

A Primer on Conservation Biology for People of Faith

Religion and Conservation Biology Working Group of the Society for Conservation Biology,
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What is conservation biology?

Conservation biology is the scientific study of environmental systems and the status of biological diversity on Earth. Its aim is to maintain the diversity of genes, species, habitats, ecosystems, and their processes and cycles (Meffe and Carroll 1997). It is a multidisciplinary field that merges traditional and applied sciences and draws upon biology, economics, politics, and social sciences to make a concerted effort in providing solutions to the rapid loss of biodiversity. The rapid decline in biological diversity and ecosystems around the world makes Conservation Biology a crisis discipline – one where decisions have to be made based on best available information.

“Unless humanity acts quickly and in a significant way, the next generation will not have this opportunity. We are “it,” and conservation biology is, in every sense of the word, a ‘crisis discipline.’” (Soule 1985)

Why is conservation biology important?

“The current global trend of rapid extinctions due to anthropogenic impacts threatens the ethical, aesthetic, direct economic and life-support values of biodiversity. Threats to biodiversity are often synergistic in nature and will almost certainly threaten human populations as humans depend on their natural environment for raw materials, food, medicine, clean water and air.” (Primack 2008)

The role of conservation biology is to investigate human impacts on species, communities and ecosystems, and develop practical approaches to prevent further degradation of natural habitats and reduction of species richness. The issues of biodiversity loss and human caused degradation of natural systems demand an innovative, synthetic, broad scope of vision to provide solutions and restore ecosystem function (Meffe and Carroll 1997).

How does conservation biology differ from other biological sciences?

Meffe and Carroll (1994) describe conservation biology as a synthetic field that combines ideas from many scientific and nonscientific disciplines. Because of this synthesis, conservation biology is a normative discipline in which certain value judgments are inherent:

“Unlike many other areas of science, conservation biology is ‘mission-oriented’...; there is nothing value-free about it. However, the methodology used to obtain information must be good, objective science; if not, all credibility will quickly be lost.” (Meffe and Carroll 1994)

Conservation biology melds a science (biology) and a value system (conservation). Unlike the scientific component of conservation, the value judgments made in conservation biology are subjective and open to input from other segments of human knowledge such as sociology, economics, ethics, and religion.

What are the central themes and philosophies of conservation biology?

Three guiding themes of conservation biology, according to Meffe and Carroll (1997) are:

- 1) evolutionary change, 2) dynamic ecology, and 3) the human presence.

The following set of underlying principles guide the research directions of conservation biology (Soule 1985):

1. *The diversity of species and biological communities should be preserved.*

2. *The untimely extinction of populations and species should be prevented.*
3. *Ecological complexity should be maintained.*
4. *Evolution should continue.*
5. *Biological diversity has intrinsic value.*

Why is knowledge of conservation biology relevant and valuable for religious groups and individuals of faith?

The translation of sound scientific findings into action involves political decision making and necessitates public interaction. Conservation is not something best left only to researchers and politicians but includes the education of all citizens and individuals to make informed choices in daily life. Knowledge of conservation biology is of importance to all individuals and decision-making actors in the world, but especially to religious and faith-based communities because this discipline makes value judgments based on sound information and enables people to live more ethically in the world.

We live in a world of systems, ecological connections, feedback cycles, and networks. Science can aid us in understanding these connections and the results of our actions. Conservation biologists encourage religious institutions to educate their members about the relationships in the world around them and to live sustainably in light of those connections. Excess consumption and needless waste can be reduced at the individual, local, and global levels, and knowledge of conservation science should be a priority for every society that desires to live sustainably.

Conservation biology also points to the realization that duty cannot be fulfilled by the way we lead our personal private devotional life or community gathering alone, but depends upon our decisions and interactions in society and in the world: our purchases, our energy use, our water consumption, our generosity, our gifts to those who would otherwise further desecrate the earth, our intervention and touch of healing to broken places, our sharing of hope with others in desperation. The values that emerge from conservation-related disciplines often mesh naturally with and bolster the values already espoused by the worlds' religions.

How can religion benefit conservation?

“Scientists in a secular culture are often uneasy about matters of spirit, but science on its own can give no reason for sustaining humankind. It can, with equal rigor, create the knowledge that will cause our demise or that will allow us to live at peace with one another and nature. But the spiritual acumen necessary to solve divergent problems posed by the transition to sustainability...must be founded on a higher order of awareness that honors mystery, science, life, and death.” (Orr 2002)

The majority of people on Earth identify themselves as religious. Faith-based and religious institutions play a critical role in informing and changing the decisions and actions of individuals and of society at large. Religion can and must play a role in the multi-disciplinary approach to making conservation a success.

Religion, as one of the most powerful motivating forces in the human experience, can be an ally for conservation if we will emphasize values held in common by religion and conservationists. Every major religion contains values and beliefs that support a conservation ethic. For example, Brahman-atman, ahimsa, stewardship, and many other religious principles may inform our attitudes and actions toward the earth and other life forms on it. Additionally, many religions denounce materialistic or selfish attitudes, emphasizing simple living or modest consumption of material goods, hand-in-hand with caring for the poor. Any principle that deals with the use and distribution of resources may have implications for conservation. Conservation biologists (such as those in the Religion and Conservation Biology Working Group) wish to enlist the help of religious adherents in identifying,

understanding, and encouraging these and other ideas and practices that would improve the relationship between humans and the rest of the natural world.

The communal aspect of religious and faith-based organizations provides an ideal example of positive feedback that provides accountability toward accomplishing a goal. Faith often includes getting active locally in your community, digging in and putting down roots, loving your neighbor, and starting in your neighborhood. It's doing to others what you want done to you, and realizing that your choices impact the world in which we exist. As we make these connections between religious values and conservation, we realize that forgetting to recycle is not loving your neighbor, that consuming too much means someone's forest will have fewer trees tomorrow, and our children will not have as much rich biodiversity as we enjoy.

Can conservation biology and religion cooperate to forward the goals of both?

“The environmental crisis requires radical changes not only in public policy, but in individual behavior. The historical record makes clear that religious teaching, example, and leadership are powerfully able to influence personal conduct and commitment. As scientists, many of us have had profound experiences of awe and reverence before the universe. We understand that what is regarded as sacred is more likely to be treated with care and respect. Our planetary home should be so regarded. Efforts to safeguard and cherish the environment need to be infused with a vision of the sacred. At the same time, a much wider and deeper understanding of science and technology is needed. If we do not understand the problem, it is unlikely we will be able to fix it. Thus, there is a vital role for religion and science.” (National Religious Partnership for the Environment 1990)

Examples of religious involvement in conservation are abundant. The Forum on Religion and Ecology and the Alliance of Religions and Conservation lists many religion-based conservation organizations and projects on their websites (see below). The following are a few examples of such organizations:

United Religions Initiative
International Network of Engaged Buddhists
Mlup Baitong Buddhism and Environment Program
Daoist Ecology Conferences
Friends of Vrindavan (Hindu)
The Art of Living (Hindu)
EcoSikh
A Rocha (Christian)
European Christian Environmental Network
Islamic Foundation for Ecology and Environmental Sciences
The London Islamic Network for the Environment
Coalition on the Environment and Jewish Life
Abraham Joshua Heschel Center for Environmental Learning and Leadership (Jewish)

What can you do right now to help?

- Continue to familiarize yourself with the concepts and findings of conservation biology.
- Explore your own religious beliefs to find ideas that harmonize with or add insight to the goals of conservation. Seek to put these ideas into practice more fully in your own life and encourage fellow members of your faith to do the same.
- Involve groups from your church or religious affiliation in conservation-oriented activities in your area.

- Communicate your insights, experiences, questions, and concerns to conservation biologists. The Religion and Conservation Biology Working Group of the Society for Conservation Biology is one such forum for biologist and non-biologists alike.
- Encourage fellow members of your faith to engage in discussion groups focused on understanding conservation biology and its relevance to your faith.

Possible discussion questions for religious groups

- What ideas or teachings of our religion harmonize with principles of conservation?
- Which principles or practices, if practiced more fully or by more people, could further the goals of conservation?
- How might we encourage greater implementation of these principles in the lives of the members of our faith?
- Which ideas in conservation biology, if any, may have caused conflict with members of our religion in the past, and how might these barriers be overcome?
- What opportunities are available in our area to involve groups or individuals of our faith in conservation-oriented activities?
- What could conservation biologists do to improve relations and cooperation with members of our faith?

Additional Resources

Sources and Resources section of the RCBWG website;

<http://www.conbio.org/workinggroups/Religion/Resources.cfm>

Alliance of Religions and Conservation (ARC); www.arcworld.org

Forum on Religion and Ecology (FORE); <http://fore.research.yale.edu/main.html>

Faith-specific organizations focused on conservation are abundant; many are listed at the ARC and FORE websites.

References

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