Extending the Vision: Highlighting the Human Dimensions of the Ecological Society of America

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Introduction

The reach of humans into natural ecosystems extends beyond what we might have imagined possible a century ago. Consequently, ecological science is virtually impossible to conduct in isolation, as humans are a large part of the ecosystems we study. Human dimensions scholars are working to continue expanding ecology to include these perspectives. Furthermore, scientific inquiry, and ecology in particular, needs the diverse perspectives of all people to seek solutions to the grand challenges we now face. And yet, for generations, ecology has lacked such diversity.

Here, we introduce a new series to highlight two veins of effort within the Ecological Society of America (ESA): (1) research focused at the nexus of human and natural systems (e.g., human dimensions), and (2) work done to raise awareness of and seek solutions to issues of diversity, equity, and
inclusion within ecology and across the ESA. We view these topics as distinct, yet connected, and some individual ESA members and groups within ESA focus on both. Through this series, we will hear from individual ESA sections and chapters to learn about their histories, accomplishments, current initiatives, goals, and vision as they pertain to one or both of these topics.

Human dimensions in ecology

Current ecological conditions are linked to human social systems: socioeconomic, geopolitical, cultural, and identity issues that influence how people interact with ecosystems. Our understanding of patterns in natural systems, and our ability to make predictions, is intrinsically linked to current and past human knowledge, behavior, and processes (e.g., Polfus et al. 2016).

Human dimensions have been defined and studied in a variety of ways within ESA over the last century, and natural and social scientists across ESA are actively expanding the field of ecology to center the human components of the systems we study (Dyball 2017). The study of human dimensions includes the application of theories and practices from diverse fields such as economics, psychology, sociology, policy, geography, environmental science, and the humanities (Spalding et al. 2017). Such research is generally focused on the reciprocal interactions between humans and their environments, and it is informed by the perspective that humans are integral to and inseparable from the biophysical world. The richness of the interdisciplinary collaborations born from this work helps us better understand the complex web of human processes as they relate to natural resources. Such work strengthens the science of ecology and deepens impact of our discoveries (e.g., Schwarz et al. 2015, Jackley et al. 2016).

Expanding ecology: diversity, equity, and inclusion within ESA

Achieving diversity, equity, and inclusion (DEI) within the field of ecology and our Society requires coordinated, mindful actions by both ESA leadership and members. To work effectively toward this collective goal, it is useful to understand what each of these terms actually represents. Here, we define diversity as a diversity of identities, such as gender and gender identity, race, ethnicity, culture, religion, nationality, abilities/disabilities, age, socioeconomic status, and sexual orientation. With regard to achieving diversity within ecology and ESA, we are specifically talking about increasing the number of individuals from groups traditionally underrepresented in ecology. Inclusion does not automatically follow from increasing diversity. Rather, inclusion is achieved when individuals with different identities feel valued and welcomed within a setting and where that sense of belonging is sustained (NIH 2019).

Equity is an approach and process that works to create equal access to opportunities. Equity cannot be realized until there is a recognition of the existence of advantages and barriers based on personal identities (Witham et al. 2015). By understanding what these terms mean, we can move from DEI-centered conversations to DEI initiatives and actions. Below, we highlight several ways that ESA is working toward these goals at the level of the Society. While progress has been made, work remains to be done. Much of this work is being undertaken by the ESA sections we will hear from in this series.

ESA’s initial efforts to increase diversity were made through the Strategies for Ecology Education, Diversity and Sustainability (SEEDS) Program. Founded in 1996, SEEDS is a mentoring program for undergraduate students from traditionally underrepresented demographics in STEM fields who want to work in the
ecological sciences. Among many other activities, SEEDS and the ESA Office of Education and Diversity Programs will co-host the second annual Diversity Forum at the 2019 ESA Annual Meeting to empower and inspire ESA members to work toward creating a more inclusive society and scientific discipline.

SEEDS was a major step for the Society, but it is still just a beginning. ESA has recognized that further focus, efforts, and programs are needed to create a truly inclusive, accessible, and equitable professional society. For example, a new funding opportunity was launched in 2018. Conceptualized and proposed by the ESA Committee for Diversity and Education, the ESA Annual Meeting Diversity and Inclusion Scholarship supports speakers who bring diverse perspectives to the ESA Annual Meeting (information about the scholarship available online). It specifically funds individuals working at the interface of science, education, communication, policy, and community; professionals who have not traditionally been ESA members. ESA also continues to build upon its diversity and inclusion efforts by supporting member sections focused on these issues.

Why highlight human dimensions and diversity, equity, and inclusion now?

As editors, we began discussing the idea of this series following an Inspire session at the 2018 ESA Annual Meeting: Expanding Ecology: Your ESA Sections and Chapters Focused on Diversity, Equity, and Inclusion. In 2017, Wilnelia Recart from the ESA Inclusive Ecology section proposed this session to the leadership of several other sections including Policy and Communication & Engagement. The session was a rare opportunity for those in attendance to learn about each participating section and chapter, their histories, and some of their goals and current work. Presenting sections and chapters shared how the work of their members is deeply integrated into society, history, current events, and the future of our world. Speakers also expressed the need to see diversity in role models to attract more diverse participation in their subfields and ESA. Overall, the message from the Inspire talks was unequivocal: We must incorporate the human dimension of our members’ work and be more inclusive and cognizant of who is represented in the field of ecology.

It is important to note that while this call for attention is significant, we are not trailblazing. Ecology has always been more than a biophysical science; it is also a human science. ESA is rich with scientists who view humans as integral and inseparable from natural systems. Indeed, over the last several decades, there has been increasing research within ESA focused on human dimensions and social–ecological systems (Dyball 2017). Such work is conducted using a variety of approaches (e.g., community-based participatory research) and is motivated by different outcomes (e.g., advancing social equity and justice). This series provides the opportunity to connect with current research and members’ efforts on these subjects.

Connecting ESA members’ work to the broader field of ecology, we see many educational programs integrate human and biophysical aspects of ecosystems and train students to consider both the ecological processes and human behavior and decision-making that affect community and ecosystem health and sustainability (Marshall et al. 2011, Bonilla et al. 2012). Further, stakeholder and community engagement embedded initially into ecological study designs is increasingly common. However, challenges still exist, particularly when initiating such collaborations (Spalding et al. 2017). In response, guidelines have been developed to increase their success (e.g., Varga et al. 2016). The field of ecology is trending toward a more interdisciplinary future inclusive of the human dimension, and ESA members are central to this shift.
Our best work as ecologists comes from approaching the variety of systems we study with deeply diversified perspectives. Western ecology, as well as our broader society, is currently confronting its lack of inclusion and equity. Movements ranging from Black Lives Matter to Me Too and Fridays for the Future demand that the status quo is challenged to allow for a wider variety of new voices to be heard in the dialogue and deliberations of society. We ecologists are not in a vacuum. We are part of this dynamic and turbulent society. We have a role to play globally, and it starts with how we conceptualize and practice our own discipline.

Who will we hear from in this series?

After reaching out to all ESA section and chapter Chairpersons, we are pleased to confirm that eleven sections⁴ and one chapter⁵ thus far have committed to this series. We are delighted to highlight the important work these ESA groups do within and beyond our Society.

We hope that readers connect, through the series, with members and units of ESA conducting work that is essential to the future of our society and our planet. The series will run in *The Bulletin*, ESA’s oldest journal, which reports on news and business within ESA. It also covers important issues within the ecological community. It is an open-access publication and therefore accessible to a wide readership. Our intention in this series is to be as inclusive as possible. We hope that our readership includes both ESA members and non-members, scientists, educators, and anyone who is interested in ecology and its human dimensions, and the work of ESA members to achieve diversity, equity, and inclusion within the field of ecology.

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Notes

1 https://esa.org/seeds/
2 https://www.esa.org/about/diversity-in-ecology/di-scholarship/
3 https://eco.confex.com/eco/2018/meetingapp.cgi/Session/14395
4 Applied Ecology, Communication and Engagement, Early Career Ecologist, Environmental Justice, Human Ecology, Inclusive Ecology, Natural History, Policy, Rangeland Ecology, Student, and Vegetation.
5 Latin American.

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