

# Ecology for the New Generation Committee Recommendations

**Committee Members:** Krista Capp, Samir Doshi, Erica Fernandez, Peter Jorgesen, Kellen Marshall-Gillespie, Jorge Ramos, Colibri San Fiorenzo, Naupaka Zimmerman, Sonia Ortega (Committee Chair), Teresa Mourad (ESA Liaison)

## Context:

The new generation of ecologists is made of people with diverse cultural backgrounds, scientific approaches, and professional aspirations. This group comprises more than one-third of the Ecological Society of America's (ESA) membership and represents the future of the discipline. To increase ESA membership and retain current members, ESA needs to recognize this diversity and create organizational support and opportunities for the new generation.

As ESA nears its centennial, it is appropriate to evaluate how the society is meeting the needs and expectations of newer members. A recent survey of the membership has documented important trends in the size and makeup of ESA's membership. These trends also evince the need to reexamine the society's goals in the context of a need to attract and support students and early career ecologists. In 2011, the President and Governing Board of the Ecological Society of America asked Sonia Ortega to form a committee reflecting the perspectives of the new generation of ecologists. This committee was asked to comment on the kinds of activities and strategies for messaging the Society might employ to attract and serve a membership that reflects the world of the 21<sup>st</sup> century.

To fulfill this charge, the committee has developed this set of recommendations. These recommendations aim to enhance the services that ESA provides to current members, both at the annual meeting and throughout the year. Further, the committee seeks to broaden the organization's engagement with practicing ecologists within and outside of academia at all stages of training. They acknowledge that ESA should strive to remove barriers that may dissuade potential members from joining the society or the discipline. The expected increased diversity of the member base will, in turn, strengthen ESA and will develop and advance emerging topics in ecology.

To promote ecology in the 21<sup>st</sup> century, it is critical that ESA recognizes the influence and interaction of humans in Earth's ecosystems. The society should acknowledge the role science plays in understanding social conflict and environmental inequity, as well as the role ecology can and must play in understanding the current environmental crisis. Further, the society should highlight the need for ecologists to collaborate with social scientists and policy and decision makers to see their research turned into action. Dispassionate separation from the ecosystems we study is no longer an option; the challenge current and future generations face is to understand how humans can sustainably fit within the natural systems that encompass and sustain us. The society should actively support these ideas by modifying the code of ethics and the mission statement. We believe by creating opportunities and infrastructure to support training of its members and collaboration among its members, ESA will become a society able to address global environmental issues and to turn ecological research into social action.

# Comprehensive Recommendations:

The committee broadly recommends the revision of ESA's code of ethics to reflect the importance of integrating scientific research with the people and places where research is being conducted. Moreover, we recommend that ESA expand the scope of the core mission to specifically nurture and guide the development of new ecologists.

---

## Specific Recommendations:

### I. Engaging the New Generation

These recommendations apply to all sections.

#### 1. Increasing New Membership and Retention of Current Membership

- a. ESA should actively use social media (*i.e.*, Facebook, Twitter, LinkedIn, Pinboard, etc) to promote events and announcements that pertain to ESA and ecology more generally. Although ESA currently has accounts with many of these services, we are not yet leveraging their full potential. Further, having place-based events postings would help to connect all stages of ecologist with others in their region.
  - i. ESA should be tweeting more often throughout the year about events of interest to members. It should be used less as a formal medium and more as an informal way to connect with the membership. Beyond text, visual media (e.g. photos, diagrams, draws, etc.) often draw more attention and can thus transfer a desirable message more effectively and should be included as well.
  - ii. These visual media could be used both on social media sites as well as in more formal settings. Short videos could engage those who can only be present online, or could be displayed (e.g.) next to the registration table at the Annual Meeting.
- b. ESA leadership should further develop (perhaps through or in coordination with the sections) activities to welcome new members and first time attendees at the annual meeting.
  - i. During the annual meeting ESA members should be actively encouraged to tweet. Special session and event organizers should be encouraged to tweet about their events.
  - ii. ESA should develop and film a short video, "How to Get the Most Out of ESA". This could be shown during orientation events and potentially be posted online prior to the meeting. A link for the video could be emailed with registration information. ESA may want to develop a channel on YouTube with videos relevant to the society's activities and its members.
  - iii. Free student orientation events (in addition to the pay-to-attend events) should have tickets printed and placed in the registration information. Many people do not understand that these are free events, despite publicity to that effect.

- c. During registration / new member sign up, ESA should develop custom welcome messages. *E.g.* students will receive a list of benefits for students and faculty will receive a list of benefits for faculty.
    - i. This list could include a section on “How can you get involved?” and describe role the members can play in sections, chapters, committees, etc.
    - ii. Members could be able to select areas of interest, *e.g.* education or a sub-discipline of ecology; a filtered set of messages will then be sent to them depending on interests. A similar list can be sent to encourage people to review and be reminded of their specific benefits.
  - d. Enrollment in the student section of ESA should be automatic and be included with the student membership registration fee (increase the base fee of student membership by \$5) to develop additional resources for students and support ongoing student programs at the annual meeting. We believe this is justified because the student section plays a unique role in ESA, serving as the focal point for student engagement and participation in the society, regardless of academic sub-discipline.
  - e. Active support of members with families:
    - i. ESA should expand the support of childcare to include infants or toddlers and work with a local organization to offer field trips and activities for preschool-elementary school children while ESA meetings are taking place
    - ii. ESA can set up a volunteer program for students to co-run programs and give discounts for registration. Child protection requirements, i.e. background checks, will need to be met
2. Mentoring:
- a. ESA should set up a formal system to match a student with a scientist (Adopt a Scientist) building on the system that SEEDS uses. ESA will provide a venue and time slot for mentors-mentees to meet. This could also take place during Section Mixers and should tie into Centennial efforts.
  - b. This mentoring will be bi-directional - in addition to learning from their mentor scientists, students could provide their mentors with experience using social media for research and networking.
3. Integrate existing resources and groups focused on middle and high school education to promote K-12 outreach and educational activities.
- a. ESA should further engage with environmental NGOs and government agencies to create and disseminate formal curriculum supplements in ecology.
4. Multimedia engagement
- a. During the annual meeting, ESA should offer live streamed online access to plenary sessions (and potentially special sections). Streaming would be restricted to those that the authors/presenters have approved. This access should be for members only or access could be purchased.
  - b. The web page needs to be restructured.
    - i. It is currently non-trivial to renew membership, to join sections, etc. This needs to be rethought and streamlined.

- ii. Member directory should include additional information about members. Information including, but not limited to study region or country, study organism and ecosystem, outreach expertise (potential link with NSF programs), and teaching/assessment expertise should be available online.
- iii. K-12 and higher educational resources should be grouped and placed online.
- iv. ESA should build a one-stop shop for jobs, internships, and graduate student opportunities. We recommend that postings be free but that access to the website be limited to members only. To maintain ESA's revenue potential, we recommend the following premium fee-based services (costs should reflect market value):
  - 1. Weekly emails with newly posted job opportunities
  - 2. Email blasts for specific opportunities. Members would be allowed to select key words within job descriptions (i.e., tenure-track, government, postdoc, internship)
  - 3. For people/organizations posting, they would be offered special advertising opportunities (featured jobs, small ad space on the jobs website, etc.) for a small fee.
- v. ESA should develop a grants database for members. This would list funding opportunities for students and faculty from governmental and non-governmental resources.
- vi. ESA should create a virtual space for discussions:
  - 1. Working abroad
  - 2. International students
  - 3. Etc.

## II. **New Skills and Career Paths**

These recommendations apply to all sections, but could be particularly useful for the Student Section, the Education Section, the Environmental Justice Section, the Human Ecology Section, the Researchers at Undergraduate Institutions Section, the Traditional Ecological Knowledge Section, and the Urban Ecosystem Ecology Section.

1. We recommend that ESA hold special events in the exhibit hall during the annual meeting:
  - a. A career fair where various professionals can share job opportunities and talk about their careers. To conduct the career fair, ESA should:
    - i. Establish relationships with other applied professional societies such as (American Nursery & Landscaping Association, Sustainable Agriculture Education Association, Association of Climate Change Officers, Teach for America, Environmental Protection Agency, Association of Nature Centers) and societies outside the United States.
    - ii. Provide resources & information for ESA members on entrepreneurial opportunities
  - b. Provide a space for companies or individuals to showcase innovative technologies being developed for ecological research (i.e., new smart phone apps, computer programs)
  - c. ESA should consider inviting universities with programs related to ecology to recruit undergraduate and graduate students

2. ESA should offer a certificate program to promote the participation and professional development of students and postdocs. This program would be offered to members only. The larger program would have a subset of requirements for undergraduates, graduate students, and postdocs. Participation would be based on a set of activities (e.g., research experiences, skill-building opportunities such as communications, grant writing, leadership activities). Participants should be matched with mentors. The opportunities may be offered by other partners and agencies because ESA cannot do it all. A certificate should be offered to recognize participation and can also be tied to scholarships or prizes (depending on available resources). (This was originally an idea being developed for the SEEDS program).
3. Career development opportunities should be offered for postdocs. These should include workshops on publication skills, preparing job application materials, interviewing skills, and contract negotiation.
4. ESA should play a role in rethinking appropriate evaluation guidelines for pre-tenure faculty.
  - a. ESA should develop a document that draws attention to professional activities that may be undervalued in the current evaluation and reward system.
  - b. ESA can develop a template for letters of recommendation to encourage the inclusion of these activities currently undervalued by academia but that should be recognized.
5. ESA should encourage PIs to bring the new generation into proposals as senior personnel and recognize the role of graduate students and others involved in various aspects of the project, e.g. administration, outreach, finance, media relations etc.
6. ESA should begin envisioning and creating a strategy to actively encourage ecologists outside of academia to participate in the organization.

### **III. Action Ecology, Translational Ecology, Environmental Justice**

These recommendations apply to all sections, but should be integrated specifically with the Education Section, the Environmental Justice Section, the Human Ecology Section, the Traditional Ecological Knowledge Section, and the Urban Ecosystem Ecology Section. For example, ESA could invite politicians, environmental lawyers or any other stakeholders working with diverse issues that involve ecology and create open forums where all the parties can share and come with recommendations or solutions.

1. ESA should develop a new format for informal but planned round table discussions on topics including, but not limited to:
  - a. How to translate research into action (Action Ecology/Translational Ecology)
  - b. Environmental Justice
  - c. Public policy and the environment
2. Organized oral sessions should be encouraged to include time within the schedule to have a discussion integrating the research topic with policy, outreach, etc.

3. ESA should be encouraged to create innovative (and official) ways to present research findings at the annual meeting (in addition to poster and oral sessions). For example, Pecha Kucha and Presi are two new ways to give presentations.
4. If the session incorporates impacted communities, then the review process should take more time to consider whether or not (and how) the session organizers and participants include members from the impacted communities.
5. ESA should try to create a travel grant program to support the participation of members of impacted communities to participate in organized oral and poster sessions.
6. As part of the renovation of the website, ESA can create a directory of experts and organizations with experience working in specific communities or regions to promote research that respects and reflects best cultural practices and norms.
7. ESA should develop a list of initiatives where ecology is currently absent but could play an important role and inform development (*e.g.*, Engineers Without Borders)

#### **IV. International Networks**

These recommendations apply to all sections, but should be integrated specifically with the Student Section, the Asian Ecology Section, the International Affairs Section, the Environmental Justice Section, the Traditional Ecological Knowledge Section, and the Urban Ecosystem Ecology Section. Additionally, these recommendations should be integrated with the activities of the international chapters for Canada, Mexico, and South America.

1. ESA should work with the International Affairs Section and the Student Section to run annual workshops on resources for funding for international students and faculty (*e.g.* USAID, NSF, Fulbright) support. Workshops would be directed at participants who are not US citizens or permanent residents.
2. ESA should create a web-based network for those interested in working abroad to exchange ideas about conducting research outside of the United States.
3. ESA should organize an annual research mixer for international ecologists looking for collaborations with US scientists and for US scientists interested in working internationally. The purpose of the mixer is to promote global ecology and initiate international research collaborations. This mixer would occur during the annual meeting. It would require registration and would allow researchers to present posters (in addition to the posters or talks they present at the meeting) to share their research/field site/study organism, etc. with other participants.
4. ESA should develop and support a volunteer network of proof-readers to help non-native English speakers publish.

5. ESA leadership should meet with international members at annual meetings to talk about creating and managing ecological societies in their own countries. These sessions should be recorded and available as podcasts.
  6. ESA should implement a registration cost refund for international attendees unable to attain a visa to attend the meeting. Obtaining a visa to travel to the United States is a costly and uncertain process. Many people attempting to obtain tourist visas are rejected. Registrants unable to obtain a visa should have their registration fee reimbursed.
- 

## **Activities to Implement (if possible) for the Portland Meeting:**

1. Activities to welcome new members and first time attendees at the annual meeting.
  - a. ESA should actively use social media (i.e., Facebook and Twitter) to promote events and announcements that pertain to ESA. Most of these activities require computer access; therefore, ESA should establish an Internet cafe.
    - i. ESA should be tweeting more often throughout the year.
    - ii. During the annual meeting ESA members should be actively encouraged to tweet. Special session and event organizers should be encouraged to tweet about their events.
  - b. ESA should develop and film a short video, "How to Get the Most Out of ESA". This can be shown during orientation events and could potentially be posted online prior to the meeting. A link for the video could be emailed with registration information.
  - c. Free student orientation events (in addition to the pay-to-attend events) should have tickets printed and placed in the registration information. Many people do not understand that it is a free event, despite the publicity.
2. A list of membership benefits and a list of ways to get involved with ESA should be included as part of the information provided during member and meeting registration. Benefits and ways to get involved should be directed to specific groups of members (students, faculty and professionals, international members).
3. Enrollment in the student section of ESA should be automatic and be included with the student membership registration fee (increase the base fee of student membership by \$5) to develop additional resources for students and support ongoing student programs at the annual meeting.
4. Develop an official program for students and postdocs to work in exchange for membership and meeting fees.
5. Develop web resources for people paying annual dues and registering for the annual meeting.
  - a. Selection of areas of interest--a list of specific interest areas (i.e. sub-disciplines, education, outreach, environmental justice, etc.) should be included on the registration information. Members/attendees could select these topics and

receive information pertaining to their interests (targeted emails/filtered messages).

6. Have a planning meeting for the volunteer network of proof-readers to help non-native English speakers publish.
7. Registration cost refund for international attendees unable to attain a visa. Obtaining a visa to travel to the United States is a costly and uncertain process. Many people attempting to obtain tourist visas are rejected. Registrants unable to obtain a visa should have their registration fee reimbursed.
8. Develop a new, bi-directional mentoring program--an Adopt-A-Scientist program that builds on the SEEDs program.
  - a. ESA will provide a venue and time slot for mentors-mentees to meet. This could also take place during Section Mixers and should tie into Centennial efforts.
  - b. This mentoring will be bi-directional and students can also provide guidance/training to their mentors. For example, mentees can expose their mentors to social media for research and networking.
9. Conduct a postdoc workshop on preparing application materials, interviewing skills, and/or contract negotiation.

SO/4/30/2012