. This

acquisition was motivated by numerous conservation goals because the Wild Rose Conservation Site has been degraded over the years by heavy cattle grazing. The photo above is of ICCB Chair Mark Boyce (U of Alberta) at the WRCS.

Restoration and protection of native fescue grassland is a primary end goal of this purchase. The area is very important for biodiversity preservation as well; containing more threatened and endangered species than anywhere in Alberta. Nature Conservancy Canada and other partner organizations were involved in the purchase and ultimate transfer of ownership to ACA and AFGA.

The total purchase price was approximately \$768,000. SCB's investment is in the carbon that will be sequestered during the recovery of this native prairie during the next 20 years. Our estimate is that SCB's investment of \$50,000 during the next five years will yield sequestration and long-term storage in the soil for less than \$6 tonne-1 of CO₂ equivalents.

HISTORY OF SCB'S CARBON FEE PROGRAM

Climate scientists unanimously agree that human activities, especially emission of carbon dioxide and other greenhouse gases, are altering Earth's climate in ways that will profoundly affect our lives. Over 95% of SCB's contribution to global warming derives from jet fuel burned to transport people to the ICCB. Each passenger on a fully-booked London-New York flight, for instance, is responsible for about 1.2 tons of carbon.

At the 2006 Board of Governors meeting in San Jose, California, USA, the decision was made to take responsibility for the carbon impacts of travel to our Annual Meetings. By becoming 'carbon neutral,' we will neutralize the effect of our greenhouse gas emissions, so that our activities no longer contribute to global warming.

The first Annual Meeting to be offset was the 2007 Meeting in Port Elizabeth, South Africa. A small voluntary fee was added to each attendee's registration fee to offset the carbon of the overall travel to the meeting. 98% of attendees voluntarily paid an extra \$20 on their registration to offset their carbon emissions. The money was invested at the Baviaanskloof Megareserve, where invasive and degraded vegetation will be replaced with Elephant Bush (*Portulacaria afra*), a plant known to sequester large amounts of carbon. SCB was the first professional organization to take responsibility for the carbon footprint of its meetings.



Photos: Brad Taylor

Smith Fellows

David H. Smith Postdoctoral Fellowship Program • www.smithfellows.org

 *Apply now!*

A recent Smith Fellows leadership development retreat was held at this inspiring conservation landmark, the Aldo Leopold Shack. Apply for a Smith Fellowship and you could join the Fellows at their next retreat!



Are you the next Smith Fellow?

The Smith Fellows Program provides two years of post-doctoral support to outstanding early-career scientists affiliated with a United States institution and can begin in early to mid 2014. Applications for the Smith Fellows Class of 2014 are due on **September 20, 2013**. Visit www.smithfellows.org for proposal guidelines and send direct questions to smithinfo@smithfellows.org

A partnership between the Cedar Tree Foundation and the Society for Conservation Biology



SAT., JULY 20	SUN., JULY 21		MON., JULY 22	TUES., JULY 23	WED., JULY 24	THURS., JULY 25	
<p><u>Pre-Congress Activities:</u></p> <p><u>Focus Groups, Short Courses, & Workshops</u></p> <p>8:30 A.M. to 5:30 P.M.</p>	<p><u>Pre-Congress Activities:</u></p> <p><u>Focus Groups, Short Courses, & Workshops</u></p> <p>8:30 A.M. to 5:30 P.M.</p> <p><u>Exhibitor Set-up</u></p> <p>8:00 A.M. to 4:00 P.M. Exhibit Hall A</p> <p><u>Registration</u></p> <p>Open 7:00 A.M. to 8:00 P.M.</p>	8:00 A.M. - 12:30 P.M.	<p><u>Symposia and Contributed Sessions</u></p> <p>8:00 to 10:00 A.M.</p>				
			<p>Morning Coffee Break: 10:00 to 10:30 A.M., Exhibit Hall A</p>				
		<p><u>Symposia and Contributed Sessions</u></p> <p>10:30 A.M. to 12:30 P.M.</p>					
		<p><u>Lunch & Workshops</u></p> <p>12:30 to 2:00 P.M.</p>					
		2:00 P.M. - 6:00 P.M.		<p><u>Plenary Session & SCB Awards</u></p> <p>2:00 to 3:30 P.M. Grand Ballroom I&II</p>	<p><u>Plenary Session & SCB Awards</u></p> <p>2:00 to 4:30 P.M. Grand Ballroom I&II</p>	<p><u>Plenary Session & SCB Awards</u></p> <p>2:00 to 3:30 P.M. Grand Ballroom I&II</p>	
				<p><u>Break:</u></p> <p>3:30 to 4:00 P.M. Exhibit Hall A</p>	<p><u>Break:</u></p> <p>4:30 to 5:00 P.M. Exhibit Hall A</p>	<p><u>Break:</u></p> <p>3:30 to 4:00 P.M. Exhibit Hall A</p>	<p><u>Break:</u></p> <p>3:30 to 4:00 P.M. Outside 307-310</p>
				<p><u>Contributed Sessions</u></p> <p>4:00 to 6:00 P.M.</p>		<p><u>Contributed Sessions</u></p> <p>5:00 to 6:00 P.M.</p>	<p><u>Members Meeting & Student Awards</u></p> <p>4:00 to 6:00 P.M. Grand Ballroom I&II</p>
		6:00 P.M. onwards		<p><u>Advocacy Plenary Panel</u></p> <p>6:00 to 7:00 P.M. Grand Ballroom I&II</p>	<p><u>Poster Session</u></p> <p>6:00 to 8:00 P.M. Exhibit Hall A</p>	<p><u>Speed-Posters</u></p> <p>6:00 to 7:00 P.M. Exhibit Hall A</p>	
				<p><u>Poster Session</u></p> <p>6:00 to 8:00 P.M. Exhibit Hall A</p>	<p><u>Harbor Dinner Cruise</u></p> <p>7:00 to 9:00 P.M.</p>	<p><u>Break</u></p>	
				<p><u>Marine and Oceania Social</u></p> <p>7:30 to 10:00 P.M., Meet at the dock at 913 S. Ann Street - Urban Pirate</p>		<p><u>Student Crab Crawl</u></p> <p>8:00 P.M. to late</p>	<p><u>Final Reception & Dinner</u></p> <p>6:30 to 9:00 P.M. Power Plant Live!</p>

Friday, July 26 and Saturday, July 27: Board of Governors Meeting



Presenters

SPEAKER READY ROOM: BALLROOM VIP SUITE EAST

Near the Grand Ballroom I&II, on the 4th floor of the Baltimore.

- **SYMPOSIUM AND ORAL PRESENTATIONS**

About: Oral presentation rooms will be equipped with a computer and a data projector.

Symposium talks should not exceed thirty (30) minutes in length. Each symposium must include a discussion period

Full-length contributed oral presentations are limited to fifteen (15) minutes, which should comprise of twelve (12) minutes for actual presenting and three (3) minutes for questions. It is recommended that symposium talks also follow this format. This time limit will be strictly enforced by session moderators/organizers to keep concurrent sessions in synchrony.

How to save your presentation: The conference will be using the standard 4 x 3 format for PowerPoint slides. Presentation file names must include your day of presentation, room number, specific time of presentation (in 24 hour format), and your surname as illustrated in the following example: 22JUL_307_1545_Jones. If you choose to upload your presentation onsite, you must save your presentation to a USB thumb-drive.

How to upload your presentation: Presenters will have the opportunity to load their presentation via a website in advance of the Congress or may transfer their presentations to a central computer in the Speaker Ready Room at the Congress. **Presentations will NOT be uploaded in the individual session rooms.** All talks must be uploaded at least one day in advance of when the talk is scheduled. Please check-in at the Speaker Ready Room at least the day before your presentation to confirm that your talk has been received.

A technician will be available in the Speaker Ready Room to help you load your presentation from:

Sunday – Wednesday: 7:00 A.M. – 6:00 P.M.

Thursday: 7:00 A.M. – 2:00 P.M.

- **SPEED-TALK AND SPEED-POSTER PRESENTATIONS**

About: The speed presentation room will be equipped with a computer and a data projector.

Presenters will present their work as a four (4) minute speed-talk during the contributed presentation session

(Tuesday, July 23) and during a poster session (evening of Wednesday, July 24) dedicated to speed-posters.

Speed-talks: During the speed-talk, present key ideas and results, utilizing the full 4 minutes. There will be no time for discussion during your talk. There will be time to talk one-on-one with delegates about your project during the break after the presentations and at the evening poster session. The 4-minute time limit will be strictly observed.

Speed-posters: For speed-posters, presenters must prepare a poster “station” i.e., a poster with (i) presentation title (ii) author details, (iii) abstract and (iv) 3 or 4 key figures/tables and images from their presentation. Note this should not be a full scientific poster presentation but a discussion aid that complements the spoken presentation. Posters must be landscape in orientation and no larger than 4 x 3 ft. (1.2 x 0.9 m). Posters will be assigned a number that will correspond to the appropriate poster board. All posters must be put up between 10:30AM and 3PM on Wednesday, July 24 and must be taken down the next day by 10:30AM. In order to provide space for posters in subsequent sessions, any posters that remain up after 10:30AM will have to be removed.

Drinks (cash bar) and a light snack will be served during the sessions.

How to save or upload your speed-talk: See above for Symposium and Oral Presentations

- **POSTER PRESENTATIONS**

About: There will be two dedicated poster sessions on Monday, July 22 and Tuesday, July 23 from 6:00 P.M. to 8:00 P.M. in the Exhibit Hall A on Level 100 of the. Presenting authors are required to remain at their poster during the session.

All posters must be put up between 10:30 A.M. and 3:00 P.M. on the day they are being presented and must be taken down the next day by 10:30 A.M. In order to provide space for posters in subsequent sessions, any posters that remain up after 10:30 A.M. will have to be removed.

Please note that your poster should be limited to the size of a rectangle 4 ft. (1.2 m) wide by 3 ft. (0.9 m) tall (landscape orientation) in order to fit appropriately on the poster board. Posters will be assigned a number that will correspond to the appropriate day and board.

Drinks (cash bar) and a light snack will be served during the sessions.



Moderators and Symposium Organizers

Moderators and symposium organizers are responsible for timing sessions to ensure synchrony among sessions. Please arrive at your session a little early to make sure all speakers are present. Start the session on time even if it appears that not everyone is there yet. Moderators are asked to note any absentee presenters from their session, using the form provided in the session room. At the start of the session, moderators should announce all cancelled talks. **Please do NOT move the program forward when a paper is cancelled. Moderators can use the time from a cancelled talk for questions or discussion.**

Contributed Oral Presentations

Oral presentations are limited to 15 minutes: 12 minutes for the presentation, and 3 minutes for questions. Moderators will introduce the speaker and be provided with two time cards. The first card is to be shown to the presenter after 10 minutes have elapsed (to let the speaker know there are 2 minutes left for presenting and 3 for questions), and the second at 12 minutes (to let the speaker know the question period should begin). The moderator will stand up after 14 minutes have elapsed, giving the speaker 1 minute to wrap up all presentation material or to finish questions.

Have at least one question ready for each talk. For the benefit of those sitting further back, be sure that speakers repeat questions from the audience, especially those from front rows.

Symposia

The symposium organizer will act as moderator for their session, according to their symposium schedule.

Speed-talk Sessions

Moderators must keep strict time during the presentation portion of the speed-talk sessions, to ensure each speaker receives 4 minutes of presentation time. Moderators will introduce the speaker and will let the speaker know when 2 minutes and then 3 minutes have elapsed. At the end of the talk, the moderator will then introduce the next speaker.

There will be no question period during the presentation portion of a speed session. Moderators should remind the audience that they can talk to the presenters during the break and at their poster stations.

In some sessions, the session will start with 15-minute oral presentations and then move into the speed-talks. Speed presenters will also give a poster presentation during a dedicated speed-poster session (July 24).



Special Events

SUNDAY, JULY 21

- **Board of Governors Student Reception**

6:00 - 7:00 P.M., Renaissance Hotel - Watertable Ballroom

This opening reception provides a relaxed opportunity for students to meet the Society’s Board of Governors, catch up with old friends and make some new ones, as well as learn about what the Society is doing to conserve biodiversity. Light hors d’oeuvres and cash bar will be provided. Pre-registration is encouraged.

- **Opening Ceremony & Reception**

7:00 - 9:30 P.M., Exhibit Hall

Meet fellow delegates and reunite with old friends here, at the first official event of the Congress. A reception to include light hors d’oeuvres and refreshments will conclude the evening. Joe Gill, Secretary of the Maryland Department of Natural Resources, is among the distinguished lineup of speakers. The reception is free for registered attendees. You may also purchase guest tickets to this event.

.....

MONDAY, JULY 22

- **Special Evening Plenary Panel: Why is “advocacy” such a “four-letter word” for scientists?**

6:00 - 7:00 P.M., Grand Ballroom I&II

This keynote and discussion panel will draw from conservation scientists that have been outspoken leaders in translating science to policy, including a facilitated discussion regarding the appropriate role of scientists who “advocate” a policy position.

- **Poster Session**

6:00 - 8:00 P.M., Exhibit Hall

- **Marine and Oceania Sections Social**

7:30 - 10:00 P.M., Meet at the dock at 913 S. Ann Street - Urban Pirate

Celebrate and get to know two of SCB’s seven Sections at this sensational pirate-themed social! Mix and mingle with members from the Marine and Oceania Sections on a cruise around the Inner Harbor.

There will be wine (from a local Virginian vineyard) or bring your own bottle / grog !

Please note the boat leaves at 8pm prompt ! Numbers on the pirate ship are limited (first come first served)

It takes at least 30 minutes to walk to the dock from the conference center or for a speedier trip take an inner harbor to fells point water taxi (\$7 one way; \$12 all day pass; run every 15 minutes; www.baltimorewatertaxi.com)

.....

TUESDAY, JULY 23

- **Student Mixer with the Smith Fellows**

12:30 - 2:00 P.M., James Joyce Pub

(One mile from - walk east on Pratt Street past the Inner Harbor, turn right on South President Street. James Joyce Pub is located at 616 South President Street)

Are you a student contemplating a Ph.D., a doctoral student nearing completion or a newly minted Dr. conducting innovative research in conservation biology? Have you heard of the David H. Smith Conservation Research Fellowship? Whether you are aware of the Smith Fellows program or want to learn more, please join us for an informative lunch where you will learn about the program and mingle with current and/or past Smith Fellow recipients. This is an excellent opportunity to find out how you can strengthen your skills through two years of applied post-doctoral research, while participating in training programs, networking, and field experiences. Heavy hors d’oeuvres provided by the ICCB Student Activities Committee.



TUESDAY, JULY 23 (CONTINUED)

- **Poster Session**
6:00 - 8:00 P.M., Exhibit Hall
- **Student Sponsored Crab (Pub) Crawl and Scavenger Hunt**
Meet at Shucker's of Fells Point anytime after 8:00 P.M.
Student tickets are \$5, Non-student tickets are \$10

All aboard for a fun tour of Baltimore's historic Fells Point with the student-sponsored Pub Crawl Scavenger Hunt (a.k.a. "The Crab Crawl")! Fight the good conservation fight while downing Dark N' Stormies at Rye! Test your scientific mettle against the wiles of the jalapeño shot at Riptide! Present your proposal to Edgar Allen Poe's favorite barstool at the Saloon! Start at Shucker's for a mix and mingle with private bar and drink specials, then grab a few friends and head out into the summer's night to chase down clues and try to beat your fellow biologists. Everyone's welcome: we plan to eat, drink, and be merry – and we hope you will, too! Funds raised from ticket sales will go to support future student travel grants.

WEDNESDAY, JULY 24

- **Members' Meeting, Student Award Winners Announcement, and Animal Conservation Poster Prize Announcement**
4:00 - 6:00 P.M., Grand Ballroom I & II

Don't miss the most important meeting of the year for SCB members and discover the winners of the student awards for oral presentations! A representative from the journal *Animal Conservation* will also be awarding a poster prize; the three winning posters will describe research that has broad implications for conservation, or advances in conservation science. Come help decide the future direction of SCB while meeting SCB board members and staff. Not a member? Come find out what we're all about at the Members' Meeting! We'd love to get to know you and for you to see what makes SCB the best society for conservation professionals in the world!

- **Speed-Poster Session**
6:00 - 7:00 P.M., Exhibit Hall
- **Harbor Cruise**
7:00 - 9:00 P.M., Boarding at 6:30 P.M., Depart from Inner Harbor at Light Street (Spirit Cruises, 561 Light Street)

Join fellow ICCB attendees for a Sunset Cruise around the beautiful Baltimore Inner Harbor for food, drink, and karaoke! Don't forget to bring your ticket given to you with your name badge upon arriving at the ICCB registration desk.

THURSDAY, JULY 25

- **Closing Reception and Silent Auction**
6:30 - 9:00 P.M., Power Plant Live (intersection of Market Street and Water Street, one block from Inner Harbor)

Join SCB members to celebrate the close of the SCB's 26th ICCB at Power Plant Live, Baltimore's premier entertainment venue located just a block from the Inner Harbor and a short walk from the. The evening will begin with cocktails and continue with a variety of menu options. You will have a chance to bid on various books, gifts, and SCB memorabilia donated by Chapter members throughout the night at the Silent Auction. After dinner, gather to experience a concert performance on stage with the Amish Outlaws, an Amish cover band that plays all genres of music. The party continues all night as guests can explore the second level lounges and late night fun. Each paid registration receives one complimentary ticket to the closing reception. You can purchase guest tickets at the ICCB Registration Desk during the Congress.



Pre-Congress Focus Groups, Short Courses, and Workshops

Full details and abstracts are listed in the scientific portion of the program. All pre-congress short courses will be held at either the Renaissance Baltimore Harborplace Hotel or the Sheraton Inner Harbor Hotel.

FOCUS GROUPS

- **Conservation Forensics: Linking Research, Forensics, Technology & Analytics to Conserve Biodiversity**
July 20, 8:30 A.M.-12:30 P.M.
Sheraton - Loch Raven II
Organizer(s): Haines, A., Millersville University; Wallace, J., Millersville University; Webb, S., The Samuel Roberts Noble Foundation
By Invitation Only
- **From best practices to proven impacts: scaling-up conservation benefits of agricultural eco-standards in tropical production landscapes**
July 21, 8:30 A.M.-5:30 P.M.
Sheraton - Harbor View II
Organizer(s): Milder, J., Rainforest Alliance; Gross, L., EcoAgriculture Partners
- **Connecting social and ecological systems through public participation in scientific research (PPSR): Understand conservation and community outcomes**
July 20, 8:30 A.M.-5:30 P.M.
Sheraton - Harbor View I
Organizer(s): Phillips, T., Cornell Lab of Ornithology; Ballard, H., UC Davis
By invitation only

SHORT COURSES

- **Introduction to Open Source GIS**
July 20, 8:30 A.M.-5:30 P.M.
Sheraton - Chesapeake 1
Organizer(s): Leimgruber, P. Smithsonian Conservation Biology Institute; Songer, M., Smithsonian Conservation Biology Institute; Christen, K., Smithsonian-Mason School of Conservation
- **Advances in Conservation Impact Evaluation and Causal Inference**
July 20 & July 21, 8:30 A.M.-5:30 P.M.
Sheraton – Chesapeake 2
Organizer(s): Ferraro, P., Andrew Young School of Policy Studies, Georgia State University; Hanauer, M., Sonoma State University
- **The Zonation conservation prioritization framework and software - hands on**
July 20, 8:30 A.M.-5:30 P.M.
Renaissance – Kent
Organizer(s): Montesino Pouzols, F., University of Helsinki; Toivonen, T., University of Helsinki; Veach, V., University of Helsinki
- **Using Adaptive Management (AM) to Plan and Monitor the Effectiveness of Conservation Projects**
July 20 & July 21, 8:30 A.M.-5:30 P.M.
Renaissance – Gibson
Participants will need to purchase and download Miradi software prior to the course, at \$25.00/license.
Organizers: Swaminathan, V., Foundations of Success; Crosse, W., Rainforest Alliance; Shurtliff, Q., Wildlife Conservation Society; Christen, K., Smithsonian-Mason School of Conservation
- **New Media Matters: Communicating Conservation Research and Ideas**
July 20, 1:30-5:30 P.M.
Renaissance - Pride of Baltimore
Participants will need a laptop computer
Organizer(s): Kristen Bullard, Smithsonian Libraries; Kate Christen, Smithsonian-Mason School of Conservation; Tina Adams, George Mason University Libraries

SHORT COURSES (CONTINUED)

- **Online tools for environmental data retrieval, ecological modeling, and visualization**
July 21, 8:30 A.M.-5:30 P.M.
Sheraton - Loch Raven II
Organizer(s): Lucas Joppa and P. Visconti, Microsoft Computational Ecology and Environmental Science;
- **Diversity, Connectivity, and Adaptation: Landscape Genetics for Conservation Biology**
July 21, 8:30 A.M.-5:30 P.M.
Sheraton – Harbor View 1
Organizer(s): Murphy, M., University of Wyoming; Waits, L., University of Idaho
- **The Role of the Social Sciences in Conservation**
July 21, 8:30 A.M.-5:30 P.M.
Sheraton – Chesapeake 3
Organizer(s): Teel, T., Colorado State University; Manfredo, M., Colorado State University
- **Principles of Course Design and their Application to Conservation Biology (Bases del Diseño de Cursos y su Aplicación a la Biología de la Conservación)**
July 21, 8:30 A.M.-5:30 P.M.
Renaissance – Fells Point
Organizer(s): Porzecanski, A., AMNH - Center for Biodiversity and Conservation; Groom, M., University of Washington-Bothell

WORKSHOPS

- **Conservation Conflict Transformation: An Introductory Capacity Building Workshop**
July 20, 8:30 A.M.-12:30 P.M.
Renaissance – Pride of Baltimore
Organizer(s): Madden, F., Human-Wildlife Conflict Collaboration
- **Introduction to Conservation Law and Policy in the United States**
July 20, 8:30 A.M.-5:30 P.M.
Sheraton – Chesapeake 3
Organizer(s): Hartl, B., Society for Conservation Biology
- **Prioritizing Species Recovery under the U.S. Endangered Species Act**
July 20, 1:30-5:30 P.M.
Sheraton – Loch Raven 2
Organizer(s): Li, Y., Defenders of Wildlife; Male, T., Defenders of Wildlife; Haney, C., Defenders of Wildlife; Thornhill, D., Defenders of Wildlife
- **Building Personal & Collective Leadership Capacity in Conservation (Application only)**
July 20 & July 21, 8:30 A.M.-5:30 P.M.
Renaissance - St. George
Organizer(s): Manolis, J., Minnesota Department of Natural Resources; Ryan, M., University of Washington/Simon Fraser University; Ageton, C., Kinship Conservation Fellows; Dalzen, R., Conservation Leadership Programme; Graves, T., Colorado State University; Popescu, V., University of California Santa Cruz/Simon Fraser University; Pinsky, M., Princeton University; Foster, S., David H. Smith Conservation Research Fellows Program; Hartl, B., Society for Conservation Biology; Christen, K., Smithsonian-Mason School of Conservation
- **Using Science to Inform Policy: Making Your Science Relevant and Accessible for Decision-makers**
July 21, 8:30 A.M.-5:30 P.M.
Renaissance - Pride of Baltimore
Organizer(s): Martinez, B., AAAS; Hayward, L., AAAS; Aicher, R., AAAS; Jadin, J., AAAS; Watts, S., AAAS; Hartl, B., SCB; Fitzgerald, J., SCB
- **An Introduction to HexSim**
July 21, 1:30-5:30 P.M.
Sheraton – Chesapeake 1
Participants will need a laptop computer
Organizer(s): Schumaker, N., U.S. Environmental Protection Agency; Brookes, A., U.S. Environmental Protection Agency
- **Capacity building for SCB Chapters**
July 21, 8:30 A.M.-12:30 P.M.
Sheraton – Chesapeake 1
Organizer(s): Wilkerson, M., U.C. Davis; Merenlender, A., U.C. Davis; and SCB Chapter Committee



Monday, July 22, 2:00-3:30 P.M., Grand Ballroom I & II
Lee M. Talbot

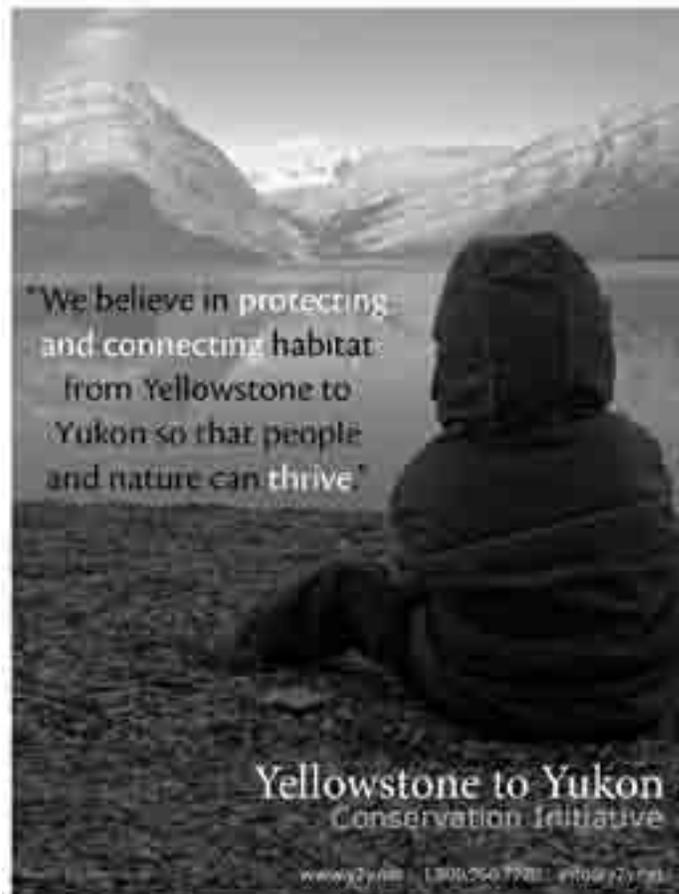
CONSERVATION BIOLOGY'S DEEP ROOTS

This plenary talk provides an overview of the evolution of what became conservation biology from its earliest historical roots in 300 BC India through local, national and international actions and organizations, national laws and international agreements. It will look at the challenges of the present, emphasizing the critical need to combine action with research.



ABOUT LEE M. TALBOT

Lee M. Talbot is a professor of environmental science international affairs at George Mason University (GMU) and a senior environmental advisor to the World Bank; U.N. organizations and foreign governments. Lee is an ecologist and geographer with more than 60 years of experience in 134 countries and a former Director-General of IUCN. He served as the White House Environmental Advisor to three presidents and is the former head of Environmental Sciences at the Smithsonian Institution. Lee is the author of more than 300 scientific, technical and popular publications including 17 books and monographs. He is the recipient of several awards, including the AIBS Distinguished Service Award as “an acknowledged leader in the shaping of national and international environmental policies and Principles.”





Tuesday, July 23, 2:00-4:30 P.M., Grand Ballroom I & II
Teresa Erickson and Timothy Ward

THE ROCKET MODEL FOR EFFECTIVE COMMUNICATION provides core principles for organizing your thoughts and thinking on your feet. It helps you give clear, compelling answers to any question. You can use this model in media interviews, presentations, seminars, public hearings, emails, and even job interviews. This session also covers the do's and don'ts of body language, including what not to wear for TV interviews. The session ends with a demonstration of the Rocket Model in action: a mock TV interview with former SCB Executive Director Dr. Alan Thornhill on the topic of scientific integrity.



ABOUT TERESA ERICKSON

Teresa Erickson is President of Intermedia Communications Training, Inc. Teresa has designed and led media workshops around the world, working with development and environmental organizations such as The World Bank, International Monetary Fund, and WWF. Born in Portugal, Teresa worked with the Voice of America for 17 years. From 1993 to 1997, Teresa was Executive Producer and host of a two-hour public affairs show broadcast worldwide to 90 million listeners a week. Her reporting has won numerous awards and she has voiced award-winning documentaries for broadcast in Brazil and Portugal.



ABOUT TIM WARD

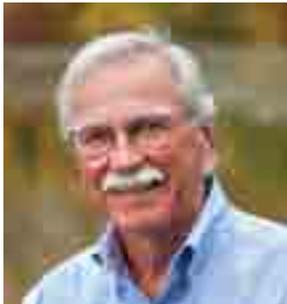
Tim Ward is the head of Intermedia's Asia/Africa operations. Since 1993 he has conducted media workshops around the world, working with organizations such as The World Bank, the International Monetary Fund, and WWF. As a journalist, Tim worked in Asia and North America for seven years as a freelance magazine, newspaper and radio journalist. Tim has also authored six books, and as an author has given hundreds of media interviews and public talks.



Wednesday, July 24, 2:00-3:30 P.M., Grand Ballroom I & II
John W. Fitzpatrick and Caren B. Cooper

HUMANS AS BIOLOGICAL SENSORS, DEMOCRATIZATION OF SCIENCE, AND OUR NEW RELATIONSHIP WITH THE EARTH

Citizen science has matured from a quirky and experimental novelty into a multi-purpose tool for scientific research, conservation applications, and even social activism. Engaging human observers as distributed sensors and data-loggers began as early as the mid-1800s, but Internet and mobile technology have revolutionized the process, greatly expanding our opportunity to map, model, and interpret Earth's systems at multiple scales and in surprising detail. We provide several examples, emphasizing new results from the rapidly growing, global bird-checklist project, *eBird*, perhaps the world's largest observational database on non-human organisms. Data-mining technology incorporating distributed environmental, climate, and human population data are producing remarkably accurate models of species occurrence and "hotspots" useful for prioritizing conservation actions on the ground. More broadly, we argue that the scientific and social consequences of this scientific revolution are profound. In the context of biological conservation, citizen science is (a) providing raw data about environmental process and change at unprecedented scales, and (b) engaging an unprecedented diversity of stakeholders in measuring biological diversity and the human footprint. The result could be a genuinely new and improved relationship between humans and the biophysical planet over the coming century and beyond.



ABOUT JOHN FITZPATRICK

John Fitzpatrick is Director of the Cornell Laboratory of Ornithology and professor in Ecology and Evolutionary Biology at Cornell University. From 1988-1995 he was Executive Director of the Archbold Biological Station in central Florida, and before that served for twelve years as Curator of Birds and Chairman of the Department of Zoology at the Field Museum in Chicago. He is Fellow and past President of the American Ornithologists' Union, and in 1985 received its highest research award for his co-authored book *Florida Scrub-Jay: Ecology and Demography of a Cooperative Breeding Bird*. He has served on national governing boards of The Nature Conservancy and the National Audubon Society, on three Endangered Species Recovery Teams, and on numerous scientific and conservation panels. He has authored over 150 scientific papers, discovered and described seven bird species, and is co-inventor of *eBird*, one of the world's largest and most rapidly growing citizen-science projects.



ABOUT CAREN COOPER

Caren Cooper is a research associate at the Cornell Laboratory of Ornithology, blogger at Citizen Sci in the PLOS Blogging Network, guest blogger for Scientific American, and Senior Fellow in the Environmental Leadership Program. She is co-chair of the publications committee of the newly forming Association for Citizen Science. She is co-editor of an upcoming special feature on citizen science in the open-access journal *Ecology & Society*. She has authored over 35 scientific papers, co-developed software to automate metrics of incubation rhythms, and is co-inventor of NestWatch, CamClickr, Celebrate Urban Birds, YardMap©, and the House Sparrow Project. Dr. Cooper can be followed on twitter @CoopSciScoop.



**Thursday, July 25, 2:00-3:30 P.M., Grand Ballroom I & II
Eleanor Sterling and Marcelo Bonta**

DIVERSIFYING CONSERVATION SCIENCE AND MANAGEMENT

Conservationists value and have a deep understanding of diversity in ecosystems. But why is diversity important in conservation organizations and communities? Are we as successful and resilient as we could be as conservationists? We will discuss a vision for a globally diverse, equitable, successful and relevant conservation community, the challenges and opportunities for realizing this vision, and a set of recommendations for action from individual to organizational. International professional society networks such as that of the Society for Conservation Biology are uniquely positioned to foster diverse institutions and initiatives across local, national, and international scales.



ABOUT ELEANOR STERLING

Eleanor Sterling is Director of the Center for Biodiversity and Conservation at the American Museum of Natural History. Dr. Sterling has long been actively involved in the Society for Conservation Biology, having served for 10 years on the SCB Board of Governors, and as a member of the Student Awards Committee and member and chair of the Awards Committee as well as the Education Committee. Dr. Sterling's research focuses on behavioral ecology and conservation. She also explores the intersection between biodiversity, languages, and culture. Dr. Sterling has a lifelong commitment to capacity development and diversifying the conservation workforce. In 2012, she was honored with the Columbia University Graduate Student Advisory Council (GSAC) Faculty Mentoring Award.



ABOUT MARCELO BONTA

Marcelo Bonta is the Center for Diversity & the Environment's founder and executive director. With over a decade of experience, Marcelo is a nationally recognized leader and pioneer on diversity, equity, and inclusion issues in the environmental movement. He is a published author in *Conservation Biology*, *Diversity and the Future of the U.S. Environmental Movement*, the Land Trust Alliance's Special 25th Anniversary Issue, and *Grist Magazine*. His work with the Center for Diversity & the Environment has been featured in the *New York Times*, *High Country News*, *Grist Magazine*, *Colors NW*, *The Oregonian*, *Saving Land Magazine* and others.



SCB Chapter Events

Are you a member of an SCB chapter? Interested in becoming one?
 Wondering what SCB Chapters are all about? Check out one of these events!

Pre-Congress Workshop: Capacity building for SCB Chapters Sunday, July 21

8:30 A.M. - 12:30 P.M.
 Sheraton Hotel, Chesapeake Room 1
 SCB Chapter Workshop with presentations and guided discussion. Informal lunch afterward at nearby eatery. Pre-registration required.

.....

Chapters Business Meeting Monday, July 22

12:30-2:00 P.M., Room 306
 This is an opportunity for all conference attendees to listen and weigh in on Chapter goals and focuses. Chapter member input is key! Refreshments are provided.

.....

Chapter Booth Day Wednesday, July 24

8:30 A.M.-4:00 P.M.
 Chapter Booth day, SCB Booth, main lobby
 Chapter leaders will be on hand to answer any and all questions about being or becoming an SCB Chapter member.

CHAPTERS SPOTLIGHT AT SCB MEMBERS' MEETING Wednesday, July 24

4:00 P.M., Grand Ballroom I & II
 Selected active and diverse Chapters will be giving 3-minute briefs on their activities. Come hear about the great work Chapters are doing and how to get involved.

.....

Chapter Committee Meeting Thursday, July 25

7:30 - 8:15 A.M, Local Restaurant TBA
 Please note: This event is for Chapter Committee members only. If you're interested in becoming a part of the Committee, please contact our Committee Chair Adina Merenlender at the conference or at adinam@berkeley.edu

.....

Silent Auction at Closing Reception Thursday, July 25

6:30 -9:00 P.M, Power Plant Live!
 Bid and win on items submitted by ICCB attendees and Chapter members! All proceeds go to the Chapters Committee.

Make sure to peruse the chapter posters that line the main walkways of the Congress!



Congratulations on the Super Bowl win, Ravens...
but you're not the only winners in Charm City!

SCB Celebrates Conservation Champions

SCB's Distinguished Service Awards honors those who have made outstanding contributions to the field of conservation biology. The Edward T. LaRoe III Memorial Award recognizes the innovative application of science to resource management and policy. The Early Career Conservationist Award celebrates achievements of young conservation professionals.

Distinguished Service Awards

Eleanor Sterling & William Sutherland

Tuesday, 23 July

2:00 P.M., Grand Ballroom I&II

**John Woinarksi & The Center for the
Study and Conservation of Raptors in
Argentina**

Thursday, 25 July

2:00 P.M., Grand Ballroom I&II

Early Career Conservationist Award

Lucas Joppa & James Watson

Monday, July 22,

2:00 P.M., Grand Ballroom I&II

Edward T. LaRoe III Award

Robin Waples

Wednesday, July 24

2:00 P.M., Grand Ballroom I&II

SCB Student Award Winners and Outstanding Poster Presentation

Members' Meeting, Wednesday, July 24

4:00 - 6:00 P.M., Grand Ballroom I&II



2013 SOCIETY FOR CONSERVATION BIOLOGY AWARDS

The Society for Conservation Biology is pleased to honor seven individuals for their outstanding contributions to advancing the science and practice of conserving Earth’s biological diversity. Recipients of the 2013 awards were nominated by members of SCB, selected by the Awards Committee, and approved by the Board of Governors. The awards will be presented during afternoon plenary sessions throughout the meeting.

EDWARD T. LAROE III MEMORIAL AWARD

The Edward T. LaRoe III Memorial Award recognises the innovative application of science to resource management and policy by scientists.

The 2013 LaRoe awardee is **Robin Waples**. Robin has had a creative and productive career, and has had a tremendous record of applying science to conservation. In his 25-year career with the US government, he led the efforts of the National Oceanic and Atmospheric Administration to interpret what Congress meant when they said that “distinct population segments” (DPSs) could be listed under the Endangered Species Act. The result was his 1991 paper that set the foundation for defining criteria for DPS status for all taxa under the US ESA. No scientist has had a greater effect on application of the ESA to conservation than Robin.

.....

DISTINGUISHED SERVICE AWARDS

SCB’s Distinguished Service Award recognizes outstanding contributions to the field of conservation biology. Four recipients will receive the 2013 award.

Eleanor Sterling has been Director of the American Museum of Natural History’s Center for Biodiversity and Conservation since 2000 and is Adjunct Professor at Columbia University and Visiting Faculty at Bard College. She was given this award for 30 years of teaching, mentoring and inspiring a whole generation of conservation biologists from all over the world.

William J. Sutherland has been the main proponent behind the Cambridge Conservation Initiative, and ConservationEvidence.com, an online journal and website documenting and collating the effectiveness of conservation interventions. He was given this award for his work in applied conservation and his work on the revolutionary idea of “evidence-based conservation.”

The Center for the Study and Conservation of Raptors in Argentina (CECARA) was created in 2001 with the aim of developing and using applied research to effect conservation of birds of prey, as well as promote public understanding regarding the importance of conservation of endangered species. CECARA’s staff of university professors, researchers, and graduate students were given this award for their accomplishments assessing the impacts of insecticide poisoning on migratory Swainson’s Hawks, as well as helping change the belief among stakeholders that Crowned Solitary Eagles are a threat to livestock.

John Woinarski heads the Biodiversity Conservation division of Australia’s Northern Territory Government environment department. He was given the award for his monumental contributions to knowledge and management of the north Australian biota. Most recently his work was instrumental in revealing the catastrophic decline in north Australian mammals and implementing strategies to reverse it.

.....

EARLY CAREER CONSERVATIONIST AWARD

The Early Career Conservationist Award is for achievement by professionals early in their careers (no more than 10 years since leaving school). Two recipients will receive the 2013 award.

Lucas Joppa leads the Conservation Science research unit at Microsoft Research Cambridge in the UK, and is Scientific Advisor to UNEP-WCMC and the Global Environmental Facility. He was given the award for actively contributing science and technology to expanding and improving the Red List as well as co-founding “Technology for Nature,” a visionary initiative with the mission of technological advancement at the service of conservation research and enforcement.

James Watson leads the Climate Change Program for the Wildlife Conservation Society and co-chairs the IUCN SSC Climate Change Taskforce. He was given the award for his work that has crisscrossed academic and non-government institutions making an impact on conservation issues at local, regional, and global levels.



2013 SOCIETY FOR CONSERVATION BIOLOGY STUDENT AWARDS FOR BEST ORAL PRESENTATION

The 2013 ICCB is proud to honour 13 student finalists during the Society for Conservation Biology Student Award Program. These finalists were chosen from a pool of over 100 student abstracts, and will be presented in a two part session on Monday, July 22 from 8:00 A.M. to 10:00 A.M. and 10:30 A.M. to 12:30 P.M. in Room 308. Awards will be presented during the Members' Meeting on Wednesday, July 24 from 4:00-6:00 P.M.

2013 FINALISTS

Lucie Bland: Predicting the conservation status of Data Deficient species

Ian Breckheimer: Do connectivity models based on “naturalness” capture important habitat linkages for focal species? A case-study from the Pacific Northwest

Jessica Castillo: Landscape genetics of American pika at Crater Lake National Park, Oregon: evaluating the use of Mantel tests in a causal modeling framework

Lianne Concannon: When is enough, enough? Using capture-recapture to inform optimal population monitoring for the endangered pink pigeon *Nesoenas mayeri*

Jennifer Croes: Closing shop? Spatial, temporal and cultural trends of illegal wildlife trade through traders' eyes

Moreno Di Marco: Spatial and temporal trends in the recent decline of carnivores and ungulates

Beth Fitzpatrick: Planning future restoration for long term persistence of a declining species

Aaron Hartmann: Healthy corals contribute disproportionately large numbers of offspring on island-wide scales

Alexis Jackson: A conservation genomics approach for fisheries management of commercial fishes that form spawning aggregations

Ashley Massey: Do Ethiopian church forests provide ecosystem services on a landscape scale?

Matias Mastrangelo: Understanding and influencing landholders' options for conserving dry Chaco forests at the agricultural frontier

Tessa Mazor: Collaboration among countries in marine conservation can achieve substantial efficiencies

Erin McCreless: Predicting extinction risk for threatened island vertebrates due to impacts from invasive alien mammals



Come watch the competition!



SCB Student Presentations and Competition **13 Great Students, 4 Prestigious Awards**

Meet the future of conservation as 13 student award finalists present their research

Monday, July 22
8:00 A.M. to 10:15 A.M. and 10:30 A.M. to 12:30 P.M.
Room 308

Special thanks to Wiley for sponsoring the SCB Student Awards

Awards will be presented at the Members' Meeting on Wednesday, July 24. 4:00 - 6:00 P.M.



Student Activities and Events

Attendees may register on-site for the Pub Crawl; all other events listed required pre-registration and are now closed.

Check at the registration desk for events with a wait list.

July 21 (Sunday)

Board of Governors and Student Welcome Reception

6:00 – 7:00 P.M.

Renaissance Hotel - Watertable Ballroom

This opening reception provides a relaxed opportunity for students to meet the Society's Board of Governors, catch up with old friends and make some new ones, as well as learn about what the Society is doing to conserve biodiversity. Light hors d'oeuvres and cash bar will be provided. Pre-registration is encouraged.

July 22 (Monday)

The Do's and Don'ts of Networking in Conservation

12:30 – 2:00 P.M.

Convention Center - Room 301

This brown-bag, lunch hour event will provide students with the opportunity to learn about the best practices for networking in the conservation arena. The three primary topics that this workshop will cover are: (1) how to make initial contacts, (2) how to create a strong elevator speech, and (3) how to create and sustain professional relationships. A question and answer session will be included for other topics. Students are encouraged to bring their own lunch or purchase one at the, as lunches are not provided.

July 23 (Tuesday)

Student Mixer with the Smith Fellows

12:30-2:00 P.M.

James Joyce Pub (One mile from - walk east on Pratt Street past the Inner Harbor, turn right on South President Street. James Joyce Pub is located at 616 South President Street)

Are you a student contemplating a Ph.D., a doctoral student nearing completion or a newly minted Dr. conducting innovative research in conservation biology? Have you heard of the David H. Smith Conservation Research Fellowship? Whether you are aware of the Smith Fellows program or want to learn more, please join us for an informative lunch where you will learn about the program and mingle with current and/or past Smith Fellow recipients. This is an excellent opportunity to find out how you can strengthen your skills through two years of applied post-doctoral research, while participating in training programs, networking, and field experiences. Heavy hors d'oeuvres provided by the ICCB Student Activities Committee.

July 23 (Tuesday, continued)

Lunch-time Workshop: Participating in a Conference: Some Advice for New-Comers

12:30-2:00 P.M.

Convention Center - Room 309

This workshop will provide advice to participants, especially students, on the fine art of attending a conference and making effective presentations. Topics to be covered will include: posters (how to fit 5,000 words into a square meter), oral presentations (how to fit 5,000 words into 15 slides), and networking (how to fit 5,000 words into a beer). In other words, we will take a light-hearted look at ways to make attending a conference an enjoyable and productive experience. The session will be presented by the lead author of "Saving the Earth as a Career: Advice on becoming a conservation professional." Organizer: Hunter, M. University of Maine

Student Sponsored Pub Crawl Scavenger Hunt

8:00 P.M. - late

Tickets: Students \$5, Non-students \$10

Meet at Shucker's of Fells Point anytime after 8:00 P.M.

All aboard for a fun tour of Baltimore's historic Fells Point with the student-sponsored Pub Crawl Scavenger Hunt (a.k.a. "The Crab Crawl")! Fight the good conservation fight while downing Dark N' Stormies at Rye! Test your scientific mettle against the wiles of the jalapeño shot at Riptide! Present your proposal to Edgar Allen Poe's favorite barstool at the Saloon! Start at Shucker's for a mix and mingle with private bar and drink specials, then grab a few friends and head out into the summer's night to chase down clues and try to beat your fellow biologists. Everyone's welcome: we plan to eat, drink, and be merry – and we hope you will, too! Funds raised from ticket sales will go to support future student travel grants.

July 24 (Wednesday)

Student Résumé Writing Workshop

Convention Center – Room 301

12:30-2:00 P.M.

Career counselors will lead a brown-bag lunch workshop to help students learn how to transform a résumé from average to outstanding! This session will cover successful techniques to format your résumé, to incorporate key action words, and help you establish your brand so that you can present your accomplishments with effective and applicable details tailored to your audience. There will also be a peer-revision session workshop and opportunities for you to get advice from our career counselors, so make sure you bring your résumé. Students are welcome to bring their own lunches or purchase one at the as lunches are not provided.



Lunch-time Workshops

Lunch-time workshops are held at the Baltimore from 12:30-2:00 P.M. and are free to registered delegates. Lunch will not be provided during these workshops. Attendees are on their own for lunch.

- **Social Science for the Next Generation of Conservation Scholars and Practitioners**
July 22, Room 307
Maximum participants: 100
Organizer(s): Miller, D., University of Michigan; Teel, T., Colorado State University
- **The Do's and Don'ts of Networking in Conservation (student workshop)**
July 22, Room 301
Maximum participants: 100
Organizer(s): ICCB Student Activities Committee
- **Introduction to a Biocultural Approach in Conservation Practice: Conceptual and Practical Tools for Linking Biological & Cultural Diversity**
July 22, Room 308
Maximum participants: 30
Organizer(s): Cullman, G., Center for Biodiversity & Conservation, American Museum of Natural History; Sterling, E., Center for Biodiversity & Conservation, American Museum of Natural History
- **Highway Wilding - a Documentary Screening**
July 22, Room 303
Maximum participants: No Maximum
Organizer(s): Duke, D., Miistakis Institute
- **Faculty/Researcher Training Resources for Research Ethics, Cultural Sensitivity and Community-based Research for Conservation Biology**
July 22 & 23, Room 302
Maximum participants: 25
Organizer(s): Quigley, D., Northeast Ethics Education Partnership, Brown University
- **Participating in a Conference: Some Advice for New-Comers**
July 23, Room 309
Maximum participants: 300
Organizer(s): Hunter, M. University of Maine
- **Cross-training Undergraduate Scientists in Practical Conservation: Integrating Science and Policy Skills in a Problem-based Curriculum**
July 23, Room 305
Maximum participants: 50
Organizer(s): Siuda, A., Sea Education Association; Jensen, J., Sea Education Association; McClennen, C., Wildlife Conservation Society
- **Being BioDiverse: Sharing the Experiences of Underrepresented Conservation Scientists & Students in North America, Australia & Western Europe**
July 23, Room 308
Maximum participants: 30
Organizer(s): Sutton, A., Duke University; Wynn-Grant, R., Columbia University

- **Connecting the Dots: How to Identify Areas Contributing Significantly to the Global Persistence of Biodiversity**
July 23, Room 310
Maximum participants: 80
Organizer(s): Cuttelod, A. IUCN
- **Resolving Environmental Conflicts: A Mediator shares Lessons for Resource Managers, Scientists and Stakeholders**
July 23 & 24, Room 303
Maximum participants: 50
Organizer(s): Moore, L., Lucy Moore Associates, Inc.
- **Student Résumé Writing Workshop**
July 24, Room 301
Maximum participants: 100
Organizer(s): ICCB Student Activities Committee
Facilitators: Jessica Glazer, Interim Director, Career Programs & Advising, Johns Hopkins University and Laura Arthur, Assistant Director, Career Programs & Advising, Johns Hopkins University
- **ARKive.org: Using Imagery as an Emotive Bridge to Conservation**
July 24, Room 307
Maximum participants: 100
Organizer(s): Vitali, L., ARKive (Wildscreen USA)
- **Enhancing Diversity in the Conservation Science Workforce: What are the Barriers to Increasing Diversity and What can Organizations like SCB do?**
July 24, Room 308
Maximum participants: 30
Organizer(s): Blair, M., Center for Biodiversity and Conservation, American Museum of Natural History; Sterling, E., Center for Biodiversity and Conservation, American Museum of Natural History
- **Here Today, Gone Tomorrow? Implications of PADDD for Conservation Science and Policy**
July 24, Room 310
Maximum participants: 100
Organizer(s): Krithivasan, R., WWF-US, Mascia, M., WWF-US
- **Assessing the Strengths and Weaknesses of Natural Resource Governance in Landscapes and Seascapes: a Simple Tool for Conservation Practitioners**
July 24, Room 304
Maximum participants: 40
Organizer(s): Wilkie, D., Wildlife Conservation Society, Russel, D., United States Agency for International Development
- **Population, Health and Environment: Securing the Mandate and Building the Capacity to Integrate Health Services into Existing Conservation Programmes**
July 24, Room 302
July 25, Room 303
Maximum participants: 20
Organizer(s): Mohan, V., Blue Ventures, Harris, A., Blue Ventures
- **The Soil Ecology of Urban Areas: Establishment of a Global Research and Education Network**
July 25, Room 302
Maximum participants: 30
Organizers(s): Szlavecz, K., Johns Hopkins University; Pouyat, R., USDA Forest Service; Yesilonis, I., USDA Forest Service
- **SCB Publications Lunchtime Workshop**
July 25, Room 307
Maximum Participants: 100
Organizers: Burgman, M. Editor-in-Chief Conservation Biology and Primack, R. Editor-in-Chief Biological Conservation



SILENT AUCTION IT'S A CHAPTERS FUNDRAISER!

Help build capacity for SCB Chapters!

At the Closing Reception, while taking in the sights of Power Plant Live! and listening to the tunes of the Amish Outlaws, you can also win auction items! All items in the silent auction have been donated or solicited by SCB members and all proceeds will go directly back to the Chapters. There will be local wines, academic books, framed photographs, handmade items from individual members, regional crafts from Chapters, and more.

Drop-off:

Bring items to the SCB information table in the main lobby. Please do so before lunch on Wednesday, July 24, at 12:30 P.M.

Contact Jessa Madosky (Chief Financial Officer with Chapters Committee) with any further questions:
jmadosky@warren-wilson.edu

Thank you to all SCB members who brought items to auction!



Photos courtesy of A. Merenlender

Last year's Silent Auction at NACCB 2012 was a hit, raising over \$1000. Those funds have directly enabled dedicated Chapter members to attend ICCB 2013. Let's keep donating and bidding!





Closing Reception, Dinner and Concert

Thursday, July 25, beginning at 6:30 P.M. (Complimentary, but ticket is required)

Power Plant Live!

The ICCB organizers invite you to attend the concluding event of the Society for Conservation Biology, International Congress for Conservation Biology. The closing reception will take place at **Power Plant Live!** Located just a block from the world famous Baltimore Inner Harbor and a short walk from many downtown hotels, Power Plant Live! is Baltimore's premier event and entertainment destination.

Let your evening begin with cocktails in a festival like atmosphere under the venue canopy and continue into the bars, clubs and cafes where guests can mingle and enjoy a variety of menu options. After dinner, gather together to experience a concert performance on stage with the **Amish Outlaws**. The party continues all night as guests can explore the second level lounges and late night fun.

Each paid registration receives one complimentary ticket to the closing reception. You can purchase guest tickets at the ICCB Registration Desk during the Congress.

Enjoy different menu options at the following locations. All food options have been chosen to be from as sustainable a source as possible, ideally from local producers too.

POWER PLANT LIVE ALLEY MENU:

- Maryland Traditions: Bull & Oyster Roast
Including:
 - » Sliced Cucumber & Red Onion in Red Wine Vinegar
 - » Baked Beans
 - » Red Bliss Potato Salad
 - » Cornmeal Crusted Chesapeake Oysters
 - » Spiral Sliced Honey Glazed Ham and Sliced Pit Beef
- Teriyaki Chicken Skewers
- Szechuan Pepper Beef Skewers
- Grilled Mixed Vegetable Skewers
- White Fish Ceviche with Mango, Red Chili & Cilantro in a Cucumber Cup
- Parmesan & Maryland Crab Stuffed Mushrooms
- Maryland Crab & Corn Salsa in Cucumber Cups

LUCKIE'S WING BAR MENU:

- Assorted Chicken Wings Tossed in Choice of Sauce: Mild, Hot Buffalo, Asian Sesame, Barbeque
- Angus Beef Sliders with Caramelized Onion & Smoked Gouda
- Mini Maryland Crab Cake Sliders with Dijon Tartar Sauce
- Grilled Portabella Mushroom Sliders with Balsamic Glaze & Roasted Garlic

LEINENKUGEL'S BEER GARDEN MENU:

- Beer Garden Charcuterie Board with Assorted Meats, Artisanal Cheeses, Seasonal Vegetables, Olives, Crackers
- Assorted Crostini Bar
- Ripe Tomatoes with Fresh Mozzarella & Basil
- Blue Crab Salad with Lemon-Caper Cream
- Curried Madras Chicken with Mango Chutney

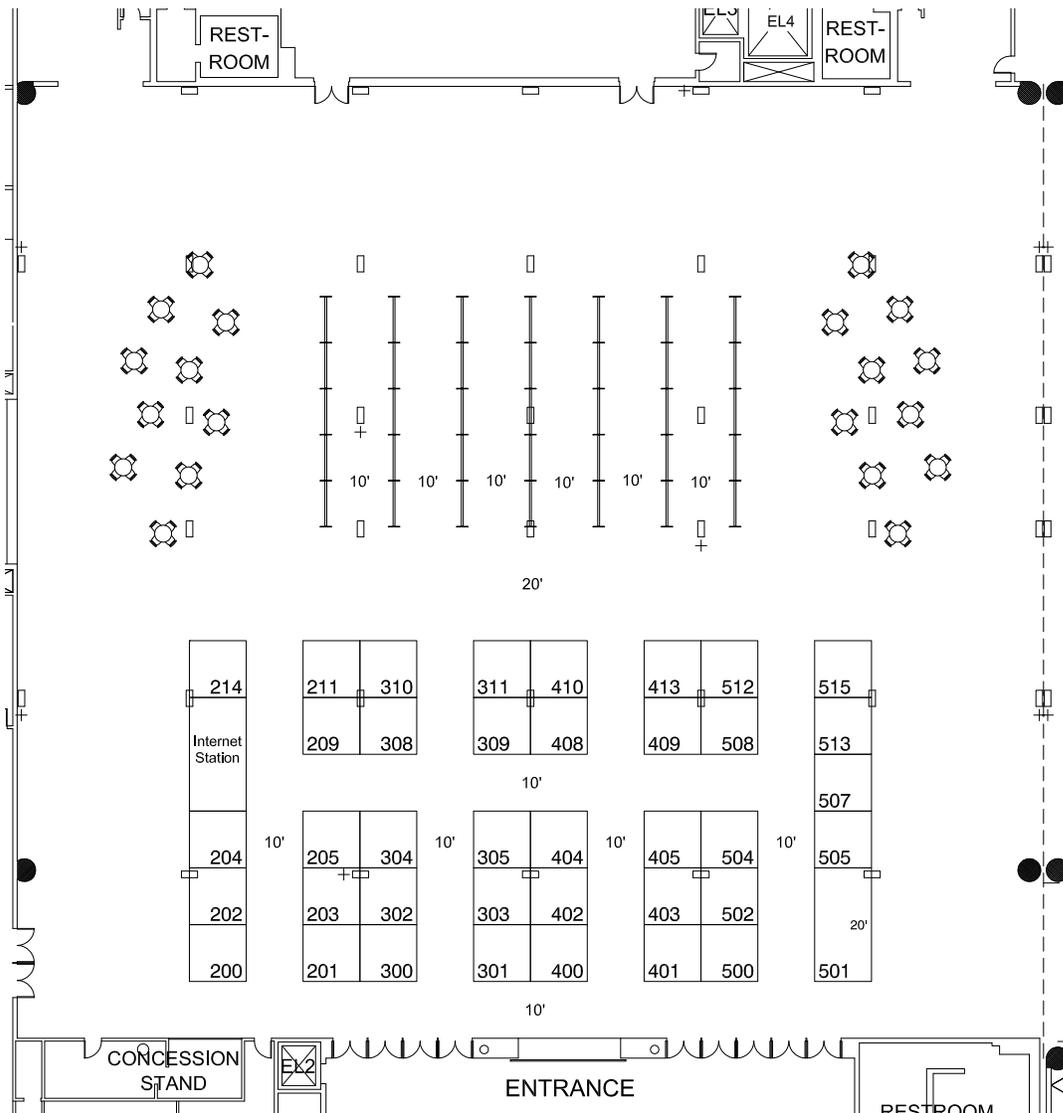
MOSAIC MENU:

- TATU Assorted Sushi
- California Rolls, Cucumber Avocado Rolls and Spicy Tuna Rolls
- Chinese Chicken Salad in Paper Pagodas
- Shrimp Fried Rice in Paper Pagodas
- Pork Fried Rice in Paper Pagodas



Exhibitors

EXHIBIT HALL A



LISTING OF EXHIBITORS

513	Advanced Telemetry Systems (ATS)	214	Oregon State University, Dept. of Fisheries & Wildlife
304	AoB PLANTS	303	Oxford University Press
409	ARKive (Wildscreen USA)	501	SavingSpecies, Inc.
201	Cambridge University Press	508	Scientists and Environmentalists for Population Stabilization
301	Conservation Evidence	502	Smithsonian Institution Scholarly Press
401	Conservation Leadership Programme	504	Smithsonian-Mason School of Conservation
413	Elsevier B.V.	405	Society for Ecological Restoration
209	Esri with Audubon, NatureServe, The Nature Conservancy, and Wildlife Conservation Society	203	Tufts University - MS Conservation Medicine Program
500	George Mason University - College of Science	200	University of Arizona Press
404	Island Press	305	University of California Press
300	Lesley University	403	USDA Forest Service, Research & Development
302	Miradi & Miradi Share Software	512	Wildlife Materials Inc
309	NASA	400	Wiley
205	National Geographic Society		



Exhibitors

Exhibitor Move-In: Sunday, July 21, 8:00 A.M. to 4:00 P.M.

Exhibitor Move-Out: Thursday, July 25, 2:30-4:30 P.M.

EXHIBIT HALL HOURS

Exhibit Hall A

Sunday, July 21	7:00 P.M. – 9:30 P.M.
Monday, July 22	10:00 A.M. – 2:30 P.M. & 3:30 P.M. – 8:00 P.M.
Tuesday, July 23	10:00 A.M. – 2:30 P.M. & 4:30 P.M. – 8:00 P.M.
Wednesday, July 24	10:00 A.M. – 2:30 P.M. & 3:30 P.M. – 7:00 P.M.
Thursday, July 25	10:00 A.M. – 2:30 P.M.

Exhibitor Descriptions



ADVANCED TELEMETRY SYSTEMS

BOOTH 513

Advanced Telemetry Systems (ATS) offers innovative and reliable wildlife tracking products designed for researchers world-wide. We manufacture over 400 models of custom VHF transmitters, receivers/dataloggers with advanced DSP technology, and GPS collars or loggers. NEW AT ATS: Iridium satellite collars, programmable archive tags and more. Visit www.atstrack.com today to get a same day quote and personalized project consultations.

www.atstrack.com



AoB PLANTS

BOOTH 304

AoB PLANTS is an international open-access journal publishing peer-reviewed articles on all aspects of basic and applied plant biology, with a developing focus on environmental biology. Published by Oxford University Press, AoB PLANTS provides a fast-track pathway for publishing high-quality research. Come visit our booth!

<http://aobplants.oxfordjournals.org>



ARKive (WILDSCREEN USA)

BOOTH 409

ARKive is a unique global initiative gathering the very best films and photographs of the world's threatened species into one centralized digital library. Free to all at www.arkive.org, ARKive is a valuable educational resource as teachers have unprecedented access to every film and photograph to supplement education in the classroom.

www.arkive.org



Visit the **Society for Conservation Biology** booth next to registration

There's more to SCB than meets the eye. Chapters, Sections, Working Groups, oh my! Come see what SCB can do for you. Dedicated to advancing the science and practice of conserving Earth's biological diversity, SCB is a global community of conservation professionals with more than 6,000 members world-wide and representatives from over 140 countries. Stop by the booth to join an SCB Group, browse our award-winning publications, renew your membership, and get to know the best society for conservation professionals in the world!

www.conbio.org



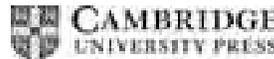
Audubon

AUDUBON

BOOTH 209 (TOGETHER WITH ESRI)

Audubon's Mission: To conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the Earth's biological diversity. For more than a century, Audubon has built a legacy of conservation success by mobilizing the strength of its network of members, Chapters, Audubon Centers, state offices and dedicated professional staff to connect people with nature and the power to protect it.

www.audubon.org



CAMBRIDGE UNIVERSITY PRESS

BOOTH 201

Cambridge's publishing in books and journals combines state-of-the-art content with the highest standards of scholarship, writing and production. Visit our stand to browse new titles, available at a 20% discount, and to pick up sample issues of our journals. Visit our website to see everything we do:

www.cambridge.org/us

ConservationEvidence.com

Providing evidence to support decisions about nature conservation

CONSERVATIONEVIDENCE.COM

BOOTH 301

Conservation Evidence is a free, authoritative information resource designed to support decisions about how to maintain and restore global biodiversity. We summarise evidence about the effects of conservation interventions and publish new evidence in an online journal. At ICCB 2013 we are launching our new BIRD and AMPHIBIAN conservation synopses.

www.conservationevidence.com



Exhibitors



CONSERVATION LEADERSHIP PROGRAMME **BOOTH 401**

The Conservation Leadership Programme (CLP) is a training and capacity-building program that builds the skills and capabilities of early-career conservation practitioners in developing countries by providing small grants, training, mentoring and networking opportunities. The CLP partnership includes BirdLife International, Fauna & Flora International, Conservation International, and Wildlife Conservation Society.

www.conservationleadershipprogramme.org



ELSEVIER **BOOTH 413**

Elsevier is a leading publisher of content in Environmental Science and Ecology. Browse and learn more about our journals, such as Biological Conservation and Ecosystem Services. Our recently published books, Spatial Capture-Recapture and Fundamentals of Ecosystem Science, are also available. Our innovative electronic products and services such as ScienceDirect and Scopus provide cutting edge online content.

www.elsevier.com



ESRI **BOOTH 209**

Esri helps organizations map and model our world. Esri's GIS technology enables them to effectively analyze and manage their geographic information and make better decisions. They are supported by an experienced and knowledgeable staff and an extensive network of business partners and international distributors.

www.esri.com



GEORGE MASON UNIVERSITY/COLLEGE OF SCIENCE **BOOTH 500**

George Mason University is one of the largest public universities in Virginia. Mason's College of Science offers students a full complement of degree programs in biology and environmental science and exceptional research and field study opportunities. An elite faculty brings real-world experiences to classrooms and laboratories, and interdisciplinary partnerships provide a global perspective on conservation biology and biodiversity.

www.cos.gmu.edu



ISLAND PRESS **BOOTH 404**

Since 1984, Island Press has been working with innovative thinkers to stimulate, shape, and communicate essential ideas. As a nonprofit organization committed to sustainability, we publish widely in the fields of ecosystem conservation and management, urban design and community development, energy, economics, environmental policy, and health.

www.islandpress.org



LESLEY UNIVERSITY **BOOTH 300**

Lesley University is a private, coeducational university in Boston, Massachusetts and Cambridge, Massachusetts well known for its education, expressive therapies, creative writing, and arts programs. Lesley University is committed to active learning, scholarly research, critical inquiry, and diverse forms of artistic practice through close mentoring relationships among students, faculty, and practitioners in the field. Lesley prepares graduates with the knowledge, skill, understanding, and ethical judgment to be catalysts who shape a more just, humane, and sustainable world.

www.lesley.edu/lc/natural_science/index.html



MIRADI & MIRADI SHARE SOFTWARE **BOOTH 302**

MIRADI is desktop software for designing, monitoring, and adaptively managing projects using the Open Standards for Conservation. MIRADI SHARE is an online system to manage and learn from a portfolio of projects in a program. These systems are used by leading conservation NGOs, foundations, and government agencies around the world.

miradi.org



NASA **BOOTH 309**

NASA works to facilitate the assimilation of Earth observations and predictions into the decision-support tools used by partner organizations to provide essential services to society.

www.nasa.gov

**NATIONAL GEOGRAPHIC SOCIETY****BOOTH 205**

The National Geographic Society is one of the world's largest nonprofit scientific and educational organizations. Its mission is to inspire people to care about the planet. Founded in 1888, the Society is member supported and offers a community for members to get closer to explorers, connect with other members and help make a difference. National Geographic has funded more than 10,000 scientific research, conservation and exploration projects and supports an education program promoting geographic literacy. www.nationalgeographic.com

**NATURESERVE****BOOTH 209 (TOGETHER WITH ESRI)**

NatureServe is a non-profit conservation organization whose mission is to provide the scientific basis for effective conservation action. NatureServe and its international network of natural heritage programs and conservation data centers are the leading source for information about rare and endangered species and threatened ecosystems.

www.natureserve.org

**OREGON STATE UNIVERSITY, DEPT. OF FISHERIES & WILDLIFE****BOOTH 214**

Oregon State University's Department of Fisheries and Wildlife is a team of scientists, students and staff devoted to the study of conservation science and natural resource management. We educate our students to think critically and evaluate problems from a strong background in basic and applied science, fundamental ecological principles, and consideration of social influences on conservation.

www.fw.oregonstate.edu

**OXFORD UNIVERSITY PRESS****BOOTH 303**

Oxford University Press is featuring new and classic titles including *Getting Started with R*, by Beckerman, *Natural Capital*, by Kareiva, and *Conservation Education and Outreach Techniques*, by Jacobson.

www.oup.com

**SAVINGSPECIES, INC.****BOOTH 501**

Non-profit SavingSpecies, Inc. was founded by senior conservation professionals committed to preventing species extinctions. SavingSpecies scientifically evaluates projects and then funds land purchases. Our projects restore degraded habitats in areas of the world's greatest biological richness. SavingSpecies clearly distinguishes all donations for project work from those needed to support operations.

<http://savingspecies.org/>

**SCIENTISTS AND ENVIRONMENTALISTS FOR POPULATION STABILIZATION****BOOTH 508**

Our mission is to improve understanding within the U.S. scientific, educational and environmental communities of the fact of overpopulation and its social, economic and environmental consequences at both national and global levels. We advocate for population stabilization followed by gradual reduction to a sustainable level by humane, non-coercive means.

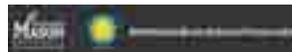


Smithsonian Institution
Scholarly Press

SMITHSONIAN INSTITUTION SCHOLARLY PRESS**BOOTH 502**

The tradition of scholarly publishing at the Smithsonian dates back to the Institution's origin and continues today with Smithsonian Institution Scholarly Press (SISP). SISP publishes research about Smithsonian collections and by Smithsonian scholars in many fields—particularly science (zoology, botany, and others), social science, and history and material culture.

www.scholarlypress.si.edu

**SMITHSONIAN-MASON SCHOOL OF CONSERVATION****BOOTH 504**

The Smithsonian-Mason School of Conservation offers professionals and university students practice-oriented training in conservation science and human dimensions. Course instructors at SMSC's new academic center in Front Royal, Virginia, USA include Smithsonian scientists, George Mason University faculty, and colleagues from US and international universities, research institutions, and conservation organizations.

www.smconservation.gmu.edu



Exhibitors



SOCIETY FOR ECOLOGICAL RESTORATION

BOOTH 405

The Society for Ecological Restoration (SER) is a membership based non-profit organization with members in more than 70 nations and 14 regional chapters. SER works to promote ecological restoration as a means of sustaining the diversity of life on Earth and reestablishing an ecologically healthy relationship between nature and culture.

www.ser.org



USDA FOREST SERVICE, RESEARCH & DEVELOPMENT

BOOTH 403

U.S. Forest Service Research and Development (USFS RD) provides scientific information for natural resource stewardship. Conservation biology focus areas include: social, economic and ecological sustainability, ecosystem services, urban wildlife, climate change adaptation, wildlife disease, ecosystem resilience, and restoration for ecological function. The booth will feature the array of USFS RD efforts in conservation biology.

www.fs.fed.us/research/



THE NATURE CONSERVANCY

BOOTH 209 (TOGETHER WITH ESRI)

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people.

www.nature.org



WILDLIFE CONSERVATION SOCIETY

BOOTH 209 (TOGETHER WITH ESRI)

The Wildlife Conservation Society saves wildlife and wild places worldwide. We do so through science, global conservation, education and the management of the world's largest system of urban wildlife parks, led by the flagship Bronx Zoo. Together these activities change attitudes towards nature and help people imagine wildlife and humans living in harmony. WCS is committed to this mission because it is essential to the integrity of life on Earth.

www.wcs.org



TUFTS UNIVERSITY - MS CONSERVATION MEDICINE PROGRAM

BOOTH 203

Founded in 1978 in North Grafton, Mass., Cummings School of Veterinary Medicine at Tufts University is internationally esteemed for academic programs that impact society and the practice of veterinary medicine; three hospitals and two clinics that combined log more than 80,000 animal cases each year; and groundbreaking research that benefits animal, public, and environmental health.

www.tufts.edu/vet/mcm/



WILDLIFE MATERIALS INTERNATIONAL, INC.

BOOTH 512

Since 1970 Wildlife Materials Inc has manufactured a complete line of VHF receivers and transmitters for research projects dealing with mammals, birds, reptiles, amphibians and fish. Build to your specifications. No project too big or too small. Excellent warranties, easy to work with! Capture nets are also available.

www.wildlifematerials.com



UNIVERSITY OF ARIZONA PRESS

BOOTH 200

The University of Arizona Press, founded in 1959 as a department of the University of Arizona, is a leading publisher of scholarly titles in biology, ecology, and environmental studies.

www.uapress.arizona.edu



UNIVERSITY OF CALIFORNIA PRESS

BOOTH 305

University of California Press is one of the largest and most adventurous scholarly publishers in the nation. The largest university press west of the Mississippi, UC Press publishes books and journals in the humanities, social sciences, and natural sciences.

www.ucpress.edu

WILEY

WILEY

BOOTH 400

Wiley is the leading society publisher. Our scientific, technical, medical and scholarly business publishes on behalf of more societies and membership associations than anybody else, and offers libraries and individuals 1250 online journals, thousands of books and e-books, reviews, reference works, databases, and more. For more information:

www.wiley.com

26th

Society for Conservation Biology
International Congress for Conservation Biology

Congress Schedule



MONDAY



TUESDAY



WEDNESDAY



THURSDAY



Morning



Late
Morning



Lunch



Early
Afternoon



Late
Afternoon



Poster
Session



Evening
Events

Full Schedule





	Room 301	Room 302	Room 303	Room 304	Room 305	Room 306	Room 307	Room 308	Room 309	Room 310
8:00 - 10:00 A.M.	Symp. Approaches for Conservation Conflicts	Symp. Social Networks for Conservation Decision-making	Symp. Social Processes for a High-Impact Research Agenda	Contr. Sess. Restoration Ecology	Contr. Sess. Remote Sensing & Conservation GIS	Contr. Sess. Population Dynamics	Symp. Conservation Crime (Part I)	Student Awards Presentations	Symp. The U.S. ESA at 40	Symp. Conservation Success in the Chesapeake Bay (Part I)
Coffee Break: 10:00-10:30 A.M., Exhibit Hall A										
10:30 A.M. - 12:30 P.M.	Symp. Religious Animal Release, Biodiversity, and Human Health	Symp. Innovations in Canada's Boreal and Australia's Outback	Symp. Urban Wildlife, Conflict Resolution and Conservation Biology	Symp. Implementation Strategy for Conservation Planning	Contr. Sess. Behavioral Ecology and Conservation	Contr. Sess. Population Dynamics, Viability, & Overexploitation	Symp. Conservation Crime (Part II)	Student Awards Presentations	Symp. More Effective Conservation Policies (Part I)	Symp. Conservation success in the Chesapeake Bay (Part II)
Student Workshop: Networking in Conservation	Workshop Faculty and Researcher Training Resources (Part I)	Workshop Highway Wilding - A Documentary Screening	Workshop SCB Chapters Meeting	Workshop Social Science for the Next Generation	Workshop Linking Biological and Cultural Diversity	Working Group for Ecological Economics and Sustainability Science				
2:00 P.M. - 3:30 P.M.	Plenary: Lee M. Talbot, Conservation Biology's Deep Roots Awards Ceremony: James Watson and Lucas Joppa <i>Grand Ballroom I&II</i>									
Afternoon Refreshments Break: 3:30-4:00 P.M., Exhibit Hall A										
4:00 P.M. - 6:00 P.M.	Contr. Sess. Climate Change (<i>Runs to 6:15 P.M.</i>)	Contr. Sess. Community-driven Conservation	Contr. Sess. Forest Conservation	Contr. Sess. Conservation Modeling	Contr. Sess. Behavioral Ecology and Conservation	Contr. Sess. Inventory and Monitoring	Contr. Sess. Sustainable Agriculture & Ecosystem Functions and Services	Contr. Sess. Marine Conservation	Contr. Sess. Recovery of Endangered Species	Contr. Sess. Conservation Genetics
6:00 P.M. Onwards	Keynote and Panel: Why is "advocacy" such a "four-letter word" for scientists? 6:00 P.M. - 7:00 P.M. Grand Ballroom I & II			Poster Session 6:00 P.M. - 8:00 P.M. Exhibit Hall			Marine and Oceania Sections Social 7:30 P.M. to 10:00 P.M. Meet at the dock at 913 S. Ann Street - Urban Pirate			





Morning session: 8:00 A.M. to 10:00 A.M.

Symposium: **Mobilizing Inter-disciplinary Complex Systems Approaches for the Study and Management of Conservation Conflicts**

Room 301

Monday, July 22, 8:00 to 10:00

ORGANIZER(S):

Leo Douglas, *American Museum of Natural History (AMNH)*; **Francine Madden**, *Human-Wildlife Conflict Collaboration (HWCC)*; **Joshua Fisher**, *The Earth Institute, Columbia University*

Environmental, wildlife or other conservation-related conflicts are complex non-linear phenomena frequently composed of multiple social and environmental drivers. These disputes may be conjoined with, nested in, or surrogates for broader socio-economic struggles between stakeholder groups, making their resolution particularly challenging. By extension, understanding these conflicts frequently requires a departure from the traditional linear and reductionist paradigms that have historically defined our frameworks of understanding, investigating, and managing conservation conflicts. This symposium focuses on applying complexity science and dynamical systems perspectives to conservation-related conflicts. The symposium further aims to illuminate emerging multi-disciplinary methodologies and modeling techniques for their management.

Conservation science is situated within a nexus of disparate values, identities, histories, and disciplines. For this reason complex conflicts are unavoidable, and even inherent to conservation. There is therefore a vital need to continually highlight new analytical frameworks, innovations and advances in our collective understanding and approaches to conflict that impinge on conservation's core objectives. This symposium will provide a unique forum for cross-disciplinary learning among practitioners and researchers involved in cutting-edge conservation science and practice applying complex systems approaches to conservation-related conflicts.

08:00 A complex systems approach to conservation conflict transformation: reevaluating our current practices to effectively address human-wildlife conflict.

Francine Madden, *Human-Wildlife Conflict Collaboration*

08:15 Interactions between qualitative methods and complexity modeling: a case study of conservation in the Espinal.

Meredith Root-Bernstein, *Oxford University*

08:30 Increasing conservation effectiveness: what medicine and business can teach us.

Gerald S. Post, *Duke University*

08:45 Coupling Natural and Human Systems for Resource Conflict

James Rising, *Columbia University*

09:00 Parrots, bananas, and Neoliberalism: A systems view of human-wildlife conflict on the island of Dominica.

Leo Douglas, *American Museum of Natural History*

09:15 Complex-systems approaches to identifying and analyzing the drivers of low-level conflict in and around conservation concessions in the Peruvian Amazon.

Joshua Fisher, *The Earth Institute, Columbia University*

Open discussion period follows from 9:30 to 10:00



.....

Symposium: **Analysing Social Networks for Conservation Decision-making**

Room 302

Monday, July 22, 8:00 to 10:00

ORGANIZER(S): **Jonathan Rhodes**, *The University of Queensland*; **Örjan Bodin**, *Stockholm Resilience Centre*

Integrating social science with ecology to inform conservation is one of the greatest challenges we face as conservation scientists. Characterising social systems as networks of interacting actors provides a powerful tool for achieving this. This symposium will bring together a multidisciplinary panel of speakers to showcase novel approaches for integrating social networks with ecology to inform conservation decision-making.

The past two decades have seen an explosion of interest in structured approaches to conservation decision-making (Wilson et al. 2009). However, the vast majority of these tools either fail to consider social processes, or consider them in a highly simplified way. At the same time, analyses of networks of interacting actors, based on tools such as social network theory and game theory, have emerged as important methods for understanding the influence of social processes on natural resource management success (Ostrom 1990, Bodin and Prell 2011). Despite this, it is only recently that conservation biologists have begun to integrate social networks into conservation planning (Bode et al. 2011, Vance-Borland and Holley 2011). By highlighting recent developments in how the analysis of social networks can be incorporated into conservation decision-making, and the benefits of doing so, this symposium will make a significant contribution to the ability of conservation scientists and practitioners to integrate human social processes into biodiversity conservation.

08:00 How might insights gained from stakeholder network analysis be integrated into conservation decision-support tools?

Ken Vance-Borland, *The Conservation Planning Institute*

08:15 ‘Treating networks seriously’ in conservation management: How a network approach enhances our understanding of collective action and adaptive capacity

Annica Sandström, *Stockholm Resilience Centre*

08:30 The Problem of Fit: Comparing Social and Ecological Connectivity in Land-use Planning using a spatially explicit network approach

Örjan Bodin, *Stockholm Resilience Centre*

08:45 Assessing the effectiveness of collaboration networks across large-scale conservation corridors

Angela Guerrero-Gonzalez, *The University of Queensland*

09:00 When do Social Networks Matter for Dynamic Conservation Planning Problems?

Jonathan Rhodes, *The University of Queensland*

09:15 The organisation of social networks for the optimal management of ecological networks

Iadine Chadés, *CSIRO*

09:30 Interactions between independent managers changes the invasion of widespread weeds

Shaun Coutts, *The University of Queensland*

Open discussion period follows from 9:45 to 10:00.

.....

Symposium: **Integrating Conservation Research and Practice: Social Processes for a High-Impact Research Agenda**

Room 303

Monday, July 22, 8:00 to 10:00

ORGANIZER(S): **Heather Arnold**, *Nature Conservancy of Canada*; **Jensen Reitz Montambault**, *The Nature Conservancy*; **Marie Tremblay**, *The Nature Conservancy of Canada*

As the ceaseless urgency to curb the biodiversity crisis meets a battered economy with yet tighter public funding for research, there is a growing need to ensure that conservation research is both relevant to practitioners, and solution-oriented. Whereas practitioners and land managers require research that is applicable to evidence-based and adaptive management, barriers exist to generating and accessing it, leading to a continued and undue reliance on anecdote and unverified opinion. Meanwhile, dedicated researchers may be personally motivated to make meaningful contributions toward solving pressing conservation problems but professional disincentives and funding criteria, often biased against real-world applied research, may discourage them. While individual efforts in the last two decades have made great strides to bridge the gap between conservation research and practice, now is the time to break down the systemic barriers that continue to perpetuate the divide. In this symposium a coalition of academics, funders and practitioners builds on a growing array of success stories and proposes a new way forward, one in which researchers and practitioners are full partners in the systematic co-creation of the research agenda. The proposed

Monday



symposium is of direct relevance to the conference theme because it brings together multiple stakeholders to seek an integrated solution to a complex and deep-rooted problem that is central to the entire discipline of conservation biology.

08:00 Marrying research and practice: the role of conservation practitioners in the 'happily ever after' of a high-impact research agenda

Heather Arnold and Marie Tremblay, *Nature Conservancy of Canada*

08:15 Working science: making information valuable to conservation decision-makers

Dr. Jensen Reitz Montambault, *The Nature Conservancy*

08:30 Practitioner-academic partnerships: is this the way of the future?

Dr. Kelly Biedenweg, *Natural Capital Project*

08:45 Stepping out of the Ivory Tower while still calling it home: tales from the trenches

Dr. Drew Tyre, *University of Nebraska-Lincoln*

09:00 Supporting applied research through public funding for pure science

Dr. Sean Watts, *AAAS S&T Fellow, Assigned to NSF*

09:15 In Search of the Elusive Private Foundation: Can We Match More Researchers with Private Funding in the Field?

Jeremy Guth, *Woodcock Foundation*

09:30 Bringing talent to the table - providing incentives, opportunities, and collaborative structures for scientists to influence conservation

Dr. Josh Tewksbury, *WWF International*

Open discussion period follows from 9:45 to 10:00

Restoration Ecology

Room 304

Monday, July 22, 8:00 to 10:00

08:00 Amphibian productivity in a restored wetland landscape in Maryland, USA

Danielle Iuliucci, *Towson University*; Joel Snodgrass, *Towson University*

08:15 Promoting reptile recolonization of restored mine sites in the Jarrah forest of southwestern Australia

Maggie Triska, *The University of Western Australia*; Richard Hobbs, *The University of Western Australia*; Michael Craig, *The University of Western Australia*; Vicki Stokes, *Alcoa*; Roger Pech, *Landcare*

08:30 Stormwater and Aquatic Resources: Integrating Conservation and Restoration

Joe Berg, *Biohabitats, Inc.*

08:45 Habitat Restoration in Watersheds Impacted by Legacy Sediments and Implications for the Bog Turtle (*Glyptemys mublenbergii*)

Robert Walter, *Franklin & Marshall College*; Dorothy Merritts, *Franklin & Marshall College*; David Bowne, *Elizabethtown College*; Jeffrey Hartranft, *Department of Environmental Protection*; William Hilgartner, *Johns Hopkins University & Friends School of Baltimore*; Candace Grand Pre, *Franklin & Marshall College*; Paul Mayer, *US Environmental Protection Agency*; Michael Rahnis, *Franklin & Marshall College*; Aleah Miller, *Elizabethtown College*

09:00 Measuring oyster (*Crassostrea virginica*) restoration success in the northern Chesapeake Bay

Adriane Michaelis, *University of Maryland, College Park*; Hillary Lane, *University of Maryland, College Park*; Steven Allen, *Oyster Recovery Partnership*; Kennedy Paynter, *University of Maryland, College Park*

09:15 Optimal conservation outcomes require both restoration and protection

Hugh Possingham, *The University of Queensland*; Michael Bode, *The University of Melbourne*; Carissa Klein, *The University of Queensland*

09:30 Determining the Effect of Water Quality Goals on Submerged Aquatic Vegetation Growth and Ecosystem Benefits

Hayley Tumas, *University of Maryland*; Maile Neel, *University of Maryland*; Brittany West Marsden, *University of Maryland*; Katia Engelhardt, *Appalachian Laboratory*

09:45 Restoring Effective Migration Corridors in Giant Panda Habitat: A Species-specific Study

Fang Wang, *Smithsonian Conservation Biology Institute*; McShea William, *Smithsonian Conservation Biology Institute*; Dajun Wang, *Peking University*; Sheng Li, *University of Wisconsin*



Remote Sensing & Conservation GIS

Room 305

Monday, July 22, 8:00 to 10:00

08:00 Effectiveness of Russian protected areas before and after transition to post-socialism

Eugenia Bragina, *University of Wisconsin-Madison*; **Matthias Baumann**, *University of Wisconsin-Madison*; **Volker Radeloff**, *University of Wisconsin-Madison*; **Anna Pidgeon**, *University of Wisconsin-Madison*

08:15 Photo mapping and monitoring using inexpensive low altitude platforms

Ned Horning, *American Museum of Natural History*

08:30 Contributions of the NASA Biodiversity and Ecological Forecasting Programs to Conservation Biology

Allison Leidner, *NASA Earth Science Division/Universities Space Research Association*; **Woody Turner**, *NASA Earth Science Division*

08:45 Impacts of land use/land cover change in the Uluguru-Kitulungalo ecosystems in Morogoro Region, Tanzania

Mercy Ojoyi, *National Museums of Kenya*; **Onnie Mutanga**, *University of Kwazulu-Natal*; **Odindi John**, *University of Kwazulu-Natal*

09:00 Earth observations: An overlooked potential to support species reintroduction programmes

Nathalie Pettorelli, *Zoological Society of London*

09:15 Identifying the Top 10 Conservation Challenges that Can Be Answered Through Remote Sensing Technologies

Robert Rose, *Wildlife Conservation Society*; **Allison Leidner**, *NASA Earth Science division*; **David Wilkie**, *Wildlife Conservation Society*

09:30 Unifying Conservation and Remote Sensing approaches

Martin Wegmann, *CEOS SBA Biodiversity at German Aerospace Center, U. Wuerzburg*; **Nathalie Pettorelli**, *Institute of Zoology, Zoological Society of London*; **Woody Turner**, *NASA*; **Stefan Dech**, *DLR*

09:45 Forest corridors maintain historical gene flow in a tiger meta-population in central India

Sandeep Sharma, *Smithsonian Conservation Biology Institute and George Mason University*; **Trishna Dutta**, *Smithsonian Conservation Biology Institute and George Mason University*; **Jesús E. Maldonado**, *National Museum of Natural History, Smithsonian Institution*; **Thomas C. Wood**, *George Mason University*; **Hemendra Singh Panwar**, **John Seidensticker**, *Smithsonian Conservation Biology Institute*

.....

15-month blended curriculum with exclusive course sections and content, split between on-campus learning and remote experiences.

Cohort-centered leadership seminars and courses in conservation planning and governance during the Summer Conservation Institute.

Program connects students with international conservation practitioners, offering extraordinary access to accomplished professionals.

NOW ACCEPTING APPLICATIONS UNTIL DEC. 1, 2013.

Begins June 2014

ENVIRONMENTAL CONSERVATION

PROFESSIONAL MASTER'S PROGRAM

M.S. in Conservation Biology and Sustainable Development

nelson.wisc.edu/conservation

 [facebook.com/NelsonInstitute](https://www.facebook.com/NelsonInstitute)

 twitter.com/NelsonInstitute



NELSON
INSTITUTE FOR
Environmental Studies
UNIVERSITY OF WISCONSIN-MADISON

Population Dynamics

Room 306

Monday, July 22, 8:00 to 10:00

- 08:00 Management of Resident Canada Geese in the Atlantic Flyway**
Julie Beston, *University of Delaware*; **Theodore Nichols**, *New Jersey Division of Fish and Wildlife*; **Paul Castelli**, *US FWS*; **Christopher Williams**, *University of Delaware*
- 08:15 Modeling the influence of Everglades hydrology on population dynamics of endangered wood storks in the southeastern U.S.**
Rena Borkhataria, *Everglades Research and Education Center, University of Florida*; **Peter Frederick**, *University of Florida*; **Colin Saunders**; **James Beerens**, *Florida Atlantic University*; **Jaime Collazo**, *North Carolina Cooperative Fish and Wildlife Research Unit*; **Lawrence Bryan**, *Savannah River Ecological Laboratory*
- 08:30 Population dynamics of a forest ungulate respond to winter severity and timber harvest**
Sophie Gilbert, *Institute of Arctic Biology, University of Alaska Fairbanks*; **David Person**, *Alaska Department of Fish and Game*; **Kris Hundertmark**, *Institute of Arctic Biology, University of Alaska Fairbanks*; **Christine Hunter**, *University of Alaska Fairbanks*
- 08:45 Investigating translocation mediated bacterial spread between isolated populations of endangered takahē, using a network approach**
Zoe Grange, *Massey University*; **Brett Gartrell**, *Massey University*; **Nicola Nelson**, *Victoria University of Wellington*; **Laryssa Howe**, *Massey University*; **Mary van Andel**, *Massey University*; **Nigel French**, *Massey University*
- 09:00 Growth variation in a mid-Atlantic brook trout population**
David Kazyak, *University of Maryland Center for Environmental Science, Appalachian Laboratory*; **Robert Hilderbrand**, *University of Maryland Center for Environmental Science, Appalachian Laboratory*
- 09:15 Turning back the tide of American mink invasion at unprecedented scales in partnership with scientists and citizens**
Yolanda Melero, *University of Aberdeen, Institute of Biology and Environmental Sciences*; **Matthew Oliver**, *University of Aberdeen, Institute of Biology and Environmental Sciences*; **Xavier Lambin**, *University of Aberdeen, Institute of Biology and Environmental Sciences*
- 09:30 Wolves as shepherds: Optimal predator management for mountain sheep conservation depends on the strength of mesopredator release**
Laura Prugh, *University of Alaska Fairbanks*; **Stephen Arthur**, *Alaska Department of Fish and Game*
- 09:45 Conservation of *Istoria medeoloides* (Orchidaceae), a tale of dormancy and fungi**
Dennis Whigham, *Smithsonian Environmental Research Center*; **Melissa McCormick**, *Smithsonian Environmental Research Center*; **John O'Neill**, *Smithsonian Environmental Research Center*; **Rachel Rock-Blake**, *University of Connecticut*

.....
Symposium: **Detecting, Understanding and Deterring Conservation Crime: Session I**

Room 307

Monday, July 22, 8:00 to 10:00

ORGANIZER(S): **Jennifer Solomon**, *Colorado State University*; **Meredith Gore**, *Michigan State University*; **Michael Gavin**, *Colorado State University*

Conservation criminology is an emerging field that cuts across disciplines and requires the cooperation of individuals in subjects as varied as law enforcement, policy, criminology, natural resource management, conservation biology, psychology, and risk management. Conservation criminology is “the study of environmental risks at the nexus between humans and natural resources that involve issues of crime, compliance and/or social control” (Gibbs et al. 2010). Illicit or non-compliant human behaviors may occur in all ecosystems and range from subsistence illegal resource collection inside protected areas to poaching of megafauna by organized criminal syndicates. Such acts have an enormous impact on ecosystems and yet the study of them is limited, primarily because the topic is extremely sensitive and the victims are voiceless. We propose to highlight recent innovations in detecting, understanding and deterring conservation crimes. Speakers will address issues ranging from novel methodologies for quantifying subsistence-level illegal resource use to technological advances used to deter poaching. The intention of the presentations is to bring conference attendees a synopsis of how conservation crime is currently being studied as well as highlighting future directions for research and the need for an interdisciplinary, collaborative approach that connects across multiple stakeholder groups in an attempt to deter conservation crime.

08:00 Crimes Against Conservation: Methods and Trends for the Future

Jennifer Solomon, *Colorado State University*

08:15 Determining the geographic origin of illegally harvested hawksbill sea turtle products

David Foran, *Michigan State University*





- 08:30 **Rethinking corruption in conservation crime: insights from Madagascar**
Meredith Gore, *Michigan State University*
- 08:45 **Poaching risks in community-based natural resource management**
Jessica Kahler, *Michigan State University*
- 09:00 **Modeling behavior to understand patterns and drivers of illegal resource use**
Aidan Keane, *Imperial College London*
- 09:15 **Conservation during global conflict: opportunities to curtail wildlife trade through work with the U.S. military**
Heidi Kretser, *Wildlife Conservation Society*
- 09:30 **The WILD LEO Project: Using technology to combat poaching in Uganda**
Andrew Lemieux, *Netherlands Institute Crime & Law*
- 09:45 **Science-based enforcement to conserve commercially-valuable species**
Elizabeth Bennett, *Wildlife Conservation Society*

Student Awards Finalists: Session I

Room 308

Monday, July 22, 8:00 to 10:15 (Note, this session runs 15 minutes longer than others)

- 08:00 **Plenary: Doing the business of conservation: non-traditional approaches for the next generation of practitioners**
Brett Dickson, *Conservation Science Partners*
- 08:30 **Predicting extinction risk for threatened island vertebrates due to impacts from invasive alien mammals**
Erin McCreless, *Univ. of California Santa Cruz*; Stuart Butchart, *BirdLife International*; Don Croll, *Univ. of California Santa Cruz*; Nick Holmes, *Island Conservation*; Kelly Newton, *Univ. of California Santa Cruz*; Bernie Tershy, *Univ. of California Santa Cruz*; Dena Spatz, *Univ. of California Santa Cruz*; Chris Wilcox, *CSIRO*
- 08:45 **Predicting the conservation status of Data Deficient species**
Lucie Bland, *Zoological Society of London*; Ben Collen, *Zoological Society of London*; Jon Bielby, *Zoological Society of London*; C. David L. Orme, *Imperial College London*
- 09:00 **Do Ethiopian church forests provide ecosystem services on a landscape scale?**
Ashley Massey, *University of Oxford*; Shonil Bhagwat, *University of Oxford*; Sara Hamann, *University of Oxford*
- 09:15 **Understanding and influencing landholders' options for conserving dry Chaco forests at the agricultural frontier**
Matias Mastrangelo, *National University of Mar del Plata and National Research Council of Argentina*; Michael Gavin, *Forestry 231, Department of Human Dimensions of Natural Resources, WCNR, CSU, USA*; Pedro Laterra, *Faculty of Agrarian Sciences, National University of Mar del Plata, ARG*; Wayne Linklater, *School of Biological Sciences, Victoria University of Wellington, NZ*; Taciano Milfont, *School of Psychology, Victoria University of Wellington, NZ*
- 09:30 **When is enough, enough? Using capture-recapture to inform optimal population monitoring for the endangered pink pigeon *Nesoenas mayeri***
Lianne Concannon, *The University of Reading*; Malcolm Nicoll, *The University of Reading*; Ken Norris, *University of Reading*; Carl Jones, *Durrell Wildlife Conservation Trust/ Mauritian Wildlife Foundation*; Vikash Tatayah, *The Mauritian Wildlife Foundation*
- 09:45 **Collaboration among countries in marine conservation can achieve substantial efficiencies**
Tessa Mazar, *The University of Queensland*; Salit Kark, *The Hebrew University of Jerusalem*; Hugh Possingham, *The University of Queensland*
- 10:00 **Landscape genetics of American pika at Crater Lake National Park, Oregon: evaluating the use of Mantel tests in a causal modeling framework**
Jessica Castillo, *Oregon State University*; Clinton Epps, *Oregon State University*

Symposium: **The U.S. Endangered Species Act at 40: Measuring Success and the Critical Role of Stakeholders**

Room 309

Monday, July 22, 8:00 to 10:00

ORGANIZER(S): Noah Greenwald, *Center for Biological Diversity*

This symposium will mark the 40th anniversary of the U.S. Endangered Species Act by evaluating the success of the Act towards saving species from extinction and putting them on the road to recovery, assessing implementation of the Act, and discussing the role of diverse stakeholders in aiding implementation and recovery. Focusing on one of the oldest and strongest laws for protecting biodiversity of any nation, this symposium fits squarely into the theme for this year's meeting, "connecting systems, disciplines, and stakeholders." Under the umbrella of the Act, scientists, policy makers and advocates from government agencies, academia and non-governmental organizations all work towards the conservation of endangered species across the full diversity

of ecosystems found in the U.S. and to address the full breadth of threats to species survival from habitat loss, to climate change, to invasive species. The symposium will bring individuals from these diverse backgrounds to present data and perspective on the current state of the Act and the species it protects. Participants will discuss case studies of species recovery efforts, data on implementation of the Act, and results from current efforts to assess the overall success of the Act.

08:00 The Current State of Endangered Species Act Implementation and the Pivotal Role of Stakeholders

Noah Greenwald, *Center for Biological Diversity*

08:15 The Cape Sable sparrow and the Everglades ecosystem on which it depends

Dr. Stuart Pimm, *Nicholas School of the Environment*

08:30 A century later: A multi-disciplinary effort to share the lessons from the extinction of the passenger pigeon (*Ectopistes migratorius*)

David E. Blockstein, *Council for Science and the Environment*

08:45 New methods for developing recovery criteria and the basic numbers of recovery

Maile Neel, *University of Maryland*

09:00 On time, on target: How the Endangered Species Act is saving America's wildlife

Kieran Suckling, *Center for Biological Diversity*

Open discussion follows from 9:15 to 10:00

.....
Symposium: Despite What You've Heard...Conservation Success in the Chesapeake Bay

Session I

Room 310

Monday, July 22, 8:00 to 10:00

ORGANIZER(S): **Keryn Gedan**, *University of Maryland*; **Autumn-Lynn Harrison**, *Clemson University*

The Chesapeake Bay is one of the world's largest, most culturally treasured, and most productive estuaries—a scale that challenges and provides opportunities for conservation and management. Recent decades have been hard on Chesapeake Bay ecosystems and the people who depend on them. The wild oyster fishery that once shaped the region's cultural identity has collapsed, a seasonal dead zone plagues the Bay mainstem, and there is heavy dependence on the blue crab fishery. Despite notorious environmental problems, Chesapeake conservation practitioners have rallied a conservation ethic and pursued an ambitious conservation agenda.

Participants in this session have advanced that agenda and will discuss the triumphs and pitfalls of managing nutrients, fisheries, and habitats in the Chesapeake Bay. Nutrient management plans for the Chesapeake watershed are some of the strictest in the nation. Fisheries managers are facilitating a shift from wild harvest to bivalve aquaculture and embarking upon one of the largest marine restoration projects ever. Stakeholders from crabbing and farming communities steward conservation activities to preserve the Chesapeake cultural legacy. Finally, the session will include a presentation about the Bay Game, a data-intensive, educational simulation game that incorporates the complex issues of the Bay. In the Chesapeake Bay, people have transcended impressive disciplinary, cultural, and political boundaries to carry out conservation activities.

08:00 A historical perspective of Chesapeake Bay wetlands, water quality, and watermen

Keryn Gedan, *University of Maryland* and Autumn-Lynn Harrison, *Clemson University*

08:15 Doing the right thing for the right reason: fisheries and eutrophication in Chesapeake Bay

Denise Breitburg, *Smithsonian Environmental Research Center*

08:30 Overcoming barriers to restoring multiple ecosystem services in the Chesapeake Bay

Lisa Wainger, *University of Maryland Center for Environmental Science, Chesapeake Biological Lab*

08:45 Oyster conservation in Maryland

Stephan Abel, *Oyster Recovery Partnership*

09:00 Fits and starts with oyster conservation in Chesapeake Bay

Mike Wilberg, *University of Maryland Center for Environmental Science, Chesapeake Biological Lab*; John R. Wiedenmann, *University of Maryland Center for Environmental Science, Chesapeake Biological Lab and Institute of Marine and Coastal Sciences, Rutgers University*; Jason M. Robinson, *University of Maryland Center for Environmental Science, Chesapeake Biological Lab*

09:15 Getting more for our money: integrating habitat restoration priorities in Chesapeake Bay

Mark Bryer, *The Nature Conservancy*; Paula Jasinski, *Chesapeake Environmental Communications, Inc.*,

09:30 Innovative Collaborations and Solutions for the Commercial Blue Crab Fishery in Maryland

Jenn Aiosa, *Environmental Defense Fund*; George Chmael, *Council Fire*; Brenda Davis, *Blue Crab Program Manager, Department of Natural Resources Fisheries Service*; Ward Slacum, *Versar*; Richard Young, *Crabber and Blue Crab Industry Design Team Member*

09:45 Management of blue crab in the Chesapeake: Science to ensure the sustainability of a Bay icon

Tom Miller, *University of Maryland Center for Environmental Science, Chesapeake Biological Lab*





COFFEE BREAK
10:00 to 10:30
Exhibit Hall A



Late morning session: 10:30 A.M. to 12:30 P.M.

Monday



Symposium: **The Impact of Animal Release on Biodiversity and Human Health: Exploring Opportunities to Bridge Conservation and Religion**

Room 301

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): **Stephen Awoyemi**, *SCB Religion and Conservation Biology Working Group*; **Jame Schaefer**, *Marquette University, Department of Theology*

The Buddhist practice of animal merit release is threatening biodiversity, ecological integrity, and human health. The effects of this ongoing practice provides an opportunity for conservation biologists and Buddhist leaders to collaborate in conserving wildlife in Asia and demonstrating true compassion for animals, their habitats, and human health as originally intended through this practice. The focus of this symposium clearly dovetails the ICCB 2013 theme of Connecting Systems, Disciplines, and Stakeholders. This proposed symposium also strategically addresses the central goal of the United Nations (UN) Decade for Biodiversity (2011-2020) which is to re-orient society towards recognizing the value of biodiversity and conserving it.

10:30 The Animal Release Project: An Overview

Stephen M. Awoyemi (also Moderator), *RCRC, RCBWG, SCB*

10:45 Ecological Knowledge to Reduce the Religious Practice of Releasing Invasive Species

Yiming Li, *Institute of Zoology, Chinese Acade*

11:00 Advancing the Collaboration of Religious and Conservation Biology Communities

Jame Schaefer, *Marquette University*

11:15 Mercy Release Should not be Commercialized

Fengqing Yu, *Wildlife Ark, China*

11:30 The Chinese Buddhist Practice of Release Life: Past, Present, and Future

The Venerable Benkong Shi, *Grace Gratitude Temple, USA*

11:45 Life Conservation, Mind Cultivation

Li-Yi Cheng, *Bliss & Wisdom Group, Taiwan*

12:00 Wildlife Release and Life Education Programs of Wildlife First Aid Station

Fang-Tse Chan, *Endemic Species Research Institute*

Open discussion follows from 12:15 to 12:30

Symposium: **Raising the Bar: Large Landscape Conservation Innovations in Canada's Boreal and Australia's Outback**

Room 302

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): **Jeffrey Wells**, *International Boreal Conservation Campaign*; **Barry Trill**, *Pew Environment Group*

The North American Boreal Forest and the Australian Outback share the distinction of being two of the last, very large unfragmented ecological regions left on Earth. The intact nature of these regions means that, unlike in most of the world, the opportunity to proactively maintain and conserve large scale functioning ecosystems and biodiversity still exists. These regions are also seen by some as the last frontiers for unbridled natural resource extraction. Efforts to maintain the ecological integrity and biodiversity characteristics of these massively large ecological regions has required innovative new ideas that integrate across widely divergent systems, disciplines, and stakeholders at impressively large scales. The results have raised the bar for large landscape conservation initiatives around the globe. For example, over 526,000 km² (130 million acres) of protected areas are now in place in Canada's Boreal Forest region and governments in two of the largest Canadian provinces (Ontario and Quebec) have committed to establishing over 800,000 km² (200 million acres) of new protected areas in recent years. Similarly Australia

now has over 360,000 km² (89 million acres) in Indigenous Protected Areas and over 650 indigenous people employed as part of its Indigenous Ranger Program. In this symposium we will describe, contrast and compare the two regions and some of the most interesting conservation implementation ideas that are ongoing within them.

10:30 Connecting governments, scientists and stakeholders to protect wilderness in Canada's Boreal and Australia's Outback

Steve Kallick, *Pew Environment Group*

10:45 Wetland linkages-surprising connections across continents and the globe

Frederic Reid, *Ducks Unlimited*

11:00 Protection isn't enough - the problem of too few people in the Outback. Managing a huge landscape to prevent extinctions.

Barry Traill, *Pew Environment Group-Australia*

11:15 How acknowledging Indigenous rights can help conservation: amazing results from Australia and hope for Canada

Larry Innes, *Canadian Boreal Initiative*; Daniel Oades, *Kimberley Land Council*, Valerie Courtois and Larry Innes, *Canadian Boreal Initiative*

11:30 When they spoke people listened: experiences of two science-policy think tanks focused on large landscape conservation issues in Canada and Australia

Jeffrey Wells, *International Boreal Conservation*

11:45 The trials, tribulations and triumphs of an historic accord between the Canadian forest industry and conservation organizations

Aaron O'Carroll, *Canadian Boreal Forest Agreement Secretariat*

12:00 Sustainability or Responsibility? Applications of sustainable development to a real-world continental landscape

James Levitt, *Harvard University*

Open discussion follows from 12:15 to 12:30

.....
Symposium: Urban Wildlife, Conflict Resolution and Conservation Biology: Why it Matters that we Connect Disciplines and Stakeholders to Engage a Larger Public

Room 303

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): John Hadidian, The Humane Society of the United States

How conflicts between people and wild animals are visualized and resolved has increasingly become relevant to conservation biology. How this is done in urbanizing environments may be especially relevant. Urban ecologists confront many of the same issues their colleagues address elsewhere, such as the impact of nonnative species, overabundant native species and the conservation of native biodiversity. The social and political environment in which issues must be addressed is highly complex and through a rich admixture of varying stakeholder interests, intergroup dynamics, and problem framing, can teach us much about dealing with conflicts everywhere. Cities are also where the majority of people now live and from where funding decisions and program policies emanate. It is important, and may be critical, that the urban public recognizes wildlife conservation as a first order concern that begins in their neighborhood and extends well beyond. Urban wildlife conflict resolution represents an innovative and bridging subdiscipline that draws upon theory and practice from a variety of sources to create innovative solutions to problems people experience with wild animals and resolve the social conflicts that can occur over wildlife. This symposium will address some of the important concepts developed in this approach and present case histories that elucidate where the professional practice of urban wildlife conflict resolution stands as an emerging subdiscipline.

10:30 Conserving urban wildlife: the need for a bridging subdiscipline.

John Hadidian, *HSUS*

10:45 Leopards and Coyotes: Conflict over Social Constructions., Values and Solutions in Mumbai and Denver

Megan Draheim, *Virginia Tech Center for Leadership*

11:00 Can a human dimension focus help reducing black bear/human conflicts?

Greg Evans, *Virginia Tech Center for Leadership*

11:15 Birds and Buildings: Engaging the public in reducing bird/glass collisions

Anne Lewis, *City Wildlife*

11:30 Managing wildlife humanely through an integrated approach

Sandra Baker, *University of Oxford*

11:45 Understanding Identity and Engaging Systems to Untangle Conflict in Contemporary Conservation

Francine Madden, *Human-Wildlife Conflict Collaborati*

Open discussion follows from 12:00 to 12:30



.....

Symposium: **From Plans to Outcomes: Towards an Implementation Strategy for Conservation Planning**

Room 304

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): **Vanessa Adams**, *Research Institute for the Environment and Livelihoods*; **Bob Pressey**, *ARC Centre of Excellence for Coral Reef Studies*

The discipline of systematic conservation planning will be 30 years old in 2013. Its achievements around the world have been remarkable, but its connections to conservation outcomes are still too tenuous. Regional-scale conservation planning and local-scale conservation actions do not properly inform one another. One outcome is the 'planning-implementation gap'. Implementation of the best laid plans requires a multidisciplinary approach to understanding complex ecological, political and social systems and improved engagement with diverse stakeholders. The conference theme 'Connecting systems, disciplines, and stakeholders' is at the core of guiding the future research agenda to address the planning-implementation gap. Turning planning effort into lasting actions requires existing lines of thinking to be woven together, and missing elements in implementation strategies identified and filled. Some important elements of an implementation strategy include:

- Setting priorities for action in space and time
- Scaling down regional plans to local circumstances
- Scaling up local actions into networks
- Identifying ways of financing actions into the future

We envisage that a broad, generic strategy can be identified for any region but differences in detail will emerge between regions. We discuss a generic strategy and present case studies of adaptation of this strategy to diverse planning situations. The case studies also review challenges and successes in moving from plans to outcomes.

10:30 What would a generic implementation strategy look like?

Bob Pressey, *ARC COE for Coral Reef Studies*

10:45 Putting multi-jurisdictional conservation planning into practice in California

Frank W. Davis, *University of California Santa Barbara*

11:00 Challenges and Opportunities in implementing Regional Conservation Plans on Private Lands and with the Private Sector

Craig Groves and Edward Game, *The Nature Conservancy*

11:15 Contrasting implementation strategies for marine conservation planning in the Western Pacific

Rebecca Weeks, *ARC COE for Coral Reef Studies*

11:30 Marine conservation planning in practice: lessons learned from the Gulf of California

Jorge Alvarez Romero, *ARC COE for Coral Reef Studies*

11:45 Planning for conservation and development: can a regional strategic plan link to on ground local actions?

Vanessa Adams, *Charles Darwin University*

12:00 Aligning local management with national conservation priorities in the assessment of high conservation value forest areas

Daniel Segan, *Wildlife Conservation Society*

Open discussion follows from 12:15 to 12:30

.....

Behavioral Ecology and Conservation

Room 305

Monday, July 22, 10:30 to 12:30

10:30 Differences in elasmobranch assemblages between marine reserves and fished reefs on the Mesoamerican Barrier Reef

Mark Bond, *Stony Brook University*; **Demian Chapman**, *Stony Brook University*; **Elizabeth Babcock**, *Rosenstiel School of Marine and Atmospheric Sciences*

10:45 How does the Colombian squirrel monkey cope with habitat fragmentation?

Xyomara Carretero-Pinzon, *Colombian Primatological Association*; **Thomas Defler**, *Universidad Nacional de Colombia*; **Manuel Ruiz-Garcia**, *Pontificia Universidad Javeriana*

11:00 Feeding ecology of a reintroduced brown bear population in a human dominated environment using dna metabarcoding and next generation sequencing

Marta De Barba, *Laboratoire d'Ecologie Alpine*; **Christian Miquel**, *Laboratoire d'Ecologie Alpine*; **Frederic Boyer**, *Laboratoire d'Ecologie Alpine*; **Eric Coissac**, *Laboratoire d'Ecologie Alpine*; **Pierre Taberlet**, *Laboratoire d'Ecologie Alpine*



- 11:15 African lion adaptation and survival in non-protected human-altered landscapes**
 Stephanie Dolrenry, *Lion Guardians*; Leela Hazzah, *Lion Guardians*; Laurence Frank, *Living with Lions*
- 11:30 Too Hot to Handle: Can Desert Birds Cope with Increasing Temperatures?**
 Katherine du Plessis, *Percy Fitzpatrick Institute of African Ornithology*; Susan Cunningham, *Percy FitzPatrick Institute of African Ornithology*; Rowan Martin, *Percy Fitzpatrick Institute of African Ornithology*; Phillip Hockey, *Percy Fitzpatrick Institute of African Ornithology*; Amanda Ridley, *School of Animal Biology*
- 11:45 Cultural values and participatory strategies to enhance local tolerance for large carnivores in Africa**
 Leela Hazzah, *Lion Guardians*; Stephanie Dolrenry, *Lion Guardians*; Mark Infield, *Fauna & Flora International*
- 12:00 Compatibility of ungulate viewing opportunities and recreational pathway construction and use in an existing national park transportation corridor**
 Amanda Hardy, *Wildlife Conservation Society*; Kevin Crooks, *Colorado State University*
- 12:15 Environmental conditions inside winter hibernation sites predict white-nose syndrome mortality in bats**
 David Hayman, *Colorado State University*; Paul Cryan, *US Geological Survey*; Juliet Pulliam, *University of Florida*; Colleen Webb, *Colorado State University*

.....

Population Dynamics, Viability & Overexploitation
 Room 306
 Monday, July 22, 10:30 to 12:30

- 10:30 Metamodels: Connecting models and people for inclusive, integrated, transdisciplinary analysis of populations facing multiple threats**
 Robert Lacy, *Chicago Zoological Society*; Philip Miller, *IUCN SSC Conservation Breeding Specialist Group*; Philip Nyhus, *Colby College*; John Pollak, *Cornell University*; Becky Raboy, *University of Toronto*; Sara Zeigler, *Virginia Tech*
- 10:45 Confronting the invasive species crisis with PVA: An explicit, two-species metamodel of an endangered bird and its nest parasite in Puerto Rico**
 Philip Miller, *IUCN/SSC Conservation Breeding Specialist Group*; Robert Lacy, *Chicago Zoological Society*; Rosanne Medina-Miranda, *Department of Natural and Environmental Resources of Puerto Rico*; Ricardo Lopez-Ortiz, *Department of Natural and Environmental Resources of Puerto Rico*; Kathy Traylor-Holzer, *IUCN/SSC Conservation Breeding Specialist Group*
- 11:00 Human impact and carnivore extinction in the disrupted ecosystem of prehistoric Australia: the dingo absolved**
 Corey Bradshaw, *The University of Adelaide*; Thomas Prowse, *The University of Adelaide*; Barry Brook, *The University of Adelaide*; Christopher Johnson, *University of Tasmania*
- 11:15 Complex statistics and stakeholder engagement: Is a better analysis always a good idea?**
 Chris Elphick, *University of Connecticut*; Michael Reed, *Tufts University*; Christopher Field, *University of Connecticut*
- 11:30 Does Establishing Property Rights Protect Forests from Roving Bandits?**
 Michael Cox, *Dartmouth College*; Forrest Fleischman, *Dartmouth College*; Emily Blackmer, *Dartmouth College*
- 11:45 Exploring drivers of natural resource overexploitation in tropical coastal communities**
 Daniella Ferrol-Schulte, *Leibniz Centre for Tropical Marine Ecology*; Sebastian Ferse, *Leibniz Centre for Tropical Marine Ecology*; Marion Glaser, *Leibniz Centre for Tropical Marine Ecology*
- 12:00 Confronting uncertainty in wildlife management: performance of grizzly bear management in British Columbia, Canada**
 Kyle Artelle, *Simon Fraser University and Raincoast Conservation Foundation*; Sean Anderson, *Simon Fraser University*; Andrew Cooper, *Simon Fraser University*; Paul Paquet, *Raincoast Conservation Foundation*; John Reynolds, *Simon Fraser University*; Chris Darimont, *University of Victoria and Raincoast Conservation Foundation*
- 12:15 A Novel Simulation Methodology Merging Source-Sink Dynamics and Landscape Connectivity**
 Nathan Schumaker, *US EPA*; Allen Brookes, *US EPA*

.....

Symposium: **Detecting, Understanding and Deterring Conservation Crime: Session II**

Room 307

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): **Jennifer Solomon**, *Colorado State University*; **Meredith Gore**, *Michigan State University*; **Michael Gavin**, *Colorado State University*

Conservation criminology is an emerging field that cuts across disciplines and requires the cooperation of individuals in subjects as varied as law enforcement, policy, criminology, natural resource management, conservation biology, psychology, and risk management. Conservation criminology is “the study of environmental risks at the nexus between humans and natural resources that involve issues of crime, compliance and/or social control” (Gibbs et al. 2010). Illicit or non-compliant human behaviors may occur in all ecosystems and range from subsistence illegal resource collection inside protected areas to poaching of megafauna by organized criminal syndicates. Such acts have an enormous impact on ecosystems and yet the study of them is limited, primarily because the topic is extremely sensitive and the victims are voiceless. We propose to highlight recent innovations in detecting, understanding and deterring conservation crimes. Speakers will address issues ranging from novel methodologies for quantifying subsistence-level illegal resource use to technological advances used to deter poaching. The intention of the presentations is to bring conference attendees a synopsis of how conservation crime is currently being studied as well as highlighting future directions for research and the need for an interdisciplinary, collaborative approach that connects across multiple stakeholder groups in an attempt to deter conservation crime.

10:30 Applying novel approaches to assess the prevalence and drivers of illegal bushmeat hunting

Ana Nuno, Imperial College London

10:45 Bags and Tags: An empirical evaluation of policy change for reducing illegal recreational fishing of red abalone (*Haliotis rufescens*) in Northern California

Sara Lewis, University of California-Santa Cruz

11:00 Quantifying illegal hunting via a new methodological approach

Abu Conteh, Victoria University of Wellington; Michael C. Gavin, Colorado State University; Jennifer N. Solomon, Colorado State University

11:15 Public motivations for compliance with wildlife legislation: carnivore killing in rural Taiwan

Freya St. John, University of Kent

11:30 Profiling poachers: Using randomized response technique to assess rates of hunting violations by deer and elk hunters in Washington State

Anthony Novack, WA State Dept of Fish and Wildlife

11:45 A novel approach for understanding conservation crime? Focus groups as a tool for understanding inclinations and evaluating interventions for illegal take of wolves

Christine Browne-Nunez, Nelson Institute for Environmental Studies, University of Wisconsin-Madison

12:00 Dismantling conservation crime: leveraging integrated and innovative responses across related sectors of security, technology and enforcement

Crawford Allan, WWF / TRAFFIC

Open discussion follows from 12:15 to 12:30

.....

Student Awards Finalists: Session II

Room 308

Monday, July 22, 10:30 to 12:30

10:30 Plenary: Big Rocks and Marine Conservation Science at WWF

Helen Fox, WWF-US

11:00 A conservation genomics approach for fisheries management of commercial fishes that form spawning aggregations

Alexis Jackson, University of California Santa Cruz; Brice Semmens, Scripps Institute of Oceanography; Yvonne Sadovy, University of Hong Kong; Richard Nemeth, University of the Virgin Islands; Scott Heppell, Oregon State University; Giacomo Bernardi, University of California Santa Cruz

11:15 Spatial and temporal trends in the recent decline of carnivores and ungulates

Moreno Di Marco, Dep. of Biology and Biotechnology, Sapienza University of Rome; Luigi Boitani, Dep. of Biology and Biotechnology, Sapienza University of Rome; David Mallon, Dep. of Biology, Chemistry and Health Science, Manchester Metropolitan Univ; Angela Iacucci, Dep. of Biology and Biotechnology, Sapienza University of Rome; Mike Hoffmann, IUCN Species Survival Commission, c/o UNEP-WCMC; Jan Schipper, New College of Interdisciplinary Arts and Sciences,



Arizona State University; **Piero Visconti**, Computational Science Laboratory, Microsoft Research; **Erik Meijaard**, Borneo Futures Project, People and Nature Consulting International; **Carlo Rondinini**, Dep. of Biology and Biotechnology, Sapienza University of Rome

11:30 Planning future restoration for long term persistence of a declining species

Beth Fitzpatrick, University of Wyoming; **Melanie Murphy**, University of Wyoming

11:45 Healthy corals contribute disproportionately large numbers of offspring on island-wide scales

Aaron Hartmann, Scripps Institution of Oceanography; **Kristen Marhaver**, University of California Merced; **Mark Vermeij**, CARMABI Foundation

12:00 Closing shop? Spatial, temporal and cultural trends of illegal wildlife trade through traders' eyes

Jennifer Croes, Imperial College, London; **E.J Milner-Gulland**

12:15 Do connectivity models based on "naturalness" capture important habitat linkages for focal species? A case-study from the Pacific Northwest

Ian Breckheimer, University of Washington; **Meade Krosby**, University of Washington; **Peter Singleton**, USDA Forest Service Pacific Northwest Research Station; **John Pierce**, Washington Department of Fish and Wildlife; **Brad McRae**, The Nature Conservancy; **Joanne Schuett-Hames**, Washington Wildlife Habitat Connectivity Working Group; **Sonia Hall**, The Nature Conservancy; **Brian Cosentino**, Washington Department of Fish and Wildlife; **Karl Halupka**, US Fish and Wildlife Service; **William Gaines**, Washington Conservation Science Institute; **Robert Long**, Western Transportation Institute, Montana State University

.....

Symposium: Integrating Systems, Disciplines and Stakeholders for More Effective Conservation Policies - From Climate Change to Endangered Species Restoration: Session I
Room 309

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): John Fitzgerald, J.D., Counsel to SCB

In order to conserve biodiversity and to have any chance that SCB will succeed in its mission, policies grounded in and tested by science and practice must be in place to ensure and reward proper management of resources and human actions that affect them. Decision-makers must draw from all relevant sciences and disciplines to form and adapt these rules and must include most or all stakeholders in forming these to ensure sufficient compliance. We are at a crossroads in modern society at which older policies or older enforcement modes are no longer adequate to ensure regional or global conservation, but the roots of reform can be found within our legal and administrative systems so that we need not start from scratch. This symposium will draw from leading experts in climate and earth science, ecological and energy economics, and cutting edge domestic and international law to identify both the roots of reform and the new growth that must be fostered across the legal and governmental systems of the world by using and serving stakeholders, not only as recipients but as drivers.

** Please note unique talk lengths in this symposium.*

10:30-10:35 Introduction to the Symposium -- Policies for a Viable Climate and Biosphere

John M. Fitzgerald, Counsel to SCB

10:35-11:00 Finding a Path to Stopping and then Reversing Climate Change

Michael MacCracken, Chief Scientist for Climate Change Programs, Climate Institute

11:00-11:15 Climate Change and Biodiversity: Problems and Solutions

Tom Lovejoy, Heinz Center for Science, Economics, and the Environment and George Mason University

11:15-11:45 The Clean Air Act and related Domestic Laws - Opportunities for Progress

Michael Gerrard, Columbia Law School Climate Law Center

11:45-12:15 The Role of Science in International Legal Action on Climate Change

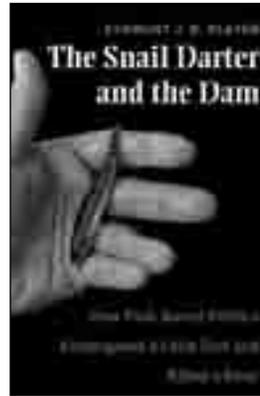
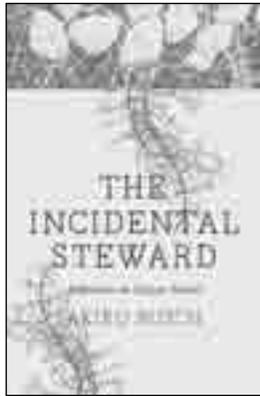
Carroll Muffett, Center for International Env'l Law

12:15-12:30 Climate Change - The Environmental and Economic Synergies of Taxes and Investments

James Barrett, Consultant and Visiting Fellow, American Council for an Energy Efficient Economy



NEW BOOKS FROM YALE



My Backyard Jungle

The Adventures of an Urban Wildlife Lover Who Turned His Yard into Habitat and Learned to Live with It
James Barilla

The Incidental Steward

Reflections on Citizen Science
Akiko Busch
Illustrated by Debby Cotter Kaspari

Ginkgo

The Tree That Time Forgot
Peter Crane
Foreword by Peter Raven

What I Don't Know About Animals

Jenny Diski

A Field Guide to the Ants of New England

Aaron M. Ellison, Nicholas J. Gotelli, Elizabeth J. Farnsworth, and Gary D. Alpert

Earthmasters

The Dawn of the Age of Climate Engineering
Clive Hamilton

The Puffin

Mike P. Harris and Sarah Wanless

The Carbon Crunch

How We're Getting Climate Change Wrong—and How to Fix It
Dieter Helm

Birthright

People and Nature in the Modern World
Stephen R. Kellert

The Snail Darter and the Dam

How Pork-Barrel Politics Endangered a Little Fish and Killed a River
Zygmunt J. B. Plater

Global Crisis

War, Climate Change and Catastrophe in the Seventeenth Century
Geoffrey Parker

Mariposa Road

The First Butterfly Big Year
Robert Michael Pyle

The Future of Nature

Documents of Global Change
Edited by Libby Robin, Sverker Sörlin, and Paul Warde

America the Possible

Manifesto for a New Economy
James Gustave Speth

The Bet

Paul Ehrlich, Julian Simon, and Our Gamble over Earth's Future
Paul Sabin

I to Myself

An Annotated Selection from the Journal of Henry D. Thoreau
Edited by Jeffrey S. Cramer

The Very Hungry City

Urban Energy Efficiency and the Economic Fate of Cities
Austin Troy

Arcadian America

The Death and Life of an Environmental Tradition
Aaron Sachs
New Directions in Narrative History

The Colorado Doctrine

Water Rights, Corporations, and Distributive Justice on the American Frontier
David Schorr
Yale Law Library Series in Legal History and Reference

New and recent in the Yale Agrarian Studies Series

All the Trees of the Forest

Israel's Woodlands from the Bible to the Present
Alon Tal

From Precaution to Profit

Contemporary Challenges to Environmental Protection in the Montreal Protocol
Brian J. Gareau

Dancing with the River

People and Life on the Chars of South Asia
Kuntala Lahiri-Dutt and Gopa Samanta

American Georgics

Writings on Farming, Culture, and the Land
Edited by Edwin C. Hagenstein, Sara M. Gregg, and Brian Donahue

To order Yale books at the ICCB conference discount, go to www.YaleBooks.com/science2013.

.....

Symposium: **Despite What You've Heard...Conservation Success in the Chesapeake Bay**
Session II

Room 310

Monday, July 22, 10:30 to 12:30

ORGANIZER(S): **Keryn Gedan**, *University of Maryland*; **Autumn-Lynn Harrison**, *Clemson University*

The Chesapeake Bay is one of the world's largest, most culturally treasured, and most productive estuaries—a scale that challenges and provides opportunities for conservation and management. Recent decades have been hard on Chesapeake Bay ecosystems and the people who depend on them. The wild oyster fishery that once shaped the region's cultural identity has collapsed, a seasonal dead zone plagues the Bay mainstem, and there is heavy dependence on the blue crab fishery. Despite notorious environmental problems, Chesapeake conservation practitioners have rallied a conservation ethic and pursued an ambitious conservation agenda.

Participants in this session have advanced that agenda and will discuss the triumphs and pitfalls of managing nutrients, fisheries, and habitats in the Chesapeake Bay. Nutrient management plans for the Chesapeake watershed are some of the strictest in the nation. Fisheries managers are facilitating a shift from wild harvest to bivalve aquaculture and embarking upon one of the largest marine restoration projects ever. Stakeholders from crabbing and farming communities steward conservation activities to preserve the Chesapeake cultural legacy. Finally, the session will include a presentation about the Bay Game, a data-intensive, educational simulation game that incorporates the complex issues of the Bay. In the Chesapeake Bay, people have transcended impressive disciplinary, cultural, and political boundaries to carry out conservation activities.

10:30 Nutrient overload to Chesapeake Bay: Where it comes from and ways to control it

Tom Jordan, *Smithsonian Environmental Research Center*; **Donald E. Weller**, *Smithsonian Environmental Research Center*; **David L. Correll**, *Smithsonian Environmental Research Center*; **Dennis F. Whigham**, *Smithsonian Environmental Research Center*; **Matthew E. Baker**, *University of Maryland, Baltimore County*

10:45 Multi-decade responses of a tidal creek system to nutrient load reductions: Mattawoman Creek, Maryland USA

Walt Boynton, *Chesapeake Biological Lab*; **C.L.S. Hodgkins**, **C. O'Leary**, **E. M. Bailey**, **A.R. Bayard**, and **L.A. Wainger**, *Chesapeake Biological Lab*

11:00 Farmers as stewards

Representatives of the **Maryland Soil and Water Conservation Districts** and the **Maryland Farm Stewardship Certification and Assessment Program**

11:15 Poultry litter management from a Stakeholder's perspective

Hobey Bauhan, *Virginia Poultry Federation*

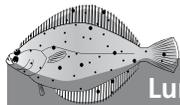
11:30 The Bay Game

Jeffrey Plank, *University of Virginia*

11:45 Looking back at the Chesapeake Futures Report, 10 years on

Don Boesch, *UMD Center for Environmental Science*

Open discussion follows from 12:00-12:30



Lunch Activities: 12:30 P.M. to 2:00 P.M.

- **SCB Groups Meetings**

SCB Chapters, Room 306

Working Group for Ecological Economics and Sustainability Science (EESS), Room 310

.....

- **Workshop: The Do's and Don'ts of Networking in Conservation (student workshop)**

Room 301

Organizer(s): ICCB Student Activities Committee

- **Workshop: Faculty/Researcher Training Resources for Research Ethics, Cultural Sensitivity and Community-based Research for Conservation Biology (Day 1 of 2)**

Room 302

Organizer(s): **Dianne Quigley**, *Northeast Ethics Education Partnership, Brown University*

- **Workshop: Highway Wilding - A Documentary Screening**

Room 303

Organizer(s): **Danah Duke**, *Miistakis Institute*; **Rachelle Haddock**, *Miistakis Institute*





- **Workshop: Social Science for the Next Generation of Conservation Scholars and Practitioners**
Room 307
Organizer(s): Daniel Miller, *University of Michigan*; Tara Teel, *Colorado State University*
- **Workshop: Introduction to a Biocultural Approach in Conservation Practice: Conceptual and Practical Tools for Linking Biological & Cultural Diversity**
Room 308
Organizer(s): Georgina Cullman, *Center for Biodiversity & Conservation, American Museum of Natural History*; Eleanor Sterling, *Center for Biodiversity & Conservation, American Museum of Natural History*



Early afternoon awards ceremony and plenary session: 2:00 P.M. to 3:30 P.M.

Grand Ballroom I&II
Monday, July 22, 14:00 to 15:30

AWARDS CEREMONY: EARLY CAREER CONSERVATIONIST AWARDS

The Early Career Conservationist Award is for achievement by professionals early in their careers (no more than 10 years since leaving school). Two recipients will receive the 2013 award.

Lucas Joppa leads the Conservation Science research unit at Microsoft Research Cambridge in UK, and is Scientific Advisor to UNEP-WCMC and the Global Environmental Facility. He was given the award for actively contributing science and technology to expanding and improving the Red List as well as co-founding “Technology for Nature,” a visionary initiative with the mission of technological advancement at the service of conservation research and enforcement.

James Watson leads the Climate Change Program for the Wildlife Conservation Society and co-chairs the IUCN SSC Climate Change Taskforce. He was given the award for his work that has crisscrossed academic and non-government institutions making an impact on conservation issues at local, regional, and global levels.

PLENARY SESSION

Conservation biology’s deep roots

Lee M. Talbot, *Professor of environmental science international affairs at George Mason University*

This plenary talk provides an overview of the evolution of what became conservation biology from its earliest historical roots in 300 BC India through local, national and international actions and organizations, national laws and international agreements. It will look at the challenges of the present, emphasizing the critical need to combine action with research.



AFTERNOON REFRESHMENTS BREAK
15:30 to 16:00
Exhibit Hall A



Climate Change

Room 301

Monday, July 22, 16:00 to 18:15 (Note, this session runs 15 minutes longer than others)

- 16:00 Impact of climate change on birds, reptiles, amphibians and butterflies in the Eastern Himalayas and their conservation strategies**
Bhoj Acharya, *Sikkim Government College, Tadong (Sikkim University)*; Basundhara Chettri, *Sikkim University*
- 16:15 Extinction risk assessment and red-listing of species threatened with climate change**
H. Resit Akcakaya, *Stony Brook University*; Jessica Stanton, *Stony Brook University*; Matthew Aiello-Lammens, *Stony Brook University*; Kevin Shoemaker, *Stony Brook University*; Richard Pearson, *American Museum of Natural History*
- 16:30 Explore science: Enter through the arts: Art-Based Perceptual Ecology, a novel research strategy used in collaboration with scientific inquiry**
Lee Ann Woolery, *University of Missouri*
- 16:45 Climate change and assisted colonization: A 5-year, 1000 km experiment with a southern Appalachian endemic forest plant, *Diphylleia cymosa***
Jesse Bellemare, *Smith College*; Jessamine Finch, *Smith College*; David Moeller, *University of Minnesota*
- 17:00 How is restoration different in an era of shifting climate? Lessons learned from a large-landscape, collaborative project in Montana**
Anne Carlson, *The Wilderness Society*; Travis Belote, *The Wilderness Society*
- 17:15 Finding the Right Tool(s) for Coastal Climate Change Vulnerability Assessment and Adaptation Planning**
Sarah Carr, *NatureServe- EBM Tools Network*; John Rozum, *NOAA Coastal Services Center- EBM Tools Network*; Patrick Crist, *NatureServe*
- 17:30 Establishing Indicators for Understanding Impacts of Climate Change on Ghana's Savannah Ecosystem**
Delali Dovie, *University of Ghana, Legon, Accra, Ghana*
- 17:45 Natural ecosystems as safety nets for smallholder farmers in the face of climate change: a case study from Madagascar**
Celia Harvey, *Conservation International*; Nalini Rao, *Conservation International*; Radhika Dave, *Conservation International*; Zo Lalaina Rakotobe, *Conservation International- Madagascar*; Hery Razafimahatratra, *Agricultural Sciences*; Rivo Hasinandrianina Rabarij, *IDACC*; James MacKinnon, *Conservation International- Madagascar*; Haingo Rajaofara, *Conservation International- Madagascar*
- 18:00 Cattle ranchers confront climate change and improve production: An evaluation of silvopastoral systems in the Coapa River watershed in Chiapas, Mexico**
Valerie Miller, *Colorado State University*; Britt Basel, *Colorado State University*; Michele Bratschun, *Colorado State University*; Jessica Fischer, *Colorado State University*

Community-Driven Conservation

Room 302

Monday, July 22, 16:00 to 18:00

- 16:00 Global FISH Alliance: Progress toward sustainable harvest of spiny lobster in Honduras**
Jennifer Barker, *FHI 360*; Roberto Martin, *FHI 360*; Patrick Christie, *University of Washington*; Barbara Best, *USAID*
- 16:15 Integrated Community-Based Avian Conservation Program**
Heather Barrett, *Belize Foundation for Research and Environmental Education (BFREE)*; James Rotenberg, *University of North Carolina Wilmington*; Jacob Marlin, *Belize Foundation for Research and Environmental Education (BFREE)*
- 16:30 Exploring Synergies and Tradeoffs in Outcomes of Community-Based Conservation Projects**
Jeremy Brooks, *The Ohio State University*; Kerry Waylen, *James Hutton Institute*
- 16:45 Healthy Family, Healthy Forest: Integrating Community Health and Conservation in Papua New Guinea**
Lisa Dabek, *Woodland Park Zoo*; Joan Castro, *PATH Foundation Philippines*; Janet Edmond, *Conservation International*
- 17:00 Social trust and governance: How modernization is creating a greater need for collaborative conservation**
Alia Dietsch, *Colorado State University*; Michael Manfredo, *Colorado State University*; Tara Teel, *Colorado State University*
- 17:15 Innovative Conservation Awareness Program Increases Stakeholder Participation and Protection for a Critically Endangered Frog In West Africa**
Caleb Ofori-Boateng, *Forestry Research Institute of Ghana*; David Amaning, *Herp Conservation, Ghana*; Prosper Antwi-Baffour, *A Rocha International, Ghana Programme*





17:30 Building social-ecological resilience to climate change through community-based coastal conservation and development: experiences from Madagascar

Kame Westerman, *Blue Ventures Conservation*; **Alasdair Harris**, *Blue Ventures Conservation*; **Kirsten Oleson**, *Blue Ventures Conservation*

17:45 The Role of Tibetan Buddhist Monasteries in Snow Leopard Conservation

Juan Li, *Center for Nature and Society, Peking University*; **Dajun Wang**, *Center for Nature and Society, Peking University*; **Hang Yin**, *Shanshui Conservation Center*; **Duojie Zhaxi**, *Qinghai Snowland Great Rivers Environmental Protection Association*; **Zhala Jiagong**, *Shanshui Conservation Center*; **George Schaller**, *Panthera*; **Charu Mishra**, *International Snow Leopard Trust*; **Tom McCarthy**, *Panthera*; **Hao Wang**, *Center for Nature and Society, Peking University*; **Lan Wu**, *Center for Nature and Society, Peking University*; **Lingyun Xiao**, *Center for Nature and Society, Peking University*; **Lamao Basang**, *Qinghai Forestry Department, Sanjiangyuan National Nature Reserve*; **Yuguang Zhang**, *Chinese Academy of Forestry*; **Yunyun Zhou**, *Chinese Academy of Forestry*; **Zhi Lu**, *Center for Nature and Society, Peking University*

.....
Forest Conservation

Room 303

Monday, July 22, 16:00 to 18:00

16:00 How much could Indonesia's moratorium on new oil palm and timber concessions reduce emissions from deforestation?

Jonah Busch, *Conservation International*; **Kemen Austin**, *World Resources Institute*; **Alessandro Baccini**, *Woods Hole Research Center*

16:15 Testing the Sustainability of Boreal Clearcut Logging: Forest Age and Habitat Structure

Jay Malcolm, *Faculty of Forestry*; **Erica Barkley**, *Faculty of Forestry*; **Mike Burrell**, *Faculty of Forestry*; **Brian Campbell**, *Faculty of Forestry*; **Terrance Carleton**, *Faculty of Forestry*; **James Dennis**, *Faculty of Forestry*; **Alison Fischer**, *Faculty of Forestry*; **Tomasz Gradowski**, *Faculty of Forestry*; **Ben Kuttner**, *Faculty of Forestry*; **Mark Newman**, *Faculty of Forestry*; **Geoff Sherman**, *Faculty of Forestry*; **Charlotte Sharkey**, *Faculty of Forestry*; **Alissa Sugar**, *Ontario Ministry of the Environment*; **Agnieszka Sztaba**, *Faculty of Forestry*; **Mark Vanderwel**, *Faculty of Forestry*

16:30 Faunal refuges in fire-prone landscapes: does planned fire moderate the impact of mega-fire on bird assemblages?

Natasha Robinson, *La Trobe University*; **Michael Clarke**, *La Trobe University*; **Andrew Bennett**, *Deakin University*; **Steve Leonard**, *La Trobe University*

16:45 Responses of Ground Beetles (Coleoptera: Carabidae) to Experimental Manipulation of Woody Debris Supply in Boreal Northeastern Ontario

Paul Piascik, *University of Toronto*; **Jay Malcolm**, *University of Toronto*; **Sandy Smith**, *University of Toronto*

17:00 Implications of protected area downgrading, downsizing and degazettement for reducing emissions from deforestation and forest degradation (REDD)

Jessica Forrest, *World Wildlife Fund - US*; **Sharon Pailler**, *Clark University*; **Michael Mascia**, *World Wildlife Fund - US*; **Siti Zuraidah Abidin**, *WWF Malaysia*; **Mara Deza**, *WWF Peru*; **Roopa Krithivasan**, *World Wildlife Fund - US*; **Juan Carlos Riveros**, *WWF Peru*

17:15 Achieving forest conservation and human well-being: REDD+ efforts in Indonesia and Brazil

Supin Wongbusarakum, *The Nature Conservancy*

17:30 Social Effects of Forest Stewardship Council Certification in the Tropics and an Assessment of Methodology in Effect Evaluation

Katherine Zdilla, *University of Maryland*; **Maile Neel**, *University of Maryland*

17:45 *Open discussion*

.....
Conservation Modeling

Room 304

Monday, July 22, 16:00 to 18:00

16:00 A Multivariate Model of Stakeholder Conflict over the Lethal Management of Outdoor Cats

Dara Wald, *University of Florida*; **Susan Jacobson**, *University of Florida*

16:15 Achieving 'No Net Loss' of Biodiversity: How the Outcome of Conservation Interventions Depends upon the Choice of Baseline

Joseph Bull, *Imperial College London*; **Ascelin Gordon**, *RMIT*; **Elizabeth Law**, *University of Queensland*; **Kenwyn Suttle**, *Imperial College London*; **E.J. Milner-Gulland**, *Imperial College London*

- 16:30 Modeling the recovery of the endangered black-footed ferret in a linked predator-prey-disease system**
Kevin Shoemaker, *Stony Brook University*; **Resit Akcakaya**, *Stony Brook University*; **Michelle Verant**, *USGS National Wildlife Health Center*; **Philip Miller**, *IUCN-SSC Conservation Breeding Specialist Group*; **Damien Fordham**, *University of Adelaide*; **Robert Lacy**, *Chicago Zoological Society*; **Travis Livieri**, *Prairie Wildlife Research*; **Barry Brook**, *University of Adelaide*
- 16:45 Size and Spacing Rules for Marine Protected Areas: Useful or Not?**
Rachel Fovargue, *University of Tennessee Knoxville*; **Paul Armsworth**, *University of Tennessee Knoxville*; **Michael Bode**, *University of Melbourne, Australia*
- 17:00 Wildlife Connectivity Planning: A Practitioner's On-line Guide**
Mary Harkness, *NatureServe*; **Patrick Crist**, *NatureServe*; **Patrick Comer**, *NatureServe*
- 17:15 Selection of conservation areas under severe uncertainty of population dynamics in future**
Hiroyuki Yokomizo, *National Institute for Environmental Studies*; **Taku Kadoya**, *National Institute for Environmental Studies*
- 17:30 Modelling Mussel Population Dynamics with Fish Host Density Dependence: Research Needs to Answer Management Questions**
Jennifer Young, *MSc., Fisheries and Oceans Canada*; **Marten Koops**, *Fisheries and Oceans Canada*; **Todd Morris**, *Fisheries and Oceans Canada*
- 17:45 Population-level impacts of endemic disease on direct-developing frogs in the Caribbean**
Penny Langhammer, *Arizona State University*; **Karen Lips**, *University of Maryland*; **James Collins**, *Arizona State University*; **Patricia Burrowes**, *University of Puerto Rico*

.....

Behavioral Ecology and Conservation 2

Room 305

Monday, July 22, 16:00 to 18:00

- 16:00 Song variation in Grasshopper Sparrows (*Ammodramus savannarum*) with an emphasis on the critically endangered Florida subspecies (*A. s. floridanus*)**
Bernard Lohr, *University of Maryland Baltimore County*; **Brian Rolek**, *University of Maine*; **Aymen Hussein**, *University of Maryland Baltimore County*
- 16:15 Behaviour and habitat associations of the Liben Lark *Heteromirafra sidamoensis*, Southern Ethiopia**
Bruktawit Mahamued, *Manchester Metropolitan University*; **Afework Bekele**, *Addis Ababa University*; **Paul Donald**, *Royal Society for the Preservation of Birds*
- 16:30 Identification of northern pike spawning sites in Riding Mountain National Park, using VHF telemetry**
Christopher Malcolm, *Brandon University*
- 16:45 Linking social environment and stress physiology in feral mares (*Equus caballus*): group transfers elevate fecal cortisol levels?**
Cassandra Nunez, *Virginia Polytechnic Institute and State University*; **James Adelman**, *Virginia Polytechnic Institute and State University*; **Daniel Rubenstein**, *Princeton University*
- 17:00 Present and future landscape connectivity for bobcat and lynx in the northeastern United States**
Laura Farrell, *University of Vermont*; **Daniel Levy**, *University of Vermont*; **Terri Donovan**, *University of Vermont*; **Kim Royar**, *Vermont Fish and Wildlife Department*; **Mark Freeman**, *University of Vermont*; **C. William Kilpatrick**, *University of Vermont*
- 17:15 Assessing changes in the forest bird community after experimental prescribed burns, with a little insight from the scarlet robin**
Sarah Kelly, *La Trobe University*; **Michael Clarke**, *La Trobe University*; **Andrew Bennett**, *Deakin University*; **Rowan Mott**, *La Trobe University*; **Greg Holland**, *Deakin University*; **Anna Flanagan-Moodie**, *Deakin University*
- 17:30 Exploring how light color affects nocturnal migrants in an urban landscape**
J. Alan Clark, *Fordham University*; **Christine Sheppard**, *American Bird Conservancy*; **Janet Starwood**, *Audubon Pennsylvania*
- 17:45 Behavior, hyperstability, and population declines of an aggregating marine fish**
Scott Heppell, *Oregon State University*; **Brice Semmens**, *Scripps Institute of Oceanography*; **Christy Pattengill-Semmens**, *Reef Environmental Education Foundation*; **Phillippe Bush**, *Cayman Islands Department of Environment*; **Croy McCoy**, *Cayman Islands Department of Environment*; **Bradley Johnson**, *Cayman Islands Department of Environment*

.....

Inventory and Monitoring

Room 306

Monday, July 22, 16:00 to 18:00

- 16:00 Advancements in wildlife recognition, monitoring and targeted control tools**
Helen Blackie, *Lincoln University and Connovation Ltd*; Ian Woodhead, *Lincoln Agritech Ltd*; Duncan MacMorran, *Connovation Ltd*; Charles Eason, *Cawthron Institute*; Shane Inder, *Auckland University of Technology*; Jamie MacKay, *University of Auckland*; Brent Barrett, *Centre for Wildlife Management and Conservation*
- 16:15 Updating the geographical distribution of the critically endangered Niceforo's Wren (*Thryothorus nicefori*)**
Oscar Ramos, *Fundación Conserva/Universidad de Los Andes*; Jorge Parra, *Fundación Conserva*; Alexandra Delgadillo, *Fundación Conserva*; Sandra Valderrama, *Fundación Conserva*; Marcela Beltran, *Fundación Conserva*; Diana Guzman, *Fundación Conserva*; Johana Delgadillo, *Fundación Conserva*
- 16:30 Automated identification of bees and dragonflies**
Nidhi Dharithreesan, *NJIT*; William Kuhn, *Rutgers University*; Gareth Russell, *NJIT*; Kimberly Russell, *NJIT*
- 16:45 Conserving biodiversity and ecosystem services through CI's Rapid Assessment Program (RAP+) in Suriname**
Trond Larsen, *Conservation International*
- 17:00 Automated Acoustic Recording to Monitor Breeding Songbirds in the Mountainous Forests of SW China**
Sheng Li, *School of Life Sciences, Peking University*; Songqiao Su, *Peking University*; Yiju Wang, *Institute of Ecology and Evolutionary Biology, National Taiwan University*; Dajun Wang, *Peking University*
- 17:15 Tracking change in wildlife populations: the Living Planet Index database**
Louise McRae, *Institute of Zoology, Zoological Society of London*; Ben Collen, *Institute of Zoology, Zoological Society of London*
- 17:30 An underwater, camera-based, automatic identification system for coral reef fish: a prototype of a continuous monitoring network for reef populations**
Gareth Russell, *New Jersey Institute of Technology*; Joseph Wilder, *Rutgers University*
- 17:45 Genetic Connectivity at Wildlife Crossing Structures in Banff National Park**
Michael Sawaya, *Sinopah Wildlife Research Associates*; Steven Kalinowski, *Montana State University*; Anthony Clevenger, *Western Transportation Institute*

.....

Sustainable Agriculture & Ecosystem Functions and Services

Room 307

Monday, July 22, 16:00 to 18:00

- 16:00 Assessment of Coffee Agroforestry as Habitat for Mammals: Sustainable Conservation Strategies for Biodiversity Protection**
S. Amanda Caudill, *University of Rhode Island*; Thomas Husband, *University of Rhode Island*; Fabrice DeClerck, *Biodiversity International*
- 16:15 Protecting forests outside parks: land sparing after a deforestation ban in northern Costa Rica**
Matthew Fagan, *Columbia University*; Ruth DeFries, *Columbia University*; Steven Sesnie, *US Fish and Wildlife Service*; J. Pablo Arroyo-Mora, *McGill University*; Wayne Walker, *Woods Hole Research Center*; Carlomagno Soto, *McGill University*; Robin Chazdon, *University of Connecticut*; Andres Sanchun, *FUNDECOR*
- 16:30 Implication for management and conservation of species-rich temperate grasslands from an interdisciplinary research project in Central Europe**
Valentin Klaus, *University of Münster, Germany*; Till Kleinebecker, *University of Münster*; Steffen Boch, *University of Bern*; Jörg Müller, *University of Potsdam*; Stephanie Socher, *University of Bern*; Daniel Prati, *University of Bern*; Barbara Schmitt, *University of Bern*; Nico Blüthgen, *University of Darmstadt*; Markus Fischer, *University of Bern*; Norbert Hölzel, *University of Münster*
- 16:45 Evaluating Biodiversity Outcomes from Certification of Shade-Grown Crops**
Melissa Mark, *Columbia University E3B*; Arshiya Bose, *University of Cambridge*
- 17:00 Aligning global and local ecosystem services: An interdisciplinary examination of forest benefits in lowland Papua New Guinea**
Bridget Henning, *University of Minnesota*
- 17:15 Native bees and large-scale organic farming: Are sufficient pollination services provided?**
Sarah Kornbluth, *Rutgers University*; Kimberly Russell, *New Jersey Institute of Technology*; Gareth Russell, *New Jersey Institute of Technology*



17:30 Indigenous subsistence harvest in the Arctic: a sustainable socio-ecological system?

Per Fauchald, *Norwegian Institute for Nature Research*; Vera Hausner, *University of Tromsø*

17:45 Enlisting Ecosystem Services: A Trade-Offs Analysis on Military Training Land

Guy Ziv, *Natural Capital Project, Stanford University*; Shan Ma, *Natural Capital Project, Stanford University*; Jennifer Duggan, *University of Washington*; Bradley Eichelberger, *Natural Capital Project, Stanford University*; Gretchen Daily, *Stanford University*

.....
Marine Conservation

Room 308

Monday, July 22, 16:00 to 18:00

16:00 The devil is not in the detail: Using rapid social science assessments to identify socioeconomic baselines in 'data-poor' conservation situations

Daria Bednarczyk, *School for Field Studies*; Ellen Splain, *The School for Field Studies*; Edward Hind, *The School for Field Studies*

16:15 Expanding the Network Perspective: Understanding Social Networks and the Implications for MPA Effectiveness

Steven Alexander, *Environmental Change & Governance Group, University of Waterloo*; Derek Armitage, *Environmental Change & Governance Group, University of Waterloo*

16:30 Population assessments of a living fossil, the chambered nautilus, in the Indo-Pacific using baited remote underwater video systems (BRUVS)

Gregory Barord, *CUNY Graduate Center and Brooklyn College*; Andrew Dunstan, *Queensland University*; Anthony Ilano, *University of San Carlos*; Peter Ward, *University of Washington*

16:45 Canada's saltwater cities and marine biodiversity

Sean Brilliant, *Canadian Wildlife Federation*; Patrick Nussey, *Canadian Wildlife Federation*

17:00 Towards monitoring global penguin population change

Ben Collen, *Institute of Zoology*; Louise McRae, *Institute of Zoology*; Tom Hart, *University of Oxford*

17:15 Applied Science for Management of Marine Offshore Energy Resources

Michael Rasser, *Bureau of Ocean Energy Management*

17:30 Deep star shift: Turnover of bathyal brittle stars (Ophiuroidea) across Australia and New Zealand

Skipton Woolley, *School of Botany*; Timothy O'Hara, *Museum Victoria*; Brendan Wintle, *Quantitative and Applied Ecology Group, School of Botany*; Piers Dunstan, *CSIRO Wealth from Oceans Flagship*

17:45 A global risk assessment for marine debris impacts on seabirds

Chris Wilcox, *CSIRO Australia*; Denise Hardesty, *CSIRO Australia*; Erik van Sebille, *University New South Wales*

.....
Recovery of Endangered Species

Room 309

Monday, July 22, 16:00 to 18:00

16:00 Optimal release strategies for reintroductions: cost-effective wild and captive populations

Stefano Canessa, *ARC Centre of Excellence for Environmental Decisions*; David Hunter, *New South Wales Office of Environment and Heritage*; Michael McFadden, *Herpetofauna Division, Taronga Zoo*; Gerry Marantelli, *Amphibian Research Centre*; Michael McCarthy, *ARC Centre of Excellence for Environmental Decisions*

16:15 Re-evaluating persistence objectives in conservation planning: are lower thresholds or species-specific targets more cost-effective?

Martina Di Fonzo, *University of Queensland*; Hugh Possingham, *University of Queensland*; Will Probert, *University of Queensland*; Joseph Bennett, *University of Queensland*; Shaun O'Connor, *Department of Conservation, New Zealand*; Jodie Densem, *Department of Conservation, New Zealand*; Liana Joseph, *Wildlife Conservation Society*; Ayesha Tulloch, *University of Queensland*; Richard Maloney, *Department of Conservation*

16:30 A tale of two flagship species - Does panda conservation further endanger snow leopard in Sichuan, China?

Wei Liu, *International Institute for Applied Systems Analysis*

16:45 Assessment of Extinction Risk of the Colombian Birds Eleven Years Later

Luis Miguel Renjifo, *Pontificia Universidad Javeriana*; Angela María Amaya, *Pontificia Universidad Javeriana*; Jaime Burbano, *Pontificia Universidad Javeriana*; María Fernanda Gómez, *Instituto Alexander von Humboldt*; Jorge Iván Velázquez, *Instituto Alexander von Humboldt*





17:00 The Conservation Manager's Dilemma: Save more species with higher risk of management failure or fewer species with greater chance of succeeding?

Ayesha Tulloch, *Centre for Biodiversity & Conservation Science*; **Hugh Possingham**, *Centre for Biodiversity & Conservation Science*; **Liana Joseph**, *Wildlife Conservation Society*; **Joe Bennett**, *Centre for Biodiversity & Conservation Science*; **Martina Di Fonzo**, *University of Queensland*; **Will Probert**, *Centre for Biodiversity & Conservation Science*; **Richard Maloney**, *Science and Technical Group*

17:15 A National Focus on Orchid Conservation and Restoration

Gary Krupnick, *National Museum of Natural History*; **Dennis Whigham**, *Smithsonian Environmental Research Center*; **Melissa McCormick**, *Smithsonian Environmental Research Center*

17:30 Keep on Counting; the importance of long term monitoring in reintroduction programs

Katherine Moseby, *Arid Recovery*; **John Read**, *Ecological Horizons*; **David Paton**, *The University of Adelaide*; **Adam Bester**, *Arid Recovery*; **Steven Delean**, *The University of Adelaide*

17:45 Recovery planning for threatened species in Mexico: achievements, challenges and the future

Alex Ortega-Argueta, *El Colegio de la Frontera Sur*; **Ana Allen-Amescua**, *Pladeyra*

.....
Conservation Genetics

Room 310

Monday, July 22, 16:00 to 18:00

16:00 Finding efficiency in amphibian conservation: How well do rapid assessments of genetic viability predict long-term population trends?

Jonathan Richardson, *Yale School of Forestry & Environmental Studies*; **Robin Waples**, *Northwest Fisheries Science Center*; **David Skelly**, *Yale School of Forestry & Environmental Studies*

16:15 The role of directed dispersal by shepherding on population genetic connectivity across the landscape

Yessica Rico, *University of Toronto*; **Helene Wagner**, *University of Toronto*; **Hans Juergen Boehmer**, *Interdisciplinary Latin America Center (ILZ), University of Bonn*; **Rolf Holderegger**, *WSL Swiss Federal Research Institute*

16:30 Specialists can have high genetic diversity in small patches

Uri Shanas, *University of Haifa-Oranim*; **Elad Peled**, *University of Haifa*; **Rachel Ben-Shlomo**, *University of Haifa-Oranim*

16:45 Evaluating genetic theory for long-term conservation of isolated populations: A case study on cutthroat trout

Kellie Carim, *University of Montana*; **Craig Barfoot**, *Confederated Salish Kootenai Tribes*; **Lisa Eby**, *University of Montana*; **Matt Boyer**, *Montana Fish Wildlife and Parks*

17:00 Comparing the efficacy and impact of genetic sampling techniques for amphibians

Claire Keely, *The University of Melbourne*; **Geoffrey Heard**, *The University of Melbourne*; **Joanna Sumner**, *Museum Victoria*; **Kirsten Parris**, *The University of Melbourne*; **Jane Melville**, *Museum Victoria*

17:15 Evaluating the potential resiliency of *Vallisneria americana* in the Potomac River (USA) using individual-based networks of genetic distances

Brittany Marsden, *University of Maryland College Park*; **Maile Neel**, *University of Maryland College Park*; **Michael Lloyd**, *University of Maryland College Park*

17:30 Ocean basins and pathogen pressures drive genetic differentiation of Magellanic Penguin breeding colonies of the Atlantic and Pacific Oceans

Juan Bouzat, *Bowling Green State University*; **Amanda Lyons**, *Bowling Green State University*; **Gabrielle Knafner**, *Bowling Green State University*; **Dee Boersma**, *University of Washington*

17:45 Evaluating the transfer of genetic diversity from the captive to the reintroduced population of golden lion tamarins, *Leontopithecus rosalia*

Jennifer Mickelberg, *Zoo Atlanta*; **Jonathan Ballou**, *Smithsonian Conservation Biology Institute*; **Benjamin Beck**, *Save the Golden Lion Tamarin*; **Andreia Martins**, *Golden Lion Tamarin Association*



• **Special Evening Plenary Panel:**

18:00 to 19:00, Grand Ballroom I&II

Why is “advocacy” such a “four-letter word” for scientists?

This keynote and discussion panel will draw from conservation scientists that have been outspoken leaders in translating science to policy, including a facilitated discussion regarding the appropriate role of scientists who “advocate” a policy position.

Keynote: Tyrone Hayes (20 min)

Panel: Dominick DellaSala (5 min), Stuart Pimm (5 min), other (5 min)

Audience Q&A facilitated by Paul Beier (20 min)

.....

• **Poster Session and Cash Bar (See full listing following pages)**

18:00 to 20:00, Exhibit Hall A

.....

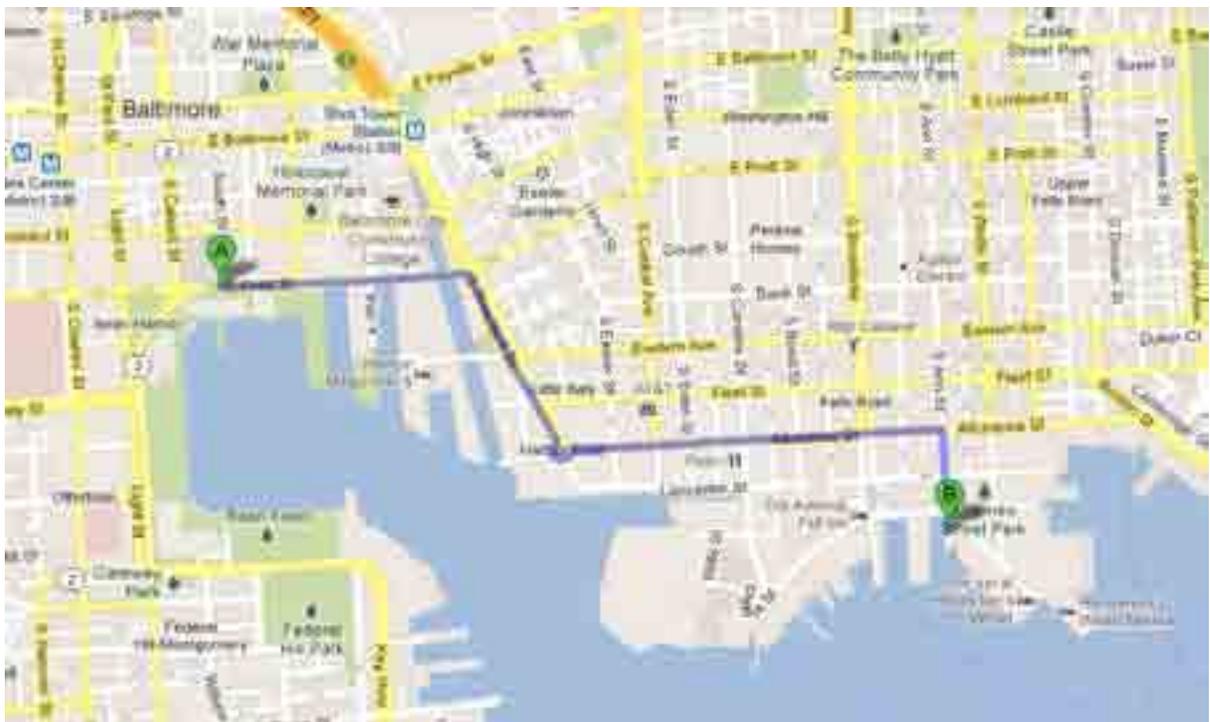
• **SCB Marine and Oceania Sections Social**

19:30 to 22:00, Meet at the dock at 913 S. Ann Street - Urban Pirate

Celebrate and get to know two of SCB’s seven Sections at this sensational pirate-themed social! Mix and mingle with members from the Marine and Oceania Sections on a cruise around the Inner Harbor. Boarding will begin at 7:30pm and passengers MUST be checked in no later than 7:45pm. There are 50 spaces on the trip – first come, first served !

There will be wine (from a local Virginian vineyard) or bring your own bottle / grog !

See map below for walking route. It takes at least 30 minutes to walk to the dock from the conference center or for a speedier trip take an inner harbor to fells point water taxi (\$7 one way; \$12 all day pass; run every 15 minutes www.baltimorewatertaxi.com)





Adaptive Management and Monitoring

- 1 **Estimating status and trends of terrestrial mammals from camera trap data: a tool for conservation.**
Jorge Ahumada, *Conservation International*; Johanna Hurtado, *Organizacion de Estudios Tropicales*; Diego Lizcano, *Universidad de Pamplona*
- 2 **Bioindicators to assess the importance of different stressors threatening plant species of conservation concern**
Bernd Blossey, *Cornell University*; Brian Greene, *Cornell University*
- 3 **Automated acoustic sensors for inland monitoring of endangered Marbled Murrelets (*Brachyramphus marmoratus*)**
Abraham Borker, *University of California - Santa Cruz*; Matthew McKown, *McKown*; Donald Croll, *University of California - Santa Cruz*; Portia Halbert, *California State Park*; Bernie Tershy, *University of California - Santa Cruz*; Cody Sullivan, *University of California - Santa Cruz*
- 4 **Video graphic Study on Brown Kiwi (*Apteryx mantelli*) Juvenile Behavior in Captivity**
Kathy Brader, *Smithsonian National Zoo*; Ken Wesley, *University of Vermont*
- 5 **General Framework for Gathering Data to Quantify Annual Visitation on Coastal Reserves**
Jeffery Hill, *University of North Carolina Wilmington*; Anthony Snider, *University of North Carolina Wilmington*; Susan Simmons, *University of North Carolina Wilmington*; James Herstine, *University of North Carolina Wilmington*
- 6 **Transforming Restoration on Public Lands through Collaborative Management:**
Rebecca Lloyd, *Yellowstone to Yukon Conservation Initiative*
- 7 **Scaling-Up Adaptive Management from Individual Projects to Aggregate Programs**
Nick Salafsky, *Foundations of Success*; Matt Deniston, *Sitka Technology Group*; Brian Knowles, *Sitka Technology Group*; Dan Salzer, *The Nature Conservancy*
- 8 **Biodiversity conservation and livelihood adaptation in the context of changing climate in eastern Madagascar**
Jeannin Ranaivonasy, *Forestry Dept, School of Agronomy University of Antananarivo, Madagascar*; Joelisoa Ratsirarson, *Forestry Dept, School of Agronomy University of Antananarivo, Madagascar*
- 9 **Biodiversity risk assessment and conservation challenges in southern Madagascar**
Joelisoa Ratsirarson, *University of Antananarivo*; Jeannin Ranaivonasy, *University of Antananarivo*; Alison Richard, *Yale University*
- 10 **Rethinking the integration of conservation science, stakeholder engagement and biodiversity protection in China**
Nathan Schulfer, *University of Wisconsin - Madison Nelson Institute for Environmental Studies*; Janet Silbernagel, *University of Wisconsin - Madison Nelson Institute for Environmental Studies*; Adrian Treves, *University of Wisconsin - Madison Nelson Institute for Environmental Studies*; Ming Hua, *University of Wisconsin - Madison Nelson Institute for Environmental Studies*
- 11 **Mapping Human Impacts to Ecosystem Services in British Columbia**
Gerald Singh, *University of British Columbia*; Kai Chan, *University of British Columbia*; Ian Eddy, *University of British Columbia*
- 12 **The use of conceptual frameworks and models to inform the selection of ecosystem indicators for Puget Sound recovery**
Constance Sullivan, *Puget Sound Partnership*; Scott Redman, *Puget Sound Partnership*; Kari Styles, *Puget Sound Institute*; Sandra O'Neill, *NOAA*; Tracy Collier, *Puget Sound Partnership*
- 13 **New population estimations and the recategorization of the threatened Borrowing parrot: implication for conservation**
Renzo Vargas-Rodriguez, *Departamento de Biología, Universidad de La Serena, IEB, CEAZA.*; Francisco Squeo, *Departamento de Biología, Universidad de La Serena, IEB, CEAZA.*
- 14 **Tourism In Vulnerable Ecosystems Of Kamchatka: Impacts And Management (On Example Of Kronotsky Natural Reserve, Kamchatka, Russia)**
Anna Zavadszkaya, *Kronotsky State Natural Biosphere Preserve*; Vasily Yablokov, *Lomonosov Moscow State University*

Alien and Invasive Species

- 15 **Local distribution of native and invasive earthworms and effects on a native salamander**
Tami Ransom, *Salisbury University*
- 16 **Early Detection and Rapid Response to the Invasive European Marsh Thistle, *Cirsium palustre* L. (Asteraceae)**
Donna Vogler, *State University of New York- Oneonta*; Eamonn Hinchey, *State University of New York- Oneonta*





- 17 **Larval settlement of *Crassostrea virginica* with non-native *Perna viridis*, *Mytella charruana*, and *Megabalanus coccopoma***
Wei Yuan, *University of Central Florida*; Linda Walters, *University of Central Florida*; Eric Hoffman, *University of Central Florida*

Behavioral Ecology and Conservation

- 18 **Diversity and Conservation Status of Andean Amphibians from the Tama National Natural Park - Colombia**
Aldemar Acevedo, *Ecology and Biogeography Research Group, Universidad de Pamplona*; Rosmery Franco, *Ecology and Biogeography Research Group, Universidad de Pamplona*; Karen Silva, *Ecology and Biogeography Research Group, Universidad de Pamplona*
- 19 **Nutritional comparison of larval hellbender (*Cryptobranchus alleganiensis*) diets in captivity and in the wild**
Lauren Augustine, *Smithsonian National Zoological Park*; Kimberly Terrell, *Smithsonian Conservation Biology Institute*; Christina Petzinger, *Smithsonian's National Zoological Park*; Michael Maslanka, *Smithsonian's National Zoological Park*; Bradley Nissen, *Center for Animal Care Sciences, Smithsonian's National Zoological Park*
- 20 **Extinction of behaviors: the evolutionary consequences of anthropogenically induced behaviors**
Oded Berger-Tal, *Ben-Gurion University of the Negev*; David Saltz, *Ben-Gurion University of the Negev*
- 21 **Local and landscape-scale habitat selection in five boreal birds threatened by climate change**
Andrea Blowers, *Utica College*; Kyle Ford, *Utica College*; Sara Scanga, *Utica College*; Joel Ralston, *Utica College*
- 22 **Scraping behavior of black rhinos (*Diceros bicornis bicornis*) is related to age and fecal progesterone metabolite concentrations**
Elizabeth Freeman, *George Mason University*; Jordana Meyer, *Freewalker Volunteer & Adventure for Charity*; John Addendorf, *South African National Parks*; Bruce Schulte, *Western Kentucky University*; Rachel Santymire, *Lincoln Park Zoo*
- 23 **Integrating dietary and intestinal parasite data to improve the conservation strategies of the Bioko Island drill (*Mandrillus leucophaeus poensis*)**
Jacob Owens, *Drexel University*; Gail Hearn, *Drexel University*; Shaya Honarvar, *Drexel University*
- 24 **Heterozygosity-fitness correlations and male territory size in a salamander with limited dispersal**
Eric Liebgold, *Salisbury University*; Tamar Roomian, *National Human Genome Research Institute*; Gina Sorce, *Salisbury University*; Christian Kramer, *Salisbury University*; Paul Cabe, *Washington & Lee University*
- 25 **Spatiotemporal patterns of primate abundance and mixed-species association in a heavily hunted Cameroonian forest: implications for conservation action**
Joshua Linder, *James Madison University*; Erin Knight, *James Madison University*; Christos Astaras, *WildCRU*; Matthias Waltert, *Georg-August University*; David Okon, *WWF-Cameroon Coastal Forests Programme*; Richard Lawler, *James Madison University*
- 26 **Perception of tourism's contribution to the care of nature in Puerto Vallarta Jalisco Mexico.**
Carlos López Fletes, *Universidad de Guadalajara*; Rosa Chavez Dagostino, *Universidad de Guadalajara*; Valentina Davydova Belitskaya, *Universidad de Guadalajara*
- 27 **Applying Stress Hormones to Conservation Biology: The Value of a Context-Dependent Approach**
Christine Madliger, *University of Windsor*; Oliver Love, *University of Windsor*
- 28 **The role of social behavior in buffering extinction risk: Persistence of the endangered cooperatively breeding White-breasted Thrasher**
Jennifer Mortensen, *Tufts University*; Michael Reed, *Tufts University*
- 29 **What Three Social Science Theories Applied to Animals and Human-Animal Relations Reveal About Gray Wolf (*Canis lupus*) Conservation**
Elizabeth Oriel, *Social and Environmental Research Institute*
- 30 **Social networking in African forest elephants: Hidden associations, but disconnected population**
Stephanie Schuttler, *University of Missouri*; Jessica Philbrick, *University of Missouri*; Alden Whittaker, *Wildlife Conservation Society*; Kathryn Jeffery, *Agence Nationale des Parcs Nationaux*; Lori Eggert, *University of Missouri*





Biogeography

- 31 Biogeography of eel larvae in surface and subsurface waters of the Sargasso Sea**
Anne Scofield, *Sea Education Association*; Amy Siuda, *Sea Education Association*
- 32 Dynamics of large mammal range shifts and extinction: evidence from the Holocene record of Europe**
Jennifer Crees, *Zoological Society of London*
- 33 Failure to Account for Surface Area of Species' Ranges May Overestimate Extinction Risk of Montane Birds**
J. Berton C. Harris, *Princeton University*; Martin Breed, *Australian Centre for Evolutionary Biology and Biodiversity*; Juan Freile, *Fundacion Numashir*; Melissa Ocana, *Stonybrook-Millstone Watershed Association*
- 34 Optimizing Global Conservation Priorities**
Lucas Joppa, *Microsoft Research*; Piero Visconti, *Microsoft Research*; Clinton Jenkins, *North Carolina State University*; Stuart Pimm, *Duke University*
- 35 Conservation Biogeography of the Amphibians and Reptiles of Cambodia, Lao PDR, and Vietnam**
Martha Hurley, *Center for Biodiversity and Conservation, AMNH and Global Wildlife Conservation*; Raoul Bain, *Div Vert Zool (Herpetology) and Center for Biodiversity and Conservation, AMNH*

Biological Pollution (Sewage, Nutrients etc.)

- 36 Hormonal changes in a hermaphroditic fish exposed to ethinyl estradiol**
Elizabeth Lee, *The University of Alabama*; Ryan Earley, *The University of Alabama*

Citizen Science /Public Participation in Science

- 37 eMammal - A solution for broad-scale, long-term monitoring of wildlife populations**
Tavis Forrester, *Smithsonian Institution*; Roland Kays, *North Carolina Museum of Natural Sciences*; Bill McShea, *Smithsonian Institution*; Robert Costello, *Smithsonian Institution*; Megan Baker, *Smithsonian Institution*; Arielle Parsons, *North Carolina Museum of Natural Sciences*
- 38 On the watch for Sasquatch: How the study of charismatic mythofauna can better inform the use of anecdotal observations in citizen science programs**
Leila Hadj-Chikh, *AEGIS Research Fund*

Climate Change

- 39 Building climate change adaptation practice by convening the field. Lessons learned and tips traded at the National Adaptation Forum**
Lara Hansen, *EcoAdapt*; Amber Pairis, *California Department of Fish and Wildlife*
- 40 Incorporating climate change into habitat suitability assessments for species reintroductions.: 06:00 PM - 08:00 PM**
Brian Hudgens, *Institute for Wildlife Studies*; **Julie Youn**, *Utah State University*; **Erin Boydston**, *USGS Western Ecological Research Center*; **Lorraine Flint**, *USGS*; **Alan Flint**, *USGS*; **Jessica Lundquist**, *University of Washington*
- 41 Embracing climate change uncertainty: chorus frog functional connectivity in a changing environment**
Melanie Murphy, *University of Wyoming*; W. Chris Funk, *Colorado State University*; Erin Muths, *USGS*; Jeffrey Evans, *The Nature Conservancy*
- 42 Modelling climate change impacts on key tree species used by lion tamarins in the Brazilian Atlantic Forest**
Nima Raghunathan, *University of Liege*; Louis François, *University of Liege*; Alain Hambuckers, *University of Liege*
- 43 Potential changes of feeding behaviors of Antarctic fish at Syowa Station, Antarctica**
Vorano Viyakorn, *Chulalongkorn University*; Suchana Chavanich, *Chulalongkorn University*; Daiki Nomura, *National Institute of Polar Research*; Kentaro Watanabe, *National Institute of Polar Research*
- 44 Simulating the impact of sea level rise on the intertidal oyster *Crassostrea virginica***
Linda Walters, *University of Central Florida*; Joshua Solomon, *University of Central Florida*; Jennifer Manis, *University of Central Florida*; Melinda Donnelly, *University of Central Florida*; Paul Sacks, *University of Central Florida*





Communications, Outreach and Education

- 45 Student Interpretation of Conservation Data: Does their Reach Exceed their Grasp?**
Michelle Cawthorn, *Georgia Southern University*; Eleanor Sterling, *Center for Biodiversity and Conservation*; Ana Luz Porzecanski, *Center for Biodiversity and Conservation*; Adriana Bravo, *Center for Biodiversity and Conservation*; Nora Bynum, *Nicholas School for the Environment*; Laurie Freeman, *Fulton-Montgomery Community College*; Stuart Ketcham, *Division of Science and Mathematics*; Tim Leslie, *Long Island University*
- 46 Urban Garden for Butterfly Biodiversity and Monitoring**
Amy Goodall, *James Madison University*; Rachel Frischeisen, *James Madison University*; Erica Nordgren, *James Madison University*; Kyle Schwizer, *James Madison University*
- 47 Making conservation relevant: an integrative evaluation process for public engagement**
Katherine Jirik, *Birch Aquarium at Scripps Institution of Oceanography, UC San Diego*
- 49 Environmental education and attitudes toward biodiversity conservation: A case study in protected areas of Nepal.**
Samridhi Shrestha, *Arizona State University*; Andrew Smith, *Arizona State University*
- 50 First Course on Conservation Biology in Ukraine: Is There Any Effect on Students' Behavior and Environmental Competence?**
Olena Tarasova, *Ukrainian Environmental Club*; Natalia Gozak, *Ukrainian Environmental Club "Green Wave"*; Natalia Gudkova, *Ukrainian Environmental Club "Green Wave"*; Olena Kovalenko, *Ukrainian Environmental Club*
- 51 Connecting Students and Communities to Conservation through Service-Learning**
Kimberly Tucker, *Stevenson University*; Clayton Hurd, *Haas Center for Public Service, Stanford University*; Jan Mackinnon, *Georgia Department of Natural Resources Coastal Resources Division*; Keith Johnson, *Stevenson University*; Amber LaPeruta, *Stevenson University*; Steven Arbitman, *Stevenson University*

Community-driven Conservation

- 52 Community participation in natural resource conservation: Success story from Muni-Pomadze Ramsar site, Ghana**
Andrews Agyekumhene, *Wildlife Division (Forestry Commission)*; James Akwovia, *Wildlife Division (Forestry Commission)*; Cynthia Okine, *Forest Services Division (Forestry Commission)*
- 53 Technological innovations in shifting agricultural practices by three tribal farming communities of Meghalaya, northeast India**
Brajesh Tiwari, *North-Eastern Hill University*; Manjumani Tiwari, *St. Mary's College. Shillong*
- 54 Ecosystem Protection in the Indian River Lagoon Using a Community-Based Social Marketing Plan**
Donna Campbell, *University of Central Florida*; Denise Delorme, *University of Central Florida*; Linda Walters, *University of Central Florida*
- 55 A multi-stakeholder, interdisciplinary approach to native pollinator conservation in North America**
Sheila Colla, *Wildlife Preservation Canada*
- 56 A scoring method for habitat quality assessment based on occurrence and abundance of soil invertebrates**
Elisabeth Hornung, *Szent Istvan University, Faculty of Veterinary Science, Institute for Biology*; Ferenc Vilisics, *Faculty of Bio- and Environmental Sciences, Urban Ecology Research Group, Univer*; Zita Kemencei, *National Institute for Environment*; Peter Sólomos, *University of Alberta, Edmonton*
- 57 Sustainable approaches to managing competing claims on natural resources in Kenya**
Stanley Makindi, *Egerton University*
- 58 ASSETS for Community-based Conservation in Kenya: An Eco-Scholarship Fund for Secondary School Students**
Shelly Thomas, *James Madison University*
- 59 A Sub-regional Study of Forest Conservation in Seven Communities in the Sierra Norte of Oaxaca, Mexico**
Eric Van Vleet, *Florida International University*



Conservation at the Land-Water Interface

- 60 Tidal movement, gas exchange and conservation of sea turtle eggs**
Shaya Honarvar, *Drexel University*; Gail Hearn, *Drexel University*; James Spotila, *Drexel University*; Michael O'Connor, *Drexel University*
- 61 Proposal of a new conservation object for the selection of land-sea ecotones within a conservation portfolio**
Karina Martinez-Tilleria, *University of La Serena (ULS)*; *Institute of Ecology and Biodiversity (IEB)*; Francisco Squeo, *University of La Serena*, *Institute of Ecology and Biodiversity and CEAZA*; Carlos Gaymer, *University Catholic of the North*
- 62 What Size Buffer? Using a Landscape-Scale Experiment to Test How Buffer Width Affects Pool-Breeding Amphibian Demography**
Jessica Veysey Powell, *University of New Hampshire*; Kimberly Babbitt, *University of New Hampshire*

Conservation Capacity Building

- 63 Stakeholder's participation in conservation of Rhinoceros in the Pobitora wildlife Sanctuary: the land of highest density of Rhinoceros in the world.**
Arup Hazarika, *Cotton College*; Prakash Chetry, *Centre for Environment, Education, and Economic Development*
- 64 Community based links between education, ecotourism and investigations of *Melanosuchus niger* and *Podocnemis unifilis* in Yupukari Region #9 Guyana.**
Michael Martin, *Rupununi Learners Inc.*; Fernando Li, *Rupununi Learners Inc.*; Rudolph Sr. Roberts, *Yupukari Village*; Rudolph Roberts Jr., *Yupukari Village, Rupununi Learners Inc.*; Ashley Holland, *Rupununi River Drifters*
- 65 Collaborative capacity-building in the Southern Cone on behalf of endangered Pampas deer and habitat: An evolving success story.**
Donald Moore, *Smithsonian National Zoo/Conservation Biology Institute*; Mark Sturm, *National Park Service*
- 66 Conservation through study abroad: Joining indigenous and global stakeholders through mutual transdisciplinary education in Guyana's Rupununi region**
David Morimoto, *Lesley University*; Michael Martin, *University of Waterloo*; Alice Layton, *Rupununi Learners Foundation*
- 67 Getting Your Article Accepted into a Leading Conservation Journal**
Richard Primack, *Boston University*
- 68 Community Based Forest Conservation in Kenya**
Chelsie Romulo, *Virginia Tech*; Miriam Westervelt, *Virginia Tech*; Amanda Miner, *Virginia Tech*; Dennis Sonkoi, *Virginia Tech*
- 69 Assessing and Developing Key Skills in Conservation Students through Classroom Exercises**
Eleanor Sterling, *Center for Biodiversity and Conservation, American Museum of Natural History*; Ana Porzecanski, *Center for Biodiversity and Conservation, American Museum of Natural History*; Adriana Bravo, *Center for Biodiversity and Conservation, American Museum of Natural History*; Nora Bynum, *Duke University*

Conservation Genetics

- 70 Genetic Diversity and Conservation of the Misty Grouper (*Hyporthodus mystacinus*) in the Galapagos Islands, Ecuador**
Alexandra Avila, *Universidad San Francisco de Quito*
- 71 The story of a tough little West Texas oak, the threatened *Quercus hinckleyi* C.H. Mull.**
Janet Backs, *University of Illinois at Chicago*; Mary Ashley, *University of Illinois at Chicago*
- 72 Monitoring Monitors: Genetic Structure of the Highly Exploited Nile monitor, *Varanus niloticus***
Stephanie Dowell, *Fordham University*
- 73 Using next-generation sequencing to investigate genetic health in a threatened primate**
Kathleen Grogan, *Duke University*; Christine Drea, *Duke University*





- 74 **Recent and Historic Samples Show Low Genetic Effective Population Size but No Genetic Bottleneck in Chesapeake Bay Striped Bass (*Morone saxatilis*)**
Matthew Hamilton, *Georgetown University*; Caroline Sheridan, *Georgetown University*; Nathan Poslusny, *Georgetown University*; Brent Johnson, *Emory University*; Sivan Leviyang, *Georgetown University*
- 75 **Surviving in the wild: the role of inbreeding and immunocompetence in post-release survival of the critically endangered Attwater's Prairie-chicken**
Susan Hammerly, *University of North Texas*; Jeff Johnson, *University of North Texas*
- 76 **A pedigree gone astray! Implications for the captive management of the critically endangered Attwater's Prairie-chicken**
Jeff Johnson, *University of North Texas*; Michael Morrow, *United States Fish and Wildlife Service*; Susan Hammerly, *University of North Texas*
- 77 **Investigation of population genetic diversity of common small fish in the Mekong River Basin, Vientiane, Lao PDR, for conserving native fishes**
Noriyuki Koizumi, *Institute for Rural Engineering, NARO*; Shinsuke Morioka, *Japan International Research Center for Agricultural Sciences*; Atsushi Mori, *Institute for Rural Engineering, NARO*; Bounsong Vongvichith, *Living Aquatic Resources Research Center*; Keiji Watabe, *Institute for Rural Engineering, NARO*; Kazuya Nishida, *Institute for Rural Engineering, NARO*; Takeshi Takemura, *Institute for Rural Engineering, NARO*
- 78 **Demography and genetics suggest metapopulation dynamics of breeding colonies in the Patagonian Kelp Gull, *Larus dominicanus***
Amanda Lyons, *Bowling Green State University*; Nora Lisnizer, *CENPAT*; Pablo Yorio, *CENPAT*; Pablo Garcia-Borboroglu, *CENPAT*; Juan Bouzat, *Bowling Green State University*; Joseph Schalk, *Bowling Green State University*
- 79 **Genetic Connections: Seasonal Migration and Gene Flow in the Common Loon, *Gavia immer***
Amy McMillan, *Buffalo State College*
- 80 **The Effects of Urbanization on Gene Flow and the Genetic Structure of a Headwater Salamander, *Desmognathus fuscus*, Over Multiple Spatial Scales**
William Miller, *Towson University*; Gail Gasparich, *Towson University*; Joel Snodgrass, *Towson University*
- 81 **Molecular tools reveal the secrets of the critically endangered Mediterranean monk seal**
Jennifer Schultz, *NOAA National Marine Fisheries Services*; Alexandros Karamanlidis, *MOM/Hellenic Society for the Study and Protection of the Monk Seal*; Marianna Psaradellis, *MOM/Hellenic Society for the Study and Protection of the Monk Seal*; Rebecca Hersch, *American Museum of Natural History*; Stephen Gaughran, *American Museum of Natural History*; George Amato, *American Museum of Natural History*; Panagiotis Dendrinos, *MOM/Hellenic Society for the Study and Protection of the Monk Seal*
- 82 **Genetic characterization of brown bullhead populations with skin tumors from Lake Erie**
Sara Turner, *Mercyhurst University*; J. Campbell, *Mercyhurst University*
- 83 **Symbiotic diversity of intestinal microbiota of an obligate bamboo forager, the giant panda: Connecting systems and disciplines for biofuel production**
Candace Williams, *Mississippi State University*; Ian Johnston, *Mississippi State University*; Andrew Kouba, *Memphis Zoological Society*; Scott Willard, *Mississippi State University*; Darrell Sparks, *Mississippi State University*; Ashli Brown, *Mississippi State University*

Conservation Geography

- 84 **Impacts of human activities and conservation priority in coastal wetlands of the Chilean Atacama Desert**
Alejandro Gatica, *University of La Serena, Institute of Ecology and Biodiversity*; Carolina Vega, *University of La Serena, Institute of Ecology and Biodiversity (IEB)*; Claudia Fernández, *University Catholic of North*; Patricio García, *University of La Serena, Institute of Ecology and Biodiversity (IEB)*; Ramiro López, *University of La Serena, Institute of Ecology and Biodiversity (IEB)*; Lorgio Aguilera, *University of La Serena, University Catholic of North*; Carlos Gaymer, *University Catholic of North, Institute of Ecology and Biodiversity (IEB)*; Francisco Squeo, *University of La Serena, Institute of Ecology and Biodiversity (IEB), Center of*
- 85 **Conservation in the Anthromes**
Laura Martin, *Cornell University*; John Quinn, *Furman University*; Rebecca Shaw, *Environmental Defense Fund*; Erle Ellis, *University of Maryland, Baltimore County*





Conservation GIS

- 86 The need for accurate locations for conservation studies**
Andras Baldi, *MTA Centre for Ecological Research*; Julie Shapiro, .
- 87 Assessment and Mapping of Soil Organic Carbon Sequestration Potential for Harena forest, Ethiopia**
Samson Belachew, *Saikrishna Hitech Agri Consultancy PLC*; Makuria Argaw, *Addis Ababa University*; Anouska Kinahan, *Frankfurt Zoological Society -Bale Mountains Conservation Project (FZS-BMCP)*
- 88 Community-based Conservation in Africa: utilizing high resolution satellite imagery towards a simpler approach to assess conservation impact**
David Williams, *African Wildlife Foundation*; Philip Muruthi, *African Wildlife Foundation*; Daudi Sumba, *African Wildlife Foundation*

Conservation in Hotspots

- 89 Missing for the last twenty years: the case of the southernmost populations of the Tropical Mockingbird, *Mimus gilvus*, in Rio de Janeiro, Brazil**
Maria Alice Alves, *Universidade do Estado do Rio de Janeiro*; Mariana Zannon, *Pós-Graduação em Ecologia e Evolução, IBRAG, UERJ. Rua São Francisco Xavier 524*; Mariana Vale, *Pós-Graduação em Ecologia e Evolução, IBRAG, UERJ. Rua São Francisco Xavier 524*
- 90 Isolation of a tiger landscape- An analysis of change in forest habitat of India's oldest protected area**
Anupam Anand, *Global Land Cover Facility, University of Maryland*; Jyoteshwar Nagol, *Global Land Cover Facility*; Joseph Sexton, *Global Land Cover Facility*; Saurabh Channan, *Global Land Cover Facility*; Praveen Noojipady, *Global Land Cover Facility*
- 91 Distribution and conservation status of two endangered bird species in the Chocó Biogeographic**
Eliana Fierro-Calderón, *Asociación Calidris*
- 92 Science as a conservation tool in Peru's Tropical Andes: Generating conservation action and community involvement around three biological stations**
Megan MacDowell, *Amazon Conservation Association*; Adrian Tejedor, *Asociación para la Conservación de la Cuenca Amazónica*; Amy Rosenthal, *World Wildlife Fund*
- 93 What history tells us about fragmentation and regional extinction of mammals in the Atlantic Forest?**
Danielle Moreira, *Universidade Federal do Espírito Santo*; Clinton Jenkins, *North Carolina State University*; Sérgio Mendes, *Universidade Federal do Espírito Santo*; Stuart Pimm, *Duke University*
- 94 Impact of Climate Change on Conservation of Globally Significant Biodiversity Elements of Sikkim Trans-Himalaya in the Eastern Himalayas, India**
Ghanashyam Sharma, *The Mountain Institute India*

Conservation Medicine

- 95 Chytridiomycosis in two endangered Telmatobius species at the southern Andes of Peru**
Marco A. Enciso, *University of Sao Paulo & Centro de Ornitología y Biodiversidad (CORBIDI)*; Germán Chávez, *Centro de Ornitología y Biodiversidad (CORBIDI)*; Paloma Alcázar, *Centro de Ornitología y Biodiversidad (CORBIDI)*; Diego Vásquez, *Centro de Ornitología y Biodiversidad (CORBIDI)*; Vilma Duran, *Centro de Ornitología y Biodiversidad (CORBIDI)*; Silvana Alvarez, *Centro de Ornitología y Biodiversidad (CORBIDI)*; José Malqui, *Centro de Ornitología y Biodiversidad (CORBIDI)*
- 96 Amphibian Conservation: A Novel Detection Method for the Pathogen *Batrachochytrium dendrobatidis* (Bd)**
Andrew Keth, *Clarion University of Pennsylvania*; Heather Mitchell, *Clarion University of Pennsylvania*; Alysha Cypher, *Center for Conservation Studies, Inc.*; Michell Clay, *Clarion University of Pennsylvania*; Kevin Hart, *University of Pittsburgh*; Douglas Smith, *Clarion University of Pennsylvania*



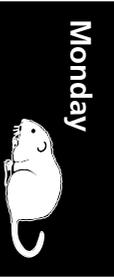


Conservation Modeling

- 97 **The ecological consequences of out-of-kind offsetting**
Mathew Hardy, *RMIT University*; Ascelin Gordon, *RMIT University*; Sarah Bekessy, *RMIT University*
- 98 **Measuring the effectiveness of funding biodiversity conservation using a game theoretic framework**
Gwen Iacona, *University of Tennessee Knoxville*; Michael Bode, *University of Melbourne*; Paul Armsworth, *University of Tennessee, Knoxville*
- 99 **Using Spatially-Explicit Modelling to Examine the Effects of Threats and Mitigation Measures for Peary Caribou Populations in the Canadian High Arctic**
Agnes Richards, *Environment Canada*; Cheryl-Ann Johnson, *Environment Canada*; Kathy Lindsay, *Environment Canada*; Cathy Nielsen, *Environment Canada*; Marlene Doyle, *Environment Canada*; George Arhonditsis, *University of Toronto*
- 100 **Using remotely sensed fire severity indices to predict bird distributions in southern Appalachian forests; an occupancy modeling approach**
Eli Rose, *North Carolina Cooperative Fish and Wildlife Research Unit, NCSU*; Theodore Simons, *US Geological Survey, North Carolina Cooperative Fish and Wildlife Research Unit*
- 101 **Retrospective study of monitoring design to inform management of the endangered growling grass frog (*Litoria raniformis*) in Melbourne, Australia**
Els Van Burm, *University of Melbourne*; Michael McCarthy, *University of Melbourne*; Geoff Heard, *University of Melbourne*
- 102 **A novel linked landscape - demographic model to connect systems, disciplines, and stakeholders for the conservation of red-cockaded woodpeckers**
Sara Zeigler, *Virginia Tech*; Jeffrey Walters, *Virginia Tech*; Robert Mitchell, *Joseph W. Jones Ecological Research Center*; J. Hiers, *Eglin Air Force Base*

Conservation on Private Lands

- 103 **Life on the Fringe: Mammalian habitat use along a gradient of exurban housing density in Northern Colorado**
Erica Goad, *Colorado State University*; Liba Pejchar, *Colorado State University*; Richard Knight, *Colorado State University*; Sarah Reed, *Colorado State University*
- 104 **Evaluating the social impacts and ecosystem service outcomes of Ecuador's SocioBosque program**
Kayla Keelan, *University of Maryland, Baltimore County*; Madeline Hall, *University of Maryland, Baltimore County*; Margaret Holland, *University of Maryland, Baltimore County*; Kelly Wendland, *University of Idaho*; Mikaela Weisse, *University of Wisconsin-Madison*; Lisa Naughton-Treves, *University of Wisconsin-Madison*; Catherine Woodward, *CEIBA Foundation - Ecuador*; Manuel Morales, *ECOLEX Ecuador*
- 105 **Working Landscapes in Virginia**
Lisa LaCivita, *George Mason University*
- 106 **Conservation development: how does this alternative to rural sprawl contribute to private land conservation and residential development in Colorado?**
Miranda Mockrin, *USDA Forest Service*; Sarah Reed, *Wildlife Conservation Society, Colorado State University*; Liba Pejchar, *Colorado State University*
- 107 **Use of NEXRAD radar to assess bird response to temporary wetland creation after the Deep Water Horizon oil spill along the Gulf of Mexico**
Mason Sieges, *University of Delaware*; Jaclyn Smolinsky, *University of Delaware*; Jeffrey Buler, *University of Delaware*
- 108 **Honey bee/native bee competition and delivery of pollination services to non-timber forest products on production forests of the US Gulf South**
Robinson Sudan, *Pollinator Partnership*; Victoria Wojcik, *Pollinator Partnership*; Jennifer Blanchard, *Honey Island Conservation Program*
- 109 **Using Bayesian Belief Networks (BBNs) in modelling socio-cultural drivers of private landholders participating in biodiverse carbon plantings**
Nooshin Torabi, *RMIT University*





Conservation Politics and Policy

- 110 Global Conservation through Management of International Trade in Wildlife**
Mark Bellis, *U.S. Fish & Wildlife Service*; Danielle Kessler, *U.S. Fish & Wildlife Service*; Elizabeth Hood, *U.S. Fish & Wildlife Service*
- 111 Bridging gaps between policy and action for native forest conservation on Mauritius**
Pricila Iranah, *Montclair State University*; Pankaj Lal, *Montclair State University*
- 112 Interviewing public and private sector experts to inform an effective, regional approach to vernal pool conservation**
Mary Beth Kolozsvary, *Siena College*; Jean Mangun, *Siena College*; William Mangun, *East Carolina University*
- 113 How protected are protected areas? PADDD (protected area downgrading, downsizing, and degazettement) in Indian Parks**
Roopa Krithivasan, *WWF*; Hiwot Tifsihit, *WWF*; Michael Mascia, *WWF*; Albert Manville, *USFWS*
- 114 More Flexibility, Better Outcomes? - A Case Study of Marine Fish Habitat Offset in Queensland, Australia**
Yosuke Masuda, *Yokohama National University*
- 115 The importance of babassu (*Attalea speciosa*) for the livelihoods of the extractivist communities of Extremo Norte Extractive Reserve, Brazil**
Liabeth Yohannes, *University of Maryland, College Park*

Conservation Psychology

- 116 Farmers and forest conservation in Malawi: How attitudes and perceptions affect intentions and behaviour**
Seline Meijer, *World Agroforestry Centre*; Delia Catacutan, *World Agroforestry Centre*; Sileshi Weldesemayat, *World Agroforestry Centre*; Maarten Nieuwenhuis, *University College Dublin*
- 117 Regulatory focus theory as a framework with potential utility for conservation psychology**
Christine Webb, *Columbia University*; Tory Higgins, *Columbia University*

Conservation Sociology

- 118 Insights on human-animal relationships through the lens of problem animals: The pigeon case**
Zina Skandrani, *Museum National d'Histoire Naturelle*; Anne-Caroline Prévot-Julliard, *Museum National d'Histoire Naturelle*
- 119 The Effects of Affiliation-Based Influence and Shared Information Sources on Rare and Little Known Species Conservation Behaviors**
Jordan Smith, *NC State University*

Inventory and Monitoring

- 120 Conservation Biogeography of Vietnam: Insights from Novel Biodiversity**
Raoul Bain, *Div Vert Zool (Herpetology) and Center for Biodiversity and Conservation, AMNH*; Martha Hurley, *Center for Biodiversity and Conservation, AMNH and Global Wildlife Conservation*; Eleanor Sterling, *Center for Biodiversity and Conservation, American Museum of Natural History*



IMCC 2014 • Glasgow, Scotland



SCB Marine

3rd International Marine Conservation Congress
Glasgow, Scotland • 14-19 August, 2014
www.conbio.org/imcc2014



Room 301	Room 302	Room 303	Room 304	Room 305	Room 306	Room 307	Room 308	Room 309	Room 310
<p>8:00 - 10:00 A.M.</p> <p>Symp. Near-shore Fisheries for People and Biodiversity</p> <p>Symp. Integrating Terrestrial Disciplines with Freshwater Systems</p>	<p>Symp. Geophysical Units as Targets in Planning for Climate Change (Part I)</p> <p>Symp. New Directions in Conservation Medicine (Part I)</p>	<p>Symp. Detection of Aquatic Species using Environmental DNA (Part I)</p> <p>Contr. Sess. Spatial Ecology and Conservation</p>	<p>Symp. Roadless and Low-Density Transportation Networks (Part I)</p> <p>Symp. Policy Insights from the Frontiers of Evidence-based Conservation (Part I)</p>	<p>Symp. Cross-border Conservation in Latin America and the Caribbean</p>	<p>Symp. The Global Amphibian Conservation Action Plan (Part I)</p>	<p>Coffee Break: 10:00-10:30 A.M., Exhibit Hall A</p>			
<p>10:30 A.M. - 12:30 P.M.</p> <p>Symp. Recovery Potential for Marine Fisheries in Data-poor Countries</p>	<p>Symp. Geophysical Units as Targets in Planning for Climate Change (Part II)</p> <p>Symp. New Directions in Conservation Medicine (Part II)</p>	<p>Symp. Detection of Aquatic Species using Environmental DNA (Part II)</p> <p>Contr. Sess. Spatial Ecology and Conservation</p>	<p>Symp. Roadless and Low-Density Transportation Networks (Part II)</p> <p>Symp. Policy Insights from the Frontiers of Evidence-based Conservation (Part II)</p>	<p>Symp. More Effective Conservation Policies (Part II)</p> <p>Symp. The Global Amphibian Conservation Action Plan (Part II)</p>	<p>Workshop Faculty and Researcher Training Resources (Part II)</p> <p>Social Science Working Group Meeting</p>	<p>Workshop Resolving Environmental Conflicts: Lessons from a Mediator</p> <p>Africa Section Meeting</p>	<p>Workshop Cross-training undergraduate scientists in practical conservation</p> <p>Discussion Roadless and Low-Density Transportation Networks</p>	<p>Workshop Participating in a Conference: Some Advice for New-comers</p> <p>Workshop Underrepresented Conservation Scientists & Students</p>	<p>Workshop Areas Contributing Significantly to the Global Persistence of Biodiversity</p>
<p>2:00 P.M. - 4:30 P.M.</p>	<p>Plenary Session: Teresa Erickson and Timothy Ward, The Rocket Model for Effective Communications Awards Ceremony: Eleanor Sterling and William J. Sutherland <i>Grand Ballroom I&II</i></p>								
<p>5:00 P.M. - 6:00 P.M.</p> <p>Speed/Oral Sess. Marine & Wetland Conservation</p>	<p>Speed/Oral Sess. Scientists, Stakeholders, and Managers: Bridging the Gap</p>	<p>Speed/Oral Sess. Spatial Ecology, Conservation Modeling & GIS</p> <p><i>(Runs to 6:10 P.M.)</i></p>	<p>Europe Section Meeting</p>	<p>Speed/Oral Sess. Monitoring, Biogeography, & Conservation of Hotspots</p> <p><i>(Runs to 6:10 P.M.)</i></p>	<p>Speed/Oral Sess. Landscape, Restoration, and Urban Ecology, & Pollution</p>	<p>Speed/Oral Sess. Behavioral Ecology, Human-Wildlife Conflict, & Conservation Genetics</p>	<p>Speed/Oral Sess. Adaptive and Ecosystem Management, & Habitat Degradation</p>	<p>Speed/Oral Sess. Outreach, Community-driven conservation, & Citizen Science</p>	<p>Speed/Oral Sess. Stakeholders, Capacity Building, & Citizen Science</p> <p><i>(Runs to 6:10 P.M.)</i></p>
<p>6:00 P.M. Onwards</p>									
<p>Poster Session 6:00 P.M. - 8:00 P.M. Exhibit Hall</p>					<p>Student Sponsored Crab (Pub) Crawl & Scavenger Hunt Meet at Shucker's of Fells Point anytime after 8:00 P.M. Ticket Required</p>				





Morning session: 8:00 A.M. to 10:00 A.M.

Symposium: **Capacity, Constituency and Conservation: An Integrated Approach to Protect Near-Shore Fisheries for People and Biodiversity**

Room 301

Tuesday, July 23, 8:00 to 10:00

ORGANIZER(S):

Amielle Dewan, *RARE*; Jake Kritzer, *EDF*

The loss of biodiversity and coral reef habitat to overfishing, along with the collapse of near-shore fisheries and fishing-dependent communities, create a conservation-livelihood challenge of unprecedented scale. Territorial-user rights for fisheries (TURFs) have emerged as potential solution with demonstrated fisheries and conservation benefits. Although TURFs with a no-take protected area have been associated with improvements in fish biomass and coral reef health, the adoption of a new and exclusive fisheries management solution is challenging without strong leadership, appropriate training, science-based management, and effective communication about the benefits for fishers. By bringing together key specialists who are working together to achieve biodiversity conservation and livelihood results, this symposium will create a unique opportunity to showcase the power of a collaborative, yet rigorous, approach for implementing the TURF solution in biodiversity hotspots across the globe. This symposium will also provide a unique and needed contribution to the ICCB, presenting not only the latest science on the ecological and social aspects of TURF adoption but also a training and communications model to ensure lasting success of conservation interventions on the ground. By capitalizing on the interactive format, this symposium will provide a forum for understanding how multi-disciplinary approaches can be applied to other critical conservation challenges.

08:00 Going beyond NTZs: designing TURF-Reserves for fish and fishing

Dawn Dougherty; *University of California Santa Barbara*

08:15 Marine reserves revisited: integrating spatial management with harvest control rules in data-limited tropical fisheries

Jake Kritzer; *Environmental Defense Fund*

08:30 Increasing the Effectiveness of Marine Protected Areas in Belize

Larry Epstein; *Environmental Defense Fund*

08:45 The role of communication and social marketing in community-based conservation campaigns

Stacey Sowards; *University of Texas El Paso*

09:00 Building an integrated approach to protect near-shore fisheries in Indonesia and the Philippines

Eleanor Carter; *Rare*

09:15 A complex systems approach to conservation conflict transformation: reevaluating our current practices to effectively address human-wildlife conflict.

Francine Madden, *Human-Wildlife Conflict Collaboration*; Joshua Fisher, *The Earth Institute, Columbia Univ.*

Open discussion period follows from 9:30 to 10:00

.....



Symposium: **Starting at the Bottom: Optimizing Conservation Outcomes for Priority Species by Integrating Terrestrial Disciplines with Freshwater Systems**

Room 302

Tuesday, July 23, 8:00 to 10:00

ORGANIZER(S):

Harmony Patricio, *SCB Freshwater Working Group Board and FISHBIO*; **Sukhmani Mantel**, *Rhodes University*

From elephants, to grizzly bears, to rare primates, there is one thing such “high conservation priority” species all require for survival and persistence. They all rely on freshwater systems, just as all humans do. It is the mission of the Society for Conservation Biology to reduce loss of the world’s most threatened species, and a great deal of recent research shows that freshwater species are declining at a much higher rate than any other group. Despite this reality, the representation of freshwater research at past ICCB meetings has been quite limited. How can we, as Conservation Biologists, make the links between freshwater systems and persistence of the “high priority” species many of us are working to conserve? How can we integrate freshwater and terrestrial research to stem the widespread loss of biodiversity? This symposium will unite the disengaged disciplines of terrestrial and aquatic sciences. We will provide participants with tools to enhance their research, conservation planning, and management strategies; ultimately increasing the success of their conservation efforts for any organism or ecosystem they specialize in. Participants can move forward with this framework to communicate the importance of freshwater conservation by relating it to the conservation of ecosystem services and species that tend to draw more media and policy attention, engaging a wider group of stakeholders.

08:00 Optimizing conservation efforts by modeling the spatial impact of hydrological changes on wetland fauna habitat: a case study of the Tonle Sap

Mauricio Arias; *University of Canterbury*

08:15 Relationships between threats to rare wildlife from human consumption and availability of fish for villagers in Lao PDR

Harmony Patricio; *SCB FWWG Board, FISHBIO*

08:30 Conserving poorly described ecosystems by integrating Phylogenetic Diversity (PD) into systematic conservation planning.

Maria Gulbrandsen Asmyhr; *Macquarie University*

08:45 Systematic planning beyond conservation: a multi-objective, multi-action framework for freshwater biodiversity conservation.

Lorenzo Cattarino; *Griffith University*

09:00 Freshwater biodiversity assessments in North America, and identifying priorities for conservation action

Marcelo Tognelli; *IUCN/CI Biodiversity Assessment*

09:15 Integrating freshwater ecosystems into protected area priorities and landscape planning

John Matthews; *WCPA/IUCN*

09:30 Operationalising connectivity frameworks in freshwater conservation planning

Simon Linke; *Griffith University*

Open discussion period follows from 9:45 to 10:00

.....

Symposium: **Conserving the Stage: Using Geophysical Units as Coarse-Filter Targets in Conservation Planning for Climate Change. Session I**

Room 303

Tuesday, July 23, 8:00 to 10:00

ORGANIZER(S):

Paul Beier, *Northern Arizona University*; **Malcolm Hunter, Jr.**, *University of Maine*; **Mark Anderson**, *The Nature Conservancy*

By exploring geophysical units as coarse-filter targets for conservation planning, this symposium connects the abiotic system to the biotic system, and connects the disciplines of geography, geology, climate science, paleoecology, and conservation biology. We have invited diverse stakeholders (advocates for fine-filter approaches and other skeptics) to challenge our approach.

Conservation decision makers want to identify lands that will help biodiversity cope with climate change. A geophysical unit (land facet) is a recurring landscape unit defined by topographic and soil attributes. A reserve network that encompasses the diversity of geophysical units should conserve biodiversity and the ecological and evolutionary processes that maintain and generate biodiversity. The appeal of “conserving the stage” derives from fundamental concepts of ecology, and the realization that the fine-filter approach (1 species at a time, relying on complex models of emissions, global circulation, species’ climate



envelopes, and species' dispersal abilities) is not a practical conservation strategy. But the approach needs more than this common sense appeal if it is to enter the mainstream of science and practice. This symposium (the first on this topic at any professional meeting) will articulate the assumptions, arguments, models, and evidence for the approach, provide examples in conservation planning, and identify gaps in scientific understanding.

08:00-08:30 Conserving the stage: using geophysical units as coarse-filter targets in conservation planning for climate change

Paul Beier; *Northern Arizona University* and **Malcolm L. Hunter**, *University of Maine*

08:30 Conserving all the stages: using a geophysical approach to identify a network of climate-resilient sites

Mark Anderson; *The Nature Conservancy*

08:45 Climate refugia and scale: How complex terrain shapes the velocity of climate change

Solomon Dobrowski; *University of Montana*

09:00 Topoclimates and climate change impacts on vegetation in Mediterranean ecosystems of South Africa and California

David Ackerly; *University of California, Berkeley*

09:15 Rapidly changing actors on the stage: climate change, megafaunal extinctions, and novel plant communities at the Pleistocene-Holocene boundary

Jacquelyn Gill; *Brown University*

09:30 Are we already conserving the stage? A land facet gap analysis for 14 ecoregions in the western USA

Carrie Schloss; *University of Washington*

09:45 Climate change corridors across the Albertine Rift: comparing species distribution models, vegetation models and models based on geophysical stages

James Watson; *Wildlife Conservation Society*

.....

Symposium: New Directions in Conservation Medicine: Connecting Systems, Disciplines and Stakeholders for Ecological Health in Practice. Session I

Room 304

Tuesday, July 23, 8:00 to 10:00

ORGANIZER(S):

Alonso Aguirre, *Smithsonian-Mason School of Conservation*; **Mark Pokras**, *Tufts University Cummings School of Veterinary Medicine*

Species and ecosystems have been threatened by many anthropogenic factors manifested in local and global declines of populations and species. Conservation medicine, an emerging discipline is the result of the long evolution of transdisciplinary thinking within the health and ecological sciences to better understand the complexity within these fields of knowledge. Conservation medicine examines the links among changes in climate, habitat quality, and land use; emergence and re-emergence of infectious agents, parasites and environmental contaminants; and maintenance of biodiversity and ecosystem functions as they sustain the health of plant and animal communities including humans. During the last decade, new tools and institutional initiatives for assessing integrated, ecological health have emerged: landscape epidemiology; disease ecological modeling; web-based analytics; the development of non-invasive physiological and behavioral monitoring techniques; the adaptation of modern molecular biological and biomedical techniques; the design of population level disease monitoring strategies; the creation of ecosystem-based health and sentinel species surveillance; and the adaptation of health monitoring systems for appropriate developing country situations. This symposium addresses these issues with relevant case studies and will challenge the notion that human health is an isolated concern removed from the bounds of biodiversity, ecology and species interactions.

08:00 Conservation Medicine: bridging the gaps to face transdisciplinary challenges and integrative research in ecological health

Alonso Aguirre; *Smithsonian-Mason School of Conservation*

08:15 Planetary Thresholds and Conservation Medicine

Gary Tabor; *Center for Large Landscape Conservation*

08:30 Parasite conservation and the reality of trade-offs in health-based ecosystem services

Liz Nichols and Andres Gomez; *American Museum of Natural History*

08:45 Habitat fragmentation, metacommunity structure, and disease ecology.

Gerardo Suzan; *UNAM School of Veterinary Medicine*

09:00 'Sorta situ': The New Reality of Management Conditions for Wildlife Populations in the Absence of 'Wild' Spaces

Barb Wolfe et al.; *Ohio State University*

09:15 Seeking refuge: wildlife health and conservation across a patchwork of protected lands

Samantha Gibbs; *U.S. Fish and Wildlife Service*



09:30 USAID PREDICT Wildlife Surveillance in Mexico and Brazil

Melinda Rostal et al.; *EcoHealth Alliance*

09:45 Integrating wildlife conservation and zoonotic disease surveillance

Kevin Olival and Jon Epstein; *EcoHealth Alliance*

.....
Symposium: **Detection of Aquatic Species Using Environmental DNA: An Integrative New Approach to Inform Conservation. Session I**

Room 305

Tuesday, July 23, 08:00 to 10:00

ORGANIZER(S):

Caren Goldberg, *University of Idaho*; David Pilliod, *U.S. Geological Surveys*; Katherine Strickler, *University of Idaho*

Conservation efforts need techniques that are both accurate and effective to be successful. The new field of environmental DNA (eDNA), where aquatic species are detected using DNA found in water bodies, has the potential to exponentially increase the data available on presence of endangered species as well as early detection of invasive species. The detection of eDNA is a novel, integrative method that greatly improves detection sensitivity and cost efficiency over field surveys for biodiversity, with little or no ecological impact. The method requires integrating concepts and approaches from ecology, hydrology, conservation genetics, and wildlife management and has attracted international attention from conservation scientists and practitioners. Application of the eDNA method directly connects scientists with stakeholders as they collaboratively develop eDNA-based monitoring programs.

Since eDNA was first successfully demonstrated in 2008, technique development has been rapid. This process has occurred independently across labs, leading to a disparity of methods for eDNA detection and inference. At this critical time in the development of eDNA technologies for conservation, we propose to bring together scientists from universities, government agencies, and non-profit organizations at the cutting-edge of this field to present and discuss their approaches. This sharing of knowledge will increase consensus on best practices and move the field into a more cohesive methodology.

08:00 **Designing efficient monitoring programs using environmental DNA**

Dr. Caren Goldberg, *University of Idaho*

08:15 **Monitoring of rare freshwater animals in Europe using environmental DNA - a valuable shortcut to crucial biodiversity data?**

Jos Kielgast, *University of Copenhagen*

08:30 **Integrating a molecular approach at the landscape-level: Determining distribution of Chinook salmon in Upper-Columbia River watersheds**

Matt Laramie, *USGS - Boise, ID*

08:45 **Development and validation of environmental DNA for detecting invasive pythons in southern Florida**

Dr. Sara Oyler-McCance, *USGS - Ft. Collins, CO*

09:00 **Using environmental DNA methods to improve detectability and assess reproduction in Eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*)**

Dr. Stephen Spear, *Project Orianna*

09:15 **Application of eDNA to Assess Amphibian Occurrence in Relation to Beaver in Southeast Wyoming**

Melanie Murphy, *University of Wyoming*

09:30 **Using environmental DNA to estimate the distributions and biomass of fish**

Dr. Teruhiko Takahara, *Hiroshima University*

09:45 **Monitoring marine fish and whale biodiversity using environmental DNA from seawater samples**

Dr. Philip Thomsen, *University of Copenhagen*

.....
Spatial Ecology and Conservation 1

Room 306

Tuesday, July 23, 8:00 to 10:00

08:00 **Where should I do what to cost-effectively manage threats to species?**

Nancy Auerbach, *University of Queensland*; Ayesha Tulloch, *University of Queensland*; Hugh Possingham, *University of Queensland*

08:15 **Estimating landscape resistance to dispersal for connectivity planning**

Tabitha Graves, *Colorado State University*; Richard Chandler, *US Geological Survey Patuxent Wildlife Refuge*; Andy Royle, *US Geological Survey Patuxent Wildlife Refuge*; Paul Beier, *Northern Arizona University*; Katherine Kendall, *US Geological Survey Northern Rocky Mountain Science Center*



08:30 Road mortality hot-spots: what do they tell us?

Piotr Skorka, *Poznan University of Life Sciences*; **Magdalena Lenda**, *Institute of Nature Conservation, Polish Academy of Sciences*

08:45 Integration of endangered blue whale satellite telemetry and oceanographic data to develop habitat models for conservation management

Helen Bailey, *University of Maryland Center for Environmental Science*; **Bruce Mate**, *Oregon State University*; **Ladd Irvine**, *Oregon State University*; **Elliott Hazen**, *NOAA/NMFS Southwest Fisheries Science Center*; **Daniel Palacios**, *NOAA/NMFS Southwest Fisheries Science Center*; **Steven Bograd**, *NOAA/NMFS Southwest Fisheries Science Center*; **Karin Forney**, *NOAA/NMFS Southwest Fisheries Science Center*; **Evan Howell**, *NOAA/NMFS Pacific Islands Fisheries Science Center*

09:00 Dependence of the endangered black-capped vireo on sustained cowbird management

Chad Wilsey, *University of Washington*; **Joshua Lawler**, *University of Washington*; **David Cimprich**, *Fort Hood Military Reservation*; **Nathan Schumaker**, *Environmental Protection Agency*

09:15 Novel use of identification of individuals to model small-scale movements and habitat selection of endangered baleen whales in the Gulf of Maine

Tanya Lubansky, *New Jersey Institute of Technology*; **Gareth Russell**, *New Jersey Institute of Technology*

09:30 Seasonal variation in the spatial distribution of basking sharks (*Cetorhinus maximus*) in the Bay of Fundy, Canada: implications for vessel collisions

Zachary Siders, *Grand Manan Whale and Seabird Research Station*; **Heather Koopman**, *University of North Carolina Wilmington*; **Andrew Westgate**, *University of North Carolina Wilmington*; **David Johnston**, *Duke University*; **Laurie Murison**, *Grand Manan Whale and Seabird Research Station*

09:45 Using Species Distribution Models and Remote Sensing to Predict Hotspots of Human-Elephant Conflict: Implications for Conservation and Management

Anna Estes, *Penn State University*; **Brooke Bateman**, *University of Wisconsin-Madison*; **Herman Shugart**, *University of Virginia*; **Volker Radeloff**, *University of Wisconsin-Madison*

Tuesday



Environment & Land Management Journals

Ecological Restoration

er.uwpress.org
Published 4/year
ISSN: 1543-4060, e-ISSN: 1543-4079

Ecological Restoration is a forum for people interested in all areas of ecological restoration. It features the technical and biological aspects of restoring landscapes, as well as emerging professional issues, the role of education, evolving theories of post-modern humans and their environment, land-use policy, the science of collaboration, and more.

NATIVE PLANTS JOURNAL

npj.uwpress.org
Published 3/year
ISSN: 1522-8339, e-ISSN: 1548-4785

Native Plants Journal is a forum for dispersing practical information about planting and growing North American (Canada, Mexico, and U.S.) native plants for conservation, restoration, reforestation, landscaping, highway corridors, and related uses. It includes articles that are useful to growers and planters of North American native plants and that contribute significantly to the scientific literature.

Please visit us online at <http://uwpress.org> to:

- > Search across tables of contents, titles, abstracts, full text, and figures
- > View most-read papers list and most-cited papers list
- > View tables of contents and abstracts
- > Sign up for email alerts
- > Email article information to a friend
- > View FREE sample issues

Symposium: **Roadless and Low Density-Transportation Networks as Permeable Landscapes and Seascapes. Session I**

Room 307

Tuesday, July 23, 08:00 to 10:00

ORGANIZER(S): **Dominick DellaSala**, *Geos Institute*

A vast network of roads and marine highways crisscrosses the planet, transporting people and goods over global distances with substantial environmental impacts. For instance, the ecological footprint of roads is known to extend up to a kilometer on either side of an individual road (road effect zone) with cumulative effects of dense road networks in some regions impacting up to 15-20% of total surface area (e.g., continental USA). Marine transportation networks and associated ship transport lanes also create migration and other problems for wildlife, including acoustic pollution and collision-related mortality. In contrast, areas with low road densities and/or low-traffic volume (marine and terrestrial) and those with no roads (e.g., roadless areas in the USA, South America, Asia, Africa) are a conservation priority globally because they provide habitat for road-adverse wildlife, have characteristic ecological processes, are relatively resistant to weed invasions, act as strongholds for aquatic species, and provide climatic refugia. In some terrestrial regions (e.g., western Europe), only low-density roads with low traffic volume remain and these areas are building blocks for re-wilding landscapes. This symposium will provide a global synthesis of impacts of vast transportation networks and a region by region and a global synthesis on the importance of intact areas showcasing new intactness and human footprint technologies.

08:00 The netway system: recovering lost ground, reconnecting the land, and solving big transportation problems

Richard Forman, *Harvard University*

08:15 Roadless areas as a way to protect biodiversity

Kriton Arsensis, *European Parliament member*

08:30 Global human-fingerprint project: an overview

Eric Sanderson, *Wildlife Conservation Society*

08:45 Global human-fingerprint project: an update

Oscar Venter, *James Cook University*

09:00 Google's mapping of roadless areas of the Earth

Rebecca Moore, *Google Earth*

09:15 Roadless and low-traffic areas in Europe. Rewilding European landscapes for permeability

Nuria Selva, *Policy Academy of Sciences*

09:30 North America's roadless area network

Dominick DellaSala, *Geos Institute, SCB North America*

09:45 Latin America and Caribbean roadless area network

Mariana Vale, *Departamento de Ecologia Universida*

Tuesday



.....
Symposium: **Still 'Shooting in the Dark'? Policy Insights from the Frontiers of Evidence-based Conservation: Session I**

Room 308

Tuesday, July 23, 08:00 to 10:00

ORGANIZER(S): **Louise Glew**, *World Wildlife Fund*; **Michael B. Mascia**, *World Wildlife Fund*

Evidence-based policy and practice has emerged as a major focus of biodiversity conservation research in the past decade. Scholars and practitioners increasingly recognize that without empirical evidence, decisions on where and how to conserve biodiversity constitute a 'shot in the dark'. The nascent evidence base emerging from quasi-experimental impact evaluation, which allows scholars to make causal inferences about the ecological and social impacts of conservation interventions, has generated important insights for conservation practice and overturned long-held conventional wisdom. The evidence derived from these pioneering impact evaluation studies remains limited in scope, however, with considerable mismatch between the insights generated and the needs of policymakers. Addressing this disparity requires future generations of evaluative studies to advance six methodological 'frontiers': diversifying the range of outcome metrics; documenting variation in impact; linking interventions to impact; exploring trade-offs and synergies between outcomes; comparing the effectiveness of interventions; and translating evidence into policy and practice. This session brings together scholars and practitioners to explore these six frontiers across a range of interventions, biomes and sociopolitical contexts to highlight the potential and the limits of impact evaluation in conservation, in order to catalyze policy-relevant research and further advance conservation policy.

08:00 It's tough to learn in the dark

Kent Redford, *Archipelago Consulting*

- 08:15 **Moving beyond myth, anecdote, and conventional wisdom: evaluating conservation impacts amid real world constraints**
 Louise Glew, *World Wildlife Fund*
- 08:30 **Forests & Context: Factors Shaping the Effectiveness of Indonesia's Protected Areas**
 Daniela Miteva, *Duke University*
- 08:45 **Marine protected areas and poverty alleviation: insights from Papua, Indonesia**
 Michael B. Mascia, *World Wildlife Fund*
- 09:00 **The effect of enforcement on trade-offs between biodiversity conservation and livelihoods the W National Parks of Benin and Niger**
 Daniel C. Miller, *University of Michigan*
- 09:15 **Biodiversity Protection and Poverty: implications of heterogeneous environmental and social responses to protected areas**
 Merlin Hanauer, *Sonoma State University*
- 09:30 **Forest sector decentralization in Tanzania: Unpacking the role(s) of governance for improved livelihoods and conservation**
 Lauren Persha, *University of North Carolina*
- 09:45 **Explaining variation in forest spillovers and welfare effects of protected areas**
 Juan A. Robalino, *Universidad de Costa Rica*

.....

Symposium: Cross-Border Conservation in Latin America and the Caribbean Today

Room 309

Tuesday, July 23, 08:00 to 10:00

ORGANIZER(S):

Rurik List, *Universidad Autonoma Metropolitana*; **Oliver Chassot**, *Tropical Science Center*

Evidence of changes in the historical patterns of species distribution and phenology is increasing, from earlier flowering times, shifts on dates of bird migration and rapid shifts on the geographic range of vertebrates, to the reduction of ice cover on the Arctic and its yet unknown consequences. When increasing artificial barriers throughout the continent, like highways, wind farms, ship routes and international border infrastructure are considered, the future of the already diminished biodiversity is further reduced by isolating populations and by limiting the resilience to change. With such drastic and widespread changes, the coordination of conservation efforts across political boundaries is critical to increase the resilience of species and ecosystems

- 08:00 **Latin American Bat Conservation Network: Locally-led continental collaboration**
 Rodrigo Medellín, *Instituto de Ecología-Universidad Nacional Autónoma de México*
- 08:15 **LiveANDES: Advanced network for the distribution of endangered species and citizen science**
 Cristian Bonacic Andrés Neyem, *Universidad Católica de Chile*
- 08:30 **A wall on the way: wildlife at the Mexico-United States border**
 Rurik List, *Universidad Autonoma Metropolitana -Lerma*, **Krista Schlyer**, *Environmental Public Information Campaigns*
- 08:45 **Mesoamerican Reef Conservation: A New Generation of Leaders in the Caribbean**
 Sandra Pompa, *Fondo Mexicano para la Conservación de la Naturaleza*
- 09:00 **Bird conservation across borders in the El Castillo-San Juan-La Selva Biological Corridor, Nicaragua-Costa Rica**
 Olivier Chassot, *Tropical Science Center*; **Guisselle Monge Arias**, *Tropical Science Center*

Open discussion period follows from 9:15 to 10:00

.....



Symposium: **The Global Amphibian Conservation Action Plan: Connecting Systems, Disciplines and Stakeholders to Save Amphibians Worldwide: Session I**

Room 310

Tuesday, July 23, 08:00 to 10:00

ORGANIZER(S): **Phil Bishop**, *Amphibian Survival Alliance / University of Otago*; **James Lewis**, *IUCN SSC Amphibian Specialist Group*

The IUCN amphibian conservation action plan is a unique example of a multi-disciplinary response to the global amphibian crisis. Published in 2007, the action plan details an ambitious framework to stem the rapid losses of amphibians worldwide (Gascon et al. 2007). This plan detailed a need for \$400m investment over 4 years and some highly motivated stakeholders from around the world have been able to leverage some initial funding to implement real conservation actions that cross disciplines and benefit amphibians world-wide. The Amphibian Survival Alliance (ASA), launched in June 2011, acts as a global partnership for amphibian conservation and is working to mobilize a motivated and effective consortium of organizations to stem the rapid losses of amphibian populations and species worldwide (Bishop et al. 2012). The purpose of this session is to convene some of the implementers of best cutting-edge examples of amphibian conservation actions ranging from land acquisition to species management, law enforcement and policy, education and capacity building actions that cross a variety of disciplines outlined in the Amphibian Conservation Action Plan. We hope to engage the wider community of conservation practice in each of these disciplines to help stimulate conversations and ideas to effectively implement this ambitious plan.

08:00 Review of the global amphibian crisis and an introduction to the symposium

Phil Bishop, *Amphibian Survival Alliance*

08:15 Preserving the last individuals of a species: Advances in methods to culture amphibian tissues for cryobanking

Ollie Ryder, *San Diego Zoo Institute*

08:30 Using probiotics to develop new tools that will allow us to control chytridiomycosis.

Matthew Becker, *Virginia Tech*

08:45 Building Capacity for Amphibian Conservation in Panama

Brian Gratwicke, *Smithsonian Conservation Biology*

09:00 Designing a global network of protected areas for threatened amphibian species

Don Church, *Global Wildlife Conservation*

09:15 The European Threat Abatement Plan for chytridiomycosis: a work in progress

Trent Garner, *IoZ, ZSL*

09:30 Amphibian Ark: Building ex situ safe-zones for 500+ threatened amphibians

Joe Mendelson, *Amphibian Ark*

09:45 Development of Amphibian Reproductive Technologies for the critically Endangered Mississippi Gopher Frog

(Rana sevosa)

Andy Kouba, *Memphis Zoo*

.....



COFFEE BREAK

10:00 to 10:30

Exhibit Hall A



Late morning session: 10:30 A.M. to 12:30 P.M.

Symposium: **Save the Oceans, Feed the World: Setting Marine Conservation Priorities Based on the Recovery Potential for Marine Fisheries in Data-poor Countries**

Room 301

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S):

Margot Stiles, *Oceana*; **Amanda Keledjian**, *Oceana*; **Michael Hirshfield**, *Oceana*

Marine fisheries are a critical source of food and income for people in developing countries, yet most countries lack stock assessments and few data are available for decision support. This symposium will explore innovative models for evaluating the state of fisheries and potential for recovery in data-poor countries, with the goal of predicting where marine conservation will be most effective. To apply these models in a specific country, we combine quantitative and qualitative indicators to evaluate

the potential for recovery in the ecosystem and human systems contexts. These country comparisons are further informed by lessons learned from previous marine conservation work in prioritization, policy, behavior change and marine protected areas. We identify the tradeoffs of different approaches to prioritization. The symposium discussion will focus on connecting people from diverse backgrounds and disciplines to support continued innovation.

10:30 Modeling potential fisheries recovery using catch reconstruction

Presenter: Kristin Kleisner, University of British Columbia

Co-Author: Daniel Pauly, University of British Columbia

10:45 Measuring benefits to food security and conservation from reforming data-poor fisheries

Presenter: Dan Ovando, University California Santa Barbara

Co-Author: Christopher Costello, Ray Hilborn, Steven D. Gaines, Olivier Deschenes, and Sarah E. Lester

11:00 Country-level comparisons using conservation, livelihoods, governance and market indicators to estimate fisheries recovery potential

Presenter: Margot Stiles, Oceana

Co-Author: Michael F Hirshfield

11:15 Incorporating the 'likelihood of behavior change' into site prioritization for coastal fisheries management

Presenter: Kate Mannle, Rare Conservation

Co-Author: Amielle DeWan

11:30 Priorities for coastal and marine conservation in South America: Five years later

Presenter: Anthony Chatwin, National Fish and Wildlife Foundation, former TNC

11:45 Global marine conservation priorities: Patterns in marine protected area development across nations

Presenter: Carrie Soltanoff, NOAA, NMFS Office of International Affairs, former WWF

Co-Author: Helen Fox

Open discussion period follows from 12:00 to 12:30

.....

Symposium: Integrating Marine Mammal Conservation: 21st Century Challenges

Room 302

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S):

Leslie Cornick, Alaska Pacific University

Marine mammal conservation is unique because many species are difficult to study due to their pelagic nature, resulting in significant data gaps. As apex predators they control prey populations, but their foraging behavior is constrained by their physiology and by prey distribution and abundance. All marine mammals are protected in the US under the Marine Mammal Protection Act, and some species have additional protection under the Endangered Species Act. However, few species exist only in the US, so conservation plans often must include international cooperation, including First Nations tribes. Marine mammals also frequently interact with industry via competition, by-catch, and critical habitat designation. Many marine mammal species are consumed by subsistence users, and internationally through commercial and scientific whaling exemptions to the IWC. Thus, marine mammal conservation must take a multidisciplinary approach (oceanography, fisheries biology), and integrate priorities of diverse stakeholders (policy makers, industry, subsistence users). The theme of this symposium is to bring together interdisciplinary and stakeholder interests to consider challenges, solutions, and best practices for advancing an integrated approach to marine mammal conservation. We propose a three-part program, with the first symposium taking place at the ICCB, the second at the Marine Mammal Biology Conference, and the final symposium at the Third International Marine Conservation Congress.

10:30 Integrating Marine Mammal Conservation in the 21st Century - Conceptual Framework

Leslie Cornick, Alaska Pacific University

10:45 Human Dimensions in Marine Mammal Science

Naomi Rose, Humane Society of the US

11:00 Wishing for Sessile Whales - Policy Considerations for Real World Marine Mammal Conservation

Kassandra Cerveny, Consortium for Ocean Leadership

11:15 Education Tax Credits: Found Money for Marine Mammal Conservation in Alaska

Stephanie Madsen, At-Sea Processors Association

11:30 Arctic Food Security: Building a Conceptual Framework on How to Assess Food Security from an Inuit Perspective

Carolina Behe, Inuit Circumpolar Council-Alaska

Open discussion period follows from 11:45 to 12:30



.....

Symposium: Conserving the Stage: Using Geophysical Units as Coarse-Filter Targets in Conservation Planning for Climate Change. Session II

Room 303

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S):

Paul Beier, *Northern Arizona University*; **Malcolm Hunter, Jr.**, *University of Maine*; **Mark Anderson**, *The Nature Conservancy*

By exploring geophysical units as coarse-filter targets for conservation planning, this symposium connects the abiotic system to the biotic system, and connects the disciplines of geography, geology, climate science, paleoecology, and conservation biology. We have invited diverse stakeholders (advocates for fine-filter approaches and other skeptics) to challenge our approach.

Conservation decision makers want to identify lands that will help biodiversity cope with climate change. A geophysical unit (land facet) is a recurring landscape unit defined by topographic and soil attributes. A reserve network that encompasses the diversity of geophysical units should conserve biodiversity and the ecological and evolutionary processes that maintain and generate biodiversity. The appeal of “conserving the stage” derives from fundamental concepts of ecology, and the realization that the fine-filter approach (1 species at a time, relying on complex models of emissions, global circulation, species’ climate envelopes, and species’ dispersal abilities) is not a practical conservation strategy. But the approach needs more than this common sense appeal if it is to enter the mainstream of science and practice. This symposium (the first on this topic at any professional meeting) will articulate the assumptions, arguments, models, and evidence for the approach, provide examples in conservation planning, and identify gaps in scientific understanding.

10:30 Marine reserve systems constructed using environmental domains do not comprehensively represent seabed fauna
Trish Sutcliffe; *University of Queensland*

10:45 Targeting the geography of climate and climatic changes to increase the resilience of protected area networks
Nicole Heller; *Duke University*

11:00 Conservation status and hotspots of enduring features by ecoregion for the conterminous USA
Lee Elloitt, *University of Missouri*; **David Diamond**, *University of Missouri*

11:15 Conserving the stage: using geophysical units as coarse-filter targets in conservation planning for climate change
Steve Buttrick; *The Nature Conservancy*

11:30 Methods and tools to integrate biophysical variability into the design of climate-smart conservation networks
Pat Comer; *NatureServe*

11:45 An attractive but unsupported idea? Moving from case studies to insights into environmental surrogates for conservation planning
Bob Pressey; *James Cook University*

12:00-12:30 Open discussion: Where do we go from here? How can we improve the scientific basis for coarse-filter conservation planning in the face of climate change?

.....

Symposium: New Directions in Conservation Medicine: Connecting Systems, Disciplines and Stakeholders for Ecological Health in Practice. Session II

Room 304

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S):

Alonso Aguirre, *Smithsonian-Mason School of Conservation*; **Mark Pokras**, *Tufts University Cummings School of Veterinary Medicine*

Species and ecosystems have been threatened by many anthropogenic factors manifested in local and global declines of populations and species. Conservation medicine, an emerging discipline is the result of the long evolution of transdisciplinary thinking within the health and ecological sciences to better understand the complexity within these fields of knowledge. Conservation medicine examines the links among changes in climate, habitat quality, and land use; emergence and re-emergence of infectious agents, parasites and environmental contaminants; and maintenance of biodiversity and ecosystem functions as they sustain the health of plant and animal communities including humans. During the last decade, new tools and institutional initiatives for assessing integrated, ecological health have emerged: landscape epidemiology; disease ecological modeling; web-based analytics; the development of non-invasive physiological and behavioral monitoring techniques; the adaptation of modern molecular biological and biomedical techniques; the design of population level disease monitoring strategies; the creation of ecosystem-based health and sentinel species surveillance; and the adaptation of health monitoring systems for appropriate developing country situations. This symposium addresses these issues with relevant case studies and will challenge the notion that human health is an isolated concern removed from the bounds of biodiversity, ecology and species interactions.



- 10:30 The role of conservation medicine in whooping cranes in North America**
Glenn Olsen, *Patuxent Wildlife Research Center*
- 10:45 The changing ecology of bartonellosis**
Edward Breitschwerdt, *North Carolina State University*
- 11:00 Fungal diseases in disturbed Neotropical forests**
Julieta Benitez-Malvido, *UNAM-Centro de Inv en Ecosistemas*
- 11:15 Wildlife health monitoring systems in North America: from sentinel species to public policy**
Michelle Willette and Julia Ponder, *University of Minnesota The Raptor Center*
- 11:30 Implementing transdisciplinary and health-conservation projects in rural and under-resourced areas.**
Claire Geoghegan, *University of Pretoria South Africa*
- 11:45 Role of Ecotoxicology in ecosystem health**
Jeffrey Levenson et al, *University of Illinois*
- 12:00 Lead, health and the environment**
Mark Pokras, *Tufts University Veterinary School*
- Open discussion period follows from 12:15 to 12:30*

.....

Symposium: Detection of Aquatic Species Using Environmental DNA: An Integrative New Approach to Inform Conservation. Session II

**Room 305
Tuesday, July 23, 10:30 to 12:30**

ORGANIZER(S):

Caren Goldberg, *University of Idaho*; **David Pilliod**, *U.S. Geological Survey*; **Katherine Strickler**, *University of Idaho*

Conservation efforts need techniques that are both accurate and effective to be successful. The new field of environmental DNA (eDNA), where aquatic species are detected using DNA found in water bodies, has the potential to exponentially increase the data available on presence of endangered species as well as early detection of invasive species. The detection of eDNA is a novel, integrative method that greatly improves detection sensitivity and cost efficiency over field surveys for biodiversity, with little or no ecological impact. The method requires integrating concepts and approaches from ecology, hydrology, conservation genetics, and wildlife management and has attracted international attention from conservation scientists and practitioners. Application of the eDNA method directly connects scientists with stakeholders as they collaboratively develop eDNA-based monitoring programs.

Since eDNA was first successfully demonstrated in 2008, technique development has been rapid. This process has occurred independently across labs, leading to a disparity of methods for eDNA detection and inference. At this critical time in the development of eDNA technologies for conservation, we propose to bring together scientists from universities, government agencies, and non-profit organizations at the cutting-edge of this field to present and discuss their approaches. This sharing of knowledge will increase consensus on best practices and move the field into a more cohesive methodology.

- 10:30 Detecting terrestrial animal eDNA in aquatic samples from desert watering sites**
Dr. Richard Lance, *U.S. Army Corps of Engineers*
- 10:45 Developing eDNA assays for threatened amphibian species in acidic wetlands of the southeastern US**
Dr. Anna McKee, *USGS - Atlanta, GA*
- 11:00 Deep sequencing and bioinformatic analysis of environmental DNA**
Dr. R. Scott Cornman, *USGS - Leetown, VA*
- 11:15 Quantifying effects of UV, temperature, and pH on degradation rates of eDNA in a microcosm**
Katherine Strickler, *University of Idaho*
- 11:30 Approaches for ensuring accuracy in aquatic environmental DNA studies**
Dr. Lisette Waits, *University of Idaho, Moscow, ID*
- 11:45 Successes and challenges of using eDNA to monitor amphibians in high-gradient streams**
Dr. David Pilliod, *USGS - Boise, ID*
- 12:00 Error, quality assurance, and information exchange when using genetic technologies for monitoring and surveillance in aquatic ecosystems**
Dr. Andrew Mahon, *Central Michigan University*

Open discussion period follows from 12:15 to 12:30

.....



Spatial Ecology and Conservation 2

Room 306

Tuesday, July 23, 10:30 to 12:30

- 10:30 Conservation planning in Canada's western boreal forest: Modeling and communicating cumulative effects of large scale resource development**
David Browne, *Canadian Wildlife Federation*; Matt Carlson, *ALCES Group*
- 10:45 Mapping ignorance: a method for assessing the completeness of datasets on flowering plants in Africa**
Juliana Stropp, *Joint Research Centre of the European Commission*; Julien Gaffuri, *Joint Research Centre of the European Commission*; Richard Ladle, *Federal University of Alagoas*; Ana Malhado, *Federal University of Alagoas*; William Temperley, *Joint Research Centre of the European Commission*; Philippe Mayaux, *Joint Research Centre of the European Commission*
- 11:00 Distribution mapping of world grassland types for biodiversity**
Adam Dixon, *World Wildlife Fund*; Don Faber-Langendoen, *NatureServe*; Carmen Josse, *NatureServe*; John Morrison, *World Wildlife Fund - United States*; Colby Loucks, *World Wildlife Fund - United States*
- 11:15 Effect of GPS collar sampling intensity on habitat selection inference: Mountain lions as a case study**
Kathy Zeller, *UMASS, Amherst*; Kevin McGarigal, *UMASS, Amherst*; Paul Beier, *Northern Arizona University*; Samuel Cushman, *USDA Forest Service*; Andrew Whiteley, *UMASS, Amherst*; Winston Vickers, *Wildlife Health Center, University of California, Davis*; Walter Boyce, *Wildlife Health Center, University of California, Davis*
- 11:30 A novel combination of habitat and threat models can reveal potential ecological traps**
Kathryn Rodriguez-Clark, *Instituto Venezolano de Investigaciones Cientificas*; Ada Sanchez-Mercado, *Instituto Venezolano de Investigaciones Cientificas*; Jose Ferrer-Paris, *Instituto Venezolano de Investigaciones Cientificas*; Shaenandhoa Garcia-Rangel, *Universidad Simón Bolívar*; Edgard Yerena, *Universidad Simon Bolivar*; Bruce Robertson, *Bard College*
- 11:45 Targeting collaborative conservation actions using novel spatial datasets: a case study from the Grand Canyon's North Rim**
Matthew Williamson, *Grand Canyon Trust*; Brett Dickson, *Conservation Science Partners*; Christine Albano, *University of California - Davis*; Thomas Sisk, *Northern Arizona University*; Ethan Aumack, *Grand Canyon Trust*
- 12:00 Antarctic Conservation Biogeographic Regions: management implications of a new bioregionalisation approach for terrestrial Antarctica**
Aleks Terauds, *Australian Antarctic Division*; Steven Chown, *Monash University*; Dana Bergstrom, *Australian Antarctic Division*
- 12:15 Incorporating scale in habitat preference models improves prediction maps for elephants**
Andrew Mashintonio, *Rutgers University*; Gareth Russell, *New Jersey Institute of Technology*

Tuesday



.....

Symposium: Roadless and Low Density-Transportation Networks as Permeable Landscapes and Seascapes. Session II

Room 307

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S): Dominick DellaSala, *Geos Institute*

A vast network of roads and marine highways crisscrosses the planet, transporting people and goods over global distances with substantial environmental impacts. For instance, the ecological footprint of roads is known to extend up to a kilometer on either side of an individual road (road effect zone) with cumulative effects of dense road networks in some regions impacting up to 15-20% of total surface area (e.g., continental USA). Marine transportation networks and associated ship transport lanes also create migration and other problems for wildlife, including acoustic pollution and collision-related mortality. In contrast, areas with low road densities and/or low-traffic volume (marine and terrestrial) and those with no roads (e.g., roadless areas in the USA, South America, Asia, Africa) are a conservation priority globally because they provide habitat for road-adverse wildlife, have characteristic ecological processes, are relatively resistant to weed invasions, act as strongholds for aquatic species, and provide climatic refugia. In some terrestrial regions (e.g., western Europe), only low-density roads with low traffic volume remain and these areas are building blocks for re-wilding landscapes. This symposium will provide a global synthesis of impacts of vast transportation networks and a region by region and a global synthesis on the importance of intact areas showcasing new intactness and human footprint technologies.

10:30 Roadless (wilderness) areas in Australia and impact on conservation policy

James Watson, *Wildlife Conservation Society*

10:45 Importance of roadless wilderness to African forest megavertebrates

Stephen Blake, *Max Planck Inst. for Ornithology*

11:00 Where are marine highways going?

Andrew Wright, *National Environmental Res. Inst.*

11:15 Resolving conflicts between marine mammals and shipping in the Hauraki Gulf, NZ

Carolyn Lundquist, *National Institute of Water & Atmospheric Research Ltd., New Zealand/ University of Auckland*;

David Wiley, *Stellwagen Bank National Marine Sanctuary*; **Rochelle Constantine**, *University of Auckland*; **Will**

McClintock, *University of California, Santa Barbara*

11:30 Environmental implications of a marine freeway traversing Canada's roadless Great Bear Rainforest

Paul Paquet, *Raincoast Conservation Foundation*

11:45 Roads and grizzly bears in the Greater Yellowstone Ecosystem, USA

Craig Shafer, *George Mason University*

12:00 Roadless areas: working towards a comprehensive global assessment

Pierre Ibisch, *Center Ecomics & Ecosystem Manage*

Open discussion period follows from 12:15 to 12:30

.....

Tuesday



**Making a difference.
Making you think.**

**UNIVERSITY OF
CALGARY PRESS**



**PARKS, PEACE, AND
PARTNERSHIP: Global Initiatives
in Transboundary Conservation**

EDITED BY M. S. QUINN, L. BROBERG,
AND W. FREIMUND

576 pp, \$45.95 USD, pb, illustrations
9781552386422



**HISTORICAL GIS RESEARCH
IN CANADA**

EDITED BY JENNIFER BONNELL
AND MARCEL FORTIN

300 pp, \$45.95 USD, pb, illustrations
9781552387085

Nov 2013

Published in partnership with NiCHE

Government
of Alberta

Canada



Canada Council
for the Arts

Conseil des Arts
du Canada

Visit us at www.uofcpress.com

Symposium: **Still 'Shooting in the Dark'? Policy Insights from the Frontiers of Evidence-based Conservation. Session II**

Room 308

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S): **Louise Glew**, *World Wildlife Fund*; **Michael B. Mascia**, *World Wildlife Fund*

Evidence-based policy and practice has emerged as a major focus of biodiversity conservation research in the past decade. Scholars and practitioners increasingly recognize that without empirical evidence, decisions on where and how to conserve biodiversity constitute a 'shot in the dark'. The nascent evidence base emerging from quasi-experimental impact evaluation, which allows scholars to make causal inferences about the ecological and social impacts of conservation interventions, has generated important insights for conservation practice and overturned long-held conventional wisdom. The evidence derived from these pioneering impact evaluation studies remains limited in scope, however, with considerable mismatch between the insights generated and the needs of policymakers. Addressing this disparity requires future generations of evaluative studies to advance six methodological 'frontiers': diversifying the range of outcome metrics; documenting variation in impact; linking interventions to impact; exploring trade-offs and synergies between outcomes; comparing the effectiveness of interventions; and translating evidence into policy and practice. This session brings together scholars and practitioners to explore these six frontiers across a range of interventions, biomes and sociopolitical contexts to highlight the potential and the limits of impact evaluation in conservation, in order to catalyze policy-relevant research and further advance conservation policy.

10:30 Decentralization & Development-Environment Tradeoffs: federal versus state conservation choice & impacts on Amazonian deforestation

Alex Pfaff, *Duke University*

10:45 Ecological, social, and demographic impacts of protected areas in the Brazilian Amazon

Christoph Nolte, *University of Michigan*

11:00 Conserving rivers and streams: Evaluating long and short-term outcomes of a freshwater small grants program in the Southeast US

Michele Thieme, *World Wildlife Fund*

11:15 Making the most of the data: challenges of collaborative NGO data management and analysis for impact evaluation in a remote MPA network in Indonesia

Gabby N. Ahmadia, *World Wildlife Fund*

11:30 Evidence and evaluation in conservation program design: USAID's experience

Diane Russell, *USAID*

11:45 Evidence-based conservation: integrating scientific insights into conservation practice

Andrew Pullin, *Bangor University*

Open discussion period follows from 12:00 to 12:30

.....
Symposium: **Integrating Systems, Disciplines and Stakeholders for More Effective Conservation Policies - From Climate Change to Endangered Species Restoration. Session II**

Room 309

Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S): **John Fitzgerald, J.D.**, *Counsel to SCB*

In order to conserve biodiversity and to have any chance that SCB will succeed in its mission, policies grounded in and tested by science and practice must be in place to ensure and reward proper management of resources and human actions that affect them. Decision-makers must draw from all relevant sciences and disciplines to form and adapt these rules and must include most or all stakeholders in forming these to ensure sufficient compliance. We are at a crossroads in modern society at which older policies or older enforcement modes are no longer adequate to ensure regional or global conservation, but the roots of reform can be found within our legal and administrative systems so that we need not start from scratch. This symposium will draw from leading experts in climate and earth science, ecological and energy economics, and cutting edge domestic and international law to identify both the roots of reform and the new growth that must be fostered across the legal and governmental systems of the world by using and serving stakeholders, not only as recipients but as drivers.

** Please note unique talk lengths in this symposium.*

10:30-10:35 Brief Introduction to Panel 2

John M. Fitzgerald, *Counsel to SCB*

10:35-10:50 The Endangered Species Act -- Still Vigorous at 40?--The State of the ESA on its 40th Anniversary and Prospects for Progress

Dan Rolhf, *Lewis and Clark Law School*



- 10:50-11:05 **Environmental Impact Assessment and Public Lands Stewardship -- Biodiversity in Federal Lands and Federal Actions -- NEPA/NFMA/FLPM**
Neil Lawrence, *Natural Resources Defense Council*
- 11:05-11:20 **Bio-Security - Controlling Imports and Exports -- Invasives, Diseases and Contraband**
Peter T. Jenkins, *Center, Invasive Species Prevention*
- 11:20-11:35 **International Agreements Affecting Conservation: Top Issues in CBD, CITES, IPBES, Trade and Investment**
Kyle Gracey, *SCB Treaties Task Force Co-Chair*
- 11:35-11:50 **Scientific Integrity -- The Process of Protecting the Integrity of Science in Forming Conservation Policy-- The Administration's Progress**
Alan Thornhill, *Science Advisor to the US Geological Survey, U.S. Department of the Interior*
- 11:50--12:05 **From Whistleblower Protection Law to Real Cases**
Jeff Ruch, *Public Employees for Environmental Responsibility*
- 12:05-12:20 **Final Observations -- Powerful Tools For Global Citizens, Small Island States, and Conservation Professionals**
John M. Fitzgerald, *Counsel to SCB*
- Open discussion follows from 12:20 to 12:30*



.....

Symposium: The Global Amphibian Conservation Action Plan: Connecting Systems, Disciplines and Stakeholders to Save Amphibians Worldwide. Session II
Room 310

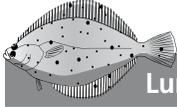
Tuesday, July 23, 10:30 to 12:30

ORGANIZER(S): Phil Bishop, Amphibian Survival Alliance / University of Otago; James Lewis, IUCN SSC Amphibian Specialist Group

The IUCN amphibian conservation action plan is a unique example of a multi-disciplinary response to the global amphibian crisis. Published in 2007, the action plan details an ambitious framework to stem the rapid losses of amphibians worldwide (Gascon et al. 2007). This plan detailed a need for \$400m investment over 4 years and some highly motivated stakeholders from around the world have been able to leverage some initial funding to implement real conservation actions that cross disciplines and benefit amphibians world-wide. The Amphibian Survival Alliance (ASA), launched in June 2011, acts as a global partnership for amphibian conservation and is working to mobilize a motivated and effective consortium of organizations to stem the rapid losses of amphibian populations and species worldwide (Bishop et al. 2012). The purpose of this session is to convene some of the implementers of best cutting-edge examples of amphibian conservation actions ranging from land acquisition to species management, law enforcement and policy, education and capacity building actions that cross a variety of disciplines outlined in the Amphibian Conservation Action Plan. We hope to engage the wider community of conservation practice in each of these disciplines to help stimulate conversations and ideas to effectively implement this ambitious plan.

- 10:30 **Making policies that tackle spread of amphibian disease in the US and international amphibian trade.**
Alejandra Goyenecha, *Defenders of Wildlife*
- 10:45 **The Influence of Industry: How Conflicts of Interest Compromise Pesticide Regulation**
Michelle Boone, *Miami University*
- 11:00 **Reintroduction of an Extinct-in-the-Wild amphibian: the return of the Kihansi Spray Toad to its habitat in the Udzungwa Mountains of Tanzania**
Nassoro Mohamed, *University of Dar es Salaam*
- 11:15 **A global monitoring system to map the spread of emerging diseases**
Deanna H. Olson, *US Forest Service*
- 11:30 **In Search of Lost Frogs: A backdoor approach to conservation communication**
Robin Moore, *IUCN Amphibian Specialist Group*
- 11:45 **Red List Assessments, Citizen Science and the Future of Conservation Assessments**
Jaime Garcia Moreno, *Amphibian Survival Alliance*
- 12:00 **Moderated discussion linking examples from this session to best conservation practices in non-amphibian systems.**
Claude Gascon, *Amphibian Survival Alliance*

Open discussion period follows from 12:15 to 12:30



Lunch Activities: 12:30 P.M. to 2:00 P.M.

- **SCB Groups Meetings**

Africa Section • Room 306
 Marine Section Meeting • Room 301
 Social Science Working Group • Room 304

.....

- **Student Event**

- **Student Mixer with the Smith Fellows**

- **12:30 - 14:00, James Joyce Pub**

- (One mile from - walk east on Pratt Street past the Inner Harbor, turn right on South President Street. James Joyce Pub is located at 616 South President Street)

- Are you a student contemplating a Ph.D., a doctoral student nearing completion or a newly minted Dr. conducting innovative research in conservation biology? Have you heard of the David H. Smith Conservation Research Fellowship? Whether you are aware of the Smith Fellows program or want to learn more, please join us for an informative lunch where you will learn about the program and mingle with current and/or past Smith Fellow recipients. This is an excellent opportunity to find out how you can strengthen your skills through two years of applied post-doctoral research, while participating in training programs, networking, and field experiences. Heavy hors d'oeuvres provided by the ICCB Student Activities Committee.

.....

- Workshop: **Faculty/Researcher Training Resources for Research Ethics, Cultural Sensitivity and Community-based Research for Conservation Biology**

- Room 302

- **Organizer(s):** Quigley, D., *Northeast Ethics Education Partnership, Brown University*

- Workshop: **Resolving Environmental Conflicts: A Mediator shares Lessons for Resource Managers, Scientists and Stakeholders (Day 1 of 2)**

- July 23 & 24, Room 303

- **Organizer(s):** Moore, L., *Lucy Moore Associates, Inc.*

- Workshop: **Cross-training Undergraduate Scientists in Practical Conservation: Integrating Science and Policy Skills in a Problem-based Curriculum**

- Room 305

- **Organizer(s):** Siuda, A., *Sea Education Association*; Jensen, J., *Sea Education Association*; McClennen, C., *Wildlife Conservation Society*

- Workshop: **Being BioDiverse: Sharing the Experiences of Underrepresented Conservation Scientists & Students in North America, Australia & Western Europe**

- Room 308

- **Organizer(s):** Sutton, A., *Duke University*; Wynn-Grant, R., *Columbia University*

- Workshop: **Participating in a Conference: Some Advice for New-comers**

- Room 309

- **Organizer(s):** Hunter, M. *University of Maine*

- Workshop: **Connecting the Dots: How to Identify Areas Contributing Significantly to the Global Persistence of Biodiversity**

- Room 310

- **Organizer(s):** Cuttelod, A. *IUCN*





Early afternoon awards ceremony and plenary session: 2:00 P.M. to 4:30 P.M.

Grand Ballroom I&II

Tuesday, July 23, 14:00 to 16:30

AWARDS CEREMONY: DISTINGUISHED SERVICE AWARDS

SCB's Distinguished Service Award recognizes outstanding contributions to the field of conservation biology. Two of the four recipients will be presented with their award during today's ceremony.

Eleanor Sterling has been Director of the American Museum of Natural History's Center for Biodiversity and Conservation since 2000 and is Adjunct Professor at Columbia University and Visiting Faculty at Bard College. She was given this award for 30 years of teaching, mentoring and inspiring a whole generation of conservation biologists from all over the world.

William J. Sutherland has been the main proponent behind the Cambridge Conservation Initiative, and ConservationEvidence.com, an online journal and website documenting and collating the effectiveness of conservation interventions. He was given this award for his work in applied conservation and his work on the revolutionary idea of "evidence-based conservation."

PLENARY SESSION

The Rocket Model for Effective Communication

Teresa Erickson, *President, Intermedia Communications Training, Inc.* and **Tim Ward**, *Head of Asia/Africa Operations for Intermedia Communications Training, Inc.*

The Rocket Model for Effective Communication provides core principles for organizing your thoughts and thinking on your feet. It helps you give clear compelling answers to any question. You can use this model in media interviews, presentations, seminars, public hearings, emails, and even job interviews. This session also covers the do's and don'ts of body language, including what not wear for TV interviews. The session ends with a demonstration of the Rocket Model in action: a mock TV interview with former SCB Executive Director Dr. Alan Thornhill on the topic of scientific integrity.



AFTERNOON REFRESHMENTS BREAK

16:30 to 17:00

Exhibit Hall A



Late afternoon session: 5:00 P.M. to 6:00 P.M.

Marine & Wetland Conservation

Room 301

Tuesday, July 23, 17:00 to 18:00

17:00 The potential of using data-logging acoustic receivers to study the movements and residency patterns of dugongs in port environments

Daniel Zeh, *James Cook University*; **Colin Limpus**, *Queensland Department of Environment and Heritage Protection*; **Michelle Heupel**, *Australian Institute of Marine Science*; **Russ Babcock**, *Commonwealth Scientific and Industrial Research Organisation (CSIRO)*; **Richard Pillans**, *Commonwealth Scientific and Industrial Research Organisation (CSIRO)*; **Mark Hamann**, *James Cook University*; **Alana Grech**, *James Cook University*; **Helene Marsh**, *James Cook University*

17:15 Active Restoration Efforts of the Endangered, *Acropora cervicornis* Corals in the Dominican Republic

Victor Galvan, *PUNTACANA Ecological Foundation*; **Diego Lirman**, *Rosenstiel School of Marine and Atmospheric Science*; **Jake Kheel**, *PUNTACANA Ecological Foundation*

Speed Presentations

- 17:30 The conservation awareness and attitudes of whale-watching tourists in Samaná, Dominican Republic**
Christine Gleason, *George Mason University*; E.C.M Parsons, *George Mason University*
- 17:35 Developing microsatellite markers for management and conservation of the New Zealand scallop *Pecten novaezelandiae***
Catarina Silva, *Victoria University of Wellington*; Jonathan Gardner, *Victoria University of Wellington*
- 17:40 Green Sea Turtles and Marine Ecosystem Health: A Case Study From Palmyra Atoll**
Kate McFadden, *U.S. Geological Survey/ Clemson University*; Eugenia Naro-Maciel, *College of Staten Island, City University of New York*
- 17:45 Population-Health-Environment: lessons learned by Blue Ventures from five years of integrating family planning with marine conservation in Madagascar**
Vik Mohan, *Blue Ventures Conservation*; Alasdair Harris, *Blue Ventures Conservation*; Laura Robson, *Blue Ventures Conservation*;
- 17:50 Population status and threats to Chilean Flamingos in known areas of their distribution in South America**
Felicity Arengo, *American Museum of Natural History*; Juan Cornejo, *Wildlife Conservation Society*
- 17:55 Winter Waterbird Use and Food Resources of Aquaculture Facilities in Mississippi**
James Feaga, *Mississippi State University*; Francisco Vilella, *USGS Cooperative Fish & Wildlife Research Unit*

.....

Scientists, Stakeholders, and Managers: Bridging the Gap

Room 302

Tuesday, July 23, 17:00 to 18:00

- 17:00 Prioritizing areas for conservation and management across the greater Grand Canyon region using a participatory spatial analytical framework**
Sasha Stortz, *Northern Arizona University*; Thomas Sisk, *Northern Arizona University*; Erik Nielsen, *Northern Arizona University*; Jill Rundall, *Northern Arizona University*; Todd Chaudhry, *Grand Canyon National Park*
- 17:15 Who knows? The role of NGOs in brokering knowledge for ocean management**
Anna Zivian, *Ocean Conservancy*

Speed Presentations

- 17:30 MammalMAP: A mammal monitoring initiative for improved wildlife conservation in Africa that bridges ecosystem, disciplinary, and political divides**
Tali Hoffman, *Mammal Research Institute*; Robert Millar, *Mammal Research Institute*; Les Underhill, *Animal Demography Unit*
- 17:35 Life on the Edge: Livelihoods, Impact and Adaptation to Climate Change in Urban Coastal Areas in Ghana**
EnoAbasi Anwana, *Regional Institute for Population Studies, University of Ghana*; Samuel Codjoe, *Regional Institute for Population Studies, University of Ghana*
- 17:40 Stakeholder perspectives on Chronic Wasting Disease**
Kari Amick, *University of Saskatchewan*; Douglas Clark, *University of Saskatchewan*; Ryan Brook, *University of Saskatchewan*
- 17:45 The last wild island: Vital partnerships for sustainable conservation outcomes in Melanesia**
John Read, *Ecological Horizons*; Katherine Moseby, *Tetepare Descendants' Association*; Chris Filardi, *American Museum of Natural History*; Richard Rice, *Conservation Agreement Fund*
- 17:50 Determining the Carbon Benefit of Ecosystems Restoration Projects and the Associated Reductions in the Social Cost of Carbon**
Marybeth Riley-Gilbert, *ICF International*; Franz Ingelfinger, *Massachusetts Division of Ecological Restoration*; Nick Wildman, *Massachusetts Division of Ecological Restoration*; Erin Healy, *ICF International*
- 17:55 Monitoring watershed ecosystem services in Latin America: connecting investors, conservation activity, and water outcomes in water funds**
Joanna Nelson, *The Natural Capital Project, Stanford University*; Leah Bremer, *The Natural Capital Project, Stanford University*; Rebecca Chaplin-Kramer, *The Natural Capital Project, Stanford University*; Heather Tallis, *The Natural Capital Project, Stanford University*; Jonathan Higgins, *The Nature Conservancy*



.....

Spatial Ecology, Conservation Modeling & GIS

Room 303

Tuesday, July 23, 17:00 to 18:05 (Note, this session runs 5 minutes longer than others)

17:00 Ecological indicators and the sustainable sourcing of agricultural raw materials

Patrick Huber, *Information Center for the Environment, UC Davis*; **Allan Hollander**, *Information Center for the Environment, UC Davis*; **Nathaniel Springer**, *Agricultural Sustainability Institute, UC Davis*; **Kelly Garbach**, *Loyola University Chicago*; **Sonja Brodt**, *Agricultural Sustainability Institute, UC Davis*; **James Quinn**, *Information Center for the Environment, UC Davis*; **Tom Tomich**, *Agricultural Sustainability Institute, UC Davis*

17:15 A review of systematic reviews of conservation evidence

Carly Cook, *University of Melbourne*; **Hugh Possingham**, *University of Queensland*; **Richard Fuller**, *University of Queensland*

Speed Presentations

17:30 Protected Area Downgrading, Downsizing and Degazettement (PADDD) in Yosemite National Park and the Sierra Nevadas

Rachel Golden, *University of Maryland*; **Roopa Krithivasan**, *World Wildlife Fund*; **Michael Mascia**, *World Wildlife Fund*; **William Fagan**, *University of Maryland*

17:35 Population Viability Analysis of Captive Asian Elephants in the Lao PDR

Ingrid Suter, *The University of Queensland*; **Gilles Maurer**, *ElefantAsia*; **Greg Baxter**, *The University of Queensland*

17:40 People and Wild Canids - Lessons Learnt from Comparative Studies of Dhole and Jackal Movements

Ellen Aikens, *Smithsonian Conservation Biology Institute*; **Kate Jenks**, *Minnesota Zoo*; **Naris Bhumpakphan**, *Kasetsart University*; **Nucharin Songsasen**, *Smithsonian Conservation Biology Institute*; **Sawai Wanghongsa**, *Thailand Department of National Parks, Wildlife and Plant Conservation*; **Budsabong Kanchanasaka**, *Thailand Department of National Parks, Wildlife and Plant Conservation*; **Peter Leimgruber**, *Smithsonian Conservation Biology Institute*

17:45 Addressing the neglected role of threats in comparative extinction risk analysis

Kris Murray, *EcoHealth Alliance*; **Luis Verde**, *University of Queensland*; **Martina Di Fonzo**, *University of Queensland*; **Ana Davidson**, *Stony Brook University*; **Moreno di Marco**, *Sapienza University of Rome*

Full-length Presentation (15 minutes)

17:50 Predicting spatial patterns of predation risk for boreal caribou from wolves across the boreal forest in Canada

Cheryl Johnson, *Environment Canada*; **Tyler Muhly**, *Alberta Innovates - Technology Futures*; **Eric Nielson**, *Environment Canada*

.....

SCB Group Meeting: Europe Section

Room 304

Tuesday, July 23, 17:00 to 18:00

.....

Monitoring, Biogeography, & Conservation of Hotspots

Room 305

Tuesday, July 23, 17:00 to 18:10 (Note, this session runs 10 minutes longer than others)

17:00 Mesomerica's Narco-Laundered Forests

David Wrathall, *United Nations University, Institute of Environment and Human Security*; **Kendra McSweeney**, *Ohio State University*

17:15 Phylogenetic Diversity using massively parallel sequencing: Robust biodiversity metrics for conservation planners

P. Roxanne Kellar, *University of Nebraska at Omaha*; **Dakota Ahrendsen**, *University of Nebraska at Omaha*; **Shelly Drenkow**, *University of Nebraska at Omaha*; **J. Chris Pires**, *University of Missouri*; **Amanda Jones**, *University of Nebraska at Omaha*

Speed Presentations

17:30 Mortality Impact of the Hemlock Woolly Adelgid in the Great Smoky Mountains National Park

James Rosson, Jr., *USDA Forest Service; Southern Research Station*; **Anita Rose**, *USDA Forest Service; Southern Research Station*

17:35 Inferring species occupancy at a site when detection is imperfect: setting minimum survey effort with respect to conservation objectives

Gurutzeta Guillera-Aroita, *University of Melbourne*; **Jose Lahoz-Monfort**, *University of Melbourne*; **Michael McCarthy**, *University of Melbourne*; **Brendan Wintle**, *University of Melbourne*

17:40 Endemism, connectivity, and marine protected areas: A population genetics comparison of endemic and widespread reef fishes in the Hawaiian Archipelago

Kimberly Tenggardjaja, *University of California, Santa Cruz*; **Giacomo Bernardi**, *University of California, Santa Cruz*; **Brian Bowen**, *Hawaii Institute of Marine Biology*

Tuesday



- 17:45 **Imperfect detection of species in biological surveys reduces the accuracy of species distribution models: when and how much does it matter?**
José Lahoz-Monfort, *University of Melbourne*; **Gurutzeta Guillera-Arroita**, *University of Melbourne*; **Brendan Wintle**, *University of Melbourne*
- 17:50 **Cryptic Impacts of Variable Temperatures in a Declining Aquatic Salamander**
Kimberly Terrell, *Smithsonian Conservation Biology Institute*; **Richard Quintero**, *Smithsonian's National Zoological Park*; **Suzan Murray**, *Smithsonian's National Zoological Park*; **Bradley Nissen**, *Smithsonian Conservation Biology Institute*; **James Murphy**, *Smithsonian's National Zoological Park*; **John Kleopfer**, *Virginia Department of Game and Inland Fisheries*; **Brian Gratwicke**, *Smithsonian Conservation Biology Institute*

Full-length Presentation (15 minutes)

- 17:55 **Forecasting global mammal extinction risk in a changing world**
Ana Davidson, *Stony Brook University*; **Kevin Shoemaker**, *Stony Brook University*; **Ben Weinstein**, *Stony Brook University*; **Catherine Graham**, *Stony Brook University*; **Volker Radeloff**, *University of Wisconsin-Madison*; **Carlo Rondinini**, *Sapienza University of Rome*

.....

Landscape, Restoration, and Urban Ecology, & Pollution

Room 306

Tuesday, July 23, 17:00 to 18:00

- 17:00 **Millennial Stability and Post-settlement Burial of Bog Turtle (*Glyptemys muhlenbergii*) Habitat in Two Piedmont Valleys of Maryland and Pennsylvania**
William Hilgartner, *Johns Hopkins University & Friends School of Baltimore*; **Dorothy Merritts**, *Franklin and Marshall College*; **Robert Walter**, *Franklin and Marshall College*; **Michael Rahnis**, *Franklin and Marshall College*; **Jeffrey Hartranft**, *Department of Environmental Protection*; **David Bowne**, *Elizabethtown College*; **Aleah Miller**, *Elizabethtown College*; **Candace Grand Pre**, *Franklin and Marshall College*; **Christopher Bernhardt**, *U.S. Geological Survey*

- 17:15 **The tiger and the elephant: can alternative conservation paradigms meet to conserve biodiversity in Asia?**
Raman Sukumar, *Centre for Ecological Sciences*

Speed Presentations

- 17:30 **A simulation model to evaluate re-networking for fragmented fish habitats with consideration for population dynamics**
Takeshi Takemura, *National Institute for Rural Engineering*; **Masakazu Mizutani**, *Utsunomiya University*; **Noriyuki Koizumi**, *National Institute for Rural Engineering*; **Atsushi Mori**, *National Institute for Rural Engineering*; **Keiji Watabe**, *National Institute for Rural Engineering*; **Kazuya Nishida**, *National Institute for Rural Engineering*
- 17:35 **The unexpected discovery of new cryptic frog in the urban northeastern US: A summary of the discovery and conservation considerations**
Jeremy Feinberg, *Rutgers University*; **Catherine Newman**, *Louisiana State University*; **Gregory Watkins-Colwell**, *Yale Peabody Museum*; **Matt Schlesinger**, *New York Natural Heritage Program*; **Brian Zarate**, *New Jersey Division of Fish and Wildlife*; **H. Shaffer**, *University of California, Los Angeles*; **Joanna Burger**, *Rutgers University*
- 17:40 **Evaluating Nitrogen Deposition Influence in Invaded California Coastal Sage Scrub Communities**
Amanda James, *University of California, Riverside*; **James Sickman**, *University of California, Riverside*; **Mark Fenn**, *US Forest Service*; **Edith Allen**, *University of California, Riverside*
- 17:45 **EverVIEW data visualization software designed for Everglades restoration decision-making, used internationally**
Stephanie Romanach, *U.S. Geological Survey*; **Craig Conzelmann**, *U.S. Geological Survey*; **Kevin Suir**, *U.S. Geological Survey*; **Christina Hunnicutt**, *U.S. Geological Survey*; **Mark McKelvy**, *U.S. Geological Survey*; **Sumani Chimmula**, *University of Louisiana*
- 17:50 **Contaminant Mobilization Associated with Ecosystem Restoration Projects**
Erin Healy, *ICF International*; **Jennifer Pierre**, *ICF International*
- 17:55 **Towards Conservation and Education - Development of a bio-monitoring toolkit for Singapore's coastal and marine habitats**
Annabelle Ng, *National Parks Board, Singapore*; **Karen Lim**, *National Parks Board, Singapore*



.....

Behavioral Ecology, Human-Wildlife Conflict, & Conservation Genetics

Room 307

Tuesday, July 23, 17:00 to 18:00

Speed Presentations

- 17:00 Patterns of Human-Jaguar Conflicts across Latin America**
Alexandra Zimmermann, *Chester Zoo / Oxford University*; **Scott Wilson**, *Chester Zoo*; **Nandita Hazarika**, *EcoSystems-India*
- 17:05 Bird migration through cities: urban stopovers are not more stressful**
Rachel Bricklin, *Fordham University*; **J. Alan Clark**, *Fordham University*; **Brian Walker**, *Fairfield University*
- 17:10 Serological survey and movement tracking of domestic and wild canids at Khao Ang Rue Nai Wildlife Sanctuary, Thailand**
Kate Jenks, *Minnesota Zoo*; **Nucharin Songsasen**, *Smithsonian Conservation Biology Institute*; **Mourad Gabriel**, *University of California Davis Veterinary Genetics*; **Ellen Aikens**, *Smithsonian Conservation Biology Institute*; **Naris Bhumparkpan**, *Kasetsart University*; **Sawai Wanghongsa**, *Thailand Department of National Parks, Wildlife, and Plant Conservation*; **Warawidjh Wajwalku**, *Kasetsart University*; **Budsabong Kanchanasaka**, *Thailand Department of National Parks, Wildlife, and Plant Conservation*; **Todd Fuller**, *University of Massachusetts*; **Peter Leimgruber**, *Smithsonian Conservation Biology Institute*
- 17:15 Projecting changes in phenology using temperature based growing degree days**
Rebecca Harris, *Antarctic Climate Ecosystem CRC*; **Greg Lee**, *Antarctic Climate Ecosystem CRC*; **Paul Fox-Hughes**, *Antarctic Climate Ecosystem CRC*; **Nathan Bindoff**, *Antarctic Climate Ecosystem CRC*
- 17:20 The Solitary Maned Wolf Uses Scent Signals to Ensure Reproductive Success**
Marieke Kester, *George Mason University*; **Thomas Huff**, *George Mason University*; **Elizabeth Freeman**, *George Mason University*; **Thomas Goodwin**, *Hendrix College*; **Nucharin Songsasen**, *Smithsonian Conservation Biology Institute*
- 17:25 Tracking Responses to Marine Derived Nutrients in Riparian Consumers in the Context of the Largest Dam Removal in United States History**
Christopher Tonra, *Smithsonian Conservation Biology Institute*; **Kim Sager-Fradkin**, *Lower Elwha Klallam Tribe*; **Peter Marra**, *Smithsonian Conservation Biology Institute*
- 17:30 There's No Place Like Home: Using Microsatellites to Determine Natal Homing in Bog Turtles and Understanding the Conservation Implications**
Suzanne Macey, *Fordham University*; **Caroline Chiu**, *American Museum of Natural History*; **Purva Vaidya**, *American Museum of Natural History*; **Kevin Shoemaker**, *Stony Brook University*; **J. Alan Clark**, *Fordham University*
- 17:35 A novel semi-variance approach to extracting multiple movement modes from animal relocation data**
Justin Calabrese, *Smithsonian Conservation Biology Institute*; **Chris Fleming**, *Smithsonian Conservation Biology Institute*; **Thomas Mueller**, *University of Maryland*; **Kirk Olson**, *Smithsonian Conservation Biology Institute*; **Peter Leimgruber**, *Smithsonian Conservation Biology Institute*; **William Fagan**, *University of Maryland*
- 17:40 Conservation Genetics of New York's Giant Salamander: The Eastern Hellbender**
Meghan Jensen, *Buffalo State College*; **Amy McMillan**, *Buffalo State College*

.....

Adaptive and Ecosystem Management, and Habitat Degradation

Room 308

Tuesday, July 23, 17:00 to 18:00

- 17:00 Managing human activities and ecosystem services in alpine protected areas in Norway and British Columbia, Canada**
Vera Hausner, *University of Tromsø*; **Ellen Bludd**, *University of Tromsø*; **Wolfgang Haider**, *School of Resource and Environmental Management, Simon Fraser University*; **Nigel Yoccoz**, *University of Tromsø*
- 17:15 Aerial perspective, a useful tool to understand large-scale environmental issues and bring stakeholders together for successful conservation campaigns**
Armando Ubeda, *LightHawk*; **Jonathan Milne**, *LightHawk*



Speed Presentations

- 17:30 Adaptive Management of Golden Eagles on Wind Farms in the U.S.**
Leslie New, *US Geological Survey*; Emily Bjerre, *US Fish and Wildlife Service*; Brian Millsap, *US Fish and Wildlife Service*; Mark Otto, *US Fish and Wildlife Service*; Michael Runge, *US Geological Survey*
- 17:35 Pyrodiversity versus biodiversity: the influence of mosaic burning on bird species richness across multiple spatial scales**
Emma Burgess, *University of Queensland*; Martine Maron, *University of Queensland*; Patrick Moss, *University of Queensland*; Murray Haseler, *Bush Heritage Australia*
- 17:40 Identifying drivers of abundance of an irruptive species, the Dickcissel (*Spiza americana*)**
Brooke Bateman, *University of Wisconsin-Madison*; Jessica Gorzo, *University of Wisconsin-Madison*; Anna Pidgeon, *University of Wisconsin-Madison*; Volker Radeloff, *University of Wisconsin-Madison*; H. Akcakaya, *Stony Brook University*; Curtis Flather, *USDA, Forest Service*; Thomas Albright, *University of Nevada, Reno*; Stephen Vavrus, *Center for Climatic Research*; Wayne Thogmartin, *United States Geological Survey*; Patricia Heglund, *United States Fish and Wildlife Service*
- 17:45 Forest fragmentation in Northwestern Ethiopia: Genetic effects on an endangered medicinal tree species**
Haile Yiniger Tariku, *Australian Rivers Institute, School of Environment, Griffith University*; Daniel Schmidt, *Australian Rivers Institute, School of Environment, Griffith University*; Jane Hughes, *Australian Rivers Institute, School of Environment, Griffith University*
- 17:50 Age structure and spatial distribution pattern of the rare and endangered plant *Alcimandra cathcartii***
Chun-ming Yuan, *Yunnan Academy of Forestry*
- 17:55 Drivers of change in Myanmar's wild elephant distribution**
Melissa Songer, *Smithsonian Conservation Biology Institute*; Myint Aung, *Friends of Wildlife, Myanmar*; Peter Leimgruber, *Smithsonian Conservation Biology Institute*

.....
Outreach, Community-Driven Conservation & Citizen Science

Room 309

Tuesday, July 23, 17:00 to 18:00

- 17:00 Renewable Energy Siting: Understanding the lay of the land and the sea on the U.S.'s Atlantic Coast**
John Primo, *Bureau of Ocean Energy Management*; Brian Krevor, *Bureau of Ocean Energy Management*
- 17:15 Community Conservation: A Powerful Solution to Environmental Degradation and Biodiversity Loss**
Robert Horwich, *Community Conservation*

Speed Presentations

- 17:30 Crowdfunding for Conservation: Using Social Media to Build Support;**
Rachel Wheat, *University of California, Santa Cruz*; Yiwei Wang, *University of California, Santa Cruz*; Jarrett Byrnes, *University of Massachusetts, Boston*; Jai Ranganathan, *National Center for Ecological Analysis and Synthesis*
- 17:35 How do you effectively incentivise and motivate local communities to adopt conservation behaviours? A case study of the Sumatran orangutan**
Danielle Nilsson, *University of Queensland*
- 17:40 Understanding elephant distribution in a human-dominated transfrontier landscape**
Sarah-Anne Selier, *School of Life Sciences, University of Kwa-Zulu Natal*; Rob Slotow, *School of Life Sciences, University of Kwa-Zulu Natal*; Bruce Page, *School of Life Sciences, University of Kwa-Zulu Natal*; Enrico Di Minin, *Finnish Centre of Excellence in Metapopulation Biology, University of Helsinki*
- 17:45 Zoo-based Teacher Professional Development - An Effective Means for Integrating Conservation Science and Advocacy into Classrooms**
James Danoff-Burg, *San Diego Zoo Global*; Maggie Reinbold, *San Diego Zoo Global*; Robin Keith, *San Diego Zoo Global*; Samantha Young, *San Diego Zoo Global*; Corrin LaCombe, *San Diego Zoo Global*; Kirstie Ruppert, *San Diego Zoo Global*
- 17:50 It's all in the name - public attitudes to the conservation of biodiversity, habitats and charismatic-sounding species**
E.C.M. Parsons, *Department of Environmental Science & Policy, George Mason University*; A Shah, *Dept of Environmental Science & Policy, George Mason University*; P. Karaffa, *Dept of Environmental Science & Policy, George Mason University*; C. Scott, *Dept of Environmental Science & Policy, George Mason University*
- 17:55 A citizen army for conservation: quantifying participatory research on monarch butterflies and its impacts on science, conservation, and behavior**
Leslie Ries, *National Socio-environmental Synthesis Center*; Karen Oberhauser, *University of Minnesota*



.....

Stakeholders, Capacity Building & Citizen Science

Room 310

Tuesday, July 23, 17:00 to 18:10 (Note, this session runs 10 minutes longer than others)

17:00 Answering the hard questions: Sustainable Ocean Policy and Implementation: 05:00 PM - 05:15 PM

Nicholas Bax, *CSIRO*; Marcus Haward, *IMAS*; Piers Dunstan, *CSIRO*; Tony Smith, *AM, CSIRO*

17:15 Using expert opinions to define Biologically Sensitive Microhabitats for improved biodiversity conservation during hydrocarbon exploration in Amazonia

Jessica Deichmann, *Smithsonian Conservation Biology Institute*; Reynaldo Linares-Palomino, *Smithsonian Conservation Biology Institute*; Alfonso Alonso, *Smithsonian Conservation Biology Institute*

Speed Presentations

17:30 Characterizing Tribal Cultural Landscapes for Resource Preservation and Protection

Valerie Grussing, *National Marine Protected Areas Center*

17:35 Visualizing biodiversity information to achieve multiple conservation goals

Prasanna Kolte, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Kiran M.C., *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Madhura Niphadkar, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Pranita Sambhus, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*

17:40 Locating conservation offices for efficient management

Christine Dumoulin, *University of Tennessee Knoxville*; Paul Armsworth, *University of Tennessee Knoxville*

17:45 Knowing sea turtles: local communities informing conservation in Koh Rong archipelago, Cambodia

Juliane Diamond, *Lincoln University*; Victor Blanco, *Song Saa Private Island*; Ronlyn Duncan, *Lincoln University*

17:50 Connecting the dots through information innovation: The case of western and central Pacific tuna

Megan Bailey, *Wageningen University and Research Centre*; Simon Bush, *Wageningen University and Research Centre*; Paul van Zwieten, *Wageningen University and Research Centre*; Arthur Mol, *Wageningen University and Research Centre*

Full-length Presentation (15 minutes)

17:55 Supporting capacity building for biodiversity conservation - lessons from a 28 year NGO business partnership

Kiragu Mwangi, *BirdLife International*; Iain Dickson, *BirdLife International*



Special Evening Events: 6:00 P.M. to 8:00 P.M.

- **Poster Session and Cash Bar (See full listing following pages)**
18:00 to 20:00, Exhibit Hall A

-
- **Student Sponsored Crab Crawl and Scavenger Hunt**
Meet at Shucker's of Fells Point anytime after 20:00

Student tickets are \$5, Non-student tickets are \$10

All aboard for a fun tour of Baltimore's historic Fells Point with the student-sponsored Pub Crawl Scavenger Hunt (a.k.a. "The Crab Crawl")! Fight the good conservation fight while downing Dark N' Stormies at Rye! Test your scientific mettle against the wiles of the jalapeño shot at Riptide! Present your proposal to Edgar Allen Poe's favorite barstool at the Saloon! Start at Shucker's for a mix and mingle with private bar and drink specials, then grab a few friends and head out into the summer's night to chase down clues and try to beat your fellow biologists. Everyone's welcome: we plan to eat, drink, and be merry – and we hope you will, too! Funds raised from ticket sales will go to support future student travel grants.

Tuesday





Conservation Capacity Building

1 Strengthening Conservation Capacity through Strategic Resources and Partnerships: the Network of Conservation Educators and Practitioners

Kristin Douglas, *American Museum of Natural History*; Kimberley Landrigan, *American Museum of Natural History*; Adriana Bravo, *American Museum of Natural History*; Katharine Hanson, *American Museum of Natural History*; Jenna Conversano, *American Museum of Natural History*; Ana Luz Porzecanski, *American Museum of Natural History*; Eleanor Sterling, *American Museum of Natural History*

2 Cultivating Critical Thinking Skills Among Conservation Biology Students

Martha Groom, *University of Washington Bothell*; Eleanor Sterling, *Center for Biodiversity Conservation, American Museum of Natural History*; Ana Porzecanski, *Center for Biodiversity Conservation, American Museum of Natural History*; Adriana Bravo, *Center for Biodiversity Conservation, American Museum of Natural History*; Nora Bynum, *Duke University*; Barbara Abraham, *Hampton University*; John A. Cigliano, *Cedar Crest College*; Lilana Dávalos, *Stony Brook University*; Carole Griffiths, *Long Island University*; David Stokes, *University of Washington Bothell*

Desert Conservation

3 Exploratory data analysis from a translocation study of Mojave desert tortoise, *Gopherus agassizii*

Ericka Hegeman, *Conservation Science Partners, Inc.*; Matthew Farnsworth, *Conservation Science Partners, Inc.*; Luke Zachmann, *Conservation Science Partners, Inc.*; Thomas Jackson, *Kaueah Biological Consulting*; Kelly Herbinson, *Sundance Biology*; Brett Dickson, *Conservation Science Partners, Inc.*

Disturbance Ecology

4 Effects of fuel reduction treatments on movement and habitat use of American toads in a southern Appalachian hardwood forest

Joseph Tavano, *Clemson University*; Amber Pitt, *Clemson University*; Robert Baldwin, *Clemson University*; Thomas Waldrop, *USFS, Southern Research Station*

Ecological Restoration and Reconstruction

5 Non-inferiority testing: Answering the right question in ecological restoration

Kristian Omland, *Stantec*; Philip Molloy, *Stantec*

6 Colonization of reconstructed habitat at Fresh Kills Landfill by Painted Turtles (*Chrysemys picta*)

Seth Wollney, *College of Staten Island*; Eugenia Naro-Maciel, *College of Staten Island*

Ecosystem / Conservation Area Management

7 Phytosociology of Atlantic Forest in Botanical Garden of Salvador, Brazil

Pedro Andrade Silva, *Federal University of Bahia Botanical Garden of Salvador*; Erivaldo Queiroz, *Botanical Garden of Salvador*; Maria Lenise Guedes, *Federal University of Bahia*; Luciano Santos, *Botanical Garden of Salvador*; Henrique Chagas, *Botanical Garden of Salvador*; Lucineide Teixeira, *Botanical Garden of Salvador*

8 Risk of collapse of Venezuelan terrestrial ecosystems and the relationship with extinction risk of mammals and birds

María A. Oliveira-Miranda, *Provita*; María A. Oliveira-Miranda, *Provita*; Jon Paul Rodriguez, *IVIC*; Marisol Aguilera, *Universidad Simón Bolívar*

9 Conserving Asian elephants requires the coordination and integration of multiple agencies and stakeholders

Jennifer Pastorini, *Centre for Conservation and Research*; Peter Leimgruber, *Smithsonian Conservation Biology Institute*; Tharaka Prasad, *Department of Wildlife Conservation*; Prithiviraj Fernando, *Centre for Conservation and Research*

Ecosystem Functions and Services

10 What is most important in prioritizing areas for restoration in Europe? Biodiversity, ecosystem services or cost .

Benis Egoh, *JRC-European Commission*; Joachim Maes, *JRC-European Commission*; Grazia ZULIAN, *Contractor at JRC*; Maria Luisa PARACCHINI, *JRC-European Commission*; Giovanni Bidoglio, *JRC-European Commission*





12 The pollination network structure and reproductive success in mixed fruit orchards near and far from forest edge in Thailand

Tuanjit Sritongchuy, *Prince of Songkla University*; Jane Memmott, *School of Biological Science*; Sara Bumrungsri, *Prince of Songkla University*

13 Foraging habitats and diets of pollinating bat species in southern Thailand

Alyssa Stewart, *University of Maryland*; Michele Dudash, *University of Maryland*

Energy Pollution (Noise, Light, Thermal Pollution etc)

14 Responses of bat species to artificial light in a semi-natural context

Aurélie Lacoëuilhe, *National Museum of Natural History*; Nathalie Machon, *National Museum of Natural History*; Jean-François Julien, *National Museum of Natural History*; Agathe Le Bocq, *EDF R&D*; Christian Kerbiriou, *National Museum of Natural History*

Environmental Ethics and Justice

15 The Land Ethic of African American Forest Landowners in South Carolina

Keenan Adams, *USFWS*

Environmental/Conservation Economics

16 Novel approaches for integrated assessment and planning that incorporate biodiversity and ecosystem services

Hedley Grantham, *Conservation International*; Daniel Juhn, *Conservation International*

Evolution and Conservation

17 GIS modeling of the geographic distribution of melanism in leopards (*Panthera pardus*): a baseline tool for the conservation of phenotypic diversity

Lucas Gonçalves, *PUCRS Brazil*; Eduardo Eizirik, *PUCRS Brazil*

18 Importance of the Amazon-Cerrado gradient in preserving adaptive variation in a changing world

Hilton Oyamaguchi, *UCLA*; Thomas Smith, *UCLA*

Forest Conservation

19 Strategies for Integrating Private Stakeholders in Plantation Forest and Conservation: Public and Private Forest Practices in Ekiti State, Nigeria.

Oluwayemisi Arowosoge, *Ekiti State University*; Folaranmi Babalola, *University of Pretoria*

20 Deer and invasive earthworms: drivers of forest plant community transformations?

Annis Dobson, *Cornell University*; Bernd Blossey, *Cornell University*

21 Implementing Conservation in the Context of Climate Change in a Western Maine Forested Landscape

Peter McKinley, *The Wilderness Society*

Freshwater Conservation

22 A restoration and conservation agenda for the fishes of the Shubuto River System

Yusuke Miyazaki, *Kanagawa Prefectural Museum of Natural History*; Akira Terui, *The University of Tokyo*; Akira Yoshioka, *The University of Tokyo*; Izumi Washitani, *The University of Tokyo*

23 Drivers of darter fish (Percidae) species composition in creeks and small rivers in Tennessee, USA

Stephanie Tougas, *Fordham University*; Rose Carlson, *Fordham University*

24 Food web variability in a pristine north temperate lake

Talia Young, *Rutgers University*; Olaf Jensen, *Rutgers University*; Brian Weidel, *USGS Great Lakes Science Center*; Sudeep Chandra, *University of Nevada - Reno*





Habitat Degradation and Fragmentation

- 25 **Small sacred forest groves retain the preponderance of biodiversity found in much larger forest reserves.**
Janice Bossart, *Southeastern Louisiana University*; Josephine Antwi, *Texas A & M University*
- 26 **Does forest dieback in monatne cloud forests impact the endangered Sri Lanka Whistling Thrush *Myophonus blighi*?**
Chaminda Ratnayake, *Field Ornithology Group of Sri Lanka, Department of Zoology, University of Colombo*; Sarath Kotagama, *Field Ornithology Group of Sri Lanka, Department of Zoology, University of Colombo*

Historical Ecology and Conservation

- 27 **Introduced grazers, human demography, and landscape impacts: environmental change in contact-era New Mexico**
Emily Jones, *University of New Mexico*
- 28 **Assessing the historical range of the Greater Prairie Chicken using provenance data from avian species native to Canadian grasslands**
Daniel Lubin, *Bowling Green State University*; Juan Bouzat, *Bowling Green State University*
- 29 **Distribution and Conservation State of the Small Wild Cats in the Cauca Valley, Colombia**
Andrés Quintero Angel, *Pontificia Universidad Javeriana.*; Néstor Ospina-Reina, *Fundación OIKOS*

Human-Wildlife Conflict

- 30 **Use of caves and overhanging rocks as hunting camps: consequences for breeding Grey-necked Picathartes in southeastern Nigeria.**
Fidelis Atuo, *Oklahoma State University*; Timothy O'Connell, *Oklahoma State University*; Samuel Ivande, *A. P. Leventis Ornithological Research Institute (APLORI)*; Zingfa Wala, *A. P. Leventis Ornithological Research Institute (APLORI)*
- 31 **Effects of human activity on American Oystercatchers (*Haematopus palliatus*) breeding at Cape Lookout National Seashore, North Carolina**
Tracy Borneman, *North Carolina Cooperative Fish and Wildlife Research Unit, NC State University*; Theodore Simons, *USGS, NC Cooperative Fish and Wildlife Research Unit, NC State University*
- 32 **Why do hunters hunt? A case study on Negros Island, Philippines**
Apolinario Carino, *PENAGMANNAKI*; Angelita Cadelina, *Silliman University Biology Department*; Rene Vendiola, *PENAGMANNAKI*
- 33 **Field Assessment of the Effectiveness of DiazaCon? on Reducing Gray Squirrel Reproduction and Population**
Kristina Dunn, *Clemson University*
- 34 **A Meta-Analysis of Attitudes Towards Damaging Causing Mammalian Wildlife**
Ruth Kansky, *University of Stellenbosch*; Andrew Knight, *Imperial College London, Silwood Park Campus*; Martin Kidd, *University of Stellenbosch*
- 35 **Interdisciplinary research on illegal harvesting of river dolphins: insights and opportunities for conservation**
Vanessa Mintzer, *University of Florida*; Anthony Martin, *University of Dundee*; Vera da Silva, *Instituto Nacional de Pesquisas da Amazônia*; Marianne Schmink, *University of Florida*; Kai Lorenzen, *University of Florida*; Thomas Frazer, *University of Florida*
- 36 **Conflict between fishing and conservation interests: attitudes and behaviors towards sea lions in a fishing community in southern Brazil**
Ana Pont, *Unisinos*; Mônica Engel, *Unisinos*; Silvio Marchini, *Escola da Amazônia*; Rodrigo Machado, *Unisinos*; Larissa Oliveira, *Unisinos*
- 37 **Living in a Bear Country: Ecological Study of Human-Brown Bear Conflicts in Sangjiangyuan Area, Tibetan Plateau, China**
Lan Wu, *Center for Nature and Society, Peking University*; Juan Li, *Center for Nature and Society, Peking University*; Ruiling Song, *Center for Nature and Society, Peking University*; Zhi Lu, *Center for Nature and Society, Peking University*; Dajun Wang, *Center for Nature and Society, Peking University*; George Schaller, *Panthera*





Inventory and Monitoring

- 38 A Comparison of Two Avian Survey Methods and the Implications for Conservation Monitoring in Arid Environments**
Jessie Golding, *University of Montana*; Victoria Dreitz, *University of Montana*
- 39 The Use of Corticosterone in Feathers as a Conservation Biomarker**
Christopher Harris, *University of Windsor*; Christine Madliger, *University of Windsor*; Oliver Love, *University of Windsor*
- 40 Bridging the Past and Present: Archaeological, Historical, and Field Evidence for Carnivore Declines on a Mid-Atlantic Peninsula**
Aaron Hogue, *Salisbury University*
- 41 Longer long-term data in rare plant monitoring is needed**
Rebecca Kao, *Denver Botanic Gardens*; Jennifer Neale, *Denver Botanic Gardens*; Michelle DePrenger-Levin, *Denver Botanic Gardens*; Mary Goshorn, *Denver Botanic Gardens*
- 42 Building Conservation Partnerships: The LightHawk Perspective and the Power of Flight.**
Jonathan Milne, *LightHawk.org*; Armando Ubeda, *Lighthawk*
- 43 A baseline avian survey of the Rupununi River, Guyana, by dugout canoe: a 'healing journey' for conservation**
Michael Schindlinger, *University of California, Santa Barbara*; David Morimoto, *Lesley University*; Gajendra (Andy) Narine, *Guyana Amazon Tropical Birds Society*; Asaph Wilson, *Village of Shulinab*

Land use Planning for Conservation

- 44 Comparing biodiversity modelling approaches in a high human impact landscape in British Columbia, Canada**
Angela Boag, *University of British Columbia*; Peter Arcese, *University of British Columbia*

Landscape Conservation

- 45 Building Staff Capacity through Education: The California DFW Climate College**
Whitney Albright, *California Department of Fish and Game*; Natalie Dubois, *Defenders of Wildlife*; Judy Boshoven, *Founders of Success*; Amber Pairis, *California Department of Fish and Wildlife*; Armand Gonzales, *California Department and Fish and Wildlife*
- 46 A new global platform: IUCN's International Connectivity Conservation Network**
Olivier Chassot, *Tropical Science Center*; Graeme Worboys, *Jagumba Consulting*; Bernal Herrera Fernández, *Tropical Agricultural Research and Higher Education Center-CATIE*; Linda McMillan, *McMillan Associates - Business Consulting*; Ian Walker, *Parks Victoria*; Rod Atkins, *Commonwealth Marine Reserves Operations Section*
- 47 The Development of the Palm Oil Industry in Mesoamerica and Potential Impacts on the Jaguar Corridor**
Joe Figel, *University of Central Florida*
- 48 Modern conservation: private vs public efforts in Northeastern, US**
Evelyn Strombom, *Smithsonian Conservation Biology Institute*; Jonathan Thompson, *Smithsonian Conservation Biology Institute*
- 49 Measuring landscape connectivity for US biomes to inform climate adaptation**
David Theobald, *National Park Service*; Sarah Reed, *Wildlife Conservation Society*; Bill Monahan, *National Park Service*; Andy Hansen, *Montana State University*
- 50 Exploring potential downsides of conservation linkages: plant invasion in Southern California linkages**
Marit Wilkerson, *University of California, Davis*

Marine Conservation

- 52 Diversity and risk of extinction of Sciaenidae (Pisces; Perciformes) and Results of IUCN Red List Assessments**
Ning Chao, *Bio-Amazonia Conservation International*; Beth Polidoro, *Arizona State University*; Kent Carpenter, *Marine Biodiversity Unit, IUCN*; Chih-Wei Chang, *National Museum of Marine Biology & Aquarium*; Manuel Haimovici, *Universidade Federal do Rio Grande*; Min Liu, *Xiamen University*; Yvonne Sadovy de Mitcheson, *Hong Kong University*; Monica Peres, *Ministry of Environment*





Marine Conservation

- 53 **Marine Conservation: Status and Challenges in Nigerian Coastal Environment**
Fisayo Olakolu, *Nigerian Institute for Oceanography and Marine Research(NIOMR)*; Oyeronke Adegbile, *Nigerian Institute for Oceanography and Marine Research(NIOMR)*
- 54 **Fishing scallops, oysters and associated epifauna in Baja California Peninsula: Loss of non-officially recorded biodiversity**
Ricardo Rodríguez-Estrella, *Centro de Investigaciones Biológicas del Noroeste*; Lucía Campos, *Centro de Investigaciones Biológicas del Noroeste*; Laura Rivera, *Universidad Autónoma de Sinaloa*
- 55 **The Bureau of Ocean Energy Management's Avian Research in the Western Atlantic**
Sally Valdes, *Bureau of Ocean Energy Management, The U.S. Department of the Interior*
- 56 **Developing a New Diagnostic Technique for Domoic Acid Toxicosis in *Zalophus californianus*, a Sentinel Species of Oceanic Health**
Christiana Wittmaack, *Nova Southeastern University Oceanographic Center*; Caryn Self-Sullivan, *Nova Southeastern University Oceanographic Center*; Curtis Burney, *Nova Southeastern University Oceanographic Center*; Garett Lahvis, *Oregon Health and Science University*; Denise Greig, *the Marine Mammal Center*; William Van Bonn, *the Marine Mammal Center*; Edward Keith, *Nova Southeastern University Oceanographic Center*

Overexploitation of Natural Resources

- 57 **Recalibrating human-environment relations: Public trust thinking and the role of conservation biology**
Darragh Hare, *Cornell University*
- 58 **The role of secondary vegetation in providing medicinal plants for women's health and childcare in Bénin, West Africa**
Alexandra Towns, *Naturalis Biodiversity Center (section NHN), Leiden University*; Tinde van Andel, *Naturalis Biodiversity Center (section NHN), Leiden University*; Sofie Ruysschaert, *Ghent University*

Plastics and Debris Pollution

- 60 **Microplastics in the marine environment: Potential effects in US National Parks**
Catherine Toline, *National Park Service*; Alex Chow, *Clemson University*; Xubiao Yu, *Clemson University*

Population Dynamics

- 61 **Demographic trends and Streptococcus outbreaks in a synanthropic population of macaques (*Macaca fascicularis*), Bali (Indonesia)**
Fany Brotcorne, *University of Liège*; Nengah Wandia, *Universitas Udayana*; Roseline Beudels-Jamar, *Royal Belgian Institute of Natural Sciences*; Marie-Claude Huynen, *University of Liège*
- 62 **How many Asian elephants are killed illegally for ivory and in conflicts? A matrix modeling exercise of populations with varying sex ratios in India**
Karpagam Chelliah, *Centre for Ecological Sciences*; Raman Sukumar, *Centre for Ecological Sciences*
- 63 **Distinguishing local and remote drivers of change in migratory bird populations**
Kiran Dhanjal-Adams, *University of Queensland*; Howard Wilson, *University of Queensland*; Bruce Kendall, *University of California Santa Barbara*; Colin Studds, *University of Queensland*; Richard Fuller, *University of Queensland*
- 64 **Identification of Microbial Biodiversity and Community Structure in the Baltimore Harbor**
Laura Grammer, *Stevenson University*; Kimberly Tucker, *Stevenson University*; Katie Mistretta, *Stevenson University*; Hadassa Guttman, *Stevenson University*
- 65 **Small mammals as potential seed dispersers of American ginseng (*Panax quinquefolius* L.)**
Amy Hruska, *West Virginia University*; James McGraw, *West Virginia University*

Population Viability Analysis

- 66 **PVA's beware: Greater than expected first-year survival rates for migratory songbirds**
Noah Perlut, *University of New England*; Allan Strong, *University of Vermont*





Protected Area Planning and Design

- 67 **Comparing animal groups as surrogates for conservation planning of a tropical dry forest**
Silvia Alvarez, *University of Maryland*; Diego Gutierrez, *ICOMVIS - Universidad Nacional de Costa Rica*; Ruben Pacheco, *Grupo de Investigación en Ecología y Biogeografía*
- 68 **Comparison of landscape resistance measures as estimated by habitat use, movement behavior, and dispersal**
Annika Keeley, *Northern Arizona University*; Paul Beier, *Northern Arizona University*; Tabitha Graves, *Colorado State University*; Brian Keeley, *N/A*
- 69 **Protecting the Cross River gorilla (*Gorilla gorilla diebli*) in a multi-stake landscape of Cameroon: assessment of current and emerging challenges**
Bienvenu Magloire Takem Mbi, *University of Yaounde II/INC*

Recovery of Endangered Species

- 70 **What's in a name? Reviewing the concept and current practice of critical habitat identification for threatened and endangered species.**
Abbey Camaclang, *University of Queensland*; Tara Martin, *CSIRO Ecosystem Sciences*; Hugh Possingham, *University of Queensland*
- 71 **Improving conservation management of New Zealand's rarest kiwi (*Apteryx rowi*): An integrated approach identifies optimal release group size.**
Rachael Abbott, *Victoria University of Wellington*; Ben Bell, *Victoria University of Wellington*; Nicky Nelson, *Victoria University of Wellington*
- 72 **Is bog turtle (*Glyptemys mublenbergii*) habitat buried under 250 year-old sediment? Re-evaluating conventional wisdom concerning habitat loss**
David Bowne, *Elizabethtown College*; Candace Grand Pre, *Franklin and Marshall College*; Jeffrey Hartranft, *PA Department of Environmental Protection*; William Hilgartner, *Johns Hopkins University & Friends School of Baltimore*; Dorothy Merritts, *Franklin and Marshall College*; Aleah Miller, *Elizabethtown College*; Michael Rahnis, *Franklin and Marshall College*; Robert Walter, *Franklin and Marshall College*
- 73 **Piloting Vulture Safe Zone in Nepal as an integrated approach to conserving Asia's critically endangered vultures**
Anand Chaudhary, *SUNY College of Environmental Science and Forestry*; Khadananda Paudel, *Bird Conservation Nepal*; Richard Cuthbert, *Royal Society for the Protection of Birds*; Bhupal Nepali, *Bird Conservation Nepal*; Ishwari Chaudhary, *Bird Conservation Nepal*; Hirulal Dangaura, *Bird Conservation Nepal*; Krishna Bhusal, *Bird Conservation Nepal*
- 74 **Floating Nesting Platforms for Least Terns: A possible antidote to sea level rise and loss of gravel rooftops**
Elizabeth Forys, *Eckerd College*; Jenna Sciarrino, *Eckerd College*; Kirsten Poff, *Eckerd College*
- 75 **Evaluation of population impacts using reproductive value: moving beyond the**
Selina Heppell, *Oregon State University*
- 76 **An analysis of bioeconomic tradeoffs in Vaquita (*Phocoena sinus*) conservation policies for the Upper Gulf of California, Mexico**
Sean Herron, *University of California, Santa Barbara*; Jamie Afflerbach, *University of California, Santa Barbara*; Delsin Brunkow, *University of California, Santa Barbara*; Sanaz Sohrabian, *University of California, Santa Barbara*; Jade Sainz, *University of California, Santa Barbara*; Anthony Broderick, *University of California, Santa Barbara*
- 77 **Predicting population extinction risk based on biological traits and anthropogenic threats**
Judy Che-Castaldo, *National Socio-Environmental Synthesis Center*; Maile Neel, *University of Maryland, College Park*
- 78 **Improving the demographic and genetic management of polar bears through greater understanding of their reproductive physiology**
Katrina Knott, *Memphis Zoo*; Gabriela Mastrmonaco, *Toronto Zoo*; Joanne Simerson, *San Diego Zoo*; Megan Owen, *San Diego Zoo Global*; Monica Stoops, *Cincinnati Zoo and Botanical Gardens*; Erin Curry, *Cincinnati Zoo and Botanical Garden*; Terri Roth, *Cincinnati Zoo and Botanical Garden*; Beth Roberts, *Memphis Zoo*





Recovery of Endangered Species

- 79 **Addressing the challenges of monitoring at community reintroduction projects: the case of hibi at Maungatautari Ecological Island**
Kate Richardson, *Massey University*; John Ewen, *Zoological Society of London*; Isabel Castro, *Massey University*; Doug Armstrong, *Massey University*
- 80 **Feasibility of out-planting small populations to conserve a rare fen plant**
Sara Scanga, *Utica College*; Andrea Blowers, *Utica College*; Charles Schirmer, *SUNY College of Environmental Science and Forestry*
- 81 **Occupancy Study Investigates Historic Hypothesis Related to Distribution of Endangered Shenandoah Salamander**
Jennifer Sevin, *Smithsonian Institution*; Evan Grant, *U.S. Geological Survey*
- 82 **Numerical response of the endangered Karner blue butterfly (*Lycaeides melissa samuelis*) to recovery efforts at the Albany Pine Bush Preserve**
Steven Campbell, *Albany Pine Bush Preserve Commission*; Neil Gifford, *Albany Pine Bush Preserve Commission*; Amanda Dillon, *Albany Pine Bush Preserve Commission*

Remote Sensing

- 83 **A global, 30-m resolution tree cover dataset: consistency with the MODIS Vegetation Continuous Fields and accuracy relative to lidar measurements**
Joseph Sexton, *Global Land Cover Facility*; Xiao-Peng Song, *Global Land Cover Facility*; Praveen Noojipady, *Global Land Cover Facility*; Anupam Anand, *Global Land Cover Facility*; Chengquan Huang, *Global Land Cover Facility*; Min Feng, *Global Land Cover Facility*; Saurabh Channan, *Global Land Cover Facility*; Do-Hyung Kim, *Global Land Cover Facility*

Restoration Ecology

- 84 **Mix It Up! Multi-Ecotype Blends for Conservation and Restoration in the Face of Global Change**
Jennifer Balachowski, *University of California, Davis*; Jennifer Balachowski, *University of California, Davis*
- 85 **Restoration of reefs around Sattahip, Chonburi Province in the upper Gulf of Thailand**
Suchana Chavanich, *Chulalongkorn University*; Voranop Viyakarn, *Chulalongkorn University*; Chalothon Raksasab, *Chulalongkorn University*; Pataporn Kuanui, *Chulalongkorn University*; Kenji Iwao, *Akajima Marine Science Laboratory*; Makoto Omori, *Akajima Marine Science Laboratory*
- 86 **Optimizing the reforestation of tropical premontane cattle pasture through fertilization and grass maintenance**
Debra Hamilton, *Monteverde Institute*; Tim Parshall, *Westfield State University*; Gregory Goldsmith, *University of California, Berkeley*
- 87 **Feeding ecology of freshwater turtles at the reclaimed Freshkills Landfill: Insights from stable isotope analysis**
Eugenia Naro-Maciel, *College of Staten Island, City University of New York*; Jimiane Ashe, *Graduate Center, City University of New York*; Juan Sebastian Maffa, *College of Staten Island, City University of New York*; Jenna Pantophlet, *College of Staten Island, City University of New York*; Jarred Sutton, *College of Staten Island, City University of New York*; Ella Viola, *College of Staten Island, City University of New York*; Seth Wollney, *College of Staten Island, City University of New York*

Risk Assessment and Uncertainty

- 88 **Expert judgment and group decision making: the role of intelligence**
Mark Burgman, *University of Melbourne*

Savanna Conservation

- 89 **Vegetation Dynamics and Mesophication in Response to Conifer Encroachment within an Ultramafic Edaphic System**
Jerry Burgess, *Johns Hopkins University*; Katalin Szlavecz, *Johns Hopkins University*; Christopher Swan, *University of Maryland, Baltimore County*
- 90 **Landscape carbon measurement in agroforestry in savanna environments of rural Senegal toward a model of measurements of trees outside of forests**
Moussa Dieng, *Department of Forestry, Michigan State University*





Scientists, Stakeholders, and Managers: Bridging the Gap

- 91 Measuring success of Regional Fisheries Management Goals and Objectives: A Retrospective Analysis**
Ariele Baker, *Rutgers, the State University of New Jersey*; Patricia Pinto da Silva, *Northeast Fisheries Science Center Social Science Branch*; George Lapointe, *George LaPointe Consulting*
- 92 Relative Influence of Predator Populations on Amphibian Assemblages in Urban Environments**
Brian Cooper, *Towson University*; Joel Snodgrass, *Towson University*
- 94 Evaluating fragmentation mitigation effects of natural canopy bridges for arboreal tropical forest mammals in pipeline construction**
Tremaine Gregory, *Smithsonian Conservation Biology Institute*; Farah Carrasco Rueda, *Smithsonian Conservation Biology Institute*; Jessica Deichmann, *Smithsonian Conservation Biology Institute*; Joseph Kolowski, *Smithsonian Conservation Biology Institute*; Alfonso Alonso, *Smithsonian Conservation Biology Institute*
- 95 Using habitat factors and recreational use preferences to inform management for threatened frogs and introduced trout**
Rosemary Hartman, *University of California, Davis*; Sharon Lawler, *University of California, Davis*; Karen Pope, *USFS Redwood Sciences Lab*
- 96 Integrating Identification and Critical Evaluation of Ex Situ Management Options into Species Conservation Planning as Part of a One Plan Approach**
Kathy Traylor-Holzer, *IUCN SSC Conservation Breeding Specialist Group*; Kristin Leus, *Copenhagen Zoo - IUCN SSC Conservation Breeding Specialist Group (Europe Office)*; Philip McGowan, *Newcastle University*; Robert Lacy, *Chicago Zoological Society*; Onnie Byers, *IUCN SSC Conservation Breeding Specialist Group*
- 97 Educating Graduate Students to be Environmental Leaders and World-Changers: Experiences from the Boreas Leadership Program**
Kate Knuth, *University of Minnesota, Institute on the Environment*
- 98 Service Learning: Connecting Students with Stakeholders and Managers and Connecting Academics to Conservation in Action**
Jessa Madosky, *Warren Wilson College*
- 99 Indigenous territories, industry, and science: finding common grounds to establish conservation projects**
Tamia Souto, *Smithsonian Conservation Biology Institute*; Cecilia Núñez, *Smithsonian Conservation Biology Institute*; Jessica Deichmann, *Smithsonian Conservation Biology Institute*; Alfonso Alonso, *Smithsonian Conservation Biology Institute*
- 100 Insufficient regulation of Maui's Marine Protected Areas may reduce Benthic Biodiversity**
Kelly Thomasson, *University of California, Santa Barbara*; William Avery, *California State University, Sacramento*

Spatial Ecology and Conservation

- 101 Modeling the optimal site for coastal cactus wren habitat restoration to mitigate threats of fragmentation and wildfire**
Erin Conlisk, *San Diego Zoo Institute for Conservation Research*; Sara Motheral, *San Diego Zoo Institute for Conservation Research*; Rosa Chung, *San Diego Zoo Institute for Conservation Research*; Bryan Endress, *San Diego Zoo Institute for Conservation Research*
- 102 Modeling Wildlife Occurrence to Evaluate Ecosystem Service Tradeoffs**
Shelly Johnson, *University of Florida*; Holly Ober, *University of Florida*; Damian Adams, *University of Florida*
- 103 Movement patterns of Threatened African Vultures**
Corinne Kendall, *Columbia University*
- 104 The effects of urbanization on interactions between wild felids: implications for disease transmission**
Jesse Lewis, *Colorado State University*; Kevin Crooks, *Colorado State University*; Sue VandeWoude, *Colorado State University*; Larissa Bailey, *Colorado State University*
- 105 Apparent Resilience of a Freshwater Turtle Population to a Reconfigured Forested Landscape**
Christopher O'Bryan, *Clemson University*; Robert Baldwin, *Clemson University*; Jessica Homiyack, *Weyerhaeuser Company*
- 106 Climate change and the efficacy of the Natura 2000 network for protecting reptiles and amphibians in Romania**
Viorel Popescu, *Simon Fraser University*; Laurentiu Rozyłowicz, *University of Bucharest*; Dan Cogalniceanu, *University Ovidius Constanta*; Iulian Niculae, *University of Bucharest*; Adina Cucu, *University of Bucharest*





Sustainable Agriculture

- 107 **Understanding the sustainability and tradeoffs associated with smallholder oil palm expansion in Indonesia**
Janice Ser Huay Lee, *ETH Zurich*

Urban Area Conservation

- 109 **Frog-human coexistence in lowland Vietnam: Use of urban areas in a rapidly-changing landscape**
Katie Holzer, *University of California, Davis*; Robert Bayers, *University of California, Davis*; Tao Nguyen, *Vietnam National Museum of Nature, Vietnam Academy of Science and Technology*
- 110 **Contribution of urban road-side plant nurseries to plant conservation and human well-being in the face of climate change, Uganda**
Edward Mwavu, *Makerere University, Kampala*; Edith Ayikoru, *Makerere University, Kampala*
- 111 **Green roofs provide foraging habitat for insectivorous bats in New York City**
Kaitlyn Parkins, *Fordham University*; J. Clark, *Fordham University*
- 112 **Building cities to ensure people's access to nature and the associated health benefits**
Jessica Sushinsky, *University of Queensland*; Jonathan Rhodes, *University of Queensland*; Hugh Possingham, *University of Queensland*; Tony Gill, *New South Wales Office of Environment and Heritage*; Richard Fuller, *University of Queensland*

Wetland Conservation

- 113 **Interacting Legacies and Stress Predict Rare-Species Occurrence in Wisconsin Fens**
David Bart, *University of Wisconsin-Madison*; Austin Yantes, *University of Wisconsin-Madison*; Tara Davenport, *University of Wisconsin-Madison*; Quentin Carpenter, *University of Wisconsin-Madison*
- 114 **Erratic Floods in Large River Floodplains of the Andean Amazon Region: Management and Conservation Implications**
Jorge Celi, *Michigan State University*; Stephen Hamilton, *Michigan State University*
- 115 **The migration of the Lesser White-fronted Goose (*Anser erythropus*) and the Red-breasted Goose (*Branta ruficollis*) in the Hortobágy (Hungary)**
Péter Gyüre, *University of Debrecen, Centre for Agricultural and Applied Economic Sciences*; Lajos Juhász, *University of Debrecen, Centre for Agricultural and Applied Economic Sciences*

Wildlife Trade

- 116 **Shift in Strategy for the Implementation of a Successful Wildlife Crime Control: Coordination among Stakeholders as a Key Approach**
Madhav Khadka, *World Wildlife Fund Nepal Program*; Hemanta Kafley, *University of Missouri*; Rupak Maharjan, *Department of National Parks & Wildlife Conservation, Government of Nepal*; Ritesh Basnet, *Department of Forests, Government of Nepal*

Adaptive Management and Monitoring

- 117 **A multispatial and multispecies approach for the optimization of Natura 2000 sites management. The coastal dunes in central Italy**
Massimiliano Foresta, *University of Molise*; Mita Drius, *University of Molise*; Maria Laura Carranza, *University of Molise*; Agostino Giannelli, *University of Molise*; Anna Loy, *University of Molise*

Community-driven Conservation

- 118 **Scaling Up Community Conservation and Natural Resource Management**
Jenny Springer, *World Wildlife Fund*





27th International Congress for Conservation Biology
4th European Congress of Conservation Biology



Montpellier, France
August 3-6, 2015



Society for Conservation Biology



	Room 301	Room 302	Room 303	Room 304	Room 305	Room 306	Room 307	Room 308	Room 309	Room 310
8:00 - 10:00 A.M.	Symp. Ocean Management Decisions through Ecosystem Health Report Rards	Symp. National Network for Wildlife Conservation	Symp. Defining Recovery and Recovery Criteria For Endangered Species	Symp. Solutions for Conflicting Land & Natural Resource Use in Africa	Contr. Sess. Desert and Grassland Conservation & Habitat Degradation and Fragmentation	Contr. Sess. Communications, Outreach and Education	Symp. Animal Welfare in Conservation Practice	Symp. Buffer Zones and Land Use Change around Protected Areas	Symp. SCB Approach to Carbon Neutrality	Symp. Perceptions of Citizen Science Research for Conservation
Coffee Break: 10:00-10:30 A.M., Exhibit Hall A 										
10:30 A.M. - 12:30 P.M.	Contr. Sess. Wetlands & Lakes Conservation on Private Lands & Land Use Planning	Contr. Sess. Marine Conservation	Contr. Sess. Scientists, Stakeholders, and Managers: Bridging the Gap	Contr. Sess. Conservation in Hotspots	Contr. Sess. Human-Wildlife Conflict	Contr. Sess. Community Driven Conservation & Urban Area Conservation	Contr. Sess. Citizen Science, Outreach, & Human Wildlife Conflict	Contr. Sess. Adaptive Management & Wildlife Trade	Contr. Sess. Climate Change	
Student Workshop Résumé Writing	Workshop Integrate Health Services into Conservation (Part I)	Workshop Resolving Environmental Conflicts: Lessons from a Mediator	Workshop SCB Editors Meeting (Invitation Only)	Workshop Strengths and Weaknesses of Natural Resource Governance	Latin America and Caribbean Section Meeting	Workshop ARKive.org: Using Imagery as an Emotive Bridge to Conservation	Workshop Enhancing Diversity in the Conservation Science Workforce	North America Section Meeting	Workshop Implications of PADDD for Conservation Science and Policy	
2:00 P.M. - 3:30 P.M.	Plenary: : John W. Fitzpatrick and Caren B. Cooper, Humans as Biological Sensors, Democratization of Science, and Our New Relationship with the Earth LaRoe Award Ceremony: Robin Waples <i>Grand Ballroom 1&II</i>									
Afternoon Refreshments Break: 3:30-4:00 P.M., Exhibit Hall A 										
4:00 P.M. - 6:00 P.M.	SCB Members' Meeting Student Award and Poster Award Presentations <i>Grand Ballroom 1&II</i>									
6:00 P.M. Onwards	Speed-Poster Session 6:00 P.M. - 7:00 P.M. Exhibit Hall									
Harbor Cruise 7:00 - 9:00, Boards at 6:30 pm Depart from Inner Harbor at Light Street (Spirit Cruises, 561 Light Street) Ticket Required										



Morning session: 8:00 A.M. to 10:00 A.M.

Symposium: **Advancing Science-informed Ocean Management Decisions through Ecosystem Health Report Cards**

Room 301

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Melanie McField, *Healthy Reefs Initiative*; **Liz Witeman**, *California Ocean Science Trust*; **Jason Vasques**, *Coral Reef Alliance*

Ocean resource management often means making hard decisions. And, as conservation actions increasingly include ecosystem-level protection goals, these decisions are getting harder. Ecosystem health report cards can be used to present the best-available scientific information in a way that informs decision-making.

Ecosystem health report cards bridge social and ecological systems and provide a multidisciplinary platform for stakeholders to build a common vision of ecosystem health and social well-being. They can also serve as a multi-institutional or even multinational platform for promoting management recommendations based directly on scientific monitoring. Existing tools have been developed using various approaches from expert judgment to standardized scoring criteria and highlight varying degrees of success towards effective and durable conservation outcomes.

This session will draw together practitioners to explore the processes by which ecosystem health report cards are produced and scientific information is provided to managers to catalyze and inform management. Drawing on lessons learned from previous experiences, participants will identify the process steps, external drivers and communications tools and policy mechanisms that have contributed credibility and legitimacy to report cards, focusing on the factors that lead to success in informing management and favoring effective conservation decisions.

08:00 Advancing science-informed ocean management decisions through ecosystem health report cards

Jason Vasques, *Coral Reef Alliance*

08:15 Advancing science-informed ocean management decisions through ecosystem health report cards

Melanie McField, *Healthy Reefs Initiative* and **Lorenzo Alvarez**, *Smithsonian Institution*

08:30 Developing a Report Card for California's MPAs California Ocean Science Trust

Liz Whiteman and **Tess Freidenburg**, *California Ocean Science Trust*

08:45 Environmental report cards: A tool to integrate monitoring data, engage stakeholders and catalyze actions

William C. Dennison and **Heath Kelsey**, *Integration and Application Network, University of Maryland Center for Environmental Science*

09:00 Habitat-specific reef condition and threats report cards for marine management and conservation in The Bahamas: a case study using the AGRRA protocols

Judith Lang, *Atlantic and Gulf Rapid Reef Assessment*; **Patricia Kramer**, *Perigee Environmental Inc.*; **Kenneth Marks**, *Atlantic and Gulf Rapid Reef Assessment*; **Krista Sherman**, *Bahamas National Trust*; **Craig Dahlgren**, *Perry Institute for Marine Science*; **Andrew Bruckner**, *Living Oceans Foundation*; **Eleanor Phillips**, *The Nature Conservancy*; **Philip Kramer**, *The Nature Conservancy*; **Lester Gittens**, *Bahamas Department of Marine Resources*;

09:15 Developing National Marine Sanctuary Condition Reports

Kathy Broughton, **Steve Gittings**, *NOAA*

09:30 Can the Coral Health Index (CHI) support Pacific Ocean reef conservation and management?

Stuart Sandin, *Scripps Institute of Oceanography* and **Les Kauffman**, *Boston University*

09:45 Assessing the 'Outlook' of the Great Barrier Reef

Kirstin Dobbs and **David Wachen**, *Great Barrier Reef Marine Park Authority*



.....

Symposium: A National Network for Wildlife Conservation: Challenges and Solutions
Room 302

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Brad Griffith, *U.S.G.S., Alaska Coop. Fish & Wildlife Research Unit*, **Lynn Maguire**, *Nicholas School of the Environment*, **Vicky Meretsky**, *School of Public and Environmental Affairs*

There is a clear need for a national conservation support-program that promotes large scale biodiversity conservation through information sharing and capacity-building services (BioScience 62(11):970-976). This network could build on the substantial expertise of state conservation programs that are guided by State Wildlife Action Plans and increase the effectiveness and efficiency of conservation at the national scale. Implementing such a network will present a multitude of challenges that include identifying one or more host organizational structures and funding support, ensuring sustained participation of network members, and incorporating lessons learned from existing regional collaborations in a timely way. We seek to preserve the momentum generated by the referenced BioScience paper by assembling a group of potential network members and experts in large-scale collaborative efforts to elaborate on the opportunities and challenges of implementing a national network for wildlife conservation. Our symposium will connect ecosystems, technical and human dimensions of wildlife conservation, and stakeholders from states, non-governmental organizations, and federal agencies in a collaborative effort to advance the formation and implementation of a national network for wildlife conservation.

08:00 The Northeast Collaboration for Wildlife Conservation

John Kanter, *New Hampshire Fish and Game Dept.*

08:15 A national structure for collaborative science and conservation planning at the landscape scale - the Landscape Conservation Cooperatives

Benjamin S. Thatcher, *USFWS Landscape Conservation Cooperatives*

08:30 Building a national and international constituency for large scale conservation

Gary M. Tabor, *Center for Large Landscape Conservation*

08:45 Overcoming the 'coordination challenge': Connecting actors across scales to build effective relationships between science and practice

Carina Wyborn, *University of Montana*

09:00 The National Ecosystem Services Partnership: Lessons for a National Conservation Network

Lydia Olander, *Duke University*

09:15 A network connecting science and conservation: NatureServe's perspective

Mary Klein, *NatureServe*

Open discussion follows from 9:30 to 10:00

.....

Symposium: Defining Recovery and Recovery Criteria for Endangered Species: Science and Policy Issues Behind the Current Debate in the US and Canada
Room 303

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Carlos Carroll, *KCCR*

The US Endangered Species Act and Canada's Species at Risk Act (SARA) are among the world's most important biodiversity-related statutes. The Canadian federal government has suggested that SARA needs to be streamlined, in part by substituting ecosystem conservation for time-consuming recovery plans developed for individual species. In the US, recent reviews have proposed that, given the number of taxa which may require species-specific conservation measures in perpetuity, policymakers need to shift emphasis from long-term federal management of listed species to more rapid delisting that allows management by state and private entities. In contrast, others see such calls for more streamlined planning and management as undermining conservation of vulnerable taxa. In essence, this debate hinges on unresolved questions concerning how the public interprets the meaning of recovery and what cost it is willing to bear to achieve it. For some, recovery may imply self-sustaining populations that can play their historic role in ecosystems, whereas others see recovery of a small intensively-managed population as sufficient. This symposium addresses the theme of ICCB2013 as it brings together a multi-disciplinary group of biologists and policy experts from the US and Canada to address policy questions surrounding the definition of recovery, as well as the related issue of how planners can efficiently and transparently develop recovery criteria that guide recovery efforts.



- 08:00 The Evolution Of US Policy On Endangered Species Recovery Since Passage Of The ESA**
 Dan Rohlf, *Lewis and Clark University*
- 08:15 Revisions of the US Endangered Species Recovery Planning Guidance**
 Debby Crouse, *US Fish and Wildlife Service*
- 08:30 Why Guidance Is Not Enough: Regulatory Sideboards On Recovery**
 Brett Hartl, *Center for Biological Diversity*
- 08:45 Shifting Baselines For Endangered Species Recovery: Do Conservation-Reliant Species Merit Delisting?**
 Carlos Carroll, *KCCR*
- 09:00 An Analysis Of Recovery Strategies For Canada's Species At Risk**
 Jeannette Whitton, *University of British Columbia*
- 09:15 Defining Recovery Under Canada's Species At Risk Act: De-listing Or More?**
 Justina Ray, *Wildlife Conservation Soc. Canada*
- 09:30 A Risk-Based Approach To Recovery Planning Under SARA: A Case Study Of The Wide-Ranging And Elusive Woodland Caribou**
 Fiona Schmiegelow, *University of Alberta*; Justina Ray, *Wildlife Conservation Soc. Canada*
- Open discussion follows from 9:45 to 10:00*

.....

Symposium: Developing Solutions for Conflicting Land and Natural Resource Use in Africa
Room 304
Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):
Natalie Bailey, *Africa Biodiversity Collaborative Group*

In many parts of sub-Saharan Africa, various actors lay claim to land for multiple, overlapping purposes. The same area may hold oil or minerals that could provide income to the government and jobs for people, rare species of wildlife that require uninterrupted habitat for their survival, or may be valued as sacred forests by local communities. Competing claims to limited land and natural resources present numerous challenges to stakeholders including conservationists, local communities, governments and the private sector, and require innovative, interdisciplinary approaches to find solutions.

Collaboration between international conservation NGOs, governments, development partners and others is a beneficial approach as it brings together different strategies, points of view and resources to address emerging and high priority threats to biodiversity and development in Africa. Competing demand for land and natural resources is a common theme of many of our ongoing efforts. Successful approaches require multidisciplinary strategies that tie together systems (ecosystems, agricultural systems), disciplines (conservation planning, extractive industries, land tenure, development) and stakeholders (local people, governments, conservationists). This session will explore the many conservation approaches to land use planning and the impacts on communities and conservation of the scramble for resources in Africa.

- 08:00 Legal Frameworks for Land Use in East Africa**
 Gaia Larsen, *World Resources Institute*
- 08:15 Optimizing tradeoffs in woodland ecosystems: carbon, conservation and communities**
 James E.M. Watson and Daniel B. Segan, *Wildlife Conservation Society*; Andrew J. Plumptre, Sam Ayebare, Grace Nangendo
- 08:30 Forestry, mining and agriculture: managing land use in Central Africa**
 Kirsten Hund, *World Bank*
- 08:45 High Conservation Value Forest Assessments and Other Tools for Geographic Priority Setting**
 Rachel Neugarten and Conrad Savy, *Conservation International*
- 09:00 Implementation of Land Policy for Improved Ecosystem Management and Land Tenure in East Africa**
 Lilian Pintea, *The Jane Goodall Institute*
- 09:15 Developing Broader Solutions for Conflicting Land Use: Lessons from ABCG Approaches**
 Natalie Bailey, *Africa Biodiversity Collaborative*

Open discussion follows from 9:30 to 10:00



Desert and Grassland Conservation & Habitat Degradation and Fragmentation

Room 305

Wednesday, July 24, 08:00 to 10:00

- 08:00** Differential space use patterns by translocated, control, and resident Mojave desert tortoise (*Gopherus agassizii*) in the Ivanpah Valley, CA, USA
Matthew Farnsworth, *Conservation Science Partners, Inc.*; Ericka Hegeman, *Conservation Science Partners, Inc.*; Luke Zachmann, *Conservation Science Partners, Inc.*; Kelly Herbinson, *Pioneer Ecological Consulting*; Thomas Jackson, *Kaweah Biological Consulting*; Brett Dickson, *Conservation Science Partners, Inc.*
- 08:15** A regional approach to evaluating rare plant vulnerability to renewable energy development in the California Deserts
Kara Moore, *University of California, Davis*; Bruce Pavlik, *Royal Botanic Gardens Kew*
- 08:30** Micro-hotspots of biodiversity within hostile environments: the case of mountain rock pools in the Sahara desert
Cândida Vale, *CIBIO/InBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos da UP*; Stuart L Pimm, *Duke University*; José C Brito, *CIBIO/InBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos da UP*
- 08:45** Rare Species in Relict Grasslands: Plant diversity responses to a reintroduced Wood Bison herd in Yukon, Canada
Lori Schroeder, *University of Alberta*; Fiona Schmiegelow, *University of Alberta*; Edward Bork, *University of Alberta*; Tom Jung, *Environment Yukon*
- 09:00** Matrix-habitat and edge effects on amphibian communities in the Brazilian Atlantic rainforest
Karen Beard, *Utah State University*; Rodrigo Ferreira, *Utah State University*
- 09:15** Quantifying the impact of land use change on biodiversity and people: a case study from the Solomon Islands
Tammy Davies, *University of St Andrews*; Nathalie Pettorelli, *Institute of Zoology, Zoological Society of London*; John Ewen, *Institute of Zoology, Zoological Society of London*; Rohan Clarke, *Monash University*; Will Cresswell, *University of St Andrews*; Guy Cowlshaw, *Institute of Zoology, Zoological Society of London*; Ioan Fazey, *University of Dundee*
- 09:30** Optimal planning for mitigating the impacts of roads on wildlife
Tal Polak, *The University of Queensland*; Jonathan Rhodes, *The University of Queensland*; Darryl Jones, *Griffith University*; Hugh Possingham, *The University of Queensland*
- 09:45** From use to effectiveness: how well do crossing structures mitigate the impacts of roads on wildlife?
Kylie Soanes, *University of Melbourne*; Melissa Carmody Lobo, *University of Melbourne*; Peter Vesk, *University of Melbourne*; Michael McCarthy, *University of Melbourne*; Rodney van der Ree, *Australian Reserach Centre for Urban Ecology*

Communications, Outreach and Education

Room 306

Wednesday, July 24, 08:00 to 10:00

- 08:00** A multi-disciplinary approach to conservation: the value of education and community engagement in landscape level conservation of endangered species
Rosemary Groom, *African Wildlife Conservation Fund*; Peter Lindsey, *African Wildlife Conservation Fund*
- 08:15** Using Twitter as a Tool for Conservation Education and Outreach from Scientific Conferences
David Shiffman, *University of Miami*
- 08:30** Two Decades of Change in Environmental Journalism: Comparing Coverage of the Exxon Valdez and Deepwater Horizon oil spills
Jessica Higgins, *University of Maryland*
- 08:45** Using the evolutionary-ecological land ethic to frame environmental science courses
Yael Wyner, *City College of New York*; Rob DeSalle, *American Museum of Natural History*
- 09:00** It's good to be Liked: Effective conservation outreach in the Age of Facebook
Andrew Wright, *Aarhus University*
- 09:15** A transferable model for effective conservation communication
Laura Johnson, *Prescott College*; Cristina Eisenberg, *Oregon State University*
- 09:30** Engaging local communities to advance conservation of endemic species: A case study from Chilean islands
Peter Hodum, *Oikonos Ecosystem Knowledge/Univ. of Puget Sound*; Erin Hagen, *Island Conservation*; Valentina Colodro, *Oikonos Ecosystem Knowledge*; Veronica Lopez, *Oikonos Ecosystem Knowledge*; Christian Lopez, *Oikonos Ecosystem Knowledge*; Paola Gonzalez, *Oikonos Ecosystem Knowledge*



09:45 Champions in the Conservation World: An interdisciplinary examination of conservation entrepreneurship

Ashley Hartman, *Nicholas School of the Environment, Duke University*; **Gerald Post**, *The Veterinary Cancer Center*; **Deborah Gallagher**, *Duke University*

.....
Symposium: Compassionate Conservation - Animal Welfare in Conservation Practice
Room 307

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Chris Draper, *Born Free Foundation*

Animal welfare is of increasing concern to scientists, policymakers and the public alike. Anthropogenic environmental change, and interventions in the name of conservation, may have lethal and sublethal effects on individual animals, and consequently compromise animal welfare. While individual behaviour and ecology effects on population-, species- and ecosystem-level changes have been widely studied, animal welfare considerations in conservation practice have been relatively neglected until recently. Consideration of the welfare of individual animals may inform both the ethics and practice of implementing conservation management and delivery, while animal welfare considerations may have significant effects on conservation outcomes. From captive breeding and reintroduction, invasive species control, and endangered species population viability, to the techniques employed in the name of conservation research: there is broad scope for conflict and synergy between animal welfare and conservation. Animal welfare may be perceived by conservationists as a hindrance or “luxury”, or alternatively an increasingly rigorous science with practical implications for conservation. The consideration of animal welfare in conservation raises questions as to how far the responsibility for animal welfare extends into “the wild”. This symposium will provide an overview of key areas of interaction between animal welfare and conservation, using specific examples of conflicts and possible resolutions.

08:00 Compassionate Conservation: a Synthesis Between Animal Welfare and Conservation

Chris Draper, *Born Free Foundation*

08:15 Compassionate Conservation as a Unifying and Integrative Movement: Who Lives, Who Lives, and Why

Marc Bekoff, *University of Colorado, Boulder*

08:30 Understanding the Individual and Their Welfare in Wildlife Conservation: How Personality Type Affects Translocation Success

Liv Baker, *University of British Columbia*

08:45 The Critical Role of Psychology in the Conservation of Nonhuman Animals

Lori Marino, *The Kimmela Ctr for Animal Advocacy*

09:00 Bringing Compassion to the Ethical Dilemma in Killing Kangaroos for Conservation

Daniel Ramp, *University of Technology, Sydney*

Open discussion follows from 9:15 to 10:00

.....
Symposium: Buffer Zones and Land Use Change around Protected Areas: Connecting Socio-economic and Ecological Systems

Room 308

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Beth Kaplan, *Antioch University New England*, **Robin Martino**, *Antioch University New England*

Growing concern about species loss and land use/land cover change in and around many protected areas (PAs) has led to questions about their effectiveness. The matrix surrounding PAs can have a profound impact on conservation effectiveness. Buffer zones, implemented properly, may minimize stressors arising inside and outside PAs, presenting an opportunity to integrate social and ecological systems - local communities, government and private institutions, conservation scientists, economics and ecology, agriculture and biodiversity - into PA planning. Buffer zones can encourage integration of PAs with the wider ecological and socio-economic land- or seascape, contributing to system resilience. Nonetheless, little research has been directed at exploring and evaluating integrative approaches to buffer zones and protected areas. The aim of this symposium is to provide a multidisciplinary view of current buffer zone-protected area thinking. We connect disciplines, stakeholders and systems by including multiple stakeholder views, exploring a range of roles buffer zones can play in management, mediation of human-wildlife and people-park relationships, poverty alleviation, to maintenance of ecological function within PAs. We will explore innovative conservation tools and policies such as payment for ecosystem services and

ecotourism. The symposium integrates scientific theory and practice fundamental to effective planning and management of buffer zones in varied ecosystems.

08:00 The fate of forests in and around East Africa's Protected Areas - are buffer zones needed to mitigate or prevent encroachment?

Marion Pfeifer, *Imperial College, London*

08:15 Understanding the role of payments for ecosystems services and collective action in the effectiveness of protected areas in Chiapas, Mexico

Sergio Cortina-Villar, *Colegio de la Frontera Sur, Mexico*; Celine Dutilly, *Colegio de la Frontera Sur, Mexico*; Driss Ezzine, *Colegio de la Frontera Sur, Mexico*; José Nahed, *Colegio de la Frontera Sur, Mexico*; Héctor Plascencia, *Colegio de la Frontera Sur, Mexico*; Susana Aguilar, *Colegio de la Frontera Sur, Mexico*; Elvia Porcayo, *Colegio de la Frontera Sur, Mexico*; Roberto Aguilar, *Colegio de la Frontera Sur, Mexico*; Viridiana Cano, *Colegio de la Frontera Sur, Mexico*

08:30 Effects of Habitat and Buffer Zones on Small Mammal Diversity and Abundance in Nyungwe National Park, Rwanda

Methode Majyambere, *National University of Rwanda*; Katherine McFadden, *Clemson University* (*Presenter)

08:45 Effects of the buffer zone on seed dispersal processes in an African tropical montane forest protected area

Robin Martino, *Antioch University New England*; Norbert J. Cordeiro, *Roosevelt University*; Beth Kaplin, *Antioch University New England*

09:00 Towards Assessing the Vulnerability of US National Parks to Land Use and Climate Change

Andrew Hansen, *Montana State University*

09:15 Community Enterprise development strategies for tourism in protected area buffer zones

Megan Epler-Wood, *Cornell University*; Mark Milstein, *Cornell University*

09:30 The importance of buffer zones in mediating edge effects in forest protected area islands surrounded by seas of agriculture

Beth Kaplin, *Antioch University New England*

Open discussion follows from 9:45 to 10:00



.....
Symposium: SCB Approach to Carbon Neutrality: Assessing Organizational Performance and Sponsoring Biodiversity Conservation Projects

Room 309

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Ron Abrams, *Dru Associates, Inc.*; Tuyeni Mwampamba, *Centro de Investigaciones en Ecosistemas*

The Society for Conservation Biology has been working to offset its carbon footprint from administration and global and regional meetings since 2007, by self-assessing and sponsoring field projects combining science, government and local communities. The Ecological Footprint Committee (EFC), in cooperation with Local Organizing Committees and the Executive Office, are working to set an example to other organizations by reducing our carbon footprint. The ecological costs of operating an organization must be understood to successfully offset atmospheric degradation. This Symposium demonstrates activities in carbon footprint management that involve stakeholders to address the accumulation of carbon dioxide in Earth's atmosphere. SCB as a 'carbon customer' is learning how to adapt to our changing biosphere. There is no better way for SCB members to respond to climate change than to actually participate in mitigating our contribution to climate change. The EFC annually assesses SCB's carbon footprint, including office operations, travel, conferences and the production of the journal *Conservation Biology*. Major decisions have been made by the Society with the benefit of this information, such as the change from annual to biannual ICCB's to reduce our travel footprint. SCB also collects funds from participants in ICCB and Regional SCB meetings, to develop and sponsor conservation projects that are estimated to have a carbon benefit sufficient to offset SCB emissions.

08:00 SCB's Carbon Sequestration/Offset projects: a review

Paul Beier, *Northern Arizona University*

08:15 The Biogeochemistry of Carbon: An Overview

Jesse Abrams, *Leibniz Center Tropical Marine Ecol*

08:30 SCB at Rooihoek, South Africa: Severe logistics in Baviaanskloof Mega Preserve

Ron Abrams, *Dru Associates, Inc.*

08:45 Grasslands in Alberta: Soil Carbon storage:

Mark Boyce, *University of Alberta*

09:00 Kasigau, Kenya: Field visit to the 2011 SCB Africa Section offset project

Tuyeni Mwampamba, Unvivers Nacional Autonoma Mexico

09:15 Carbon trading certifications and market development

Gordon Smith, Wildlife Works

09:30 Ecological Research Priorities for Carbon Offset Projects:

Christo Marais, South African Dept Environ Affairs

Open discussion follows from 9:45 to 10:00

.....

Symposium: **Scientists as Stakeholders: Perceptions of Citizen Science Research for Conservation by Peers, Reviewers, and Policy Makers**

Room 310

Wednesday, July 24, 8:00 to 10:00

ORGANIZER(S):

Jennifer Shirk, *Cornell Lab of Ornithology*

Citizen science and other forms of public participation in scientific research (PPSR) connect systems, disciplines, and stakeholders for conservation. It is these very connections, however, that can raise challenges for professional scientists considering PPSR as an approach to conservation research.

Scientists are critical partners in designing and carrying out PPSR initiatives, intentional collaborations with the public that aim to generate new science-based knowledge for research or policy. Such approaches have increased in acceptance within the scientific sphere for their ability to access otherwise unavailable information and their ability to affect public science learning.

Even so, PPSR researchers can still face tough professional questions - through review of journal articles or grant applications, in decisions regarding tenure and promotion, or in negotiating conservation policies - regarding the usability of data collected by non-scientists, the investment of time in non-research activities such as education, and in some cases their (actual or perceived) engagement in advocacy.

We confront head-on a long overdue conversation: how is citizen science research perceived by peers? And how can we, as a scientific community, fully understand and fairly critique the merits of citizen science for conservation research and research-based policy?

08:00 Networking across disciplines: conservation science and the field of PPSR

Abe Miller-Rushing, National Park Service

08:15 Is there science in citizen science? Perceptions, myths and realities

Julia Parrish, University of Washington

08:30 Journal expectations and peer review: an editor's perspective

Sue Silver, ESA, Frontiers in Ecology and the Environment

08:45 Policy Formulation using "Best Available Science": Is there Room for Citizen Science?

Ann Bartuska, USDA

09:00 Reimagining research for conservation: PPSR scientists reveal new research strategies and opportunities

Jennifer Shirk, Cornell Lab of Ornithology

09:15 Setting professional metrics: articulating conservation outcomes for integrated social-ecological systems

Tina Phillips, Cornell Lab of Ornithology

Open discussion follows from 9:30 to 10:00

.....



COFFEE BREAK

10:00 to 10:30

Exhibit Hall A





**Pack your bags for these upcoming
SCB Section meetings in 2014!**

North America Congress for Conservation Biology

Missoula, Montana

13-17 July 2014

International Marine Conservation Congress

Glasgow, Scotland

14-19 August 2014

SCB Asia

Melaka, Malaysia

19-22 August 2014

SCB Oceania

Location to be announced

July 2014



Late morning session: 10:30 A.M. to 12:30 P.M.

Wetlands & Lakes

Room 301

Wednesday, July 24, 10:30 to 12:30

- 10:30 Integrating ecosystems and communities into fisheries management: the Virginia blue crab sanctuary revisited**
Owen Liu, *Environmental Defense Fund*; Jacob Kritzer, *Environmental Defense Fund*; Jenn Aiosa, *Environmental Defense Fund*
- 10:45 Community Territorial perception in the Chicamocha Canyon, Colombia: baseline to implement a conservation plan for two endemic and endangered birds**
Diana Alexandra Delgadillo Méndez, *Universidad de La Salle / Fundación Conserva*; Joanna Delgadillo, *Fundación Conserva*; Oscar Ramos, *Fundación Conserva/Universidad de Los Andes*; Carolina Barrett, *Fundación Conserva*; Marcela Beltrán, *Fundación Conserva*; Jorge Parra, *Fundación Conserva*
- 11:00 Conserving San Francisco Bay's waterbirds: three decades in a rapidly changing landscape**
Catherine Burns, *San Francisco Bay Bird Observatory*; Vanessa Tobias, *University of California, Davis*; Cheryl Strong, *U.S. Fish & Wildlife Service*; John Takekawa, *USGS Western Ecological Research Center*; Emilio Laca, *University of California, Davis*; Christina Donehower, *San Francisco Bay Bird Observatory*; Josh Scullen, *San Francisco Bay Bird Observatory*
- 11:15 Improving the Protection of Salt Marshes for Tidal Marsh Bird Conservation Given Limited Financial Resources in Delaware**
Whitney Wiest, *University of Delaware*; W. Shriver, *University of Delaware*; Kent Messer, *University of Delaware*
- 11:30 Amphibian Movements Suggest Isolated Wetlands Should Be Regulated under the Clean Water Act**
Amber Pitt, *Clemson University*; Robert Baldwin, *Clemson University*; Benjamin Stegenga, *Clemson University*
- 11:45 Hauling in a Net(work) of Information: Utilizing Affiliation Networks to Better Understand Great Lakes Fisheries Governance**
Kate Mulvaney, *Purdue University*; Linda Prokopy, *Purdue University*; Seungyoon Lee, *Purdue University*; Tomas Hook, *Purdue University*
- 12:00 A Hierarchical Approach Investigating Puma Kill Behavior Along an Urban-Rural Gradient**
Justine Smith, *University of California, Santa Cruz*; Chris Wilmers, *University of California, Santa Cruz*
- 12:15 Integrating human dimensions into Great Lakes fishery management: opportunities and challenges**
Nadine Heck, *Cornell University*; Richard Stedman, *Cornell University*; Marc Gaden, *Great Lakes Fishery Commission*

.....

Conservation on Private Lands & Land Use Planning

Room 302

Wednesday, July 24, 10:30 to 12:30

- 10:30 Do we need a certification system to maximise conservation on private lands?**
Heiko Wittmer, *Victoria University of Wellington*; Andrew Marshall, *University of California*
- 10:45 Designing Cost Effective Conservation Payment Programs**
Paul Armsworth, *University of Tennessee*; Svetlana Acs, *European Commission - Joint Research Center*; Martin Dallimer, *University of Copenhagen*; Kevin Gaston, *University of Exeter*; Nick Hanley, *University of Stirling*; Paul Wilson, *University of Nottingham*
- 11:00 LandAdvisor: A "living" decision support system supporting cost-effective and connected allocation of different management approaches on the landscape**
John Gallo, *The Wilderness Society*; Amanda Lombard, *Nelson Mandela Metropolitan University*
- 11:15 Exurban Development and Wildlife: Lessons from the Adirondacks**
Michale Glennon, *Wildlife Conservation Society*
- 11:30 Is Education the Sticking Point? Problems of Collective Action in Landscape Conservation**
Matthew Hoffman, *New York University*



11:45 Ecosystem service concept can help us better understand land use conflicts

Barbara Mihok, *SCB Europe Section, Centre for Ecological Research, Hungarian Academy of Science*; **Eszter Kovács**, *Environmental Social Science Research Group, St. István University*; **Katalin Margóczy**, *University of Szeged, Department of Ecology*; **György Málovics**, *University of Szeged, Institute of Economics and Economic Development*; **Judit Gebert**, *University of Szeged, Institute of Economics and Economic Development*; **György Pataki**, *Environmental Social Science Research Group, St. István University*; **Eszter Kelemen**, *Environmental Social Science Research Group, St. István University*; **Ágnes Kalóczkai**, *Environmental Social Science Research Group, St. István University*

12:00 A method for determining the optimal mix of fire histories for biological conservation

Luke Kelly, *The University of Melbourne*; **Andrew Bennett**, *Deakin University*; **Michael Clarke**, *La Trobe University*; **Michael McCarthy**, *The University of Melbourne*;

12:15 Doing together what we can't do alone: Connecting people, organizations, wildlife and landscapes across the Yellowstone to Yukon region

Wendy Francis, *Yellowstone to Yukon Conservation Initiative*

.....
Marine Conservation 2

Room 303

Wednesday, July 24, 10:30 to 12:30

10:30 The overlooked role of fish behavior in coral reef fisheries management and conservation

Fraser Januchowski-Hartley, *James Cook University*; **Nicholas Graham**, *James Cook University*; **Joshua Cinner**, *James Cook University*; **Garry Russ**, *James Cook University*

10:45 Combining Ecological Principles to the Design of Marine Infrastructures to Preserve Native Biodiversity in Marine Urban Seascapes

Laura Airoidi, *University of Bologna*; **Filippo Ferrario**, *University of Bologna*; **Ljiljana Ivesa**, *Center for Marine Research, Institute Rudjer Boskovic*; **Shimrit Perkol-Finkel**, *SeaArc Ecological Marine Consulting*; **Elisabeth Strain**, *University of Bologna*

11:00 Community disassembly on coral reefs: a functional approach for a stressful world

Emily Darling, *Simon Fraser University*; **Tim McClanahan**, *Wildlife Conservation Society*; **Isabelle Cote**, *Simon Fraser University*; **Tom Oliver**, *Hawaii Institute of Marine Biology*

11:15 Community Fisheries Action Roundtable: Methods for fisheries stakeholder engagement including outreach strategies, design, communication, and learning

Carla Guenther, *Penobscot East Resource Center*

11:30 Changing the burden of proof for mangrove management in New Zealand

Carolyn Lundquist, *NIWA*

11:45 Take or Release? Determining the impact of capacity building activities for recreational fishermen on billfish conservation in Kenya

Nelly Kadagi, *African Billfish Foundation*; **Tina Harris**, *African Billfish Foundation*

12:00 SeaSketch: A Participatory Marine Spatial Planning Software Service

Will McClintock, *University of California Santa Barbara*

12:15 Open discussion

.....
Conservation in Hotspots

Room 304

Wednesday, July 24, 10:30 to 12:30

10:30 Plight of the Nigeria-Cameroon Chimpanzee in Oban division Forest; a reflection of the state of one of Nigeria's most important Biodiversity hotspot

Jennifer Agaldo, *A.P. Leventis Ornithological Research Institute. University of Jos Nigeria*

10:45 REDD+ site selection through systematic conservation planning using MARXAN in Tanzania

Md Saiful Khan, *Lakehead University*

11:00 A Multi-Species Analysis of Chytridiomycosis Infection and Resistance in West-Central Africa

Patrick McLaughlin, *Drexel University*; **Gail Hearn**, *Drexel University*

11:15 Prioritize multi-species conservation of endemism in China

Binbin Li, *Duke University*; **Stuart Pimm**, *Duke University*

11:30 Creating Mosaic-Based Conservation Corridors to Respond to Major Threats in the Amazon Headwaters

Hannah Stutzman, *Amazon Conservation Association*; **Amy Rosenthal**, *WWF - US*; **Adrian Forsyth**, *Blue Moon Fund*



- 11:45 **Eating insects for forest conservation in Madagascar**
Maminirina Randrianandrasana, *University of Illinois*; May Berenbaum, *University of Illinois*; Mamy Ratsimbazafy, *SEPALI*
- 12:00 **Deciphering Complexity to Evolve a Conservation Consensus**
Muthu Karthick, *Care Earth Trust*; Jayshree Vencatesan, *JV, Care Earth Trust*; Arivazhagan Chellaiah, *Care Earth Trust*
- 12:15 **Reproductive ecology of *Boswellia ovalifoliolata* (Burseraceae), an endemic and endangered keystone medicinal tree species in the Southern Eastern Ghat**
Jacob Solomon Aluri, *Andhra University*; Rangaiah Kone, *Andhra University*

.....

Scientists, Stakeholders, and Managers: Bridging the Gap

Room 305

Wednesday, July 24, 10:30 to 12:30

- 10:30 **Interdisciplinary methods for mapping conservation-scapes: Focus on Irrawaddy dolphins and small-scale fisheries in Southeast Asia**
Tara Whitty, *Center for Marine Conservation and Biology, Scripps Institution of Oceanography*
- 10:45 **The value of validated vulnerability data in conservation planning**
Emily Weeks, *National Land Resource Centre*; Susan Walker, *Landcare Research*; Jake Overton, *Landcare Research*
- 11:00 **Connecting Human Wellbeing to Conservation Planning in Theory and Practice**
Daniel Hayden, *Rare*; Marcia Brown, *Foundations of Success*
- 11:15 **The mismeasure of conservation**
Bob Pressey, *James Cook University*; Paul Ferraro, *Georgia State University*; Valerie Kapos, *United Nations Environment Programme World Conservation Monitoring Centre*; Georgina Mace, *University College London*; Madeleine Bottrill, *Conservation International*; Michael Obersteiner, *International Institute for Applied Systems Analysis*; Alex Pfaff, *Duke University*
- 11:30 **The Influence of Industry: How Conflicts of Interest Compromise Pesticide Regulation**
Michelle Boone, *Miami University of Ohio*; Jason Rohr, *University of South Florida*; Catherine Propper, *Northern Arizona University*; Christine Bishop, *Environment Canada*
- 11:45 **Can New Metrics Help Us Bridge the Gap? A case study in the measurement of scientific literature's impact on decision making**
Jennifer Thornhill, *George Mason University*
- 12:00 **Does it matter that practitioners have poor access to the scientific literature?**
Jessica Walsh, *The University of Cambridge*; William Sutherland, *University of Cambridge*; Lynn Dicks, *University of Cambridge*
- 12:15 **Decision Analysis for Conservation Practitioners: Concepts, Applications and Capacity Building**
Sarah Converse, *U.S. Geological Survey, Patuxent Wildlife Research Center*; Michael Runge, *U.S. Geological Survey, Patuxent Wildlife Research Center*; Michelle Haynes, *U.S. Fish and Wildlife Service, National Conservation Training Center*; Donna Brewer, *Applied Landscape Conservation, U.S. Fish and Wildlife Service, National Conservation Training Center*

.....

Human-Wildlife Conflict

Room 306

Wednesday, July 24, 10:30 to 12:30

- 10:30 **Viability and management of the Asian elephant population in the Endau Rompin landscape, Malaysia**
Simon Hedges, *Wildlife Conservation Society*; Melvin Gumal, *Wildlife Conservation Society*; Martin Tyson, *Wildlife Conservation Society*; Rasid Samsudin, *Department of Wildlife and National Parks*; Nawayai Yasak, *Department of Wildlife and National Parks*; Salman Saaban, *Department of Wildlife and National Parks*; Aris Oziar, *Wildlife Conservation Society*; Francis Cheong, *Wildlife Conservation Society*; Zaleha Shaari, *Federal Department of Town and Country Planning*
- 10:45 **Legal barriers to ecotourism as a mechanism for shark conservation in the United States**
Catherine Macdonald, *Abess Center for Ecosystem Science and Policy, University of Miami*
- 11:00 **Spatially Explicit Analysis of Poaching Activity as a Conservation Management Tool**
Aaron Haines, *Millersville University*; Stephen Webb, *The Samuel Roberts Nobel Foundation*; David Elledge, *Iowa Department of Natural Resources (Retired)*



- 11:15 **Impacts of Breeder Loss on Wolf Social Structure, Reproduction and Viewability in Denali National Park and Preserve**
Bridget Borg, *Denali National Park and Preserve*; **Laura Prugh**, *University of Alaska Fairbanks*
- 11:30 **Conservation ecology of gray wolves in a human dominated landscape in eastern Turkey**
Mark Chynoweth, *University of Utah*; **Josip Kusak**, *University of Zagreb*; **Emrah Çoban**, *KuzeyDoga Society*; **Aysegul Karahmetoglu**, *KuzeyDoga Society*; **Çağan Şekercioğlu**, *University of Utah*
- 11:45 **Economic, personal and cultural impacts of human-snow leopard conflicts in the Sanjiangyuan Region of the Tibetan Plateau**
Byron Weckworth, *Panthera*; **Juan Li**, *Center for Nature and Society*; **Hang Yin**, *Shan Shui Conservation Center*; **Dajun Wang**, *Center for Nature and Society*; **Zhala Jiagong**, *Shan Shui Conservation Center*; **Zhi Lu**, *Center for Nature and Society and Shan Shui Conservation Center*
- 12:00 **Which socioeconomic characteristics make a country more susceptible to harbor threatened mammals?**
Ester Polaina, *Doñana Biological Station (EBD-CSIC)*; **Eloy Revilla**, *Doñana Biological Station (EBD-CSIC)*; **Manuela Gonzalez-Suarez**, *Doñana Biological Station (EBD-CSIC)*
- 12:15 **Tolerating, and planting for birds: Avian-human conflict in New Zealand**
Kerry Charles, *Center for Biodiversity & Restoration Ecology, Victoria University of Wellington*; **Wayne Linklater**, *Center for Biodiversity & Restoration Ecology, Victoria University of Wellington*

.....

Community Driven & Urban Area Conservation

Room 307

Wednesday, July 24, 10:30 to 12:30

- 10:30 **How much coral have you killed today: Relating CO2 emissions to loss of coral reefs**
John Ware, *SeaServices, LLC*
- 10:45 **Folk classification and characterisation of shea tree (*Vitellaria paradoxa* subsp. *nilotica*) in Uganda: Implications for its conservation and breeding**
Samson Gwali, *Makerere University*; **John Bosco Okullo**, *Makerere University*; **Gerald Eilu**, *Makerere University*
- 11:00 **A Third Way: Reconciling the community and the ecoregion in 21st century conservation**
Jesse Hastings, *National University of Singapore*
- 11:15 **Using citizen-scientists to monitor species trends and inform management of habitat connectivity in San Diego County, California, USA**
Catherine Tredick, *San Diego State University*; **Rebecca Lewison**, *San Diego State University*; **Douglas Deutschman**, *San Diego State University*
- 11:30 **Virtual Garden: a novel tool exploring which elements of biodiversity people want in cities**
Assaf Shwartz, *Natural History Museum*
- 11:45 **Urban Green Roofs and Wildlife Conservation**
Dustin Partridge, *Fordham University*; **J. Alan Clark**, *Fordham University*
- 12:00 **Integrated Vegetation Management in Powerline Rights-of-way Provides Quality Habitat for Native Bees**
Kimberly Russell, *New Jersey Institute of Technology*; **Sarah Kornbluth**, *Rutgers University*

.....

Citizen Science, Outreach, & Human Wildlife Conflict

Room 308

Wednesday, July 24, 10:30 to 12:30

- 10:30 **The Maryland Amphibian and Reptile Atlas: A volunteer-based distributional survey**
Heather Cunningham, *Natural History Society of Maryland*,
- 10:45 **The Clarion-Limestone Amphibian Research Center: A Model for Public Participation in Conservation**
Alysha Cypher, *The Center for Conservation Studies, Inc.*; **Andrew Keth**, *The Center for Conservation Studies, Inc.*
- 11:00 **Citizen science in a megadiverse group - how to make data collection on mushrooms relevant to conservation planning**
Jacob Heilmann-Clausen, *Center for Macroecology and Evolution, University of Copenhagen*
- 11:15 **Skin in the game: citizen science plays a key role to determine wolverine occupancy in a changing landscape**
Douglas Manzer, *Alberta Conservation Association*; **Shevenell Webb**, *Alberta Conservation Association*; **Michael Jokinen**, *Alberta Conservation Association*; **Robert Anderson**, *Alberta Conservation Association*



- 11:30 Community-based Monitoring of Chimpanzees, Habitats and Threats in Tanzania Using ODK and Android-based Smartphones and Tablets**
Lilian Pintea, *The Jane Goodall Institute*; **Jovin Lwehabura**, *The Jane Goodall Institute*; **Timothy Akugizibwe**, *The Jane Goodall Institute*; **Yaw Anokwa**, *Nafundi*
- 11:45 Towards an Integrated Approach to Conservation: Lessons learned from a National Capacity Building Project in Madagascar**
Domoina Rakotobe, *American Museum of Natural History*; **Ony Rabearivololona**, *Durrell Wildlife Conservation Trust*; **Tiana Rahagalala**, *Wildlife Conservation Society*; **Solofo Ralaimihoatra**, *Conservation International*; **Kimberley Landrigan**, *American Museum of Natural History*
- 12:00 WILD: An Introductory One Health Course on Wildlife Health and the Human-Livestock-Wildlife-Environment Interface, and how it supports conservation**
Felicia Nutter, *Tufts University Cummings School of Veterinary Medicine*; **Richard Kock**, *The Royal Veterinary College*; **Scott Newman**, *Food and Animal Organisation of the United National (FAO)*; **Samuel Muriuki**, *African Union InterAfrican Bureau for Animal Resources*; **Thomas Nyariki**, *African Union InterAfrican Bureau for Animal Resources*; **Lindsey McCrickard**, *Food and Animal Organisation of the United National (FAO)*; **Serge Nzietchueng**, *University of Minnesota*; **Tracy McCracken**, *Virginia-Maryland Regional College of Veterinary Medicine*
- 12:15 Modeling the feedbacks between indigenous people and biodiversity through bushmeat hunting and land-use change in Guyana**
Takuya Iwamura, *Stanford University*; **Eric Lambin**, *Stanford University*; **José Fragoso**, *Stanford University*

.....

Adaptive Management & Wildlife Trade

Room 309

Wednesday, July 24, 10:30 to 12:30

- 10:30 Using changes in recreational angler site demand to infer the cost imposed by a marine reserve in the central Gulf of California, Mexico**
Marie Fujitani, *Arizona State University*; **Eli Fenichel**, *Yale School of Forestry & Environmental Studies*; **Joshua Abbott**, *Arizona State University School of Sustainability*
- 10:45 Taking the pulse of Puget Sound: Developing indicators for assessing ecosystem health**
Nathalie Hamel, *Puget Sound Partnership*; **Scott Pearson**, *Washington Department of Fish and Wildlife*
- 11:00 The value of information for Box-Ironbark forest and woodland management**
William Morris, *The University of Melbourne*; **Michael Runge**, *US Geological Survey, Patuxent Wildlife Research Center*; **Peter Vesk**, *The University of Melbourne*
- 11:15 The jaguar corridor in Colombia: from ideas to implementation**
Esteban Payan, *Panthera Colombia*; **Karen Perez**, *Orinoquia Biodiversa*; **Carolina Soto**, *Panthera Colombia*; **Angelica Benitez**, *Panthera Colombia*; **Angelica Diaz**, *Panthera Colombia*
- 11:30 Conservation monitoring on Bioko Island: Bridging the gaps between bushmeat market dynamics, primate populations, and wildlife patrols**
Drew Cronin, *Drexel University*; **Cirilo Riaco**, *Bioko Biodiversity Protection Program*; **Gail Hearn**, *Drexel University*
- 11:45 Assessing the threat of human consumption of tiger prey in the Bangladesh Sundarbans**
Samiul Mohsanin, *WildTeam*; **Adam Barlow**, *WildTeam*; **Christina Greenwood**, *WildTeam*; **Anwarul Islam**, *WildTeam*; **Mofizul Kabir**, *Jahangirnagar University*; **Mizanur Rahman**, *WildTeam*; **Alam Howlader**, *WildTeam*
- 12:00 The international trade of spiny dogfish: a social network analysis for the fishery management**
Andrea Dell'Apa, *East Carolina University*; **Jeffrey Johnson**, *East Carolina University*; **David Kimmel**, *East Carolina University*; **Roger Rulifson**, *East Carolina University*
- 12:15 Local consumption of tiger parts in the Bangladesh Sundarbans**
Samia Saif, *Durrell Institute of Conservation & Ecology, University of Kent*; **Christina Barlow**, *WildTeam*; **Douglas MacMillan**, *Durrell Institute of Conservation & Ecology, University of Kent*



.....

Climate Change

Room 310

Wednesday, July 24, 10:30 to 12:30

10:30 How cold is too cold? Cold tolerance of immature monarchs in North America

Kelly Nail, *University of Minnesota*; Karen Oberhauser, *University of Minnesota*

10:45 The frog of the north: mink frog ecology and climate change

David Patrick, *Paul Smith's College*; Elizabeth Harper, *Paul Smith's College*; Viorel Popescu, *Simon Fraser University*

11:00 Amphibians squeezed between introduced fish and climate change in montane wetlands

Maureen Ryan, *University of Washington & Simon Fraser University*; Alan Hamlet, *University of Notre Dame*; Wendy Palen, *Simon Fraser University*; Se-Yeun Lee, *University of Washington, Climate Impacts Group*; Meghan Halabisky, *University of Washington*; Michael Adams, *US Geological Survey*; Joshua Lawler, *University of Washington*; Lara Hansen, *EcoAdapt*

11:15 The Conservation of Tidal Marsh Birds: Guiding action at the intersection of our changing land and seascapes

Greg Shriver, *University of Delaware*; Chris Elphick, *University of Connecticut*; Brian Olsen, *University of Maine*; Tom Hodgman, *Maine Department of Inland Fish and Wildlife*

11:30 Water Stress Projections for the Northeastern and Midwestern United States in 2060: Anthropogenic and Ecological Consequences

Brian Tavernia, *North Carolina State University*; Mark Nelson, *Northern Research Station, USDA Forest Service*; Peter Caldwell, *Southern Research Station, USDA Forest Service*; Ge Sun, *Southern Research Station, USDA Forest Service*

11:45 Camouflage mismatch in seasonal coat color due to decreased snow duration: Will snowshoe hares keep up with climate change?

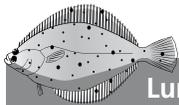
Marketa Zimova, *University of Montana*; L. Scott Mills, *University of Montana*; Jared Oyler, *University of Montana*; Steven Running, *University of Montana*; John Abatzoglou, *University of Idaho*; Paul Lukacs, *University of Montana*

12:00 A New Framework for Identifying and Applying Social Resilience in the Context of Climate Change

Monica Pearce, *Rare*

12:15 Climate Change Adaptation Strategy Evaluation at a State Natural Resource Agency

Andrew Holdsworth, *Minnesota Department of Natural Resources*; Michael Larson, *Minnesota Department of Natural Resources*; Edward Quinn, *Minnesota Department of Natural Resources*; Andrew Carlson, *Minnesota Department of Natural Resources*; Clarence Turner, *Minnesota Department of Natural Resources*; Jim Manolis, *Minnesota Department of Natural Resources*; Kathy DonCarlos, *Minnesota Department of Natural Resources*; Ann Pierce, *Minnesota Dept. of Natural Resources*



Lunch Activities: 12:30 P.M. to 2:00 P.M.

- **SCB Groups Meetings**

Latin America and Caribbean (LACA) Section • Room 306

North America Section • Room 309

.....

- **Student Résumé Writing Workshop**

Room 301

Organizer(s): ICCB Student Activities Committee

Facilitators: Jessica Glazer, Interim Director, Career Programs & Advising and Laura Arthur, Assistant Director, Career Programs & Advising, *Johns Hopkins University*



Career Advisors from the Johns Hopkins Carey Business School Career Services office will lead this brown-bag lunch workshop to help students learn how to transform a résumé from average to outstanding! This session will cover successful techniques to format your résumé, to incorporate key action words, and help you establish your brand so that you can present your accomplishments with effective and applicable details tailored to your audience. There will also be a peer-revision session workshop and opportunities for you to get advice from our career counselors, so make sure you bring your résumé. Students are welcome to bring their own lunches or purchase one at the as lunches are not provided.

- Workshop: **Population, Health and Environment: Securing the Mandate and Building the Capacity to Integrate Health Services into Existing Conservation Programmes (Day 1 of 2)**
July 24, Room 302
July 25, Room 303
Organizer(s): Mohan, V., Blue Ventures, Harris, A., Blue Ventures
- Workshop: **Resolving Environmental Conflicts: A Mediator shares Lessons for Resource Managers, Scientists and Stakeholders (Day 2 of 2)**
July 23 & July 24, Room 303
Organizer(s): Moore, L., Lucy Moore Associates, Inc.
- Workshop: **Assessing the Strengths and Weaknesses of Natural Resource Governance in Landscapes and Seascapes: a Simple Tool for Conservation Practitioners**
July 24, Room 304
Organizer(s): Wilkie, D., Wildlife Conservation Society, Russel, D., United States Agency for International Development
- Workshop: **ARKive.org: Using Imagery as an Emotive Bridge to Conservation**
July 24, Room 307
Organizer(s): Vitali, L., ARKive (Wildscreen USA)
- Workshop: **Enhancing Diversity in the Conservation Science Workforce: What are the Barriers to Increasing Diversity and What can Organizations like SCB do?**
July 24, Room 308
Organizer(s): Blair, M., Center for Biodiversity and Conservation, American Museum of Natural History; Sterling, E., Center for Biodiversity and Conservation, American Museum of Natural History
- Workshop: **Here Today, Gone Tomorrow? Implications of PADDD for Conservation Science and Policy**
July 24, Room 310
Organizer(s): Krithivasan, R., WWF-US, Mascia, M., WWF-US



Early afternoon awards ceremony and plenary session: 2:00 P.M. to 3:30 P.M.

Grand Ballroom I&II

Wednesday, July 24, 14:00 to 15:30

AWARDS CEREMONY: EDWARD T. LAROE III MEMORIAL AWARD

The Edward T. LaRoe III Memorial Award recognises the innovative application of science to resource management and policy by scientists.

The 2013 LaRoe awardee is **Robin Waples**. Robin has had a creative and productive career, and has had a tremendous record of applying science to conservation. In his 25-year career with the US government, he led the efforts of the National Oceanic and Atmospheric Administration to interpret what Congress meant when they said that “distinct population segments” (DPSs) could be listed under the Endangered Species Act. The result was his 1991 paper that set the foundation for defining criteria for DPS status for all taxa under the US ESA. No scientist has had a greater effect on application of the ESA to conservation than Robin.

PLENARY SESSION

Humans as Biological Sensors, Democratization of Science, and Our New Relationship with the Earth

Dr. John Fitzpatrick

Director, Cornell Laboratory of Ornithology and Professor, Ecology and Evolutionary Biology, Cornell University

Dr. Caren Cooper

Research Associate, Cornell Laboratory of Ornithology and Senior Fellow, Environmental Leadership Program

Citizen science has matured from a quirky and experimental novelty into a multi-purpose tool for scientific research, conservation applications, and even social activism. Engaging human observers as distributed sensors and data-loggers began as early as the mid-1800s, but Internet and mobile technology have revolutionized the process, greatly expanding our opportunity to map, model, and interpret Earth’s systems at multiple scales and in surprising detail. We provide several examples, emphasizing new results from the rapidly growing, global bird-checklist project, eBird, perhaps the

world's largest observational database on non-human organisms. Data-mining technology incorporating distributed environmental, climate, and human population data are producing remarkably accurate models of species occurrence and "hotspots" useful for prioritizing conservation actions on the ground. More broadly, we argue that the scientific and social consequences of this scientific revolution are profound. In the context of biological conservation, citizen science is (a) providing raw data about environmental process and change at unprecedented scales, and (b) engaging an unprecedented diversity of stakeholders in measuring biological diversity and the human footprint. The result could be a genuinely new and improved relationship between humans and the biophysical planet over the coming century and beyond.

.....



AFTERNOON REFRESHMENTS BREAK

15:30 to 16:00

Exhibit Hall A



Late afternoon session: 4:00 P.M. to 6:00 P.M.

SCB Members' Meeting, Chapters Spotlight, Student Award Winners Announcement, and Animal Conservation Poster Prize Announcement

Grand Ballroom I & II

Wednesday, July 24, 16:00 to 18:00

Don't miss the most important meeting of the year for SCB members and discover the winners of the student awards for oral presentations! Selected active and diverse Chapters will be giving briefs on their activities. A representative from the journal *Animal Conservation* will also be awarding a poster prize; the three winning posters will describe research that has broad implications for conservation, or advances in conservation science. Come help decide the future direction of SCB while meeting SCB board members and staff. Not a member? Come find out what we're all about at the Members' Meeting! We'd love to get to know you and for you to see what makes SCB the best society for conservation professionals in the world!

Wednesday



Special Evening Events: 6:00 P.M. to 8:00 P.M.

- **Speed-Poster Session and Cash Bar (See full listing on following pages)**
18:00 to 19:00, Exhibit Hall A
-

- **Harbor Cruise**
19:00 - 21:00, Boarding at 18:30
Depart from Inner Harbor at Light Street (Spirit Cruises, 561 Light Street)

Join fellow ICCB attendees for a Sunset Cruise around the beautiful Baltimore Inner Harbor for food, drink, and karaoke!
A ticket is required.



Don't leave Clawdia out in the cold!

Join her at the SCB Members' Meeting

Don't miss the most important meeting of the year for SCB members! Come help decide the future direction of SCB, discover the student award winners, and the poster award winner, and hear highlights of SCB Chapter activities.

Not a member? Come find out what we're all about at the Members' Meeting! We'd love to get to know you and for you to see what makes SCB the best society for conservation professionals in the world!

.....

SCB Members' Meeting

July 24 • 4:00-6:00 P.M. • Grand Ballroom I&II



Adaptive Management

- 1 MammalMAP: A mammal monitoring initiative for improved wildlife conservation in Africa that bridges ecosystem, disciplinary, and political divides**
Tali Hoffman, *Mammal Research Institute*; Robert Millar, *Mammal Research Institute*; Les Underhill, *Animal Demography Unit*
- 2 Adaptive Management of Golden Eagles on Wind Farms in the U.S.**
Leslie New, *US Geological Survey*; Emily Bjerre, *US Fish and Wildlife Service*; Brian Millsap, *US Fish and Wildlife Service*; Mark Otto, *US Fish and Wildlife Service*; Michael Runge, *US Geological Survey*

Behavioral Ecology and Conservation

- 3 A novel semi-variance approach to extracting multiple movement modes from animal relocation data**
Justin Calabrese, *Smithsonian Conservation Biology Institute*; Chris Fleming, *Smithsonian Conservation Biology Institute*; Thomas Mueller, *University of Maryland*; Kirk Olson, *Smithsonian Conservation Biology Institute*; Peter Leimgruber, *Smithsonian Conservation Biology Institute*; William Fagan, *University of Maryland*
- 4 The Solitary Maned Wolf Uses Scent Signals to Ensure Reproductive Success**
Marieke Kester, *George Mason University*; Thomas Huff, *George Mason University*; Elizabeth Freeman, *George Mason University*; Thomas Goodwin, *Hendrix College*; Nucharin Songsasen, *Smithsonian Conservation Biology Institute*
- 5 There's No Place Like Home: Using Microsatellites to Determine Natal Homing in Bog Turtles and Understanding the Conservation Implications**
Suzanne Macey, *Fordham University*; Caroline Chiu, *American Museum of Natural History*; Purva Vaidya, *American Museum of Natural History*; Kevin Shoemaker, *Stony Brook University*; J. Alan Clark, *Fordham University*

Biogeography

- 6 Imperfect detection of species in biological surveys reduces the accuracy of species distribution models: when and how much does it matter?**
José Lahoz-Monfort, *University of Melbourne*; Gurutzeta Guillera-Arroita, *University of Melbourne*; Brendan Wintle, *University of Melbourne*
- 7 Endemism, connectivity, and marine protected areas: A population genetics comparison of endemic and widespread reef fishes in the Hawaiian Archipelago**
Kimberly Tenggardjaja, *University of California, Santa Cruz*; Giacomo Bernardi, *University of California, Santa Cruz*; Brian Bowen, *Hawaii Institute of Marine Biology*

Biological Pollution (Sewage, Nutrients etc.)

- 8 Evaluating Nitrogen Deposition Influence in Invaded California Coastal Sage Scrub Communities**
Amanda James, *University of California, Riverside*; James Sickman, *University of California, Riverside*; Mark Fenn, *US Forest Service*; Edith Allen, *University of California, Riverside*

Citizen Science /Public Participation in Science

- 9 Visualizing biodiversity information to achieve multiple conservation goals**
Prasanna Kolte, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Kiran M.C., *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Madhura Niphadkar, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*; Pranita Sambhus, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*
- 10 A citizen army for conservation: quantifying participatory research on monarch butterflies and its impacts on science, conservation, and behavior**
Leslie Ries, *National Socio-environmental Synthesis Center*; Karen Oberhauser, *University of Minnesota*

Climate Change

- 11 Life on the Edge: Livelihoods, Impact and Adaptation to Climate Change in Urban Coastal Areas in Ghana**
EnoAbasi Anwana, *Regional Institute for Population Studies, University of Ghana*; Samuel Codjoe, *Regional Institute for Population Studies, University of Ghana*



12 Projecting changes in phenology using temperature based growing degree days

Rebecca Harris, *Antarctic Climate Ecosystem CRC*; **Greg Lee**, *Antarctic Climate Ecosystem CRC*; **Paul Fox-Hughes**, *Antarctic Climate Ecosystem CRC*; **Nathan Bindoff**, *Antarctic Climate Ecosystem CRC*

13 Determining the Carbon Benefit of Ecosystems Restoration Projects and the Associated Reductions in the Social Cost of Carbon

Marybeth Riley-Gilbert, *ICF International*; **Franz Ingelfinger**, *Massachusetts Division of Ecological Restoration*; **Nick Wildman**, *Massachusetts Division of Ecological Restoration*; **Erin Healy**, *ICF International*

14 Cryptic Impacts of Variable Temperatures in a Declining Aquatic Salamander

Kimberly Terrell, *Smithsonian Conservation Biology Institute*; **Richard Quintero**, *Smithsonian's National Zoological Park*; **Suzan Murray**, *Smithsonian's National Zoological Park*; **Bradley Nissen**, *Smithsonian Conservation Biology Institute*; **James Murphy**, *Smithsonian's National Zoological Park*; **John Kleopfer**, *Virginia Department of Game and Inland Fisheries*; **Brian Gratwicke**, *Smithsonian Conservation Biology Institute*

Communications, Outreach and Education

15 Zoo-based Teacher Professional Development - An Effective Means for Integrating Conservation Science and Advocacy into Classrooms

James Danoff-Burg, *San Diego Zoo Global*; **Maggie Reinbold**, *San Diego Zoo Global*; **Robin Keith**, *San Diego Zoo Global*; **Samantha Young**, *San Diego Zoo Global*; **Corrin LaCombe**, *San Diego Zoo Global*; **Kirstie Ruppert**, *San Diego Zoo Global*

16 It's all in the name - public attitudes to the conservation of biodiversity, habitats and charismatic-sounding species

E.C.M. Parsons, *Department of Environmental Science & Policy, George Mason University*; **A Shah**, *Dept of Environmental Science & Policy, George Mason University*; **P. Karaffa**, *Dept of Environmental Science & Policy, George Mason University*; **C. Scott**, *Dept of Environmental Science & Policy, George Mason University*;

17 Crowdfunding for Conservation: Using Social Media to Build Support

Rachel Wheat, *University of California, Santa Cruz*; **Yiwei Wang**, *University of California, Santa Cruz*; **Jarrett Byrnes**, *University of Massachusetts, Boston*; **Jai Ranganathan**, *National Center for Ecological Analysis and Synthesis*

Community-driven Conservation

18 The last wild island: Vital partnerships for sustainable conservation outcomes in Melanesia.

John Read, *Ecological Horizons*; **Katherine Moseby**, *Tetepare Descendants' Association*; **Chris Filardi**, *American Museum of Natural History*; **Richard Rice**, *Conservation Agreement Fund*

Conservation Anthropology

19 Characterizing Tribal Cultural Landscapes for Resource Preservation and Protection

Valerie Grussing, *National Marine Protected Areas Center*

Conservation Capacity Building

20 Locating conservation offices for efficient management

Christine Dumoulin, *University of Tennessee Knoxville*; **Paul Armsworth**, *University of Tennessee Knoxville*;

Conservation Genetics

21 Conservation Genetics of New York's Giant Salamander: The Eastern Hellbender

Meghan Jensen, *Buffalo State College*; **Amy McMillan**, *Buffalo State College*

22 Developing microsatellite markers for management and conservation of the New Zealand scallop *Pecten novaezelandiae*

Catarina Silva, *Victoria University of Wellington*; **Jonathan Gardner**, *Victoria University of Wellington*

Conservation GIS

23 Protected Area Downgrading, Downsizing and Degazettement (PADDD) in Yosemite National Park and the Sierra Nevada

Rachel Golden, *University of Maryland*; **Roopa Krithivasan**, *World Wildlife Fund*; **Michael Mascia**, *World Wildlife Fund*; **William Fagan**, *University of Maryland*





Conservation Medicine

24 Green Sea Turtles and Marine Ecosystem Health: A Case Study From Palmyra Atoll

Kate McFadden, *U.S. Geological Survey/Clemson University*; Eugenia Naro-Maciel, *College of Staten Island, City University of New York*

Conservation on Private Lands

25 Winter Waterbird Use and Food Resources of Aquaculture Facilities in Mississippi

James Feaga, *Mississippi State University*; Francisco Vilella, *USGS Cooperative Fish & Wildlife Research Unit*

Conservation Psychology

26 How do you effectively incentivise and motivate local communities to adopt conservation behaviours? A case study of the Sumatran orangutan

Danielle Nilsson, *University of Queensland*

Conservation Sociology

27 Knowing sea turtles: local communities informing conservation in Koh Rong archipelago, Cambodia

Juliane Diamond, *Lincoln University*; Victor Blanco, *Song Saa Private Island*; Ronlyn Duncan, *Lincoln University*

Ecological Restoration

28 Contaminant Mobilization Associated with Ecosystem Restoration Projects

Erin Healy, *ICF International*; Jennifer Pierre, *ICF International*

29 EverVIEW data visualization software designed for Everglades restoration decision-making, used internationally

Stephanie Romanach, *U.S. Geological Survey*; Craig Conzelmann, *U.S. Geological Survey*; Kevin Suir, *U.S. Geological Survey*; Christina Hunnicutt, *U.S. Geological Survey*; Mark McKelvy, *U.S. Geological Survey*; Sumani Chimmula, *University of Louisiana*

Ecosystem / Conservation Area Management

30 Pyrodiversity versus biodiversity: the influence of mosaic burning on bird species richness across multiple spatial scales

Emma Burgess, *University of Queensland*; Martine Maron, *University of Queensland*; Patrick Moss, *University of Queensland*; Murray Haseler, *Bush Heritage Australia*

Ecosystem Services

31 Understanding elephant distribution in a human-dominated transfrontier landscape

Sarah-Anne Selier, *University of Kwa-Zulu Natal*; Rob Slotow, *University of Kwa-Zulu Natal*; Bruce Page, *University of Kwa-Zulu Natal*; Enrico Di Minin, *Finnish Centre of Excellence in Metapopulation Biology, University of Helsinki*

32 Monitoring watershed ecosystem services in Latin America: connecting investors, conservation activity, and water outcomes in water funds

Joanna Nelson, *The Natural Capital Project, Stanford University*; Leah Bremer, *The Natural Capital Project, Stanford University*; Rebecca Chaplin-Kramer, *The Natural Capital Project, Stanford University*; Heather Tallis, *The Natural Capital Project, Stanford University*; Jonathan Higgins, *The Nature Conservancy*

Habitat Degradation

33 Drivers of change in Myanmar's wild elephant distribution

Melissa Songer, *Smithsonian Conservation Biology Institute*; Myint Aung, *Friends of Wildlife, Myanmar*; Peter Leimgruber, *Smithsonian Conservation Biology Institute*

34 Forest fragmentation in Northwestern Ethiopia: Genetic effects on an endangered medicinal tree species

Haile Yineger Tariku, *Australian Rivers Institute, School of Environment, Griffith University*; Daniel Schmidt, *Australian Rivers Institute, School of Environment, Griffith University*; Jane Hughes, *Australian Rivers Institute, School of Environment, Griffith University*





Human Wildlife Conflict

35 Patterns of Human-Jaguar Conflicts across Latin America

Alexandra Zimmermann, *Chester Zoo / Oxford University*; Scott Wilson, *Chester Zoo*; Nandita Hazarika, *EcoSystems-India*

Inventory & Monitoring

36 Mortality Impact of the Hemlock Woolly Adelgid in the Great Smoky Mountains National Park

James Rosson, Jr., *USDA Forest Service; Southern Research Station*; Anita Rose, *USDA Forest Service; Southern Research Station*

37 Inferring species occupancy at a site when detection is imperfect: setting minimum survey effort with respect to conservation objectives

Gurutzeta Guillera-Arroita, *University of Melbourne*; Jose Lahoz-Monfort, *University of Melbourne*; Michael McCarthy, *University of Melbourne*; Brendan Wintle, *University of Melbourne*

Marine Conservation

38 The conservation awareness and attitudes of whale-watching tourists in Samaná, Dominican Republic

Christine Gleason, *George Mason University*; E.C.M Parsons, *George Mason University*

Population Dynamics

39 Population-Health-Environment: lessons learned by Blue Ventures from five years of integrating family planning with marine conservation in Madagascar

Vik Mohan, *Blue Ventures Conservation*; Alasdair Harris, *Blue Ventures Conservation*; Laura Robson, *Blue Ventures Conservation*

40 Age structure and spatial distribution pattern of the rare and endangered plant *Alcimandra cathcartii*

Chun-ming Yuan, *Yunnan Academy of Forestry*

Population viability analysis

41 Population Viability Analysis of Captive Asian Elephants in the Lao PDR

Ingrid Suter, *The University of Queensland*; Gilles Maurer, *ElefantAsia*; Greg Baxter, *The University of Queensland*

Restoration Ecology

42 A simulation model to evaluate re-networking for fragmented fish habitats with consideration for population dynamics

Takeshi Takemura, *National Institute for Rural Engineering*; Masakazu Mizutani, *Utsunomiya University*; Noriyuki Koizumi, *National Institute for Rural Engineering*; Atsushi Mori, *National Institute for Rural Engineering*; Keiji Watabe, *National Institute for Rural Engineering*; Kazuya Nishida, *National Institute for Rural Engineering*

Scientists, Stakeholders, and Managers: Bridging the Gap

43 Stakeholder perspectives on Chronic Wasting Disease

Kari Amick, *University of Saskatchewan*; Douglas Clark, *University of Saskatchewan*; Ryan Brook, *University of Saskatchewan*

44 Connecting the dots through information innovation: The case of western and central Pacific tuna

Megan Bailey, *Wageningen University and Research Centre*; Simon Bush, *Wageningen University and Research Centre*; Paul van Zwieten, *Wageningen University and Research Centre*; Arthur Mol, *Wageningen University and Research Centre*

Spatial Ecology and Conservation

45 People and Wild Canids - Lessons Learnt from Comparative Studies of Dhole and Jackal Movements

Ellen Aikens, *Smithsonian Conservation Biology Institute*; Kate Jenks, *Minnesota Zoo*; Naris Bhumpakphan, *Kasetsart University*; Nucharin Songsasen, *Smithsonian Conservation Biology Institute*; Sawai Wanghongsa, *Thailand Department of National Parks, Wildlife and Plant Conservation*; Budsabong Kanchanasaka, *Thailand Department of National Parks, Wildlife and Plant Conservation*; Peter Leimgruber, *Smithsonian Conservation Biology Institute*

46 Identifying drivers of abundance of an irruptive species, the Dickcissel (*Spiza americana*)

Brooke Bateman, *University of Wisconsin-Madison*; Jessica Gorzo, *University of Wisconsin-Madison*; Anna Pidgeon, *University of Wisconsin-Madison*; Volker Radeloff, *University of Wisconsin-Madison*; H. Akcakaya, *Stony Brook University*; Curtis Flather, *USDA, Forest Service*; Thomas Albright, *University of Nevada, Reno*; Stephen Vavrus, *Center for Climatic Research*; Wayne Thogmartin, *United States Geological Survey*; Patricia Heglund, *United States Fish and Wildlife Service*



- 47 **Serological survey and movement tracking of domestic and wild canids at Khao Ang Rue Nai Wildlife Sanctuary, Thailand**
Kate Jenks, *Minnesota Zoo*; **Nucharin Songsasen**, *Smithsonian Conservation Biology Institute*; **Mourad Gabriel**, *University of California Davis Veterinary Genetics*; **Ellen Aikens**, *Smithsonian Conservation Biology Institute*; **Naris Bhumparkpan**, *Kasetsart University*; **Sawai Wanghongsa**, *Thailand Department of National Parks, Wildlife, and Plant Conservation*; **Warawidjh Wajwalku**, *Kasetsart University*; **Budsabong Kanchanasaka**, *Thailand Department of National Parks, Wildlife, and Plant Conservation*; **Todd Fuller**, *University of Massachusetts*; **Peter Leimgruber**, *Smithsonian Conservation Biology Institute*
- 48 **Addressing the neglected role of threats in comparative extinction risk analysis**
Kris Murray, *EcoHealth Alliance*; **Luis Verde**, *University of Queensland*; **Martina Di Fonzo**, *University of Queensland*; **Ana Davidson**, *Stony Brook University*; **Moreno di Marco**, *Sapienza University of Rome*

Urban Area Conservation

- 49 **Bird migration through cities: urban stopovers are not more stressful.**
Rachel Bricklin, *Fordham University*; **J. Alan Clark**, *Fordham University*; **Brian Walker**, *Fairfield University*
- 50 **The unexpected discovery of new cryptic frog in the urban northeastern US: A summary of the discovery and conservation considerations.**
Jeremy Feinberg, *Rutgers University*; **Catherine Newman**, *Louisiana State University*; **Gregory Watkins-Colwell**, *Yale Peabody Museum*; **Matt Schlesinger**, *New York Natural Heritage Program*; **Brian Zarate**, *New Jersey Division of Fish and Wildlife*; **H. Shaffer**, *University of California, Los Angeles*; **Joanna Burger**, *Rutgers University*
- 51 **Towards Conservation and Education - Development of a bio-monitoring toolkit for Singapore's coastal and marine habitats**
Annabelle Ng, *National Parks Board, Singapore*; **Karen Lim**, *National Parks Board, Singapore*

Wetland Conservation

- 52 **Population status and threats to Chilean Flamingos in known areas of their distribution in South America**
Felicity Arengo, *American Museum of Natural History*; **Juan Cornejo**, *Wildlife Conservation Society*

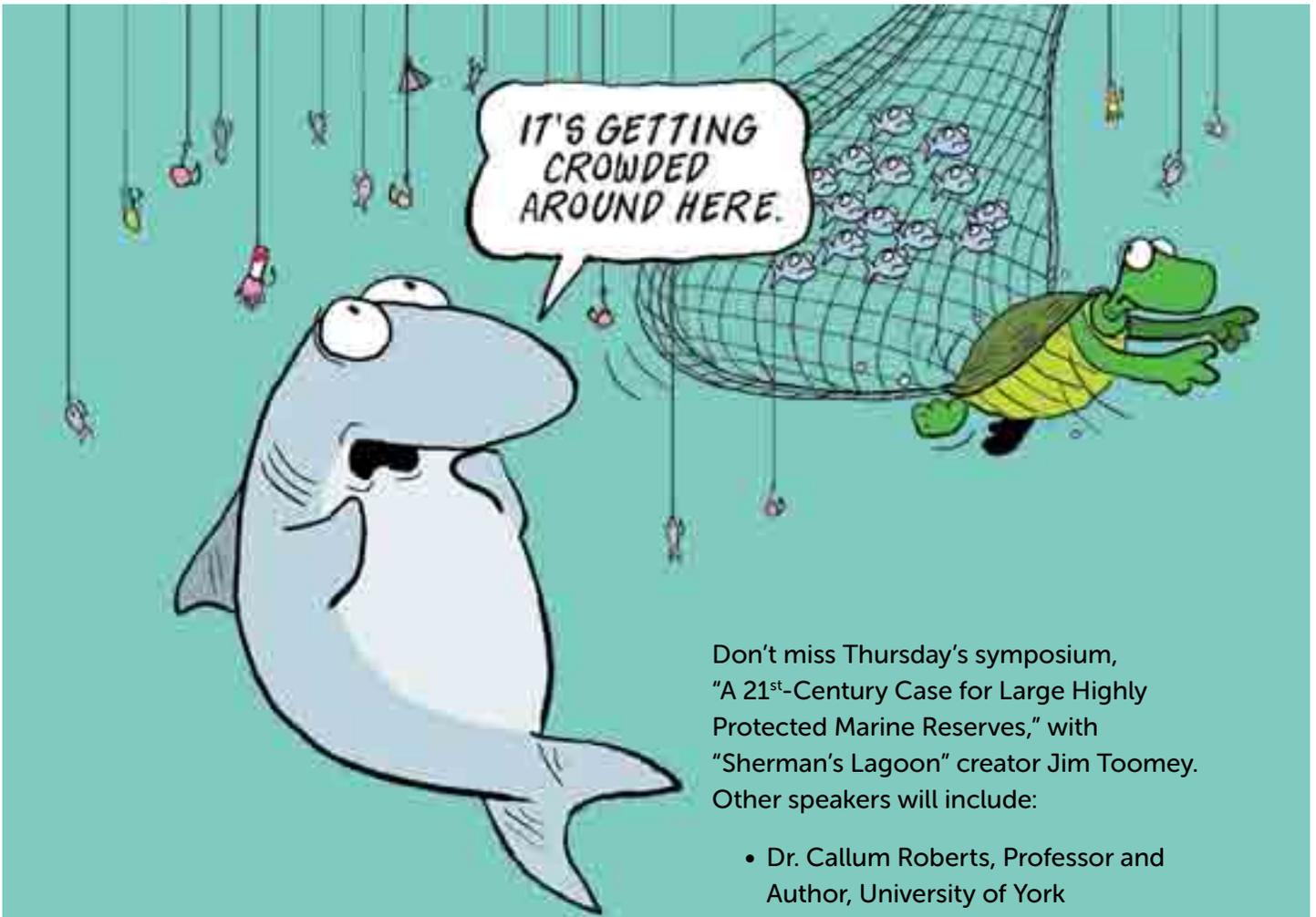
Conservation Modeling

- 53 **Effect of data uncertainty on extinction risk projections to 2050**
Daniele Baisero, *Sapienza Università di Roma*; **Piero Visconti**, *Microsoft Research - Computational Ecology*; **Stuart Butchart**, *Birdlife International*; **Luigi Boitani**, *Sapienza Università di Roma*; **Lucilla Francucci**, *Sapienza Università di Roma*; **Carlo Rondinini**, *Sapienza Università di Roma*

Restoration Ecology/Disturbance/Behavior

- 54 **Tracking Responses to Marine Derived Nutrients in Riparian Consumers in the Context of the Largest Dam Removal in United States History**
Christopher Tonra, *Smithsonian Conservation Biology Institute*; **Kim Sager-Fradkin**, *Lower Elwha Klallam Tribe*; **Peter Marra**, *Smithsonian Conservation Biology Institute*



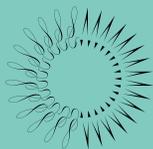


**Less than 1% of
the ocean is
fully protected.**

Don't miss Thursday's symposium, "A 21st-Century Case for Large Highly Protected Marine Reserves," with "Sherman's Lagoon" creator Jim Toomey. Other speakers will include:

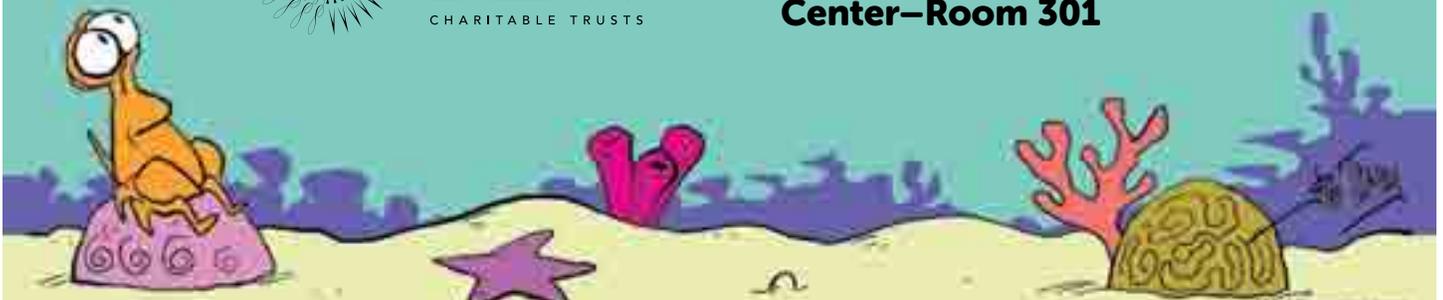
- Dr. Callum Roberts, Professor and Author, University of York
- Dr. Elliott Norse, Chief Scientist, Marine Conservation Institute
- Robert Mazurek, Officer, Global Ocean Legacy, The Pew Charitable Trusts
- Imogen Zethoven, Director, Global Ocean Legacy Australia, The Pew Charitable Trusts
- Dr. Juan Carlos Castilla, Professor, Pontificia Universidad Católica de Chile

Learn about efforts around the world to create the ocean equivalents of land-based national parks.



THE
PEW
CHARITABLE TRUSTS

**Thursday, July 25, 4 p.m.
Center-Room 301**





Room 301	Room 302	Room 303	Room 304	Room 305	Room 306	Room 307	Room 308	Room 309	Room 310
<p>8:00 - 10:00 A.M.</p>									
<p>Symp. Climate Change and Conservation of Marine Species (Part I)</p>	<p>Symp. Valuing the Environment for Decision-Makers and Stakeholders</p>	<p>Symp. Urban Green Spaces, Biodiversity and Ecosystem Services</p>		<p>Contr. Sess. Alien and Invasive Species</p>	<p>Contr. Sess. Marine Conservation</p>	<p>Symp. Ecosystem-Based Management in Practice</p>	<p>Symp. Tools and Processes for Assessing Conservation Opportunity</p>	<p>Symp. Conserving Sacred Sites and Species in the Anthropocene</p>	<p>Symp. Public Voices Count</p>
<p>10:30 A.M. - 12:30 P.M.</p>									
<p>Coffee Break: 10:00-10:30 A.M., Exhibit Hall A</p>									
<p>Symp. Climate Change and Conservation of Marine Species (Part II)</p>	<p>Contr. Sess. Conservation Economics & Conservation Psychology</p>	<p>Contr. Sess. Scientists, Stakeholders, and Managers: Bridging the Gap</p>	<p>Contr. Sess. Ecosystem functions and services</p>	<p>Contr. Sess. Marine and Wetland Conservation</p>	<p>Contr. Sess. Conservation of Ecosystems and Hotspots</p>	<p>Contr. Sess. Alien and Invasive Species</p>	<p>Contr. Sess. Conservation Politics and Policy</p>	<p>Contr. Sess. Protected Area Planning and Design</p>	<p>Contr. Sess. Climate Change</p>
<p>Oceania Section Meeting</p>									
<p>Workshop Soil Ecology of Urban Areas: Establishment of a Global Network</p>	<p>Workshop The Integrate Health Services into Conservation (Part II)</p>	<p>Workshop Asia Section Meeting</p>	<p>ICCB Local Organizing Committee Meeting</p>	<p>FreshWater Working Group Meeting</p>	<p>Workshop SCB Publications: Getting Published in International Journals</p>				
<p>2:00 P.M. - 3:30 P.M.</p>									
<p>Plenary: Eleanor Sterling and Marcelo Bonta, Diversifying Conservation Science and Management Awards Ceremony: The Center for the Study and Conservation of Raptors in Argentina & John Woinarski Grand Ballroom I&II</p>									
<p>Afternoon Refreshments Break: 3:30-4:00 P.M., Pre-Function Space Outside Rooms 307-310</p>									
<p>4:00 P.M. - 6:00 P.M.</p>									
<p>Symp. Large Highly-Protected Marine Reserves</p>	<p>Contr. Sess. Marine Conservation</p>	<p>Contr. Sess. Protected Area Planning and Design</p>	<p>Contr. Sess. Adaptive Management, Planning and Recovery of Endangered Species</p>	<p>Contr. Sess. Conservation Genetics & Evolution</p>	<p>Contr. Sess. Climate Change, Disturbance and Landscape Ecology</p>	<p>Contr. Sess. Stakeholders & Community-Driven Conservation</p>	<p>Contr. Sess. Conservation GIS and Geography</p>		
<p>6:00 P.M. Onwards</p>									
<p>Closing Reception and Silent Auction 6:30 to 9:00 Power Plant Live (intersection of Market Street and Water Street, one block from Inner Harbor)</p>									





Morning session: 8:00 A.M. to 10:00 A.M.

Symposium: **Climate Change and Conservation of Marine Species: Bridging the Gap Between Ecology, Climate Science and Policy. Session I**

Room 301

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Janet Nye, *Stonybrook University, School for Marine and Atmospheric Sciences*; **Charles Stock**, *NOAA Geophysical Fluid Dynamics Laboratory*; **Roger Griffis**, *NOAA National Marine Fisheries Service*

The purpose of this symposium is to bring climate scientists, ecologists, and policy makers together to discuss the challenges associated with understanding the effects of climate change on marine organisms and incorporating climate impacts into management decisions. A key scientific challenge to incorporating climate into regional ecosystem impacts assessments is translating global climate model projections to regional and local scale climate changes. As advances are being made to downscale global climate models and incorporate this information into ecological models, strengths and weaknesses in model projections must be carefully conveyed to managers, policy-makers, and the public. We have assembled a list of speakers who have confronted these challenges successfully. Talks will range from specific case studies addressing scientific and policy challenges to meta-analyses of global climate trends in marine systems. We will conclude with talks presenting the latest efforts to incorporate climate change into mitigation, adaptation, and protected species applications.

08:00 On the use of IPCC class climate models to assess the impact of climate on Living Marine Resources
Charles Stock, *NOAA GFDL*

08:15 Projecting climate change impacts on conservation of marine species
William Cheung, *University of British Columbia*

08:30 Using local climate velocity to guide North American marine conservation planning
Malin Pinsky, *Princeton University*

08:45 Cusk and Climate Change: assessing the threat to a candidate marine fish species under the US Endangered Species Act
Janet Nye, *NOAA NMFS NEFSC, Sandy Hook, NJ*

09:00 Potential influence of climate change on anadromous river herring in their marine habitat
Patrick Lynch, *NOAA NMFS NEFSC Narragansett, RI*

09:15 Uncertainty in climate change projections: myths, misconceptions and malleable guidelines
Michael Alexander, *NOAA ESRL*

Open discussion period follows from 9:30 to 10:00

.....



Symposium: **Valuing the Environment for Decision-Makers and Stakeholders: The New Big Picture, From Maryland's Genuine Progress Indicator to Nation's Accounts**

Room 302

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Christine Real de Azua, *Energy and Environment Consultant*

Research on the state of biodiversity, ecosystems, and the environment and their role in underpinning a healthy economy is rapidly growing. How can we most effectively translate this wealth of information into indicators, cost-benefit analysis and other costing tools that decision-makers can and will readily use, particularly at programmatic and macroeconomic scales?

Experts from different disciplines, such as biology and economics, will discuss recent developments in this field. Most importantly, the symposium will identify how to support and improve decision-making and stakeholder outreach through the use of such indicators and tools.

The symposium will discuss specific situations in order to identify and illustrate leverage points for recommendations. Decision-making situations may include cost-benefit analysis by regulatory agencies of critical habitat designation in the U.S; or forest protection and payment for ecosystem services in Costa Rica.

Particular emphasis will be given to Maryland, the host state for ICCB 2013, and to Maryland's efforts to assess environmental performance and convey to decision-makers and stakeholders the importance of that performance. Maryland is a pioneer in the use of a Genuine Progress Indicator that includes environmental factors and costs such as loss of wetlands and forests, air pollution, and climate change.

08:00 Leveraging national accounting and cost-benefit analysis tools for the environment

Christine Real de Azua (moderator), *Energy and Environment Consultant*

08:15 Are we conveying the big picture to decision-makers? Implementing the Convention on Biological Diversity's Strategic Plan and other commitments

Kyle Gracey, *Co-Chair SCB Treaties Task Force*

08:30 How has Maryland's GPI been most valuable in decision-making and what are the next steps for Maryland and other states?

Sean McGuire, *Maryland Office Sustainable Future*

08:45 Applying ecosystem service valuation tools to environmental policy and decision-making

Joe Roman, *Gund Institute Ecological Economics*

09:00 How are nations using an expanded system of national accounts to foster sound decision-making and investment? United Nations Statistical Division (invited)

Open discussion period follows from 9:15 to 10:00



.....

Symposium: **The Role of Urban Green Spaces in Maintaining Biodiversity and Ecosystem Services**

Room 303

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Christopher Lepczyk, *University of Hawaii at Manoa*; **Myla Aronson**, *Rutgers University*; **Paige Warren**, *University of Massachusetts at Amherst*; **Madhusudan Katti**, *California State University, Fresno*; **Charles Nilon**, *University of Missouri, Columbia*

Urban areas are typically considered novel ecosystems, filled with non-native species and having few positive attributes. However, urban ecosystems are not homogenous entities in that they contain a variety of habitat types, many of which have value to conservation. One habitat type of particular relevance for conservation is green space. Urban green spaces vary markedly in terms of meaning, ranging from remnant habitat to managed parks to gardens. However, the unifying aspect of such green spaces is that they can offer critical habitat to many species of plants and animals, provide locations for people to experience nature, and provide a number of important ecosystem services. Hence, the theme of this symposium is to bring together a group of prominent scientists and practitioners to address the role urban green spaces play in maintaining biodiversity, providing ecosystem services, and enhance human well-being. Because green spaces are used and experienced by so many different people and species, understanding them requires both social and ecological components as well as the stakeholders involved in them.

08:00 Contributions of green roofs to urban biodiversity

J. Scott MacIvor, *York University*

08:15 Spatial and temporal urbanisation gradients– are they interchangeable?

Karl Evans, *Department of Animal and Plant Sciences, University of Sheffield*

- 08:30 **Sustainability begins at home: Backyard habitats for birds and people**
Susannah Lerman, *University of Massachusetts-Amherst*
- 08:45 **Which is the better green space? A comparison of traditional grass lawn and waterwise gardens in a semi-desert urban landscape**
Kaberi Kar Gupta, *California State University, Fresno*
- 09:00 **Vacant land conversion to community gardens: influences on generalist arthropod predators and biocontrol services in urban greenspaces**
Mary Gardiner, *Cleveland State University*
- 09:15 **Using Citizen Science and community partnerships as tools for studying urban stopover habitats in Milwaukee, WI**
Tim Vargo, *Urban Ecology Center*
- 09:30 **Portland-Vancouver ULTRA-Ex: Analyzing the connection between governance and environmental quality in urban ecosystems**
Alan Yeakley, *Portland State University*
- 09:45 **Synthesis: the value of green spaces to conservation**
Christopher A. Lepczyk, *University of Hawaii at Manoa*

.....

Alien and Invasive Species

Room 305

Thursday, July 25, 8:00 to 10:00

- 08:00 **Optimising camera traps for monitoring small mammal**
Margaret Nichols, *Landcare Research*
- 08:15 **Application of a field ecological study to optimize adaptive management for invasive plant eradication**
Dawn Lawson, *SPAWAR SSC Pacific*; C. Wolf, *Naval Weapons Station Seal Beach, Detachment Fallbrook*; Andrew Dyer, *Dept. of Biology and Geology*
- 08:30 **The effect of mongoose (*Urva auropunctatus*), island quality and habitat on the distribution of native and endemic birds on small islands within Fiji**
Craig Morley, *Waiariki Institute of Technology*; Linton Winder, *Unitec Institute of Technology*
- 08:45 **Island mammal extinctions are determined by interactive effects of life history, island biogeography and mesopredator suppression**
Emily Hanna, *Australian National University*; Marcel Cardillo, *Australian National University*
- 09:00 **Effects of white-tailed deer on the invasion of exotic plants in a mid-Atlantic temperate forest**
Xiaoli Shen, *Smithsonian Conservation Biology Institute*; Norman Bourg, *Smithsonian Conservation Biology Institute*; William McShea, *Smithsonian Conservation Biology Institute*; Benjamin Turner, *Smithsonian Tropical Research Institute*
- 09:15 **Aquatic Invasive Species in the Great Lakes and Mississippi River Systems: Economics, Human Behavior, and Ecology**
Bruce Lauber, *Cornell University*; Nancy Connelly, *Cornell University*; Richard Stedman, *Cornell University*; Richard Ready, *Pennsylvania State University*; Gregory Poe, *Cornell University*; Selmin Creamer, *Ithaca College*
- 09:30 **Can weeds evolve resistance to biocontrol agents? Invasive *Pastinaca sativa* reunites with its coevolved natural enemy in New Zealand**
Tania Jogesh, *University of Illinois Urbana Champaign*; Arthur Zangerl, *University of Illinois Urbana Champaign*; Margaret Stanley, *University of Auckland*; May Berenbaum, *University of Illinois Urbana Champaign*
- 09:45 **Range expansion of the Asian fish tapeworm in the Great Lakes-St. Lawrence River ecosystem**
André Gendron, *Environment Canada, Centre St-Laurent*; David Marcogliese, *Environment Canada, Centre St-Laurent*; Sean Locke, *Environment Canada, Centre St-Laurent*; Jonathon Forest, *Concordia University*; Daniel McLaughlin, *Concordia University*



Thursday

.....

Marine Conservation

Room 306

Thursday, July 25, 8:00 to 10:00

- 08:00 Incorporating Climate Change and Ocean Acidification into Extinction Risk Assessments for 82 Coral Species**
C. Mark Eakin, *National Oceanic and Atmospheric Administration*; Russell Brainard, *National Oceanic and Atmospheric Administration*; Charles Birkeland, *University of Hawaii at Manoa*; Paul McElhany, *National Oceanic and Atmospheric Administration*; Margaret Miller, *National Oceanic and Atmospheric Administration*; Matt Patterson, *National Park Service*; Gregory Piniak, *National Oceanic and Atmospheric Administration*; Matthew Dunlap, *University of Hawaii at Manoa*; Mariska Weijerman, *University of Hawaii at Manoa*
- 08:15 Trawler trash: recognizing the impacts of shrimp trawling on small fishes**
Sarah Foster, *Project Seahorse, Fisheries Centre, The University of British Columbia*
- 08:30 Estimating sources of debris at a continental scale from coastal surveys**
Britta Hardesty, *CSIRO*; Chris Wilcox, *CSIRO*; Tina Lawson, *CSIRO*
- 08:45 Pollution Canary - Albatross as Sentinels of Marine Pollution**
Wayne Sentman, *Harvard University Extension School*; A. E. Vo, *University of California - Berkeley*; Myra Finkelstein, *University of California - Santa Cruz*; Scott Edwards, *Harvard University*; Heidi Auman, *University of Tasmania, Hobart, Tasmania, Australia*; Michael Bank, *University of Massachusetts - Amherst*
- 09:00 Marine protected areas: understanding social impacts through time in Indonesia**
Georgina Gurney, *James Cook University*; Robert Pressey, *ARC Centre of Excellence for Coral Reef Studies*; Joshua Cinner, *ARC Centre of Excellence for Coral Reef Studies*; Natalie Ban, *University of Victoria*; Richard Pollnac, *The University of Rhode Island*
- 09:15 Persistence and management of the mutton snapper (*Lutjanus analis*) aggregating fishery at Gladden Spit, Belize**
Pablo Granados-Dieseldorff, *Texas A&M University*; William Heyman, *Texas A&M University*; James Azueta, *Belize Fisheries Department*
- 09:30 Conservation on the High Seas -Rapid Progress in Defining Ecologically and Biologically Significant Areas (EBSAs)**
Piers Dunstan, *CSIRO*; Nicholas Bax, *CSIRO*
- 09:45 MPA with Small No-Take Zones Produce Bigger and More Fish in Five Years: Case Study from Espiritu Santo Marine Protected Area, Gulf of California**
Betsabé Luna Salguero, *Sociedad de Historia Natural Niparáj, A. C.*; Héctor Reyes Bonilla, *Universidad Autónoma de Baja California Sur*; Nuria Torrejón Arellano, *Sociedad de Historia Natural Niparáj, A. C.*; Amy Weaver, *Sociedad de Historia Natural Niparáj, A. C.*; Israel Sánchez Alcántara, *Universidad Autónoma de Baja California Sur*; Adriana González Azcárraga, *Universidad Autónoma de Baja California Sur*

.....

Symposium: Ecosystem-Based Management in Practice

Room 307

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Heather Leslie, *Brown University*; Karen McLeod, *COMPASS*

While ecosystem-based principles have been adopted as key elements of coastal and ocean management from local to the international scales, by governments and non-governmental institutions alike, critical questions remain: What knowledge, especially beyond the natural sciences, are needed to implement ecosystem-based management? What can we learn from management in practice, particularly about translating knowledge to action? Are these innovative, integrated approaches to managing human-environment interactions making a difference? This symposium will bring together a diverse set of researchers and practitioners to engage in a spirited dialogue about the processes and outcomes of ecosystem-based management in practice, particularly in North America. Researchers will share results from these dynamic and varied social-ecological system experiments, and practitioners will offer their perspectives on how such scholarship has or could contribute to policy and management in varied settings. The goals of this symposium are 1) to communicate the diverse, interdisciplinary approaches being used to investigate ecosystem-based management in practice; 2) to translate the resulting research in ways that are salient across disciplines, diverse stakeholder groups, and socio-political contexts; and 3) to catalyze the next iteration of a synthetic research agenda for ecosystem-based science and management.

08:00 Ecosystem-Based Management and the Federal Policy Landscape

Erica Goldman, *COMPASS*



08:15 Ecosystem-Based Management on Land and in the Sea
Steven Yaffee and Julia Wondolleck, *University of Michigan*

08:30 Ecosystem-Based Management in Practice: Addressing Conflicting Uses on the U.S. Northeast Atlantic Continental Shelf
Andrew Lipsky, *SeaPlan*

08:45 Measuring Conservation Progress in the Gulf of California and Mexico's North Pacific Region
Cristina Lasch, *The Nature Conservancy*

09:00 Creating Space for Interdisciplinary Research and Translation
Patrick Christie, *University of Washington*

09:15 The Many Paths to Ecosystem-Based Management
Heather Leslie, *Brown University*

Open discussion period follows from 9:30 to 10:00

.....

Symposium: **Tools and Processes for Assessing Conservation Opportunity** **Room 308**

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Christopher Raymond, *Institute for Land, Water and Society, Charles Sturt University*; **Andrew Knight**, *Department of Life Sciences, Imperial College London*

Conservation opportunity is a relatively new concept in the conservation planning literature which supports the need to consider both conservation priorities and the feasibility of conservation action. Most studies to date have employed social assessments to understand conservation opportunities; however, few tools exist for assessing the ecological, economic and social barriers and facilitators of conservation action, and even fewer consider the policy and engagement processes which underpin assessments. Following the theme of ICCB 2013, conservation opportunities can only be realised through the development of tools and processes which integrate systems, disciplines and stakeholders. In April 2013, a group of 20 researchers, practitioners and end users from different disciplinary backgrounds worked together on the development of new tools and processes to support conservation opportunity assessments. The aim of this symposium is to showcase to the international conservation science community a selection of cutting-edge tools and processes which were developed as part of this workshop, and to provide opportunities for other leaders in conservation opportunity assessment to present their work.

08:00 A framework for assessing conservation opportunity: Synthesis of findings from the conservation opportunity workshop, April 23-26
Christopher Raymond, *Charles Sturt University*

08:20 A process for identifying and orientating the conservation opportunity problem: Synthesis of findings from the conservation opportunity workshop, April 23-26
Andrew Knight, *Imperial College London*

08:40 The role of landscape values and ecosystem services in riverine conservation opportunity assessments on private lands
Stephanie Januchowski-Hartley, *University of Wisconsin*

09:00 Estimating landholders' probability of participating in a stewardship program, and the implications for spatial conservation opportunities
Vanessa Adams, *Charles Darwin University*

09:20 Understanding characteristics that define the feasibility of conservation actions in a common pool marine resource governance system
Morena Mills, *The University of Queensland*

Open discussion period follows from 9:40 to 10:00





Out of Nature

Why Drugs from Plants Matter to the Future of Humanity

KARA ROGERS
216 pp. / \$19.95 paper



Wild Sea

Eco-Wars and Surf Stories from the Coast of the Californias

SERGE DEDINA
168 pp. / \$17.95 paper

The Colorado Plateau V

Research, Environmental Planning, and Management for Collaborative Conservation

Edited by CHARLES VAN RIPER, MIGUEL L. VILLARREAL, CARENA J. VAN RIPER, and MATTHEW J. JOHNSON
360 pp. / \$39.95 cloth

The Gulf of California

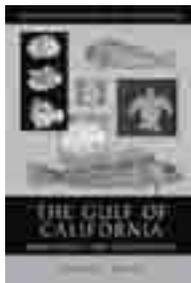
Biodiversity and Conservation

Edited by RICHARD C. BRUSCA
376 pp. / \$40.00 paper
Arizona-Sonora Desert Museum Studies in Natural History

Ecology and Conservation of the San Pedro River

Edited by JULIET C. STROMBERG AND BARBARA TELLMAN

544 pp. / \$49.95 paper



Plant Life of a Desert Archipelago

Flora of the Sonoran Islands in the Gulf of California

RICHARD STEPHEN FELGER and BENJAMIN THEODORE WILDER in collaboration with HUMBERTO ROMERO-MORALES

Foreword by EXEQUIEL EZCURRA

624 pp. / \$65.00 cloth
Southwest Center Series



Conservation Biology and Applied Zooarchaeology

Edited by STEVE WOLVERTON and R. LEE LYMAN

256 pp. / \$55.00 cloth

Seeds of Resistance, Seeds of Hope

Place and Agency in the Conservation of Biodiversity

Edited by VIRGINIA D. NAZAREA, ROBERT E. RHOADES, and JENNA E. ANDREWS-SWANN

288 pp. / \$60.00 cloth
Forthcoming



Twelve Hundred Miles by Horse and Burro

J. Stokley Ligon and New Mexico's First Breeding Bird Survey

HARLEY SHAW AND MARA E. WEISENBERGER
264 pp. / \$26.950 paper

From Enron to Evo

Pipeline Politics, Global Environmentalism, and Indigenous Rights in Bolivia

DERRICK HINDERY
280 pp. / \$55.00 cloth

Land Grab

Green Neoliberalism, Gender, and Garifuna Resistance in Honduras

KERI VACANTI BRONDO
240 pp. / \$55.00 cloth

Stealing Shining Rivers

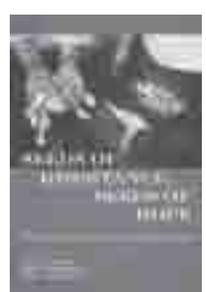
Agrarian Conflict, Market Logic, and Conservation in a Mexican Forest

MOLLY DOANE
224 pp. / \$50.00 cloth

A Land Between Waters

Environmental Histories of Modern Mexico

Edited by CHRISTOPHER R. BOYER
320 pp. / \$55.00 cloth
Latin American Landscapes



.....
Symposium: **Culture and Conservation: Conserving Sacred Sites and Species in the Anthropocene**

Room 309

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Emma Shephard-Walwyn, *University of Kent*; **Shonil Bhagwat**, *University of Oxford*; **Alison Ormsby**, *Eckerd College*

This symposium highlights conservation of sacred sites and species in a rapidly changing world. It will provide an insight into the importance of these sites and species to global biodiversity conservation on a human-dominated planet. It brings together findings of research focused on biological and social aspects, as well as interdisciplinary research examining sacred sites and species.

The sanctity of some sites and species has helped to protect them over time, across the world, and this value has therefore played a vital role in the conservation of the associated biodiversity. However, these sites and species are facing challenges with the rapidly changing social contexts in many countries. Understanding these social-ecological systems can help inform why traditional conservation of such sites has been successful in the past, and the role that they may play in the conservation of natural sites and species in the future.

Talks in the symposium will cover a range of scales, look at the different stakeholders involved within sacred site and species conservation and investigate a range of perspectives in this field. The symposium will feature work on challenges associated with conserving such sites and species and how consideration of local culture, attitudes and values can be used to enhance the efficiency of biodiversity conservation around the world. It will attract not only ecologists and conservation biologists, but also practitioners who work closely with communities.

Please note 20 minute talk lengths in this symposium.

08:00 Introduction

08:05 Mapping the sacred: a global map of sacred natural sites

Shonil Bhagwat, The Open University

08:25 Conservation and Conflict: Sacred Groves of Sierra Leone

Alison Ormsby, Eckerd College

08:45 Social and cultural issues surrounding sacred forests

Celia Nyamweru, St Lawrence University

09:05 Sacred Site Conservation: Changes in Culture, Changes in Management

Emma Shephard-Walwyn, University of Kent

09:25 The contested link between Western Christianity and conservation: ecological and cultural values of shrines and pilgrimage sites in Central Italy

Fabrizio Frascaroli, University of Zurich

Open discussion period follows from 9:45 to 10:00

.....



Symposium: **Public Voices Count: Participatory Techniques for Socio-ecological Systems Maintenance**

Room 310

Thursday, July 25, 08:00 to 10:00

ORGANIZER(S):

Carly Sponarski, *Memorial University of Newfoundland*; **María José Barragan Paladines**, *Memorial University of Newfoundland*; **Beatrice Frank**, *Memorial University of Newfoundland*; **Jasna Mulej**, *Memorial University of Newfoundland*; **Jenny Glikman**, *Memorial University of Newfoundland*

Nature and society are elements of closely related systems that support dynamic interactions. The interaction of disciplines within these processes is critical and involves the participation of diverse interest groups. To achieve successful outcomes in conservation, we must use an integrative approach involving human elements of the system through participatory practices. This symposium will illustrate how differences in culture, places, and problems are also opportunities to develop alternative and creative techniques of public participation. A wide range of guest speakers from different parts of the world with various academic backgrounds will present their own research highlighting the challenges and solutions experienced while engaging people. The objectives of the symposium are: (1) to give a broad overview of participatory techniques in environmental issues; (2) to illustrate the application of the participatory techniques through case studies from around the world; and (3) to share experiences based on participatory techniques with specific interests (e.g., carnivores, herbivores, marine environments). The symposium will consist of a series of presentations followed by questions and discussion at the end.

08:00 Lion guardians: A participatory approach to carnivore conservation in East Africa

Leela Hazzah, *Lion Guardians, Kenya*; **Stephanie Dolrenry**, *Lion Guardians, Kenya*

08:15 Mapping human-wildlife conflict using the potential for conflict index: A case study of coyotes in Nova Scotia, Canada

Carly Sponarski, *Memorial University of Newfoundland*

08:30 Working with gaining community support in coastal management and policy communication: A case study of southern Cebu, Philippines

Arren Mendezona, *Colorado State University*

08:45 Engaging the recreational fishing community in marine conservation in Australia

Stephen Sutton, *James Cook University*

09:00 Human dimensions of wildlife on the Amazon deforestation frontier, Brazil

Silvio Marchini, *Instituto Pró-Carnívoros*

09:15 Participatory approaches to community based monitoring using CitSci.org: The value of integrating many public voices

Greg Newman, *Colorado State University*; **Russel Scarpino**, *Colorado State University*

Open discussion period follows from 9:30 to 10:00



COFFEE BREAK

10:00 to 10:30

Exhibit Hall A



Late morning session: 10:30 A.M. to 12:30 P.M.

Symposium: **Climate Change and Conservation of Marine Species: Bridging the Gap Between Ecology, Climate Science and Policy. Session II**

Room 301

Thursday, July 25, 10:30 to 12:30

ORGANIZER(S):

Janet Nye, *Stonybrook University, School for Marine and Atmospheric Sciences*; **Charles Stock**, *NOAA Geophysical Fluid Dynamics Laboratory*; **Roger Griffis**, *NOAA National Marine Fisheries Service*

The purpose of this symposium is to bring climate scientists, ecologists, and policy makers together to discuss the challenges associated with understanding the effects of climate change on marine organisms and incorporating climate impacts into

management decisions. A key scientific challenge to incorporating climate into regional ecosystem impacts assessments is translating global climate model projections to regional and local scale climate changes. As advances are being made to downscale global climate models and incorporate this information into ecological models, strengths and weaknesses in model projections must be carefully conveyed to managers, policy-makers, and the public. We have assembled a list of speakers who have confronted these challenges successfully. Talks will range from specific case studies addressing scientific and policy challenges to meta-analyses of global climate trends in marine systems. We will conclude with talks presenting the latest efforts to incorporate climate change into mitigation, adaptation, and protected species applications.

10:30 Projected response of an endangered marine turtle population to climate change

Vincent Saba, *NOAA NMFS NEFSC, Princeton, NJ*

10:45 Mechanistic insights into the effects of climate change on larval cod

Trond Kristiansen, *Institute of Marine Research*

11:00 Predicted habitat shifts of Pacific top predators in a changing climate

Elliott Hazen, *NOAA NMFS NWFSC*

11:15 Spawning of Atlantic tunas in the northern Gulf of Mexico: environmental constraints and response to climate change

Barbara Muhling, *NOAA NMFS SWFSC, Miami, FL*

11:30 Incorporating climate change scenarios into models for Ecosystem-Based Management

Gavin Fay, *NOAA NMFS NEFSC, Woods Hole, MA*

11:45 Assessing the vulnerability of fish stocks to a changing climate

Wendy Morrison, *NOAA NMFS Office of Sustainable Fisheries*

Open discussion period follows from 12:00 to 12:30

.....

Conservation Economics & Conservation Psychology

Room 302

Thursday, July 25, 10:30 to 12:30

10:30 Stability and change in social values: The influence of culture and modernization on wildlife-related cognition

Michael Manfred, *Colorado State University*; Alia Dietsch, *Colorado State University*; Tara Teel, *Colorado State University*

10:45 What Really Motivates Voluntary Urban Conservation Stewardship: Why and How It Matters for Conservation Practice

Stanley Asah, *University of Washington*; Miku Lenentine, *University of Washington*; Dale Blahna, *USDA Forest Service*

11:00 Money talks: Understanding the drivers of online donations for conservation

Diogo Verissimo, *Durrell Institute of Conservation and Ecology, University of Kent*; Greg Vaughan, *Geospatial Services*; Douglas MacMillan, *Durrell Institute of Conservation and Ecology*

11:15 How Hunters and Agriculturalists are defining the Urban Bushmeat Trade in Ghana

James McNamara, *Imperial College and the Zoological Society of London*; EJ Milner-Gulland, *Imperial College*; Marcus Rowcliffe, *Zoological Society of London*; Justine Shanti-Alexander, *Beijing Forestry University*; Guy Cowlshaw, *Zoological Society of London*

11:30 How much is new information worth? Evaluating the benefits and costs of resolving uncertainty in natural resource management

Sean Maxwell, *The Environmental Decisions Group*

11:45 Noah Revisits Biodiversity Protection Prioritization

David Martin, *Davidson College*

12:00 The role of awareness programs in influencing Willingness To Pay (WTP)

Allwin Jesudasan, *Ashoka Trust for Research in Ecology and the Environment (ATREE)*

12:15 Breaking down barriers: Application of veterinary medicine to conservation of critically endangered species

Christopher Whittier, *Smithsonian National Zoological Park*; Christopher Whittier, *Smithsonian National Zoological Park*; Suzan Murray, *Smithsonian National Zoological Park*; Angeliqye Todd, *WWF*; Peter Walsh, *University of Cambridge*



.....

Scientists, Stakeholders, and Managers: Bridging the Gap

Room 303

Thursday, July 25, 10:30 to 12:30

- 10:30 Integrating ecological and social objectives in fisheries management: Fishermen's perceptions of closed area costs and benefits in New England**
Sarah Smith, *Environmental Defense Fund*; Jake Kritzer, *Environmental Defense Fund*
- 10:45 Growing Food and Biodiversity: Integrating Conservation and Agriculture in Northern Virginia**
Samuel Quinn, *The Farm at Sunnyside*
- 11:00 Militarized conservation conflict, ontologies of tiger 'extinction,' and (de-)ethnonationalization in Kachin, Myanmar**
Laur Kiik, *Tallinn University, Estonia*
- 11:15 Progress towards a standard for identifying significant sites for biodiversity**
Thomas Brooks, *IUCN*; Stephen Woodley, *Parks Canada*; Annabelle Cuttelod, *IUCN*; Diego Juffe, *IUCN*
- 11:30 Incorporating Ecosystem Services into Corporate Decisions: Results from site-level analysis**
Jennifer Molnar, *The Nature Conservancy*; Sheila Walsh, *The Nature Conservancy*; Timm Kroeger, *The Nature Conservancy*; Robert McDonald, *The Nature Conservancy*; Peter Kareiva, *The Nature Conservancy*
- 11:45 Participatory Land Use Planning for Conservation, Livelihoods, Infrastructure and Agro-industrial Development in Southeastern Myanmar**
Earl Saxon, *Forest Inform Partners*
- 12:00 A proposed classification of corridors for wildlife movement**
Meredith Rainey, *Center for Large Landscape Conservation*; Erica Fleishman, *University of California Davis*; Rob Ament, *Center for Large Landscape Conservation*; Gary Tabor, *Center for Large Landscape Conservation*
- 12:15 Open discussion**

.....

Ecosystem Functions and Services

Room 304

Thursday, July 25, 10:30 to 12:30

- 10:30 Measuring ecosystem rarity to target conservation efforts;**
Samantha Siffleet, *Environmental Consultant and Contractor to the US EPA*; Anne Neale, *US EPA*; Lisa Wainger, *University of Maryland Center for Environmental Science*; Megan Mehaffey, *US EPA*
- 10:45 Linking ecosystem services and human health: Crop pollination, nutrition, and burden of disease in developing countries**
Alicia Ellis, *University of Vermont*; Taylor Ricketts, *University of Vermont*; Sam Myers, *Harvard University*
- 11:00 Forest cover associated with improved health and nutrition outcomes in Malawi**
Anila Jacob, MD, MPH, *USAID*; Kiersten Johnson, *ICF International*
- 11:15 Trading carbon, biodiversity, and livelihoods: an ecosystems service analysis in Central Kalimantan, Indonesia**
Elizabeth Law, *Environmental Decisions Group, University of Queensland*; Brett Bryan, *CSIRO Ecosystem Sciences*; Erik Meijaard, *People and Nature Consulting International*; Matt Struebig, *DICE, University of Canterbury*; Thilak Mallawaarachchi, *Risk and Sustainable Management Group*; Kerrie Wilson, *Environmental Decisions Group, University of Queensland*
- 11:30 Collateral benefits of conservation: a comparison of ecosystem services provision on public and private conservation lands**
Amy Villamagna, *Virginia Tech*; Paul Angermeier, *U.S. Geological Survey, Virginia Cooperative Fish and Wildlife Research Unit*; Beatriz Mogollon, *Virginia Tech*
- 11:45 Large flower size may facilitate pollination disruption in Hawaiian lobeliads**
Clare Aslan, *Arizona-Sonora Desert Museum*; Erika Zavaleta, *University of California, Santa Cruz*; Bernie Tershy, *University of California, Santa Cruz*; Don Croll, *University of California, Santa Cruz*
- 12:00 Fragmentation or invasion - which is a bigger threat to biodiversity?**
Magdalena Lenda, *Institute of Nature Conservation, Polish Academy of Sciences*; Piotr Skorka, *Institute of Zoology, Poznan University of Life Sciences*; Dawid Moron, *Institute of Systematics and Evolution of Animals, Polish Academy of Sciences*; Michal Woyciechowski, *Institute of Environmental Sciences, Jagiellonian University*



12:15 **Accounting for ecosystem services in mitigation: Can the Pucallpa-Cruzeiro do Sul road be developed with no net loss of ecosystem services in Peru?**

Lisa Mandle, *Natural Capital Project, Stanford University*; **Leonardo Sotomayor**, *The Nature Conservancy*; **Stacie Wolny**, *Natural Capital Project, Stanford University*; **Sofia Vargas**, *The Nature Conservancy*; **Adrian Vogl**, *Natural Capital Project, Stanford University*; **Jerome Touval**, *The Nature Conservancy*; **Heather Tallis**, *Natural Capital Project*

Marine and Wetland Conservation

Room 305

Thursday, July 25, 10:30 to 12:30

10:30 **Applied Science for Management of Marine Offshore Energy Resources**

Michael Rasser, *Bureau of Ocean Energy Management*

10:45 **Protecting Hawaiian Spinner Dolphins from Disturbance Caused by Interactions with Humans in the Main Hawaiian Islands**

Laura McCue, *NOAA Fisheries Service PIRO*; **Jayne LeFors**, *NOAA Fisheries Service PIRO*; **Jean Higgins**, *NOAA Fisheries Service PIRO*

11:00 **Mesophotic Coral Reef Fish Assemblages of the the Northwestern Hawaiian Islands: Globally Significant Levels of Endemism Threatened By Climate Change**

Randall Kosaki, *NOAA Papahānaumokuākea Marine National Monument*; **Corinne Kane**, *Washington State University*; **Richard Pyle**, *B.P. Bishop Museum*; **Daniel Wagmer**, *NOAA Papahānaumokuākea Marine National Monument*

11:15 **Connectivity of cryptobenthic fishes in Australian Marine Parks**

Wander Godinho, *Macquarie University*; **Jane Williamson**, *Macquarie University*

11:30 **Investigation of the effects of sea level rise on sea turtle, shorebird, seabird, and beach mouse nesting within the South Atlantic Bight**

Betsy Von Holle, *University of Central Florida*; **John Weishampel**, *University of Central Florida*; **Jennifer Irish**, *Virginia Polytechnic University*; **Scott Hagen**, *University of Central Florida*; **Annette Spivy**, *University of Central Florida*; **Monette Schwoerer**, *University of Central Florida*

11:45 **Conservation conflicts with the recovery of endangered California clapper rails, the eradication of invasive cordgrass and rising sea levels**

Edwin Grosholz, *University of California, Davis*

12:00 **New Challenges for Improving International Adoption of Circle Hooks and TEDs: Importation and Distribution**

Lekelia Jenkins, *University of Washington*; **Richard Pollnac**, *University of Rhode Island*; **Wallace Nichols**, *California Academy of Sciences*; **Patrick Christie**, *University of Washington*; **Michael Vina**, *New Mexico State University*; **Nancy Benitez**, *New Mexico State University*; **Mark Mizrahi**, *University of Washington*; **Nikita Gabor**, *University of Rhode Island*

12:15 **Managing Conservation Reliant Species: Hawaii's Endangered Endemic Waterbirds**

Jared Underwood, *U.S. Fish and Wildlife Service*; **Mike Silbernagle**, *U.S. Fish and Wildlife Service*; **Mike Nishimoto**, *U.S. Fish and Wildlife Service*; **Kim Uyehara**, *U.S. Fish and Wildlife Service*

Conservation of Ecosystems and Hotspots

Room 306

Thursday, July 25, 10:30 to 12:30

10:30 **Seasonality, individual behavior, and detectability affect inferences on corridor use by rare and elusive species**

Aditya Gangadharan, *University of Alberta*; **Colleen St Clair**, *University of Alberta*; **Srinivas Vaidyanathan**, *Foundation for Ecological Research, Advocacy and Learning*

10:45 **Determining effects of multiple stressors to develop successful management of rare and endangered forest plants**

Andrea Davalos, *Cornell University*; **Victoria Nuzzo**, *Natural Area Consultants*; **Bernd Bloosey**, *Cornell University*

11:00 **When the policy tool fails: Explaining Land Use Change in Protected Areas**

Claudia Rodriguez, *Dartmouth College*

11:15 **Effects of Traffic Levels and Motor Vehicle Noise on Bird and Mammal Communities in a National Forest**

Sarah Reed, *Wildlife Conservation Society*; **Matthew Dietz**, *The Wilderness Society*

11:30 **The management costs of protected areas in Queensland, Australia**

Ian Craigie, *James Cook University*; **Robert Pressey**, *James Cook University*

11:45 **Modeling the Distribution of Rare Multiple-Use Plant Species in a Fragmented Northern Amazonian Landscape**

Anthony Cummings, *Syracuse University*; **Jane Read**, *Syracuse University*

Thursday

- 12:00 Identifying potential wildlife corridors to improve the connectivity between a Mediterranean nature park and its surroundings, using camera traps**
Adiv Gal, *1Kibbutzim College of Education, Technology & the Arts*; **Amir Arnon**, *Ramat Hanadiv Nature Park*; **Tal Gaiger**, *Kibbutzim College of Education, Technology & the Arts*; **Iris Rainer**, *Kibbutzim College of Education, Technology & the Arts*; **Liat Hadar**, *Ramat Hanadiv Nature Park*.
- 12:15 Principles for ensuring healthy and productive freshwater ecosystems that support sustainable fisheries**
Nicolas Lapointe, *Carleton University*; **Steven Cooke**, *Carleton University*; **Jack Imhof**, *Trout Unlimited Canada*; **Daniel Boisclair**, *University of Montreal*; **John Casselman**, *Queen's University*; **Allen Curry**, *University of New Brunswick*; **Otto Langer**, *British Columbia Marine Conservation Caucus*; **Robert McLaughlin**, *University of Guelph*; **Charles Minns**, *University of Toronto*; **John Post**, *University of Calgary*; **Michael Power**, *University of Waterloo*; **Joseph Rasmussen**, *University of Lethbridge*; **John Reynolds**, *Simon Fraser University*; **John Richardson**, *University of British Columbia*; **William Tonn**, *University of Alberta*

.....

Alien and Invasive Species 2

Room 307

Thursday, July 25, 10:30 to 12:30

- 10:30 New initiative for invasive alien raccoon control in Japan**
Tohru Ikeda, *Hokkaido University*; **Mariko Nakai**, *Hokkaido University*; **Ken-ichiro Shimada**, *Hokkaido University*; **Takaaki Suzuki**, *Hokkaido University*; **Jincao Zhang**, *Hokkaido University*
- 10:45 DNA shedding rates of Asian carps, for use in understanding field collections of eDNA**
Katy Klymus, *University of Missouri*; **Cathy Richter**, *U.S. Geological Survey*; **Duane Chapman**, *U.S. Geological Survey*; **Craig Paukert**, *University of Missouri*
- 11:00 Know thy enemy: Research towards understanding an invasive carnivore population and mitigating its impacts on threatened island endemics**
Andrew Bridges, *Institute for Wildlife Studies*; **Daniel Biteman**, *Institute for Wildlife Studies*; **David Garcelon**, *Institute for Wildlife Studies*; **Melissa Booker**, *United States Navy*; **Jessica Sanchez**, *Institute for Wildlife Studies*
- 11:15 Fishing derbies for invasive lionfish: A tool for building awareness and affecting population control**
Stephanie Green, *Oregon State University*; **John Akins**, *Reef Environmental Education Foundation*
- 11:30 Feral cat population control: more effective when reproductive hormones remain intact**
J. Michael Reed, *Tufts University*; **Robert McCarthy**, *Cummings School of Veterinary Medicine, Tufts University*; **Stephen levine**, *Tufts University*
- 11:45 It just makes scents - manipulating predator foraging tactics to protect prey**
Catherine Price, *University of Sydney*; **Peter Banks**, *University of Sydney*
- 12:00 Mixing with Mallards: The integrity of the Australian Pacific Black Duck at risk due to hybridisation with Mallards?**
Alice Taysom, *Victoria University*
- 12:15 Open discussion**

.....

Conservation Politics and Policy

Room 308

Thursday, July 25, 10:30 to 12:30

- 10:30 Conservation of big cats in a politically isolated country, Iran**
Shervin Hess; **Amir Hossein Khaleghi**
- 10:45 Moving Climate Science into Policy: Connecting Land and Water for Fish, Farms and Families in Washington State**
Cynthia Wilkerson, *The Wilderness Society*
- 11:00 What is a Conservation Corridor Good For?**
Andrew Gregory, *Northern Arizona University*; **Paul Beier**, *Northern Arizona University*
- 11:15 IUCN Knowledge Products or how to link science to policy**
Diego Juffe-Bignoli, *International Union for Conservation of Nature*; **Thomas Brooks**, *International Union for conservation of nature*
- 11:30 Exploring a new protected area mechanism under China's new forest tenure reform policy: case study of the first private land-trust nature reserve**
Dajun Wang, *Peking University*; **Peng Zhao**, *The Nature Conservancy, China*; **Tong Jin**, *TNC China*; **Sheng Li**, *University of Wisconsin-Madison*; **Shuang Zhang**, *TNC China*



- 11:45 **Diverging viewpoints on tiger conservation: A Q-Method study and survey of conservation professionals in India**
Archi Rastogi, *McGill University*; **Gordon Hickey**, *McGill University*; **Ruchi Badola**, *Wildlife Institute of India*; **Syed Hussain**, *Wildlife Institute of India*
- 12:00 **Elephant conservation and human-elephant conflict mitigation in Asia: the need for an integrative approach**
Prithiviraj Fernando, *Centre for Conservation and Research*; **Jennifer Pastorini**, *Centre for Conservation and Research*
- 12:15 **IUCN Red List of Ecosystems: tests of this new global standard for applying conservation science to environment and development policies**
Jon Paul Rodriguez, *Instituto Venezolano de Investigaciones Cientificas*; **David Keith**, *University of New South Wales*; **Edmund Barrow**, *International Union for Conservation of Nature*; **Kathryn Rodriguez-Clark**, *Instituto Venezolano de Investigaciones Cientificas*; **Maria Oliveira-Miranda**, *Provita*; **Patrick Comer**, *NatureServe*; **Emily Nicholson**, *The University of Melbourne*

.....

Protected Area Planning and Design

Room 309

Thursday, July 25, 10:30 to 12:30

- 10:30 **Perfect policy, imperfect implementation - balancing efficiency and likelihood of implementation in conservation planning**
Piero Visconti, *Microsoft Research*
- 10:45 **Identifying new conservation priority areas and opportunities on unprotected roadless lands in the western U.S.**
Brett Dickson, *Conservation Science Partners*; **Luke Zachmann**, *Conservation Science Partners*; **Christine Albano**, *University of California Davis*; **Leslie Duncan**, *Pew Environment Group*
- 11:00 **Housing development, protected areas, and avian community conservation**
Eric Wood, *University of Wisconsin-Madison*; **Anna Pidgeon**, *University of Wisconsin-Madison*; **Volker Radeloff**, *University of Wisconsin-Madison*; **Patrick Culbert**, *University of Wisconsin-Madison*; **Nicolas Keuler**, *University of Wisconsin-Madison*; **C. Flather**, *United States Department of Agriculture Forest Service*
- 11:15 **How additional rare species surveys change our conservation priorities**
Austin Milt, *University of Tennessee in Knoxville*; **Paul Armsworth**, *University of Tennessee in Knoxville*
- 11:30 **An approach to develop corridors in spatial conservation prioritization and its implementation in Zonation: the corridor loss penalty**
Federico M. Pouzols, *University of Helsinki*; **Ate Moilanen**, *University of Helsinki*
- 11:45 **Benthic Habitat β -diversity Modelling and Landscape Metrics for the Selection of Priority Conservation Areas Using a Systematic Approach**
Rodolfo Rioja-Nieto, *UA-Sisal, Facultad de Ciencias, Universidad Nacional Autonoma de Mexico*; **Erick Barrera-Falcon**, *UA-Sisal, Facultad de Ciencias, Universidad Nacional Autonoma de Mexico*; **Gustavo Hinojosa-Arango**, *Centro para la Biodiversidad Marina y la Conservacion, A.C.*; **Rafael Riosmena-Rodriguez**, *Universidad Autonoma de Baja California Sur*
- 12:00 **Antarctic Protected Areas at risk: conservation planning, human activity and non-native species in Antarctica**
Justine Shaw, *Environmental Decision Group, University of Queensland*; **Aleks Terauds**, *Terrestrial Nearshore Ecosystems, Australian Antarctic Division*; **Steven Chown**, *School of Biological Sciences, Monash University*; **Hugh Possingham**, *Environmental Decision Group, University of Queensland*
- 12:15 *Open discussion*

.....

Climate Change

Room 310

Thursday, July 25, 10:30 to 12:30

- 10:30 **Incorporating Climate Change into a Strategic Conservation Planning Framework**
Natalie Dubois, *Defenders of Wildlife*; **Judith Boshoven**, *Foundations of Success*
- 10:45 **Using Changes in Agricultural Potential to Quantify Future Climate-Induced Risk to Conservation**
Lyndon Estes, *Princeton University*; **Lydie-Line Paroz**, *NA*; **Bethany Bradley**, *University of Massachusetts*; **Jonathan Green**, *Princeton University*; **David Hole**, *Conservation International*; **Stephen Holness**, *Nelson Mandela Metropolitan University*; **Guy Ziv**, *Natural Capital Project*; **Michael Oppenheimer**, *Princeton University*; **David Wilcove**, *Princeton University*
- 11:00 **Riparian Climate Corridors: Prioritizing valley bottoms as natural conduits for climate-driven range shifts**
Meade Krosby, *University of Washington*; **Robert Norheim**, *University of Washington*; **Brad McRae**, *The Nature Conservancy*; **David Theobald**, *National Park Service*
- 11:15 **Integrating Habitat Linkages and Climate Space to Increase Protected Area Resilience**
Adina Merenlender, *University of California, Berkeley*; **Shane Feirer**, *University of California*



11:30 Global disparity in the predictors of public climate change awareness and risk perceptions

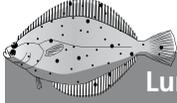
Tien Lee, *Earth Institute, Columbia University*; Ezra Markowitz, *Princeton University*; Peter Howe, *Yale University*; Chia-Ying Ko, *Yale University*; Anthony Leiserowitz, *Yale University*

11:45 We Are All In This Together: Partnership as the Backbone of Climate Adaptation in the United States

Arpita Choudhury, *Association of Fish and Wildlife Agencies*; Amber Pairis, *California Department of Fish and Wildlife*

12:00 Effect of data uncertainty on extinction risk projections to 2050

Daniele Baisero, *Sapienza Università di Roma*; Piero Visconti, *Microsoft Research - Computational Ecology*; Stuart Butchart, *Birdlife International*; Luigi Boitani, *Sapienza Università di Roma*; Lucilla Francucci, *Sapienza Università di Roma*; Carlo Rondinini, *Sapienza Università di Roma*



Lunch Activities: 12:30 P.M. to 2:00 P.M.

- **SCB Groups Meetings**

Asia Section • Room 304

FreshWater Working Group (FWWG) • Room 306

Oceania Section • Room 301

ICCB Organizing Committee Meeting • Room 305

.....

- **Workshop: The Soil Ecology of Urban Areas: Establishment of a Global Research and Education Network**

Room 302

Organizers(s): Szlavecz, K., Johns Hopkins University; Pouyat, R., USDA Forest Service; Yesilonis, I., USDA Forest Service

- **Population, Health and Environment: Securing the Mandate and Building the Capacity to Integrate Health Services into Existing Conservation Programmes (Day 2 of 2)**

Room 303

Organizer(s): Mohan, V., Blue Ventures, Harris, A., Blue Ventures

- **Workshop: SCB Publications Lunchtime Workshop**

Room 307

Organizers: M. Burgman, Editor-in-Chief *Conservation Biology*; R. Primack, Editor-in-Chief *Biological Conservation*

Want to be published in an international journal? Young scientists will find advice and guidance on writing for journals from the editors of *Conservation Biology* and *Biological Conservation* in this lunchtime workshop. Learn about the publishing process and how to have your work published in international journals. This lunchtime workshop includes a question and answer session journal editors. There is no need to register for this workshop – just show up and learn!



Early afternoon awards ceremony and plenary session: 2:00 P.M. to 3:30 P.M.

Grand Ballroom I&II

Thursday, July 25, 14:00 to 15:30

AWARDS CEREMONY: DISTINGUISHED SERVICE AWARDS

SCB's Distinguished Service Award recognizes outstanding contributions to the field of conservation biology.

The Center for the Study and Conservation of Raptors in Argentina (CECARA) was created in 2001 with the aim of developing and using applied research to effect conservation of birds of prey, as well as promote public understanding regarding the importance of conservation of endangered species. CECARA's staff of university professors, researchers, and graduate students were given this award for their accomplishments assessing the impacts of insecticide poisoning on migratory Swainson's Hawks, as well as helping change the belief among stakeholders that Crowned Solitary Eagles are a threat to livestock.

John Woinarski heads the Biodiversity Conservation division of Australia's Northern Territory Government environment department. He was given the award for his monumental contributions to knowledge and management of the north Australian biota. Most recently his work was instrumental in revealing the catastrophic decline in north Australian mammals and implementing strategies to reverse it.



PLENARY SESSION

Diversifying Conservation Science and Management

Dr. Eleanor Sterling, *Director, Center for Biodiversity and Conservation, American Museum of Natural History*

Dr. Marcelo Bonta, *Founder and Executive Director, Center for Diversity & the Environment*

Conservationists value and have a deep understanding of diversity in ecosystems. But why is diversity important in conservation organizations and communities? Are we as successful and resilient as we could be as conservationists? We will discuss a vision for a globally diverse, equitable, successful and relevant conservation community, the challenges and opportunities for realizing this vision, and a set of recommendations for action from individual to organizational. International professional society networks such as that of the Society for Conservation Biology are uniquely positioned to foster diverse institutions and initiatives across local, national, and international scales.



AFTERNOON BREAK

15:30 to 16:00

****Location Change: Prefunction space outside rooms 307-310**



Late afternoon session: 4:00 P.M. to 6:00 P.M.

Symposium: A 21st Century Case for Large Highly-Protected Marine Reserves: Working to Establish Parks in one of the World's Least Protected Ecosystems

Room 301

Thursday, July 25, 16:00 to 18:00

ORGANIZER(S):

Robert Mazurek, *Pew Environment Group*

In 1872, the headwaters of the Yellowstone River and the surrounding forests, canyons and geyser basins were designated the world's first national park. Since then, most nations have protected important biological places. Today, depending on how you measure it, 6 to 12 percent of the world's land has been protected as national parks and other conservation areas. Our relationship to the sea has followed a different course. Although over two-thirds of the planet's surface is water, little of the marine environment is protected. Today, less than 1 percent of the ocean is safe from exploitation.

Large highly protected marine reserves, similar to land-based national parks, have only recently been recognized and utilized as tools for ocean conservation. First in 2005, when the U.S. created the 363,000 km² Papahānaumokuākea Marine National Monument. In 2010 the U.K. followed with the designation of the Chagos Marine Reserve; at 640,000 km² it's currently the world's largest no-take marine reserve. And in 2012 Australia created the 502,000 km² Coral Sea Marine National Park. These new reserves are just the beginning. Countries all over the globe are considering the creation of very large fully protected marine reserves.

This symposium will focus on the significant conservation potential of large no-take marine reserves. We will also discuss how these reserves are helping to meet international agreements to set aside ten percent of the world's oceans as reserves by 2020.

16:00 Large Fully Protected Marine Reserves: The Best Tool for Sustaining Ocean Ecosystems?

Callum Roberts, *University of York*

16:15 MPAtlas.org: Better Understanding the Current State of Ocean Conservation

Elliott Norse, *Marine Conservation Institute*

16:30 Global Ocean Legacy: Creating the World's First Generation of Oceanic-Scale Fully Protected Marine Reserves

Robert Mazurek, *Pew Environment Group*

16:45 The Coral Sea Marine Reserve: Australia's Answer to Ocean Protection at a Large Spatial Scale

Imogen Zethoven, *Global Ocean Legacy-Australia*

17:00 Large Fully Protected Marine Reserves in the Context of Systematic Ecosystem Planning

Hugh Possingham, *The University of Queensland*

17:15 Large Marine Reserves as seen through the Eyes of Sherman the Shark

Jim Toomey, *Creator, Sherman's Lagoon*

Open discussion follows from 17:30 to 18:00



Thursday

Marine Conservation 3

Room 302

Thursday, July 25, 16:00 to 18:00

- 16:00 The Effects of Seasonal Hypoxia on the Spatial Distribution of Protected Marine Species and Apex Predators in the Northwestern Gulf of Mexico**
Chelsie Counsell, *Florida State University*; **J. Craig**, *NMFS Southeast Fisheries Science Center*; **Steven DiMarco**, *Texas A&M University*
- 16:15 Restoring Habitats and Conserving History: Living Shoreline Stabilization in Canaveral National Seashore**
Melinda Donnelly, *University of Central Florida*; **Linda Walters**, *University of Central Florida*; **Jennifer Manis**, *University of Central Florida*; **Paul Sacks**, *University of Central Florida*; **John Stiner**, *Canaveral National Seashore*
- 16:30 Predictors, Patterns and Processes of Extinction Risk in Porgies (Family: Sparidae)**
Mia Theresa Comeros, *Old Dominion University*; **Colin Buxton**, *Institute for Marine and Antarctic Studies, University of Tasmania*; **Bruce Mann**, *Oceanographic Research Institute*; **Barry Russell**, *School of Environmental and Life Sciences, Charles Darwin University*; **Kent Carpenter**, *Old Dominion University*
- 16:45 How and Where to Act for Seagrass Conservation: The Case of *Posidonia oceanica***
Sylvaine Giakoumi, *Hellenic Centre for Marine Research and The University of Queensland*; **Christopher Brown**, *The University of Queensland*; **Stelios Katsanevakis**, *European Commission, Joint Research Centre*; **Hugh Possingham**, *ARC Centre of Excellence for Environmental Decisions, School of Biological Sciences*
- 17:00 Solving the mystery of marine protected area (MPA) performance: linking governance, conservation, ecosystem services, and human well being**
Helen Fox, *WWF-US*; **Robert Pomeroy**, *University of Connecticut Avery Point Campus*; **Gabby Ahmadi**, *WWF-US*; **Arun Agrawal**, *University of Michigan*; **Xavier Basurto**, *Duke University*; **Louise Glew**, *WWF-US*; **Michael Mascia**, *WWF-US*; **Nasser Olwero**, *WWF-US*; **John Parks**, *Marine Management Solutions LLC*
- 17:15 Connecting New England to the Pacific: Historic American Sperm Whaling in the Phoenix Islands Protected Area**
Erin Taylor, *New England Aquarium*; **Regen Jamieson**, *New England Aquarium*; **Tim Smith**, *World Whaling History*
- 17:30 Can Stakeholder Participation Save the Harbor Porpoise?**
Sara McDonald, *Duke University*; **Deborah Gallagher**, *Duke University*
- 17:45 The role of bridging organisations in Caribbean coral reef governance**
Angelie Peterson, *University of the West Indies, Cave Hill Campus*; **Clare Fitzsimmons**, *Newcastle University*; **Johanna Forster**, *Newcastle University*; **Selina Stead**, *Newcastle University*; **Rachel Turner**, *University of the West Indies, Cave Hill Campus*; **Robin Mahon**, *University of the West Indies, Cave Hill Campus*

Protected Area Planning and Design 2

Room 303

Thursday, July 25, 16:00 to 18:00

- 16:00 Modeling the Distribution of Rare Multiple-Use Plant Species in a Fragmented Northern Amazonian Landscape**
Anthony Cummings, *Syracuse University*; **Jane Read**, *Syracuse University*
- 16:15 Conservation planning for migratory bird species under climate change**
Ilona Naujokaitis-Lewis, *University of Toronto*; **Marie-Josée Fortin**, *University of Toronto*; **Hugh Possingham**, *University of Queensland*; **Tara Martin**, *CSIRO*
- 16:30 The impact of data quality and surrogate species on conservation decisions for a regional corridor network**
Pia Lentini, *University of Melbourne*
- 16:45 Reinforcing need for conserving narrow-range species: positive feedback of being gap species and high local extinction rate in non-conserved areas**
Munemitsu Akasaka, *Tokyo University of Agriculture and Technology*; **Taku Kadoya**, *National Institute for Environmental Studies*; **Fumiko Ishihama**, *National Institute for Environmental Studies*; **Taku Fujita**, *The Nature Conservation Society of Japan*
- 17:00 Conservation and Human Rights, an opportunity for Indigenous Peoples empowerment: a case study from Guyana, South America.**
Tsitsi McPherson
- 17:15 Benefits of coordinating efforts for MPA establishment in the Verde Island Passage, Philippines**
Vera Horigue, *ARC Centre of Excellence for Coral Reef Studies, James Cook University*; **Robert Pressey**, *ARC Centre of Excellence for Coral Reef Studies, James Cook University*; **Morena Mills**, *University of Queensland*; **Reniel Cabral**, *National Institute of Physics - University of the Philippines*; **Serge Andrefouet**, *Institut de Recherche pour le Développement*



- 17:30 **Habitat-specific larval dispersal and marine connectivity: Implications for reserve design**
 Maria del Mar Mancha Cisneros, *Arizona State University*; Jose Anadon, *Arizona State University*; Benjamin Best, *Duke University, University of California Santa Barbara*; Leah Gerber, *Arizona State University*
- 17:45 **Modeling fine-scale habitat connectivity for terrestrial mammals, snakes, and turtles in the Southeast USA**
 Ron Sutherland, *Wildlands Network*; Rob Baldwin, *Clemson University*; Paul Leonard, *Clemson University*; Derek Fedak, *Wildlands Network*; Rachael Carnes, *Wildlands Network*

.....

Adaptive Management, Conservation Planning and Recovery of Endangered Species

Room 304

Thursday, July 25, 16:00 to 18:00

- 16:00 **Conservation and sustainable utilization perspectives for epiphytic orchids in subtropical Himalayas**
 Yagya Adhikari, *TUM*; Anton Fischer, *TUM*
- 16:15 **Wildlife Conservation Planning Under the United States Forest Service's 2012 Planning Rule**
 Courtney Schultz, *Colorado State University*; Thomas Sisk, *Northern Arizona University*; Barry Noon, *Colorado State University*; Martin Nie, *University of Montana*
- 16:30 **Leave it to beavers: habitat restoration and source-sink dynamics in an endangered butterfly metapopulation**
 Tyson Wepprich, *North Carolina State University*; Erik Aschehoug, *North Carolina State University*; Heather Lessig, *North Carolina State University*; Frances Sivakoff, *North Carolina State University*; Nick Haddad, *North Carolina State University*
- 16:45 **Adaptive Management Improves the Effectiveness of Painted Dog (*Lycan pictus*) Conservation in Zimbabwe**
 Arlyne Johnson, *Foundations of Success*; Jean-Gaël Collomb, *Wildlife Conservation Network*; Peter Blinston, *Painted Dog Conservation Organisation*; Gregory Rasmussen, *Painted Dog Conservation Organisation*; Forgie Wilson, *Painted Dog Conservation Organisation*; Wilton Nsimango, *Painted Dog Conservation Organisation*; Gregory Gibbard, *Painted Dog Conservation Organisation*; Nick Salafsky, *Foundations of Success*
- 17:00 **A New Framework to Evaluate and Avert Risks to Fragmented Populations of Stream Fish**
 James Roberts, *Department of Fish and Wildlife Conservation, Virginia Tech*; Paul Angermeier, *U.S. Geological Survey, Virginia Cooperative Fish and Wildlife Research Unit*; Eric Hallerman, *Department of Fish and Wildlife Conservation, Virginia Tech*
- 17:15 **Integrating Adaptive Management and Ecosystem Services to Improve Natural Resource Management: An Exploration of Benefits, Challenges, and Approach**
 Rebecca Epanchin-Niell, *Resources for the Future*
- 17:30 **Biodiversity, ecosystem services and oil production: an integrated conservation approach**
 Mihai Coroi, *Mott MacDonald*
- 17:45 **Isolation Predicts Both Neutral and Adaptive-linked Genetic Diversity of Desert Bighorn Sheep Populations**
 Brandon Nickerson, *Oregon State University*; Clinton Epps, *Oregon State University*

.....

Conservation Genetics & Evolution

Room 307

Thursday, July 25, 16:00 to 18:00

- 16:00 **Using ecological niche models to infer evolutionary processes and inform conservation: A case study of lemurs in Madagascar**
 Mary Blair, *Center for Biodiversity and Conservation, American Museum of Natural History*; Eleanor Sterling, *Center for Biodiversity and Conservation, American Museum of Natural History*; Matthew Dusch, *State University of New York - School of Environmental Science and Forestry*; Christopher Raxworthy, *American Museum of Natural History*; Richard Pearson, *Center for Biodiversity and Conservation, American Museum of Natural History*
- 16:15 **Unusual Effects of Inbreeding in the Highly Inbred Chatham Island Black Robin**
 Emily Weiser, *University of Otago*; Catherine Grueber, *University of Otago*; Euan Kennedy, *Department of Conservation*; Ian Jamieson, *University of Otago*
- 16:30 **A range-wide conservation genetic study of Little Penguins (*Eudyptula minor*): Augmenting population genetics at neutral loci with adaptive immune gene**
 Sandra Vogel, *University of New South Wales*; Jennifer Sinclair, *University of New South Wales*; William Sherwin, *University of New South Wales*
- 16:45 **Modeling extinction risk due to distant interspecific hybridization**
 Claudio Quilodran, *University of Geneva*; Mathias Currat, *University of Geneva*; Juan Montoya-Burgos, *University of Geneva*

Thursday

- 17:00 **Using population genetics to inform historical ecology: Functional endemism in a coral reef fish**
Joshua Drew, *Columbia University*; Les Kaufman, *Boston University*
- 17:15 **Using a genetic approach to test the functionality of forest corridors: case study from India**
Trishna Dutta, *Smithsonian Conservation Biology Institute and George Mason University*; Sandeep Sharma, *Smithsonian Conservation Biology Institute and George Mason University*; Jesús E. Maldonado, *National Museum of Natural History, Smithsonian Institution*; Thomas C. Wood, *George Mason University*; Hemendra Singh Panwar, John Seidensticker, *Smithsonian Conservation Biology Institute*
- 17:30 **In hot water: developmental plasticity to a warming climate in a high elevation amphibian assemblage**
Lindsey Thurman, *Northwest Climate Science Center*; Tiffany Garcia, *Oregon State University*
- 17:45 *Open discussion*

.....

Climate Change, Disturbance and Landscape Ecology

Room 308

Thursday, July 25, 16:00 to 18:00

- 16:00 **Looking beyond avoided deforestation to realistic land-use options for REDD+ in Papua New Guinea**
Michelle Venter, *School of Earth and Environmental Sciences*; Micheal Bird, *School of Earth and Environmental Sciences*; Wouter Dieleman, *James Cook University*; Anurag Ramachandra, *Conservation International*; David Gillieson, *School of Earth and Environmental Sciences*
- 16:15 **Connectivity Under Fire: The Importance of Incorporating Changing Fire Dynamics into Connectivity Assessments**
Megan Jennings, *San Diego State University*; Rebecca Lewison, *San Diego State University*; Erin Boydston, *United States Geological Survey*; Kevin Crooks, *Colorado State University*; Lisa Lyren, *United States Geological Survey*; Robert Fisher, *United States Geological Survey*
- 16:30 **Distribution of a community of mammals in relation to roads and other human disturbances in a mosaic landscape of central Africa**
Joseph Kolowski, *Smithsonian Conservation Biology Institute*; Alfonso Alonso, *Smithsonian Conservation Biology Institute*; Hadrien Vanthomme, *Smithsonian Conservation Biology Institute*; Lisa Korte, *Smithsonian Conservation Biology Institute*
- 16:45 **The influence of topography on responses of understory birds to planned fire in south-east Australia**
Holly Sitters, *University of Melbourne*; Fiona Christie, *University of Melbourne*; Julian Di Stefano, *University of Melbourne*; Paul Sunnucks, *Monash University*; Alan York, *University of Melbourne*
- 17:00 **Payments for watershed services as a driver of climate compatible development: What works and why?**
Kevin Green, *Rare*; Amielle DeWan, *Rare*; Nigel Asquith, *Fundacion Natura Bolivia*; Keith Alger, *Rare*
- 17:15 **Reconceptualizing Urban Biodiversity: An Evolving Approach to Urban Landscape Ecology in the Toronto Region**
Ryan Ness, *Toronto and Region Conservation Authority*; Meaghan Eastwood, *Toronto and Region Conservation Authority*
- 17:30 **Status of electrical network hazard investigation for the avifauna within the Bangladesh**
Md. Kamrul Hasan, *Biogene Life Care*; Md. Ariful Haque Mollik, *Biogene Life Care*
- 17:45 *Open discussion*

.....

Stakeholders & Community-Driven Conservation

Room 309

Thursday, July 25, 16:00 to 18:00

- 16:00 **Using equivalence tests to reverse the burden of proof in endangered species science - a 'BASEHIT' for imperiled species' advocates**
Daniel McGarvey, *Virginia Commonwealth University*
- 16:15 **Species in a fragmented landscape. How policy scenario's change species distributions**
Luc De Bruyn, *Research Institute for Nature and Forest (INBO)*
- 16:30 **Resident and expert opinions on marine related issues: implications for the ecosystem approach**
Adriana Ressurreição, *Centre of IMAR of the University of the Azores*; Alexandra Simas, *Azores Sea Observatory (OMA)*; Ricardo Santos, *Centre of IMAR of the University of the Azores*; Filipe Porteiro, *Centre of IMAR of the University of the Azores*
- 16:45 **Connecting the dots between behavior and conservation: An evaluation of the effectiveness of social marketing campaigns for conservation results**
Amielle DeWan, *Rare*; Kevin Green, *Rare*
- 17:00 **Why Every Conservation Scientist Should Have a SPI, or Making Conservation Science Matter in the Anthropocene**
Amy Rosenthal, *Natural Capital Project at the World Wildlife Fund*; Emily McKenzie, *Natural Capital Project at WWF*



- 17:15 **Confronting uncertainty in wildlife management: performance of grizzly bear management in British Columbia, Canada**
Kyle Artelle, *Simon Fraser University and Raincoast Conservation Foundation*; **Sean Anderson**, *Simon Fraser University*; **Andrew Cooper**, *Simon Fraser University*; **Paul Paquet**, *Raincoast Conservation Foundation*; **John Reynolds**, *Simon Fraser University*; **Chris Darimont**, *University of Victoria and Raincoast Conservation Foundation*
- 17:30 **Idle No More: Best Practices and Lessons Learned from Indigenous Conservation Partnerships in Canada**
Robin Roth, *York University*; **Brian Thom**, *University of Victoria*
- 17:45 **Traffic Exposure Increases Corticosterone and Decreases Reproductive Success in Northern Spotted Owl**
Lisa Hayward, *U.S. Geological Survey*; **Samuel Wasser**, *University of Washington*

.....

Conservation GIS & Geography

Room 310

Thursday, July 25, 16:00 to 18:00

- 16:00 **Life-history traits and extrinsic threats determine extinction risk in New Zealand lizards**
Reid Tingley, *ARC Centre of Excellence for Environmental Decisions, University of Melbourne*; **Rod Hitchmough**, *Department of Conservation*; **David Chapple**, *Monash University*
- 16:15 **Forest recovery in post-pasture Amazonia: Testing a conceptual model of space use by insectivorous understory birds**
Luke Powell, *Louisiana State University*; **James Nichols**, *Patuxent Wildlife Research Center*; **James Hines**, *Patuxent Wildlife Research Center*; **Andres Zurita**, *Instituto de Biología Subtropical, Universidad Nacional de Misiones*; **Phillip Stouffer**, *Louisiana State University, School of Renewable Natural Resources*
- 16:30 **Setting practical conservation priorities for birds in Colombia and then implementing them**
Natalia Ocampo-Penuela, *Duke University*; **Stuart Pimm**, *Duke University*
- 16:45 **Occupancy estimation of jaguar *Panthera onca* in east-central Mexico: A corridor uncertain**
Lisanne Petracca, *Panthera*; **O. Eric Ramirez-Bravo**, *Durrell Institute for Conservation Ecology*; **Lorna Hernandez-Santin**, *Departamento de Ciencias Químico-Biológicas*
- 17:00 **A Toolkit Approach to Integrating Conservation with Land Use, Resource, and Infrastructure Planning**
Patrick Crist, *NatureServe*
- 17:15 **The human footprint 1995-2010: Spatial and temporal changes in human threats to wild nature and impacts on protected areas**
Jonas Geldmann, *Center for Macroecology, Evolution and Climate*; **Lucas Joppa**, *Microsoft Research and UNEP World Conservation Monitoring Centre*; **Neil Burgess**, *Center for Macroecology, Evolution and Climate*
- 17:30 **Decision realities: tradeoffs and 'hard' choices in GIS-based marine conservation planning**
Melinda Agapito, *Memorial University of Newfoundland*; **Rodolphe Devillers**, *Memorial University of Newfoundland*; **Evan Edinger**, *Memorial University of Newfoundland*; **Ratana Chuenpagdee**, *Memorial University of Newfoundland*; **Mariano Koen-Alonso**, *orthwest Atlantic Fisheries Centre Fisheries and Oceans Canada*
- 17:45 **The dynamics of amphibian emergent infectious diseases: a multi-level approach**
Kirsten McMillan, *Institute of Zoology*



Special Evening Events: 6:30 P.M. to 9:00 P.M.

Closing Reception and Silent Auction

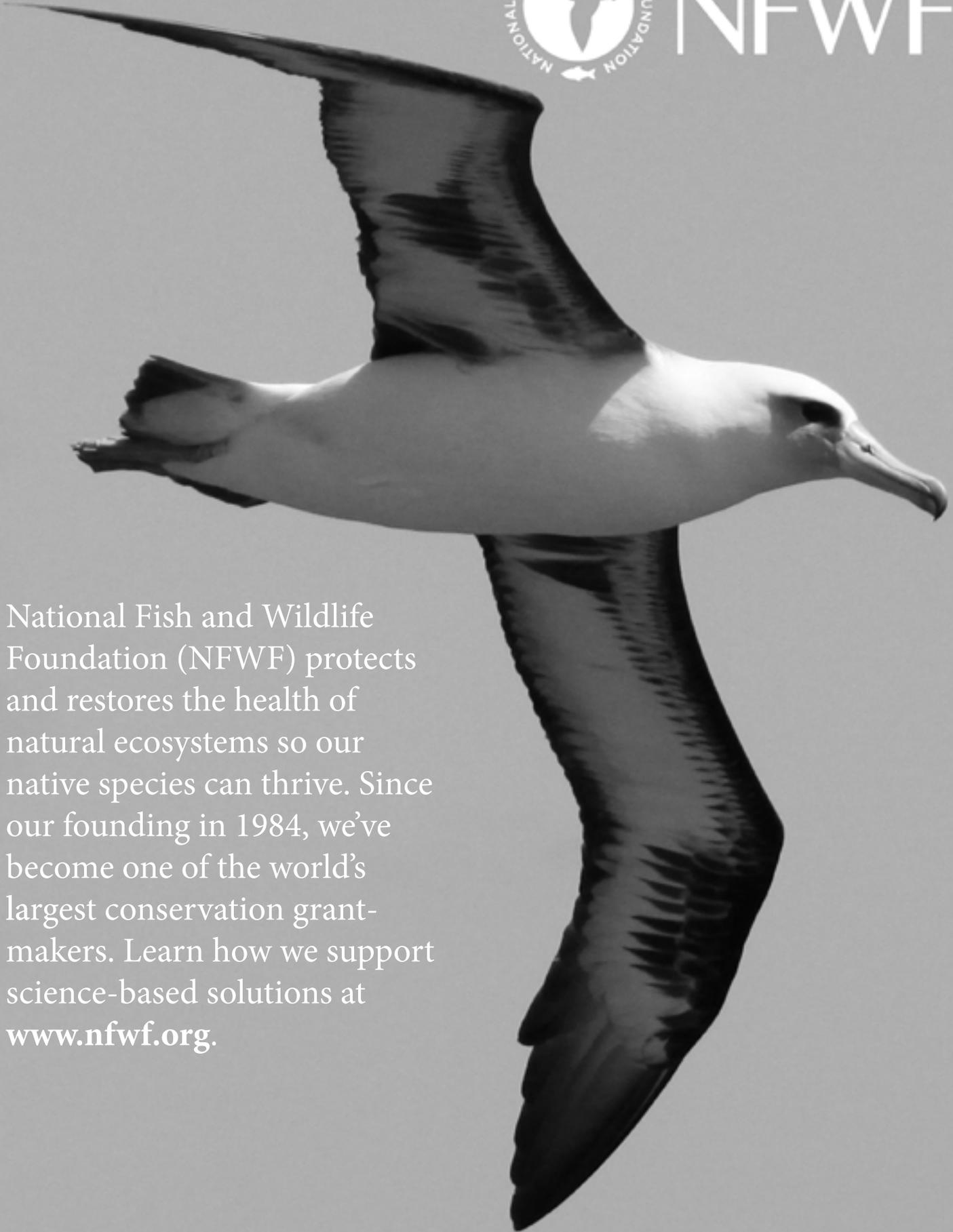
18:30 to 21:00, Power Plant Live (intersection of Market Street and Water Street, one block from Inner Harbor)

Join SCB members to celebrate the close of the SCB's 26th ICCB at Power Plant Live, Baltimore's premier entertainment venue located just a block from the Inner Harbor and a short walk from the. The evening will begin with cocktails and continue with a variety of menu options. You will have a chance to bid on various books, gifts, and SCB memorabilia donated by Chapter members throughout the night at the Silent Auction. After dinner, gather to experience a concert performance on stage with the Amish Outlaws, an Amish cover band that plays all genres of music. The party continues all night as guests can explore the second level lounges and late night fun. Each paid registration receives one complimentary ticket to the closing reception. You can purchase guest tickets at the Registration Desk during the Congress.

Thursday



NFWF

A large, detailed black and white photograph of a seabird, possibly a booby, in flight. The bird is shown from a side profile, flying towards the right. Its wings are fully extended, showing the intricate feather patterns. The background is a plain, light gray.

National Fish and Wildlife Foundation (NFWF) protects and restores the health of natural ecosystems so our native species can thrive. Since our founding in 1984, we've become one of the world's largest conservation grant-makers. Learn how we support science-based solutions at www.nfwf.org.





ICCB 2013

Baltimore, MD, USA • 21-25 July, 2013
www.conbio.org/2013

Society for Conservation Biology



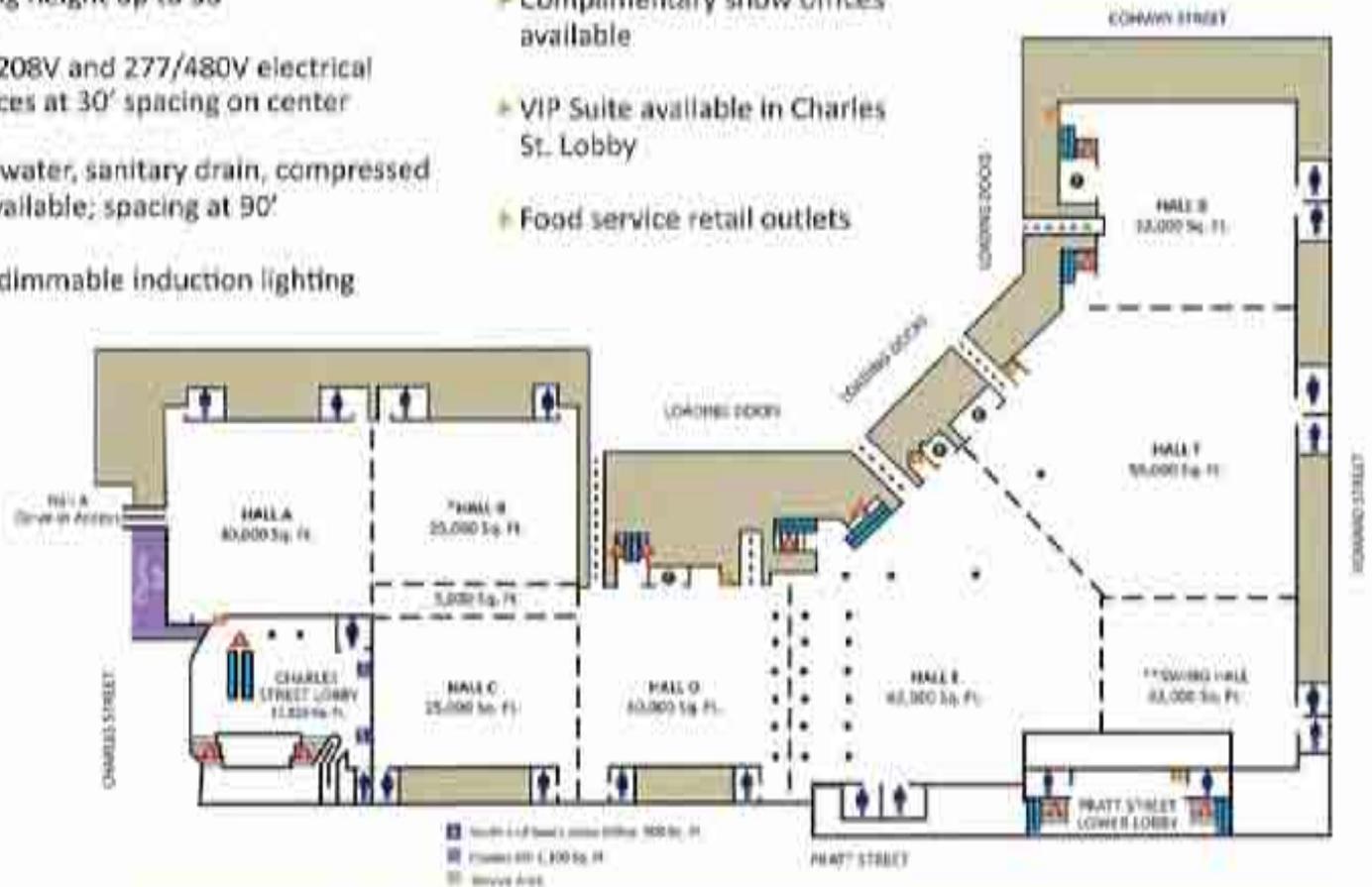






Level 100

- ▶ 300,000 square feet of contiguous exhibit space divisible into seven exhibit halls
- ▶ Ceiling height up to 33'
- ▶ 120/208V and 277/480V electrical services at 30' spacing on center
- ▶ Cold water, sanitary drain, compressed air available; spacing at 90'
- ▶ 50% dimmable induction lighting
- ▶ Direct drive-in access
- ▶ 32 covered loading docks
- ▶ Complimentary show offices available
- ▶ VIP Suite available in Charles St. Lobby
- ▶ Food service retail outlets



Exhibition Hall	A	B	C	EC	D	E	EWING HALL**	F	G
Ceiling Height	10.5'-00"	16.8'-00"	10.8'-00"	—	12.8'-00"	11'-30"	14.8'-00"	29'-30"	16.2'-00"
Sq. Ft.	80,000	25,000	25,000	4,000	80,000	80,000	80,000	50,000	28,000
Theater	3,900	3,500	2,300	—	3,900	3,700	3,700	3,000	1,800
Booths	180	1,000	1,000	—	1,800	1,700	1,100	1,600	1,300

* Hall D must be used in conjunction with Hall B or E.
 ** Ewing Hall must be used in conjunction with Hall C or F.



Notes:

Key

Food service retail outlets

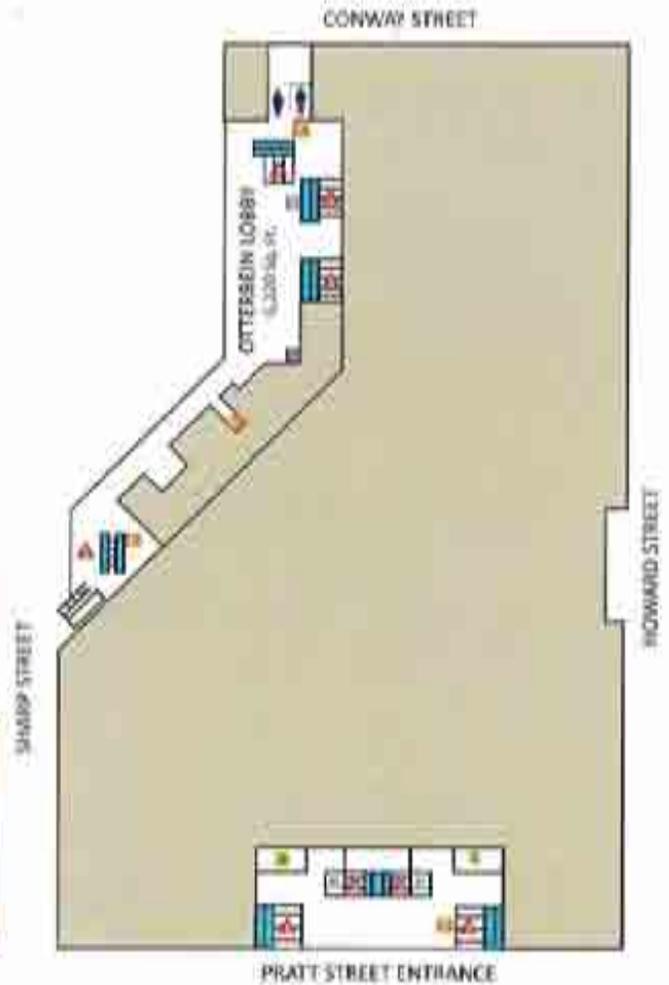
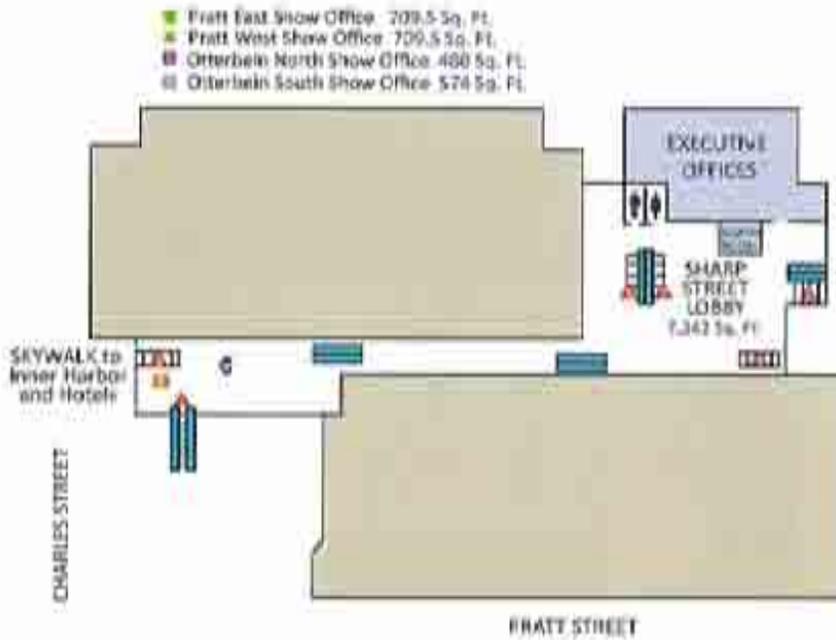
elevator

escalator

stairs

Level 200

- Includes Otterbein and Sharp Street Lobbies, Pratt Street Entrance and Convention Center Executive Offices Suite
- Pre-function space
- Visit Baltimore information kiosks



Notes



restrooms – public restrooms are handicap accessible



handicap accessible restroom



visitor kiosk



movable walls



Meeting Rooms

Level 300



- 50 meeting rooms can accommodate 85-1,700 people
- Outdoor Terrace and covered pavilions are ideal for special activities or networking
- Large rooms have flexible lighting with dimming capabilities

Mooney



Room Name	Capacity									
Room 300-1	100	100	100	100	100	100	100	100	100	100
Room 300-2	150	150	150	150	150	150	150	150	150	150
Room 300-3	200	200	200	200	200	200	200	200	200	200
Room 300-4	250	250	250	250	250	250	250	250	250	250
Room 300-5	300	300	300	300	300	300	300	300	300	300
Room 300-6	350	350	350	350	350	350	350	350	350	350
Room 300-7	400	400	400	400	400	400	400	400	400	400
Room 300-8	450	450	450	450	450	450	450	450	450	450
Room 300-9	500	500	500	500	500	500	500	500	500	500
Room 300-10	550	550	550	550	550	550	550	550	550	550
Room 300-11	600	600	600	600	600	600	600	600	600	600
Room 300-12	650	650	650	650	650	650	650	650	650	650
Room 300-13	700	700	700	700	700	700	700	700	700	700
Room 300-14	750	750	750	750	750	750	750	750	750	750
Room 300-15	800	800	800	800	800	800	800	800	800	800
Room 300-16	850	850	850	850	850	850	850	850	850	850
Room 300-17	900	900	900	900	900	900	900	900	900	900
Room 300-18	950	950	950	950	950	950	950	950	950	950
Room 300-19	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Room 300-20	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
Room 300-21	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Room 300-22	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
Room 300-23	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Room 300-24	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Room 300-25	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
Room 300-26	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
Room 300-27	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Room 300-28	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450
Room 300-29	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Room 300-30	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550
Room 300-31	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Room 300-32	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
Room 300-33	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700

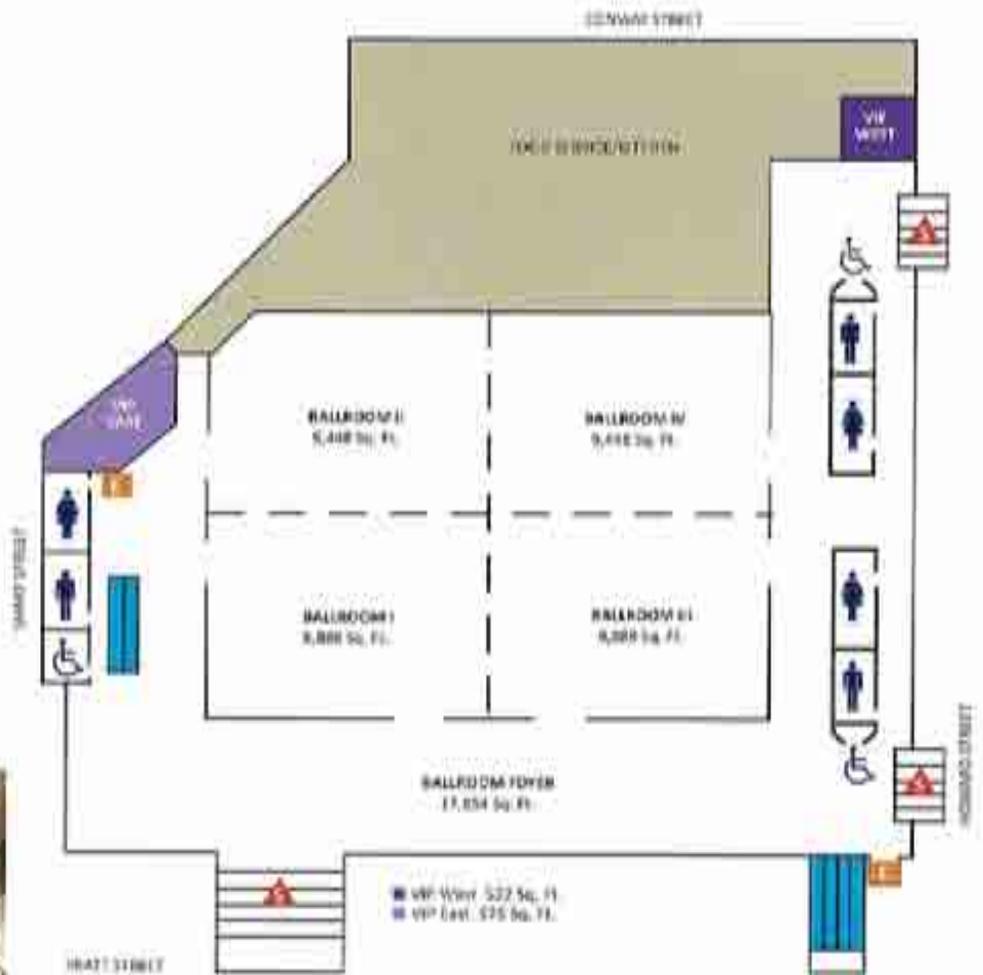
Room Name	Capacity									
Room 300-34	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Room 300-35	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Room 300-36	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Room 300-37	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Room 300-38	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Room 300-39	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Room 300-40	2050	2050	2050	2050	2050	2050	2050	2050	2050	2050
Room 300-41	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Room 300-42	2150	2150	2150	2150	2150	2150	2150	2150	2150	2150
Room 300-43	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Room 300-44	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Room 300-45	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300
Room 300-46	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
Room 300-47	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Room 300-48	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Room 300-49	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Room 300-50	2550	2550	2550	2550	2550	2550	2550	2550	2550	2550

Key

- Food service / food delivery
- events
- workdays
- view
- conference / public restrooms / wheelchair accessible
- business committee
- terrace
- availability with

Level 400

- ▶ 36,672 square-foot Ballroom
- ▶ Divisible into four sections
- ▶ Ceiling height 28'
- ▶ Fluorescent & induction lighting with dimmers
- ▶ Ballroom Foyer provides spacious pre-function space
- ▶ Complete kitchen/catering facilities



Ballroom	Ballroom I	Ballroom II	Ballroom III	Ballroom IV
Ceiling Height	28'	28'	28'	28'
Sq. Ft.	5448	5448	5448	5448
Theater	1000	1000	1000	1000
Classroom	575	575	575	575
Bar/seat	600	600	600	600



Key

 elevator
 escalator

 stairs

  restrooms – public restrooms are handicap accessible

 handicap accessible restroom

 movable walls



Wonder is a natural resource.

Conservation preserves not only our tangible world but also the intangibles that do just as much to sustain us—hope, joy, surprise, and inspiration.

Esri is well into its fifth decade of developing geographic information systems to help people anticipate, plan for, and influence the circumstances of their environment. Along the way we have aligned ourselves with organizations that share our purpose, such as the Society for Conservation GIS, the Society for Conservation Biology, The Nature Conservancy, NatureServe,

Audubon, and the Wildlife Conservation Society. We join with them again at the International Congress for Conservation Biology, along with many other organizations in the international conservation community.

The effort to stay in front of our elusive, changing world endures, as does our devotion to conservation and the work we do to follow through on it.

Please come see us at booth #209.

Esri sponsorship honors the dedicated scientific and geographic work of our partners Audubon, the Wildlife Conservation Society, NatureServe, and The Nature Conservancy, and is proud to share our presence here with them.



Society for Conservation Biology

A global community of conservation professionals

The Society for Conservation Biology thanks the following sponsors for their generous support of the 26th International Congress for Conservation Biology:

Baltimore Platinum

WILEY



Skipjack Gold



Raven Bronze

