



SOCIETY ACTIONS

Science for a Social Revolution: Ecologists Entering the Realm of Action

Contributors: Kellen Marshall, Jenna Hamlin, Melissa Armstrong, Jorge Mendoza, Courtney Lee, Dayani Pieri, Ricardo Rivera, Lourdes Lastra-Diaz, Audra Stonefish, and Jennifer Bailey

Introduction

We, SEEDS (Strategies for Ecology, Education, Diversity, and Sustainability) students, are a diverse group of young professionals whose perspectives are filtered through a worldview rich in culture, history, tradition, and an innate connection to local social–ecological communities. These qualities, held by SEEDS students, have helped spur ecological discourse into action by rethinking the roles and responsibilities of ecologists as scientific stewards. We have been practicing and promoting action ecology since 2007; offering symposia, workshops or field trip opportunities during ESA Annual Meetings, organizing throughout the year in our Chapters and on SEEDSNet; as well as illustrating action ecology in our own academic research.

From 3–6 March 2011, a group of 25 SEEDS students from across the nation met at the University of Washington’s Pack Forest for the Sixth annual SEEDS Leadership Meeting. Joining us was ESA president, Terry Chapin, along with local experts in ecology outreach (1, 2, 3), sustainable forestry (4), climate justice (5), and action ecology (6, 7). We were also joined by members of the Society of Wetland Scientists (8) who are also deeply invested in strategically increasing the diversity of students within their professional society (see the list at the end of this article).

The annual SEEDS leadership meeting reflected on issues related to “broader impacts,” specifically addressing the theme “Defining and Conducting Stewardship and Action as Ecologists and Global Citizens.” The diversity of presentations during the meeting assisted SEEDS student leaders in developing a framework to discuss the importance of action ecology and approaches that create a spirit of scientific stewardship. Students met in mentored breakout groups that identified with the theme of the meeting including: traditional ecological knowledge, educating the future generation, earth stewardship, and action ecology.

The diversity of ideas represented from cultural backgrounds and disciplines assisted SEEDS student leaders in developing a framework to discuss the importance of how ecologists can enter the realm of action, and contribute to a much-needed social revolution to save the planet. Below we summarize the outcomes collected during the discussions and conclude with a discussion of our own meeting action items.

Traditional ecological knowledge (TEK)

- TEK is the long-standing traditions and practices of regional, indigenous, or local communities concerning the environment (Mazzocchi 2006).
- Though TEK may represent a different way of knowing, cultural science inquiry is just as relevant if not more so when working with communities of color.
- SEEDS students often make this bridge within themselves, walking among different worlds at school and at home.

Educating the future generation

- “Nature deficit disorder” (Louv 2008) is a critical issue, with kids spending less and less time outdoors; we seek to embrace programs that engage methods that will be imperative in promoting an environmental ethic.
- Those who are passionate about imparting tools to the future generation must rise up to the occasion and become action oriented in their practice.
- By promoting SEEDS National Coordinated Chapter Bioblitz, an opportunity will be provided to allow community members of all ages to participate in uncovering the biological diversity of their own backyard each year, during the week of Earth Day.

Earth stewardship

- Explaining “stewardship” can be challenging because it is a word that is not easily translated into other languages.
- Implementing the goals of earth stewardship will be contingent on the flexibility of the definition and the ability of the word to be interpreted in different ways, depending on community needs.
- Various stewardship activities are already being practiced; opportunities and initiatives may benefit from increased participation or partnerships with existing efforts.

Action ecology

- Requires working with others in the realms of policy, environmental justice, education, outreach, community participation, and media communication.
- Will help us know firsthand the many facets of environmental problems and become leaders in change for solutions.
- Involves considering the social change implications of our research, and then doing something about it.
- At a time when we have to create a definition for “climate refugees,” for example, action is becoming a critical component of our field.

Conclusion

We are strong supporters of preserving ecological, ethnic, and intellectual diversity for addressing complex issues as they relate to society. From the many discussions and workshops, we developed a multitude of questions such as: How can we continue to raise awareness and importance of ecological

science to the public if we engage them as participants in our studies and not partners in discovery? How can ESA members take part in projects with various communities in a meaningful and purposeful way? How can science for social revolution be accepted as a charge of ecological researchers?

Methods of ecological action have the power to address the complexity in human-dominated landscapes. Research that is able to make positive contributions that honor biological and cultural diversity will move us forward. The socio-ecological issues of marginalized populations such as people of color, immigrant populations, and tribal communities are of greatest significance and stand to benefit immensely from the application of ecological research approaches that are action oriented and have an applied component within the research framework. Ecology with true purposeful and measurable actions, in our opinion, is our best chance of truly addressing broader impacts, which can make real progress in improving not only ecosystems, but livelihoods.

With this in mind, SEEDS students moved forward on three projects as products of our meeting: (1) a video called “Hands of Change” <<http://www.esa.org/seeds/photoalbum/videos.php>>, which serves as a guide to action ecology, (2) expansion of the annual SEEDS National Coordinated Chapter Bioblitz, and (3) submission of a government grant from the Environmental Protection Agency related to stewardship actions. We leave you with these words from SEEDS students to ESA members—“be brave, take risks, honor diversity when thinking about your research questions, methodologies, and the communication of your findings. Science that leads to social change is at the crux of action ecology and a noble way of addressing the broader impacts of our research.”

Acknowledgments

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Literature cited

- Louv, R. 2008. Last child in the woods: saving our children from nature deficit disorder. Algonquin Books, Chapel Hill, North Carolina, USA.
- Mazzocchi, F. 2006. Western science and traditional knowledge: Despite their variations, different forms of knowledge can learn from each other. *EMBO* 7(5):463–466.

¹ Nalini Nadkarni, Professor, Evergreen State College

² Lee Taylor, Chief of Interpretation and Education, Mt. Rainier National Park

³ Lia Wetzstein, University of Washington

⁴ Gregory Ettl, Director, Center for Sustainable Forestry at Pack Forest

⁵ Jeni Krencicki Barcelos and Jen Marlow, Three Degrees Warmer Project, UW School of Law

⁶ Jahi Chappell, Assistant Professor, Washington State University, Vancouver campus

⁷ Ana Elisa Pérez and Colibrí Sanfiorenzo-Barnhard, Grupos Ambientales Interdisciplinarios Aliados (GAIA)

⁸ Scott Perez, Department of Natural Resources, American Indian Program, Cornell University



FUTURE ESA ANNUAL MEETINGS

96th ANNUAL MEETING

Sunday, August 7–Friday, August 12, 2011
Austin Convention Center
Austin, Texas

97th ANNUAL MEETING

Sunday, August 5–Friday, August 10, 2012
Oregon Convention Center
Portland, Oregon

98th ANNUAL MEETING

Sunday, August 4–Friday, August 9, 2013
Minneapolis Convention Center
Minneapolis, Minnesota

99th ANNUAL MEETING

Sunday, August 10–Friday, August 15, 2014
Sacramento, California

100th ANNUAL MEETING

Sunday, August 9–Friday, August 14, 2015
Baltimore Convention Center
Baltimore, Maryland