

Transforming public engagement by ecosystem scientists from burden to benefit: The Research Ambassador Program

PROJECT SUMMARY

Pressing environmental issues such as global climate change and habitat degradation require innovative and responsive ecosystem science and ecosystem scientists. These problems call for much greater engagement between ecosystem scientists and non-scientific audiences, especially non-traditional segments of the public, i.e., those who have little or no connection or access to science content or informal science education (ISE) venues.

However, the current academic system does not reward – and sometimes penalizes – scientists who engage with the public. Even when scientists take time from their expected tasks to communicate with the public, their efforts are nearly always oriented toward the scientifically aware people, rather than those that have little or no access to science because of physical, cultural, or legal barriers, e.g., people in assisted living centers, urban youth, incarcerated people. Scientists thus remain virtually unexposed to the potential of getting fresh perspectives that underserved audiences might provide; and the scientifically unaware continue their isolation from scientists who might inspire and inform them.

I propose to explore a high-risk/potential high return approach to implement and disseminate ecosystem research that will help change how scientists view society and society views science. This is a response to urgent calls from high-level academic science and ISE administrators. My approach follows on a small-scale pilot study supported by an NSF Grant Supplement. That work suggests that scientists who overcome barriers of fear and unfamiliarity to engage with scientifically unaware audiences can generate new ideas, implement research, disseminate results, and inspire conservation in ways they could not if they stayed in academia or worked with traditional public audiences. This proposal seeks to create a rigorous, creative, and transformative program to change public outreach from burden to benefit for ecosystem scientists.

Working with a team of professional evaluators, I will engage a cadre of ecosystem ecologists as “Research Ambassadors” (RAs) by: a) recruiting both well-established and younger ecosystem scientists; b) brainstorming appropriate public audiences whose interests overlap with the RAs; c) providing guidance on the appropriate level and content of outreach materials and research projects; and d) evaluating effects on the scientists (primary) and the public audiences (secondary) in partnership with professional evaluation and assessment professionals.

Intellectual Merit: This is a first systematic effort to critically examine the impacts of public engagement on ecosystems scientists, and will build sustainable and meaningful ways of linking scientists and science with public audiences. We anticipate recruiting, training, and evaluating 12 ecosystem ecologists as RAs, and that they will engage scientifically unaware audiences via lectures, research projects, and websites. The peer-reviewed papers and the web-based training materials we produce for ecosystem science will rigorously extend our findings to other scientists and other sciences.

Broader Impacts: RAs will produce materials and implement research projects for a variety of underserved public audiences, including “captive” audiences that are rarely exposed to real science and real scientists. These audiences are often disproportionately weighted toward minority components. By evaluating and disseminating the benefits of outreach to these populations, and learning to overcome the challenges, we set the stage for unprecedented numbers of both senior and junior ecosystem scientists to engage with these audiences.