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U.S. Geological Survey  
5522 Research Park Drive  
Baltimore, MD 21228  
443-498-5500

Maryland-Delaware-D.C. Water Science Center  
Seminar Series

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10:30-12:00

## Citizen Science for Improved Ecosystem Management



*Pierre D. Glynn, Chief National Research Program Eastern Branch*

Citizen Science is an emerging approach for engaging a broad community in the scientific challenges and for gaining the information and knowledge needed to improve natural resource and environmental management. Citizen Science, through its engagement of both the lay public and scientific “experts”, offers help on a compelling mission: to meaningfully observe, understand, model, and ultimately, improve the adaptive management of the natural resources and environments that are part of society’s Commons.

We review the different governance models for Citizen Science engagement, analyze some of the issues (e.g. advocacy, privacy, quality controls, costs and benefits) that are pertinent to creating partnerships with government agencies and other “expert” institutions, and discuss some of the key principles in engaging and retaining Citizen Scientists. We survey the current Citizen Science efforts that are relevant to understanding watersheds and ecosystem processes, and come to the conclusion that, while many efforts are very impressive and most are highly laudable, current efforts are likely too limited to achieve improved natural resource and environmental management. We suggest that *broad scope, diversity, and resilience* are the most important emergent properties of the ideal Citizen Science organization(s) that we envision are needed to accomplish this mission.



Contact Information: Pierre D. Glynn, National Research Program, Eastern Branch, U.S. Geological Survey, MS432, National Center, Reston, VA 20192 USA, Phone: 703-648-5823, Fax: 703-648-5832, Email: [pglynn@usgs.gov](mailto:pglynn@usgs.gov)

*Presentation also available remotely via Webex: <https://usgs.webex.com/>*

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