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Dennis Murray,
Trent University, Canada

*CORRESPONDENCE

Lynne Beaty
✉ lzb345@psu.edu

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Editorial: Women in population, community and ecosystem dynamics 2023

Lynne Beaty^{1*}, Olga M. C. C. Ameixa² and Yan Jiao³

¹Department of Biology, School of Science, Penn State Erie, The Behrend College, Erie, PA, United States, ²CESAM - Centre for Environmental and Marine Studies, Department of Biology, University of Aveiro, Aveiro, Portugal, ³Department of Fish and Wildlife Conservation, Virginia Tech, Blacksburg, VA, United States

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Editorial on the Research Topic

Women in population, community and ecosystem dynamics 2023

While many leading organizations have made strides in increasing the representation of women in science, technology, engineering, and mathematics (STEM) research careers, there is still much ground to cover (Noonan, 2017; European Commission, 2022). In many instances, the number of women pursuing associate and bachelor degrees in STEM fields is on par with men, but the gap widens significantly when it comes to advanced degrees, especially doctoral degrees (e.g., NCSES, 2023). In fact, less than 30% of worldwide researchers are women (UIS, 2020). This underlines the importance of our collective commitment to fostering a diverse STEM research community. Augmenting representation in STEM research will produce more innovative solutions, foster a more inclusive scientific community, and ensure sustainable development, as highlighted by UNESCO.

Population, community, and ecosystem dynamics research, with its broad and diverse range of questions, represents a fertile opportunity to foster diverse participation in scientific inquiry. Research in this field can take many approaches, ranging from fieldwork to computational modeling, and studies can describe patterns, test explicit hypotheses about ecological processes, or assess the predictive power of broad theories.

This Research Topic gathers a selection of four original articles whose authors identified as women, covering diverse aspects of population, community, and ecosystem dynamics research. For instance, Kammann et al. describe the successional development of dune biocrust communities on the coast of the Baltic Sea, while Schneider et al. use a long-term data set on water temperature and reproductive activity of blue crabs (*Callinectes sapidus*) in the Chesapeake Bay area to examine how climate change may impact blue crab populations. Studies as different as these emphasize the importance of diverse representation in ecological research.

Populations, communities, and ecosystems are ecological units with increasing complexity and scale, yet each of these ecological levels is linked by the interactions between biotic and abiotic forces and their susceptibility to natural and anthropogenic change. Thus, studying the potential drivers of human activity and its impacts on populations, communities, and ecosystems is paramount to advancing this field. This includes studies that range from

identifying the prevalence and hotspots of rodenticide exposure in fishers (*Pekania pennanti*), presented by [Silveira et al.](#), to an attempt to understand the social norms that drive pro-environmental intentions shown by ([Kotyza et al.](#)). Thus, research in this field benefits from scientists with numerous and varied perspectives and makes its greatest advances with a more diverse workforce.

To truly appreciate the diversity of work done by women in STEM, this Research Topic presents recent advances in Population, Community, and Ecosystem Dynamics conducted by researchers who identify as women. The four research articles included in this Research Topic are not just a glimpse, but a substantial addition to the field, showcasing the breadth and depth of what women in STEM can achieve.

The guest editorial team hopes that this compilation of papers will encourage future collaborations with more female researchers in STEM fields.

Author contributions

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Conflict of interest

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