Human Dimensions: Professional Development for the Everyday Early Career Ecologist

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Ecologists are dedicated to expanding our understanding of complex, interconnected species and systems. We learn many different skills and strategies for research, teaching, and communication through formal and informal training and professional development. However, more often than we care to admit, the numerous people and struggles behind the science are glossed over in favor of focusing on a few individuals and flashy scientific results. There are many early career scientists moving ecological knowledge forward, collecting one more data point, teaching themselves how to analyze results, learning project management on the job, and striving to improve their scientific writing. These efforts are not always recognized or supported, and ecologists, particularly at the beginning of their careers, may not get all of the resources they need to be successful. We, the officers in the Early Career Ecologists (ECE) section, feel strongly about promoting professional development and mentoring skills. As each of us became more involved with the Ecological Society of America (ESA), we gravitated toward the ECE section, which is dedicated to providing support for those of us just starting on our professional journeys.
What is the Early Career Ecologists section?

We are an organization dedicated to meeting the needs of early career ecologists in ESA. “Early career” is broadly defined as any postgraduate individual who currently has less than 8 years of full-time employment in an ecology-related position, or otherwise self-identifies as early career. Such individuals may include postdoctoral researchers, assistant professors, lecturers, adjunct faculty members, and employees of government, nonprofit, advocacy, university, and industrial scientific entities, though section membership is open to any member of ESA. The overall purpose of the Early Career Ecologist (ECE) section is to provide support to this sizeable demographic of ESA (making up more than 15% of total members) in the transitional period of their professional development (i.e., from student to professional). Topics we focus on include, but are not limited to, the job search process, tenure and promotion, non-academic career options, work-life balance, securing research funding, course development, and fulfilling committee and other service responsibilities.

How Did We Get Here?

Our section began five years ago as a response to a need for support for early career ecologists after graduate school and prior to a permanent position. It started with data, as many things in science do. Several of our founders conducted a survey via the Ecolog listserve to assess the climate and challenges facing ecology postdocs (Shaw et al. 2015). The section came into existence in 2014 with an announcement in the ESA Bulletin (Scholes et al. 2014). Since that time, we have been growing and expanding our resources and opportunities for early career ecologists from all career paths. Our current membership includes more than 500 ESA members, making us one of the larger non-disciplinary sections. We look forward to continuing the mission of supporting the ecologists that consider ESA their community and welcoming anyone and everyone into the fold.
What Does the Early Career Ecologist Section Do?

Our hallmark initiative, the ECE Mentoring Program, has been in place since our inception five years ago. Each year, ~10 early career ecologists are paired with a mentor in their career/field of interest (e.g., academia, industry, government). The mentor/mentee pairs communicate throughout the summer leading up to the annual meeting where everyone comes together for a breakfast and conversations. We have had great feedback from participants and continue running the program every year.

At the ESA Annual Meeting, we organize and host workshops and special sessions. Topics include pedagogy, science policy, mentoring strategies, and surviving the ebbs and flows of the job market. We feature speakers and panelists from a variety of backgrounds. We try to provide a diversity of professional development opportunities that fit the needs of modern-day ecologists.

In 2018, we started a monthly newsletter to update our members on available resources, upcoming webinars, ESA and ECE section news, and links to recent articles of interest. It has been a useful tool to communicate with our section members and provide current up-to-date resources for all ecologists.

The ECE section launched a Professional Development Webinar series in 2019. The ECE officers recruit speakers to lead webinars on a variety of topics. All past videos are recorded and archived online (archive available online). Attendance varied by topic and time of year, but in each case, the Q&A opportunities after the initial presentation allowed for in-depth discussions and advice for specific issues. We advertise the webinars through Twitter and our monthly newsletter. The success of the series

Photo 2: Each year, ECE creates an Annual Meeting “To Do” list to enhance the experience for students, early career ecologists, and first time attendees. Photo credit: Nathan Emery.
has prompted collaboration with ESA staff to possibly merge the ESA–Early Career series with the ESA webinar series, and we are working together to develop webinar topics that will be of broad interest to the greater ESA membership.

Our online presence continues to grow as we take advantage of the opportunities provided by social media and the communications expertise of our membership. In addition to our active Twitter account (@ESA_EarlyCareer), we completed an online repository for numerous resources related to career advancement entitled “So you’re about to _____?” with resources split up by career focus (repository available online). We are excited to share what we have found over the years and hope it is helpful to all ecologists.

Lastly, our section has the privilege of attending the ESA Governing Board meetings twice a year. At these meetings, we (and the Student section) represent the interests of early career ecologists. We have contributed to conversations on the future of the greater ESA community the development of new journals, the design of annual meetings, education initiatives, and professional development opportunities outside of the annual meeting. We also work extensively with ESA staff to facilitate collaborations for future professional development activities and webinars.
How Are We Organized and Who Are We?

Much like other ESA sections, we hold annual elections for our Officer positions. Currently, the Early Career Ecology leadership team consists of a Chair, Vice-Chair, Past-Chair, and Secretary/Treasurer. We also have a very active Webmaster, Social Media Guru, Mentoring Program Officer, Members-at-large, and a Non-Academic Careers Officer. This team meets virtually each quarter to discuss programming and emergent issues, and contributes to the monthly newsletter. Additionally, all section members are invited to contribute to our newsletter by submitting blog entries, artwork, job positions, and other items of interest, which they can do through a Google survey provided in our monthly newsletter.

Angee Doerr is the current Chair of the Early Career section. She is an interdisciplinary ecologist, and a Professor of Practice at Oregon State University, focused on commercial fisheries and marine coastal resources. Angee works closely with commercial fishermen, managers, and researchers, to advance our understanding of fisheries and other marine resources in Oregon and along the West Coast. Angee is also a Commander in the US Navy Reserves, having spent eight years on active duty as a naval flight officer prior to returning to graduate school, and another nine years in the Reserves as the Officer-in-Charge of a variety of units. The Early Career section was invaluable to Angee as she transitioned from one career (the US Navy) to a very different one (professional ecologist), and she hopes she can support others making important professional changes in their own lives.

Cari Ficken is currently serving as our Vice-Chair. She will transition into the Chair position following the 2020 ESA Annual Meeting in Salt Lake City. Cari is a plant ecologist and a Postdoctoral Research Fellow at the University of Waterloo and will be starting as a Research Assistant Professor at the University at Buffalo in fall 2020. Her research looks at the effects of environmental stress and disturbances on plant communities and ecosystem functioning. Having worked in wetlands, forests, and savannas, Cari is an ecological generalist. Outside of science, she is the partner of another academic environmental scientist and mother. She became involved with ECE by attending professional development sessions at the annual meeting and by benefiting from the network of diverse early career ecologists within ECE.

Nate Emery is the Early Career section Past-Chair. He is a plant ecologist and currently transitioning between his first and second postdoc. Before grad school, he took two gap years between undergrad and grad school as a field technician in Yellowstone National Park, secretary for Mylan pharmaceuticals, athletic tutor, line cook in a burrito restaurant, and field ecologist for The Nature Conservancy in Oregon. For grad school, he studied coastal fog and wildfires at UC Santa Barbara. He currently studies professional development in biology faculty and switchgrass ecophysiology.

Tim Fullman is our Non-Academic Careers Officer. Tim works as a Senior Ecologist with The Wilderness Society, a nonprofit conservation organization. He is a wildlife ecologist with a broad interest in spatial analyses; most of his research focuses on movement and habitat use of large herbivores. His current research investigates caribou responses to energy development and environmental conditions in Arctic Alaska. While in graduate school at the University of Florida, he studied elephant movement and environmental impacts in southern Africa. Tim got involved with the ECE section after participating as a mentee in the Mentoring Program. Originally determined to become a professor, Tim stumbled into a career working for a nonprofit group and found it an excellent fit for his interests in seeing research...
applied to conservation and in maintaining work-life balance while raising young children. He sees his role with the Early Career section as an opportunity to help raise awareness about the career opportunities outside of academia as well as to encourage greater support for early career ecologists who select this path.

Avery Scherer is our Social Media Guru, running the section’s Twitter account. Avery is a marine and aquatic ecologist whose research focuses on species interactions and their influence on ecosystem function. Her academic experiences include a several postdocs and have focused on non-consumptive predator effects and invasive species ecology in south Texas oyster reefs, in lionfish in the Caribbean, and in Hawaiian stream communities. This year, she made the leap into non-academic work, accepting a position with the consulting company Cramer Fish Sciences where she studies the role of species interactions in the success of river restoration projects benefiting California salmonids. Avery is a former graduate of the section’s mentorship program and enjoys employing her passion for science communication in the name of early career ecologists.

Molly Reichenborn serves as the Secretary/Treasurer for the Early Career Ecologist section. She is a research project manager at Wichita State University with experience in plant community ecology. Her current research focuses on the interaction of plant, insect, and bird communities and their response to management practices on grasslands replanted through the USDA Conservation Reserve Program. She is considering PhD programs with the end of her current position. She initially became involved with the early career ecologists as a member benefitting from sessions at the annual meeting organized by the section, and through resources compiled on the section website. She is excited to return the favor to members by building diverse resources and a supportive environment as they navigate the early stages of their careers.

Conclusion and Call for Collaboration and Connection

The ESA Early Career Ecologists section strives to provide resources to and a home for ecologists just starting on their professional journey, to ecologists seeking to explore career opportunities, and to those in a period of transition from one form of ecological employment to another. Our section is open to anyone who is interested in exploring professional development opportunities and engaging with other ecologists, regardless of discipline, age, career level, or educational attainment. In particular, we seek to provide trainings and opportunities that our section members have identified as particularly useful or lacking in traditional education or professional settings.

Many of our members are also actively involved in other sections, both disciplinary (e.g., Applied, Human, Plant Population, Physiology, Urban) and non-disciplinary (e.g., Inclusive, Policy, Communication and Engagement). We work regularly with the Student section and have developed Oral Sessions, Inspire Sessions, and Workshops for the Annual Meeting, as well as webinars, with other ESA sections. We work closely with ESA Staff and Leadership to lift up the needs and perspectives of early career ecologists in an effort to strengthen and grow the ESA as a whole. We envision a future where ALL scientists feel welcome and supported in the ecological sciences, by accessing resources and mentors through ESA and the various sections within the Society. Our hope as a section is to connect early career ecologists with the support and resources they need, from within the Society and beyond.
Website: https://esa.org/earlycareer/
To join the ECE Section and receive the newsletter: https://esa.org/earlycareer/join-us/
Email: earlycareer@esa.org
Twitter: @ESA_EarlyCareer

Notes

1 https://vimeo.com/esaearlycareerecologist
2 https://esa.org/earlycareer/so-youre-about-to/

Literature Cited

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