

Seminar: Maggie Zimmer - Duke, 11am

Presenter:

Maggie Zimmer, Duke University

Time of Event:

Tuesday, September 27, 2016 - 11:00

Location:

National Socio-Environmental Synthesis Center (SESYNC)

1 Park Place, Suite 300

Annapolis, MD 21401

Title: The Characteristics and Importance of Temporary Streams

Abstract:

In the Piedmont region of the eastern United States, much of the historical agriculture, 20th century afforestation, and widespread residential development have occurred within watersheds dominated by temporary (i.e. ephemeral and intermittent) stream networks. However, increasing water quantity and quality demands have outpaced our basic understanding of these systems and their sensitivity to environmental change. Where, when, and how temporary streams flow as well as their connection to belowground aquifers is poorly understood. To address this knowledge gap, we utilized an ephemeral-to-perennial drainage network in the Piedmont region of North Carolina to gain new understanding about the drivers of streamflow generation, stream-groundwater interactions, and the expansion/contraction of the stream network. Through our results, we show that internal watershed dynamics that produce temporary streams play a central role in biogeochemical fluxes and groundwater recharge at the watershed scale.

About the Seminar Speaker:

Margaret Zimmer is a PhD candidate in the Division of Earth and Ocean Sciences at Duke University within Dr. Brian McGlynn's Watershed Hydrology and Biogeosciences Laboratory, which is associated with the Duke River Center. Margaret is a watershed hydrologist who broadly studies streamflow generation processes, stream-groundwater interactions, and temporary stream dynamics. Her doctoral research focuses on understanding the internal watershed mechanisms that drive streamflow in headwater systems. Margaret is interested in how environmental change may impact stream-aquifer interactions and studies headwater systems in the context of groundwater resources and downstream systems. She received her MS degree at Syracuse University under Dr. Laura Lautz, where she studied the impacts of in-stream restoration on stream-groundwater interactions. She has a BA in Environmental Studies from Oberlin College in Oberlin, Ohio.

SESYNC seminars are open to all interested attendees. Join us in Annapolis!

The National Socio-Environmental Synthesis Center, funded through an award to the University of

Maryland from the National Science Foundation, is a research center dedicated to accelerating data-driven scientific discovery at the interface of human and ecological systems. Visit us online at www.sesync.org [1] and follow us on Twitter [@SESYNC](https://twitter.com/SESYNC). [2]

Event type:

Seminar

Event Attendance:

Open to the Public

Source URL:

<https://www.sesync.org/events-announcements/fri-2016-08-26-1426/seminar-maggie-zimmer-duke-11am>

Links

[1] <http://www.sesync.org>

[2] <https://twitter.com/sesync>