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Professor, Department of Geography & Environment
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EDUCATION

Mills College, Oakland, California, B.A.

1997: M.A. San Diego State University, San Diego, California, Geography, emphasis in Natural Resource Management. (Advisor Dr. Janet Franklin).

1997-2002: Ph.D. University of Victoria, BC, Canada, Geography. (Advisor Dr. Dave Duffus).

PROFESSIONAL EXPERIENCE

2015 -present: Associate Director, Romberg Tiburon Center for Environmental Studies, San Francisco State University.

2012-present: Principal Investigator, Romberg Tiburon Center for Environmental Studies, San Francisco State University.

2012-present: Professor, Department of Geography & Environment, San Francisco State University.

2009-present: Adjunct Professor, Department of Geography (Faculty of Graduate Studies), University of Victoria, BC, Canada.

2007-2012: Associate Professor, Department of Geography & Environment, San Francisco State University.

2007-2008: Professional Leave from SFSU: Florida Fish and Wildlife Research Institute, St. Petersburg, Florida, Associate Research Scientist.

2006-2007: Visiting Professor, Moss Landing Marine Lab, Moss Landing, California.

2005-Fall Semester: Tropical Environmental Studies and Geography, James Cook University, Townsville, Queensland, Australia, Visiting Scholar (President's Award sabbatical from SFSU).

2001-2006: Assistant Professor, Department of Geography & Environment, San Francisco State University.

1997-2001: Sessional Lecturer in GIS and Remote Sensing, Department of Geography, University of Victoria, BC, Canada.

1999-2000: Consultant in Marine Ecology and GIS, Axys Environmental Consulting Ltd., Sydney, BC. British Columbia Marine Ecological Classification (BCMEC) Update Project.

1997-1999: Land Use Coordination Office, Province of British Columbia. Marine GIS Consultant.

1997-1998: LGL Limited, in Sydney, British Columbia. Marine Geographic Information Systems (GIS) consultant.

1996-1997: GIS Technician with National Wetlands Research Center, USGS Biological Resources Division, Lafayette, Louisiana.

1994-1996: U.S. Forest Service, Region 5, Forest vegetation mapping project. GIS/Remote Sensing Research Assistant. Center for Earth Systems Analysis at San Diego State University.

1992-1993: US Forest Service, Southern Appalachian Region, Surveying Section. Mapping Technician, Asheville, North Carolina.

RECENT ADMINISTRATIVE EXPERIENCE

- Elected to the Executive Committee of the SFSU Academic Senate (2018-2019)
- Appointed Chair of the Student Affairs Committee (2018-2019)
- Elected Chair of the Dean of Graduate Division search (2018).
- Elected to SFSU Academic Senate, representing the College of Science and Engineering (2017-2020).
- Faculty Affairs Committee (2017-2018).
- Graduate Coordinator, Masters of Science in Interdisciplinary Marine and Estuarine Science (since 2016).
- Chair of Retention, Tenure and Promotion Committee, Geography & Environment (2016-2018).
- Associate Director for Academic Programs, Estuary & Ocean Science Center (previously Romberg Tiburon Center) (Spring 2015-present)
- Chair, SFSU Graduate Council (2015-2017). Member (2014-2019)
- Executive Committee, Council on Ocean Affairs, Science & Technology (COAST), California State Universities (2016-present).
- University Human/Animal Subjects Protocol Committee (2008-2015), Chair (2009-2015).
- Chair, Geography Department Curriculum committee (2014-2015).
- Faculty Representative, Council on Ocean Affairs, Science and Technology (COAST California State Universities (2014-present); appointed by SFSU President and Provost/Elected to the Executive Board (2016-present))
- Member, Romberg Tiburon Center Masters of Marine Science degree program creation committee (2013-2014).
- Chair, Geography Department Masters of Science in GIS degree program creation committee (2012).
- Chair, Deans and Department Chair review committees (2012, 2013); appointed by SFSU Provost.
- Member, SFSU Presidents Strategic undergraduate curriculum and assessment review committee (2009-2011).

PUBLICATIONS

BOOKS

Hines, E., Reynolds, J., Mignucci-Giannoni, A, Aragones, L.V., and M. Marmontel. 2012. *Sirenian Conservation: Issues and Strategies in Developing Countries*. Edited Volume. The University Press of Florida (reviewed in *Mammalia* and the *Quarterly Review of Biology* in 2014).

- Hines, E. Introduction
- Ortega, A., Hines, E, and J. Calvimontes. Using interviews as a research tool.
- Hines, E. and contributors. Asian dugongs.
- Hines, E., Domning, D., Aragones, L, Marmontel, M., Mignucci-Giannoni, A.A, and J. Reynolds. The role of scientists in sirenian conservation in developing countries.
- Hines, E. A framework for sirenian science and conservation in developing countries.

Hines, E. 2011. *Conservation of the Dugong along the Andaman Coast of Thailand: An Example of the Integration of Conservation and Biology in Endangered Species Research*. VDM Verlag, Germany.

BOOK CHAPTERS

Hines, E. 2012. Dugong Conservation. In: *An Introduction to Marine Mammal Biology & Conservation* (by E.C.M. Parsons, A Bauer, D. MacAfferty , A.J. Wright & M.P. Simmons), Jones & Bartlett Publishers.

Hines, E. 2002. Conservation of the dugong (*Dugong dugon*) along the Andaman coast of Thailand. In P. Dearden (Ed.), *Environmental Protection and Rural Development in Thailand: Challenges and Opportunities*. White Lotus Press, Bangkok. Pages 155-180.

PUBLICATIONS (**committee chair, *on SFSU geography committee, ***on PhD committee)

- Jackson-Ricketts, J.***, Ruiz-Cooley, R.I., Junchompoo, C., Thongsukdee, S., Intongkham, A., Ninwat, S., Kittiwattanawong, K., Hines, E.M., and D. P. Costa. 2018. Diet and Life History of Irrawaddy Dolphins (*Orcaella brevirostris*) in the Gulf of Thailand and the Andaman Sea. *Marine Mammal Science* <https://doi.org/10.1111/mms.12547>
- Caballero, S., Dove, V., Jackson-Ricketts, J.***, Junchompoo, C, Cohen, S. and E. Hines. (2018) Mitochondrial DNA diversity and population structure in the Irrawaddy dolphin (*Orcaella brevirostris*) from the Gulf of Thailand and the Mekong River: should we start thinking about genetic rescue? *Marine Mammal Science* <https://doi.org/10.1111/mms.12518>
- Gallagher, C.**, Stern, J., and E. Hines. (2018) The metabolic cost of swimming and reproduction of harbor porpoises (*Phocoena phocoena*) as predicted by a bioenergetics model. *Marine Mammal Science* <https://doi.org/10.1111/mms.12487>
- Pilcher, NJ, Adulyanukosol, K., Das, H., Davis, P., Hines, E., Kwan, D., Marsh, H., Ponnampalam, L., and J. Reynolds (2017). A low-cost solution for documenting distribution and abundance of endangered marine fauna and impacts from fisheries. *PLoS ONE* <https://doi.org/10.1371/journal.pone.0190021>
- Johnson, AF, Caillat, M., Verutes, GM, Peter, C., Junchumpoo, C., Long, V., Ponnampalam, LS., Lewison, RL., and EM Hines. (2017) Poor fisheries struggle with U.S. import rule. *Science*, 355: 1031.
- Studwell AJ**, Hines E, Elliott ML, Howar J, Holzman B, et al. (2017) Modeling Nonresident Seabird Foraging Distributions to Inform Ocean Zoning in Central California. *PLOS ONE* 12(1): e0169517. doi: 10.1371/journal.pone.0169517
- Baldwin, C., Lewison, R., Lieske, S., Beger, M., Jones, C., Hines, E., Junchompoo, C, Satumanatpan, S. 2016. Using the Driver Pressure State Impact Response (DPSIR) framework for transdisciplinary and cross-border training and knowledge elicitation: social-ecological dynamics in the eastern Gulf of Thailand. *Ocean and Coastal Management* 134: 163-172.
- Ballenti, L*., Blesius, L, Hines, E., Kruse, B. 2016. Tree species classification using hyperspectral imagery: A comparison of two classifiers. *Remote Sensing* 8, 445; doi:10.3390/rs8060445
- Lewison, R. L, Rudd, M.A., Al-Hayek, W., Baldwin, C., Beger, M., Lieskee, S. N., Jones, C., Suvaluck, Satumanatpan, S., Junchompoo, C., and E. Hines. 2016. How the DPSIR framework can be used for structuring problems and facilitating empirical research in coastal systems. *Environmental Science & Policy* 56: 110-119.
- McClure, A*., Liu, XH, Hines, E. and M. Ferner. 2016. Evaluation of error reduction techniques on a lidar-derived salt marsh digital elevation model. *Journal of Coastal Research* 32: 424-433.

- Wedding, L. M., Maxwell, D., Hyrenbach, D., Dunn, J., Roberts, S., D. Briscoe, E. Hines, and P.N. Halpin. 2015. Geospatial approaches to support pelagic conservation planning and adaptive management. *Endangered Species Research* DOI:10.3354/esr00716
- Jensen, C**., E. Hines, B. Holzman, T.J. Moore, J. Jahncke and J.V. Redfern, et al. 2015. Spatial and temporal variability in shipping traffic entering and exiting San Francisco Bay. *Coastal Management* 43: 575-588. <http://dx.doi.org/10.1080/08920753.2015.1086947>
- Smith, T.D., Bannister, J., Hines, E., Reeves, R., Rojas-Bracho, L., and P. Shaughnessy (2016). World Ocean Assessment, Chapter 37: Marine Mammals. The Division of Ocean Affairs and Law of the Sea of the United Nations Secretariat http://www.un.org/depts/los/global_reporting/WOA_RegProcess.htm
- Hines, E., et al. 2015. In Memoriam, Kanjana Adulyanukosol. *Marine Mammal Science* DOI: 10.1111/mms.12265
- Hines, E., Strindberg, S., Jumchumpoo, C., Ponnampalam, L., Ilangakoon, A., and J. Jackson-Ricketts. 2015. Line transect estimates of Irrawaddy dolphin abundance along the eastern Gulf of Thailand. *Frontiers in Marine Science* doi: 10.3389/fmars.2015.00063
- Teh, S.L.L., Teh, C.L.L., Hines, E., Junchumpoo, C., and R. Lewison. 2015. Contextualizing the coupled socio-ecological conditions of marine megafauna bycatch. *Ocean and Coastal Management* 116: 449-465.
- Dransfield, A,** E Hines, B Holzman, M. Elliot, J. Howar, J.McGowan, N. Nur, J.Jahncke. 2014. Where the Whales are: Using habitat modeling to support changes in shipping regulations within National Marine Sanctuaries in Central California. *Endangered Species Research*: 26:39-57. doi: 10.3354/esr00627
- Edwards, H. H., Stone, S. B. P.**, Hines, E. M., Gomez, N.A., and B. E. Winning. 2014. Documenting manatee (*Trichechus manatus manatus*) presence at Turneffe Atoll in Belize and its conservation significance, Central America. *Caribbean Journal of Science* 48: 71-75.
- Briscoe, D.K., S. Hiatt, R. Lewison and E. Hines. 2014. Modeling habitat and bycatch risk for dugongs in Sabah, Malaysia. *Endangered Species Research* 24:237-247. doi: 10.3354/esr00600
- Ponnampalam, L., Hines, E., Mananansap, S., Ilangakoon, A., Junchompoo, C., Adulyanukosol, A., and L. J. Morse. 2013. Behavioral observations on Irrawaddy dolphins (*Orcaella brevirostris*) in Trat Province, Eastern Gulf of Thailand. *Aquatic Mammals* 39(4): 401-409.
- McGowan, J.**, E. Hines, M. Elliott, J.Howar, A. Dransfield, N. Nur, J. Jahncke. 2013. Using seabird habitat modeling to inform marine spatial planning in Central California's National Marine Sanctuaries, PLoS ONE 8(8): e71406. doi:10.1371/journal.pone.0071406.
- Funayama, K**., Hines, E., Davis, J., and S. Allen. 2013. Effects of sea-level rise on northern elephant seals at Point Reyes peninsula, California. *Aquatic Conservation: Marine and Freshwater Ecosystems*: 23: 233-245.
- Keller, C.A., Garrison, L. Baumstark, R., Ward-Geiger, L.I., and E. Hines. 2012. Defining calving habitat for the North Atlantic right whale in the southeastern United States: An application of a habitat model. *Endangered Species Research* 18: 73-87.
- LaCommare, K.S.***, Self-Sullivan, C., Hines, E., and S. Brault. 2012. A boat-based method for monitoring sirenians: Antillean manatee case study. *Biological Conservation*: 152: 169-177.
- Hines, E., Parsons, C., and J. Cigliano. 2011. Making marine science matter—a special issue highlighting the first International Marine Conservation Congress (Introduction). *Bulletin of Marine Science* 87(2).
- Hines, E., 2011. Threats to coastal dolphins from oil exploration, drilling and spills off the coast of Belize. In: Palomares, M.L.D., Pauly, D. (eds.), *Too Precious to Drill: the Marine Biodiversity of Belize*, pp. 14-18. Fisheries Centre Research Reports 19(6). Fisheries Centre, University of British Columbia [ISSN 1198-6727].

- Cleve, C*, Perrine, J., Holzman, B, and E. Hines. 2011. Addressing biased occurrence data in predicting potential Sierra Nevada red fox habitat for survey prioritization. *Endangered Species Research* 14:179-191.
- Merrified, M.S**, Hines, E.M., Liu, X, and M.W.Beck. 2011. Building regional threat-based networks for estuaries in the western United States. PLOS ONE 6(2): e17407. doi:10.1371/journal.pone.0017407
- Dick, D.M** and E.M. Hines. 2011. Development and implementation of distance sampling techniques to determine bottlenose dolphin (*Tursiops truncatus*) abundance at Turneffe Atoll, Belize. *Marine Mammal Science*: 27(3): 606-621.
- Novak, A. B, Hines, E., Kwan, D., Parr, L., Than Tun, M., and H. Wen. 2009. Seagrasses of the Myeik Archipelago, Myanmar. *Aquatic Botany* 91(3): 250-252.
- Doukakis, J. P., Parsons, E.C.M., Burns, W.C.G., Salomon, A.K., Hines, E., and J.A. Cigliano. 2009. Gaining traction: Re-treading the wheels of marine conservation. *Conservation Biology* 23(4): 841–846.
- Hines, E., Adulyanukosol, K., Somany, P., Sam Ath, L., Cox, N., Boonyanate, P., and N.X. Hoa. 2008. Community interviews to assess conservation needs of the dugong (*Dugong dugon*) in Cambodia & Phu Quoc, Vietnam. *Oryx* 42(1): 113-121.
- Ilangakoon, A. Sutaria, D., Hines, E., and R. Raghavan. 2008. Historical status and future prospects for dugongs (*Dugong dugon*) in the Gulf of Mannar, based on interview surveys. *Marine Mammal Science* 24(3): 704-710.
- Hines, E., Adulyanukosol, K., Duffus, D. A., and P. Dearden. 2005. Community perspectives and conservation needs for dugongs along the Andaman coast of Thailand. *Environmental Management* 36(5): 654-664.
- Hines, E., Adulyanukosol, K., and D. A. Duffus. 2005. Dugong abundance along the Andaman coast of Thailand. *Marine Mammal Science* 21:3:536-549.
- Byrne, R., and E. Hines. 2005. The marine turtles of Hinatuan Bay, Surigao del Sur, Mindanao, Philippines. *Marine Turtle Newsletter* 105: 8.
- Hines, E., Franklin, J., and J. Stephenson. 2005. Using a geographic information system to estimate digital map error and its effects on habitat delineation for the California spotted owl in southern California. *Transactions in GIS*. 9(4): 541-559.

PUBLICATIONS IN PREP

- Hines, EM, Johnson, A., Ponnampalam, L., Peter, C., Junchompoo, C., Vu, L., Thien, H., Caillat, M., and Verutes, C. Getting to the Bottom of Bycatch: A GIS-based toolbox to assess the risk of marine mammal bycatch. *In Process: Endangered Species Research*.
- Jackson-Ricketts, J. ***, Junchompoo, C., Hines, EM, Hazen, E, Ponnampalam, L, Ilangakoon, A, Monanunsap, S. Habitat modeling of Irrawaddy dolphins (*Orcella brevirostris*) in the eastern Gulf of Thailand. Resubmitted to: *Ecology and Evolution*.
- Hughes, B. B., Wasson, K., Tinker, T. M., Williams, S. L., Carswell, L. P., et al including Hines, E. and Rudebusch, J. ** Sea otters in estuaries: opportunities for recovery and restoration: Recovering sea otters reveal their true fundamental niche. In Review: *Biological Conservation*.
- Mackie, J., Bushell, J. B., Adulyanukosol, K., Parr, L., and E. Hines. Genetic diversity and population structure of the dugongs (*Dugong dugon*) of Thailand. In revision for: *Marine Mammal Science*.
- Hines, E., Adulyanukosol, K., Chitewere, T., and P. Boonyanate. Historical relationships between dugongs and villagers in Thailand: a foundation for conservation planning. In revision for resubmission: *Human and Wildlife Interactions*.

- Vincent,**, T., Hines, E., Hung, S., Hiatt, S., and Q. Guo. Finless porpoises in Hong Kong harbor: Distribution, habitat use and environmental planning. In revision for resubmission: *Endangered Species Research*.
- Greig, N.**, Hines, E., and XH Liu. Using satellite AIS to analyze vessel speeds off the coast of Washington state as a risk analysis for cetacean-vessel collision. In revision for resubmission: *Frontiers in Marine Science*.
- Jackson-Ricketts, J. ***, Whitty T, Hazen, E, Monanunsap, S, Junchompoo, C, and EM Hines. Human use of the eastern Gulf of Thailand and implications for Irrawaddy dolphin (*Orcaella brevirostris*) conservation. In review: *Applied Geography*.
- Hines, E, D’Lima, C., and K. Weiss. Changing Attitudes Towards Marine Megafauna and Habitat Conservation in Thailand and Southeast Asia. Target Journal: *Conservation Letters*

DISSERTATION AND THESIS

- Hines, E. 2001. *Conservation of the Dugong (Dugong dugon) along the Andaman Coast of Thailand: An Example of the Integration of Conservation and Biology in Endangered Species Research*. Doctoral Dissertation, University of Victoria, BC, Canada.
- Hines, E. 1997. A sensitivity analysis of a map of habitat quality for the California spotted owl (*Strix occidentalis occidentalis*) in southern California. Master’s thesis, San Diego State University, San Diego, CA USA.

LEGAL BRIEFS/EXPERT TESTIMONY

- On behalf of: Okinawan dugongs vs. US Department of Defense (for Earthjustice) (September 2007, 2018).

TRAINING MANUAL

- Smith, B. D., Hines, E., Rosenbaum, H., Razafindrakoto, Y, Beasley, I., and K. Cross. 2002. *Marine mammal research techniques for scientists in South and Southeast Asia*. Wildlife Conservation Society, NY.

SELECTED PROFESSIONAL REPORTS

- Hines, E. Verutes, G., and L. Ponnampalam. 2018. Marine Megafauna Bycatch in Swimming Crab Nets in Northwestern Sri Lanka, A Final Report for Monterey Bay Aquarium Seafood Watch.
- Hines, E. et al. 2018. Catching the right fish: A toolbox to reduce marine mammal bycatch risk in developing countries. Award Number: NA16NMF4630338 NOAA Office of International Affairs.
- Hines, E., Jumchumpoo, C., Ilangakoon, A., Ponnampalam, L., and J. Jackson-Ricketts. 2014. Coastal cetaceans in Trat Province, Eastern Thailand (2012-2014). Final Report to Indo-Pacific Cetacean Foundation, Australia.
- Hines, E., Jumchumpoo, C., Ilangakoon, A., Ponnampalam, L., and J. Jackson-Ricketts. 2013. Coastal cetaceans in Trat Province, Eastern Thailand (2013). Final Report to Ocean Park Conservation Foundation, Hong Kong and Indo-Pacific Cetacean Foundation, Australia .

- Hines, E., Jumchumpoo, C., Ilangakoon, A., Ponnampalam, L., and J. Jackson-Ricketts. 2012. Coastal cetaceans in Trat Province, Eastern Thailand (2012). Final Report to Ocean Park Conservation Foundation, Hong Kong and Indo-Pacific Cetacean Foundation, Australia.
- Hines, E. 2011. American Recovery and Reinvestment Act: USGS Golden Gate LiDAR Final Report
- Hines, E., Mananansap, S., Ilangakoon, A., Ponnampalam, L., and L. Morse. 2009. Coastal cetaceans in Trat Province, Eastern Thailand (2009). Final Report to Ocean Park Conservation Foundation, Hong Kong.
- Hines, E., Charuchina, M., Mananansap, S., Ilangakoon, A., and L. Ponnampalam. 2008. Irrawaddy Dolphins (*Orcaella brevirostris*) in Trat Province, Eastern Thailand (2007-2008). Final Report to Ocean Park Conservation Foundation, Hong Kong.
- Hines, E. NOAA: National Marine Fisheries Service Annual Performance Reports for Grant #FO794/#2339/#2624, for Reporting Periods June 2007-December 2008, and January 2008-June 2008. Right Whale Conservation Project, Florida Fish & Wildlife Conservation Commission.
- Hines, E. Final report to the National Fish and Wildlife Foundation: Evaluation of Relative Risk of Co-Occurrence of North Atlantic Right Whales and Vessels in the Southeastern United States (SEUS) Calving Grounds, for the Florida Fish & Wildlife Conservation Commission. July 2008.
- Hines, E., Than Tun, M., Parr, L., Kwan, D., and A. Novak. 2007. Dugongs (*Dugong dugon*) along the Myeik Archipelago of Myanmar. Final report to Ocean Park Conservation Foundation, Hong Kong.

PROCEEDINGS

- Hines, E., Ponnampalam, L.S., Hisne, F.I.J, Whitty, T.S., Jackson-Ricketts, J., Kuit, S.H, and J.M. Acebes. Report of the 3rd Southeast Asian Marine Mammal Symposium (SEAMAM III) 2015. Langkawi Island, Malaysia, 4-10 March 2013. Convention on Migratory Species of Wild Animals (CMS), United Nations Environment Program.
<http://www.cms.int/en/publication/report-third-southeast-asian-marine-mammals-symposium-seamam-iii>
- Adulyanukosol, K., Hines, E., and P. Boonyanate. 2010. Cultural significance of dugongs to Thai villagers: Implications for conservation. Proceedings of the 5th International Symposium on SEASTAR2000: 43-49. Juried http://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/107337/1/9thSeastar_43.pdf
- Ilangakoon, A. D., Hines, E., Monanunsap, S., and Ponnampalam, L. S. 2010. Research for conservation and management of Irrawaddy dolphins (*Orcaella brevirostris*) in the Eastern Gulf of Thailand. Proceedings of the International Workshop on Conservation of the Irrawaddy Dolphin with special reference to the underwater acoustic study. 25 - 26 March 2010, Bhubaneswar, India.
- Proceedings of the Workshop on the Conservation of the Dugong and Seagrass Habitats in Vietnam January 20-21, 2003, Hanoi, Vietnam. Edited by Nick Cox, Tran Chinh Khuong, Ellen Hines. World Wildlife Fund, Indochina Programme, Hanoi, Vietnam.

REVIEWS

Associate Editor for the journal *Frontiers in Marine Science*, specialty section in Marine Conservation and Sustainability (2014).

Associate Editor for the *Journal of Environmental Studies and Science* (First volume January 2011).

Review Editor for the journal *Endangered Species Research* (since 2006).

Reviewed submitted manuscripts for the journals: *Science*, *Scientific Reports*, *Marine Mammal Science*, *Marine and Freshwater Research*, *Frontiers in Marine Science*, *Aquatic Mammals*, *Raffles Bulletin of Zoology*, *Conservation Biology*, *Biological Conservation*, *Prairie Perspectives*, *Endangered Species Research*, *Phuket Marine Biological Center Bulletin*, *Current Zoology*, *Applied Geography*, *Environmental Management*, *Aquatic Conservation: Marine and Freshwater Systems*, *Marine and Freshwater Research*, *Transactions in GIS*, *McGill International Journal of Sustainable Development Law and Policy*, *Journal of the Marine Biological Association of the United Kingdom*, *Oryx*, *Marine Biodiversity Records*, *Marine Technology Society Journal*, *PlosOne*, *Annals of the American Association of Geography*.

GRANTS & AWARDS

2019: Fulbright ASEAN Scholar Award for research in Vietnam and Malaysia.

2018-2019: California Coastal Conservancy: Assessing anthropogenic risks to sea otters re-settling San Francisco Bay \$14,770.

2017-2018: Monterey Bay Aquarium Sea Watch: Risk assessment of dugong and turtle bycatch in the swimming crab fishery off the northwest coast of Sri Lanka \$11,500.

2016-2018: NOAA International: An integrated toolbox for the risk assessment of marine mammal bycatch in developing countries. With R. Lewison (San Diego State University), Gregg Verutes (Natural Capital Project, Stanford University) \$80,000.

2016-2021: National Science Foundation Research Traineeship (NRT): Research Intensive Pedagogy-Training Interdisciplinary Estuarine Scientists (RIP-TIDES) \$2.9M

2016-2018 Anthropocene Foundation: Marine Monitor, a low cost radar/AIS solution for monitoring nearshore marine protected areas. \$60,000.

2014-2015: COAST CSU Grant Development Program, Identifying critical coastal habitat under a changing climate along the California central coast \$14,518 US (Pilot sites: Jenner & Bodega Bay).

2013-2015: National Socio-Environmental Synthesis Center (SESYNC) Venture program grant <http://www.sesync.org/project/ventures/tropical-coastal-resilience> "Developing an integrated framework to model resilience of the coupled human/natural environment in tropical coastal systems", with co-PI, Dr. Rebecca Lewison (San Diego State).

2014 CSU Doctoral Incentive Program, CSU faculty mentor, with Pam Rittelmeyer, PhD student at UC Santa Cruz in Environmental Studies.

2013-2015: National Park Service/GGNRA Park Conservancy, \$40,400 to use LiDAR and hyperspectral imagery to map Muir Woods National Park and Kent Canyon State Park.

2013: Ocean Park Conservation Foundation: Coastal marine mammals along the eastern Gulf of Thailand: \$15,700 US.

2012: COAST CSU Collaborative Resource Sharing Award. Creating a spatially explicit risk assessment of fisheries bycatch for coastal marine mammals. \$10,000 (with Rebecca Lewison SDSU Biology).

2012-2018: Social Sciences and Humanities Research Council of Canada (SSHRC). (Too Big to Ignore: Global Partnership for the future of small-scale fisheries): co-investigator with Dr. Ratana Chuenpagdee (Memorial University of Newfoundland) as Principal Investigator. \$2,498,895 CDN. www.toobigtoignore.net

2012: Ocean Park Conservation Foundation: Coastal marine mammals along the eastern Gulf of Thailand: \$13,000 US.

2012-2014: Indo-Pacific Cetacean Research and Conservation Fund (Australian Gov't). Coastal marine mammals along the eastern Gulf of Thailand: \$49,000 AUD.

2011: COAST CSU Faculty Research Initiative Award. Developing an integrated/coupled framework to model resilience in tropical coastal systems.. \$10,936 (with Rebecca Lewison SDSU Biology).

2010: Golden Gate National Parks Conservancy: \$15,000 toward the Golden Gate LiDAR Project.

2010: Lockheed Martin: \$46,000 towards the Golden Gate LiDAR Project.

2010-2011: The Golden Gate LiDAR Project, US Geological Survey (\$457,000 US): LiDAR mapping and processing of greater San Francisco Bay Area

2009-2010: Ocean Park Conservation Foundation (\$15,000 US): Coastal cetaceans in eastern Thailand.

2007-2008: NOAA Fisheries (\$645,860 US): GIS Risk Analysis on North Atlantic Right Whales in the Southeast US.

2007-2008: National Fish and Wildlife Federation (\$72,000 US): Risk of Right Whale and Vessel Interactions in the Southeast US.

2008: Ocean Park Conservation Foundation (\$20,000 US): Irrawaddy dolphins in eastern Thailand (winter of 2008).

2007: Ocean Park Conservation Foundation, Hong Kong (\$20,000 US) Distribution and conservation of dugongs and coastal cetaceans in the Myeik Islands of Myanmar (winter of 2007).

2007: Project Aware, Australia, (\$1000 AUS) towards 2007-2008 research on Irrawaddy dolphins in eastern Thailand.

2005-2009: various grants through the Association to Protect Northernmost Dugong in Japan to set up community seagrass research in Okinawa. In 2007, \$5000 US from the Center for Biological Diversity for the same project.

2005: Smithsonian Institution Marine Science Network (\$150,000 US). A comparison of bottlenose dolphin foraging ecology between transitional-temperate and tropical ecosystems.

2003-2005: National Wetlands Inventory (US Fish and Wildlife Service) (\$176,000 US).

2004-2005: Ocean Park Conservation Foundation, Hong Kong (\$8900 US): Dugongs and Irrawaddy dolphins along the eastern Gulf of Thailand.

2004-2005: Wildlife Conservation Society, USA (\$1000 US): Dugongs and Irrawaddy dolphins along the eastern Gulf of Thailand.

2003-2005: National Wetlands Inventory (US Fish and Wildlife Service) (\$128,000 US) Updating National Wetlands Inventory Digital Map Files.

2003-2004: Ocean Park Conservation Foundation, Hong Kong (\$13,000 US): Dugongs along the eastern Gulf of Thailand and Cambodia.

2003-2004: Project Aware Grant (\$3000 AUS): Dugongs along the eastern Gulf of Thailand and Cambodia.

2003: Sirenian International (\$1000 US): Interview surveys about dugongs in the Gulf of Mannar (Sri Lanka and India).

2002-2003: Ocean Park Conservation Foundation, Hong Kong (\$12,000 US) Dugongs along the eastern Gulf of Thailand.

2002: Marine Conservation Biology Institute, Marine Mammal Gap Analysis (\$10,000 US) (Baja to Bering Initiative).

2002: Project Aware Micro-Project Grant (\$1000 US) Manatees in Turneffe Atoll, Belize.

2002: Affirmative Action Faculty Development Program Award, San Francisco State University: The Reaction of Harbor Seals to the Richmond Bridge Seismic Reinforcement Project.

2000/2001: Ocean Park Conservation Foundation, Hong Kong (\$40,000 US) Dugongs along the Andaman coast of Thailand.
 2000: University of Victoria Derrick Sewell Graduate Scholarship 2001.
 2000: Doctoral Research Award, International Development Research Centre (\$20,000 CDN) Dugongs along the Andaman coast of Thailand.
 2000: University of Victoria President's Scholarship 2000.
 1997 to 2001: University of Victoria Graduate Fellowships.

PROFESSIONAL SERVICE

- Appointed to the Expert Panel on marine mammal bycatch, International Whaling Commission (since 2018).
- Appointed to the Expert Panel on marine mammal bycatch, FAO, Rome, Italy (since 2018).
- Partner, Global Ocean Biodiversity Initiative www.gobi.org (since 2017).
- Member, Scientific Council, the Global Ocean Refuge System, Marine Conservation Institute <https://marine-conservation.org> (since 2017).
- Council on Ocean Affairs, Science & Technology (COAST), California State University, Executive Board, elected September 2016).
- Point Blue Conservation Science, Science Advisory Committee (appointed June 2015) & Science Advisor to the Board of Directors (elected March 2016)
- Appointed Expert to the Pool of Experts, United Nations World Ocean Assessment (Marine Mammals).
- Member, IUCN Marine Mammal Protected Area Task Force.
- Member, IUCN World Commission on Protected Areas
- Convention on Migratory Species Scientific Council's Aquatic Mammals Working Group (AMWG), Invited Expert (since 2013).
- Fulbright Specialists Roster 2013-2018
- Sirenian Specialist Group Expert member (IUCN Species Survival Commission) since 2005.
- Nominator for the Pew Marine Fellowship awards (2013).
- Reviewer and judge: David H. Smith Conservation Research Fellowship Program 2008 -2016.
- Reviewer for the NSF Geography and Coastal SEES Programs, NSERC and SSHRC (Canadian government research agencies).
- Reviewer for National Geographic research grants.
- Society for Marine Mammalogy, since 1994.
 - Member of the Ethics Committee since 2016.
 - Conference Co-Chair, 21st Biennial San Francisco 2015.
 - Member of Scientific Advisory Board 1999-2005.
- Society for Conservation Biology, member since 1994.
 - Asian Regional Section, Board of Directors 2013-2015.
 - Marine Section President/SCB Board of Governors for 2006/2009 calendar years.
 - SCB Publications & Scientific Committee Member, 2007 through present.
 - Scientific Program Committee Chair for the International Marine Conservation Congress (May 20-24, 2009 in Washington D. C. (www.conbio.org/IMCC)).
 - Conference Chair for the 2nd International Marine Conservation Congress (May 14-18th, 2011 in Victoria, British Columbia).(www.conbio.org/imcc2) .
- Oikonos (International Marine NGO, <http://www.oikonos.org/>).
 - Scientific Advisor since 2006.
- Sirenian International.
 - Member of the Board of Directors 2004-2007.

- Member of Scientific Advisory Board since 2007.
- Society for Conservation GIS, since 1998.

SELECTED PRESENTATIONS

- Hines, E. et al. Getting to the bottom of bycatch, a toolbox for place-based risk assessment of marine mammal bycatch. Society of Marine Mammalogy Biennial Meeting, October 2017, Halifax, Nova Scotia, Juried speed talk presentation.
- Hines, E. Modeling habitat for nearshore marine mammals. 2016 meeting of the International Committee on Marine Mammal Protected Areas, November 2016, Puerto Vallarta, Mexico, Invited oral presentation.
- Hines, E. et al A Driver Pressure State Impact Response (DPSIR) framework applied to an interdisciplinary coastal zone management workshop along the eastern Gulf of Thailand. 2016 Ocean Sciences Meeting, February 2016, New Orleans, Juried oral presentation.
- Hines, E. Abundance of Irrawaddy dolphins along the eastern Gulf coast of Thailand, Society of Marine Mammalogy Biennial meeting, December 2015, San Francisco, Juried oral presentation.
- Hines, E. Line transect estimates of Irrawaddy dolphins along the eastern Gulf coast of Thailand. To the Department of Biology, Humboldt State University, November 2015, COAST speaker award.
- Hines, E. How can marine protected areas protect marine mammals? Opening talk for symposium Hines organized at the Association of Tropical Biology and Conservation meeting in Hawaii, Summer of 2015. Juried oral presentation and symposium.
- Hines, E. Research on coastal cetaceans along the eastern Gulf coast of Thailand. To the Department of Biology, University of California, Santa Cruz, April of 2015. Invited presentation.
- Hines, E. Research in the Myeik Archipelago of Myanmar in 2007. To the Faculty of Sciences, Mawlamyine University, Myanmar, January 2014. Invited presentation.
- Hines, E. Coastal marine mammals, small scale fishers and bycatch. Society of Marine Mammalogy Biennial meeting, December 2013, New Zealand. Juried oral presentation.
- Hines, E. Adulyanukol, K, and P. Manitowr. Aligning Science and Policy to Conserve Dugongs and their Habitat along the Andaman Coast of Thailand, Association of Pacific Coast Geographers, September 2011, San Francisco. Juried oral presentation.
- Hines, E. Changing values of small-scale fisheries in Southeast Asia. Juried oral presentation. 2nd International Marine Conservation Congress, Victoria, BC, Canada, May 2011.
- Hines, E. Using interviews to document changing values of small-scale fishers . Invited plenary presentation at the World Small-Scale Fisheries Congress, Bangkok, Thailand, October 2010. See blog interview: <http://worldsmallscalefisheries.blogspot.com/2010/10/interviewing-interviewer-chat-with.html>
- Hines, E. Adulyanukol, K, and P. Manitowr. Dugong conservation issues and conservation and management update. Invited Side Event, First Official Signatory State Meeting for the Dugong, the Convention on Migratory Species. Abu Dhabi, United Arab Emirates, 4-6 October 2010. <http://www.cms.int/dugong/en/document/side-event-dugong-conservation-issues-and-conservation-and-management-update-ellen-hines>

Workshop Organizer, GIS, Habitat Modeling and Marine Mammals: at Society of Marine Mammalogy Biennial meetings between 1999 and 2011.

<http://www.whoi.edu/sites/marinemammalmodeling>

Hines, E., S. Mananunsap, A. Ilangakoon, L. Ponnampalam, and L. Morse. Population, distribution and conservation of coastal cetaceans along the eastern Gulf coast of Thailand. Presentation at the XVII Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October, 2009. Juried.

Hines, E., and K. Adulyanukosol. The need for marine protected areas for dugongs in Southeast Asia. In the workshop: Improving the Contribution of Marine Protected Areas to the Conservation of Sirenians (Manatees and Dugongs). International Marine Conservation Congress, Washington DC, May 19-24th, 2009. (Workshop organizer with Helene Marsh, Cynthia Taylor and Caryn Self-Sullivan). Juried.

Hines, E., Parr, L, Mya, T.T., Kwan, D., and A. Novak. Interviews about dugongs and community conservation issues in the Myeik Archipelago of Myanmar. Poster Presentation at the XVI Biennial Conference on the Biology of Marine Mammals, Capetown, South Africa. November, 2007. and Presentation at the Fourth International Sirenian Symposium, November 27th , Capetown, SA. Juried.

Hines, E., and H. Marsh. Community participation in GIS: An introduction to the tools, techniques, processes, and opportunities in cultural mapping with communities. Great Barrier Reef Marine Park Authority. Townsville, QLD, Australia, September 29, 2005 Invited.

GRADUATE STUDENT SUPERVISION <http://online.sfsu.edu/ehines/labmembers1.html>

*Selected Theses completed under my supervision * denotes published in a peer-reviewed journal:*

- *Suzanne Poloner Holguin (Manatees in Turneffe Atoll, Belize, completed in Fall 2004).
- Jim Pettigrew (Invasive green crabs in Tomales Bay, completed in Spring 2005).
- Cyndy Comerford (GIS, Environmental Justice and Public Health in San Francisco, completed in Spring 2005, currently Manager of Planning, Policy and Analysis City and County of San Francisco)
- *Dorothy Dick (Relative abundance and fine-scale habitat use of dolphins at Turneffe Atoll, Belize, completed in Spring 2008)(defended PhD with Dr. Dawn Wright, Oregon State University & NOAA Knauss Policy Fellow, Washington DC)).
- Sadie Waddington (Quantitative Study of Sediment Accumulation due to Mangrove Removal at Turneffe Atoll, Belize, completed in Spring 2008, currently part time development at RTC).
- Angela Yu (A Comparison of Habitat Conservation Planning for Butterflies in San Bruno Mountain and the Wisconsin Karner Blue Butterfly (completed in Spring 2008, currently TRC Environmental Services)
- *Matt Merrifield (Building regional threat-based networks for estuaries in the western United States, completed in Fall 2008, currently GIS lead for TNC).
- Stefanie Egan (Using a GIS for Planning a Biosphere Reserve Turneffe Atoll, Belize, completed in Spring 2009).
- *Kota Funayama (How sea level rise will change habitat for elephant seals in Point Reyes National Seashore, completed in Fall 2010).
- *Andrea Dransfield, Where The Whales Are: Using habitat modeling to inform marine spatial planning in Cordell Bank and Gulf of the Farallones National Marine Sanctuary (completed in Fall 2012)(currently with California Fish and Wildlife).

- *Jennifer McGowan, Intersections at Sea: using marine spatial planning to inform oil spill response (completed in Fall 2012)(defended PhD with Dr. Hugh Possingham, University of Queensland).
- Timothe Vincent, Finless porpoises in Hong Kong harbor, population distribution and environmental planning (completed Fall 2013, currently GIS with Anthropocene Institute).
- *Caitlin Jenson (NOAA Nancy Foster Scholar), Spatial and temporal variability in shipping traffic entering and exiting San Francisco Bay (completed Spring 2014, currently GIS with AECOM).
- Kristal Ip, A GIS soundscape of an urban environment, with Tendai Chitewere (completed in Spring of 2014, currently w Exploratorium)
- Eli Waggoner, Using LiDAR to model carbon sequestration in urban forests, with Leo Blesius (completed in Spring of 2015).
- Laura Duffy (MS in Marine Biology, Patterns in habitat use by harbor porpoises (*Phocoena phocoena*): finding relationships between harbor porpoises and tidal cycles at the Golden Gate (with Sarah Cohen (RTC) and Jon Stern (Biology) (Completed Fall 2015, Biologist at AECOM)
- *Laurel Ballenti (MS in Geographic Information Science) Tree species classification using hyperspectral imagery: A comparison of two classifiers, with Leo Blesius (completed in Fall of 2016. Her paper was published in Remote Sensing, and she is currently with the USGS.
- Nathaniel Greig, Lethality of cetacean ship-strikes in Washington National Marine Sanctuaries. (Completed Spring 2016, GIS for Midpeninsula Regional Open Space District).
- Rubaya Pervin, Identifying changes in mangroves and shrimp farming in the eastern Gulf of Thailand using remote sensing. (Completed Spring 2016).
- *Anna Studwell, Habitat use by non-central foraging seabirds in the Cordell Bank and Gulf of the Farallones National Marine Sanctuaries. (Completed Spring 2016, GIS for Institute of GISciences, SFSU).
- Cara Gallagher (MS in Marine Biology), Estimating the sequestration and outflow of energy from San Francisco Bay by a returning marine predator, the harbor porpoise, *Phocoena phocoena*. (Completed Spring 2016, entering PhD program at Aarhus University, Denmark).
- Melissa Kent (MA in Resource Management and Environmental Planning) Using citizen science and community-based mapping with whale-watching naturalists to fill in gaps in cetacean science. Completed Spring 2017, 2017 California Sea Grant Fellow with the California Ocean Trust.
- Karen Backe (MS in Marine Science), How will sea level rise and increased storm surge effect fine-scale harbor seal habitat use in the Russian and Eel River Estuaries? Completed Spring 2018, USGS
- Kaytlin Ingman (MS in Marine Science) Large cetaceans around the Farallon Islands, how effected by climatic oscillations over time. Completed Spring 2018, SF Zoo.
- Max Czapanskiy (MS in GISciences) Seabird tagging in the Central Pacific to assess use of wind in foraging. Completed Spring 2018, Hopkins Marine Station, PhD program.
- Samantha Cope (MS in Marine Sciences) Radar/AIS and acoustic ship tracking in San Francisco Bay. Completed Summer 2018, currently GIS with Anthropocene Institute.

Theses in progress (as chair):

- Winston Halapua (MA in Geography) Vulnerability of the Tongatapu coast in Tonga to sea-level rise
- Jane Rudebusch (MS in Marine Science) Sea otter expansion into San Francisco Bay
- Jeffrey Blumenthal (MA in Resource Management and Environmental Planning) Environmental covariates and invasive Atlantic oyster drill distribution in Richardson Bay, Sausalito.

- Abby Mohan (MS in Marine Sciences) Changing blue carbon and habitat loss for dugongs in seagrass beds in Abu Dhabi, UAE
- Ryan Anderson (MS in Marine Sciences) High resolution aragonite saturation modeling for the North-Central California shelf
- Salma Abdel Raheem (MS in GISciences) Marine spatial planning for St. Georges Caye, Belize
- Lindsay Young (MS in Interdisciplinary Marine & Estuarine Science) Fine scale foraging of humpback whales in San Francisco Bay.
- Anna Costanza (MS in Interdisciplinary Marine & Estuarine Science) Spatio-temporal modeling of humpback whale bycatch in northern Peru (depending on funding).

PhD students:

Pamela Rittelmeyer, University of California Santa Cruz, in progress (How community values motivate measures for climate change in the Sacramento-San Joaquin Delta) w Dr. Zdravka Tzankova (CSU Chancellors Doctoral Incentive Program)

Petch Manopawitr, University of Victoria, in progress (Designing an effective Marine Protected Area Network in Thailand's Andaman Sea to address the impacts of climate change) w Dr. Phil Dearden

Renuka Klabsuk, University of Victoria, in progress (Marine Protected Areas in Trat Province, Thailand) w Dr. Phil Dearden

Justine Jackson-Ricketts, University of California Santa Cruz (Diet, Life Events, Habitat, and Conservation of Irrawaddy Dolphins (*Orcaella brevirostris*) in the Gulf of Thailand), completed in Fall of 2016 w Dr. Dan Costa.

Tara Whitty, Scripps Institute of Oceanography (Mapping Conservation Scapes of Small-scale Cetaceans and Small-scale fisheries: Irrawaddy dolphins in SE Asia), completed Fall of 2014 w Dr. Lisa Ballance.

Katie deCommare, University of Massachusetts (The conservation and habitat ecology of Antillean manatees (*Trichechus manatus manatus*) in the Drowned Cayes area, Belize Central America) completed 2011, w Dr. Solange Brault.