



## SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

### **Propose a Pursuit or Workshop**

Deadline: October 13, 2017



SESYNC requests proposals for collaborative and interdisciplinary team-based research projects under two programs: Pursuits and Workshops.

Teams applying as a **Pursuit** are invited to apply under the following three Themes:

- **Water, People, and Ecosystems**
- **Environmental Dynamics and Food Systems**
- **Sudden or Unexpected Events: Environmental Recovery, Reorganization or Restoration**

Researchers are encouraged to develop research questions and methods for results that will be applicable across multiple places and scales, and can inform decision makers. Projects that can bring together quantitative and qualitative data and knowledge are of special interest. Pursuit teams should be comprised of no more than 15 members who will meet at our Center in Annapolis for three to four meetings of approximately three to five days over a period of two years.

Teams interested in applying for a **Workshop**, a single meeting of up to ~25 participants, may focus on a broad topic or a set of related topics relevant to socio-environmental synthesis. Workshop applications are not required to fall under a Theme.

To learn more, please [visit our website](#).

## Postdoctoral Fellowship Opportunities

### **SESYNC Postdoctoral Fellowship Program 2018**

Pre-screening Application Deadline: October 27, 2017



SESYNC invites applications from early career scholars ( $\leq$  four years post PhD) for two-year postdoctoral fellowships that begin August 2018. Each fellow works with a **Collaborating Mentor** of their choosing that extends the fellow's current network of collaborators; the mentor may be affiliated with any organization or institution. Fellows are in residence at SESYNC full-time but are provided travel funds to interact with their mentor and attend conferences.

Successful candidates will use synthesis methods to address a problem arising from, or associated with, the relationship between humans and the environment. Projects should have the potential to advance understanding of socio-environmental systems, but the information synthesized may be primarily social or environmental in nature, or some mix.

To learn more and apply, please [visit our website](#).

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#### **SESYNC Postdoctoral Fellowship - Supply Chain Commitments**

Deadline: August 21, 2017

SESYNC invites applications from early career scholars for a two-year postdoctoral fellowship that begins in January 2018. The fellow will be in residence at SESYNC in Annapolis, MD as a full participant in **SESYNC's Postdoctoral Immersion Program**. The selected individual will collaborate on a **SESYNC Pursuit** focused on zero-deforestation commitments, commodity flows, and land use change in South America led by Dr. Rachael Garrett, Boston University and Dr. Kimberly Carlson, University of Hawaii.

This opportunity is open to applicants who have completed their PhD in a relevant field within the last two years.

[Visit our website](#) to learn more and apply.

#### Become a Collaborating Mentor

#### **Collaborating Mentors for 2018 Postdoctoral Fellows**

Application Deadline for Mentor Registry: October 27, 2017



SESYNC seeks Collaborating Mentors interested in mentoring incoming SESYNC Postdoctoral Fellows and co-developing socio-environmental synthesis research projects with them. The mentor may be affiliated with any organization or institution.

We welcome mentors from universities, NGOs, government agencies, and other research institutions. This is an ideal opportunity for collaborations across disciplines, as our competitive Postdoctoral Fellowship programs receive applications from scholars across the social, natural, and computational sciences.

To learn more and apply, please [visit our website](#).

## Perspective

### Why Africa needs a science synthesis centre to tackle complex problems

*By Christopher Trisos,  
SESYNC Postdoctoral Fellow*

*Charne Lavery, Lecturer at the University of Cape Town*

*Laura Pereira, Researcher/Lecturer at the Centre for Complex Systems in Transition, Stellenbosch University*



*Article originally appeared in [The Conversation](#).*

Scientific research often requires sophisticated equipment like radio telescopes or laboratories. This infrastructure is essential for scientific discovery. But another form of infrastructure is now essential too: synthesis centres. These specialise in bringing together experts across academic fields and geographies.

Today researchers must address complex problems that cut across disciplines, countries and socioeconomic divides. Climate change, infectious diseases, biodiversity loss and poverty are all problems that cannot be solved by any individual research discipline.

To address this challenge, synthesis centres offer something rare. They dedicate resources, time and space for highly diverse teams of researchers from multiple disciplines, institutions and locations to immerse themselves in a complex problem. These teams meet often and bring together diverse knowledge and datasets. Synthesis teams are a powerful way to accelerate scientific discovery and connect these insights to action.

For example, a synthesis team from academia, business and government applied

lessons on how shared resources like fisheries and forests cope with change. They used this knowledge to make **recommendations** to the United Nations on regulating antibiotic use to prevent antibiotic resistance harming people.

A synthesis centre in Africa would massively improve the ability of researchers to understand complex problems like this. This understanding is essential for countries and communities to successfully manage the impact of people on the environment. And the impact of changing environments on people. There would be advantages to setting up the first centre in South Africa given its record in putting together multidisciplinary teams.

Read the rest at *The Conversation*.

## Join Our Team

### SESYNC Seeks Two Faculty Research Positions & a Research Accounts Coordinator



#### Two Faculty Research Positions: Agent-based Modeling & System Dynamical Modeling

Deadline: October 02, 2017

SESYNC seeks two Assistant Research Scientists, one with expertise in agent based modeling, and the other with expertise in system dynamical modeling. These are two-year, research faculty positions through the University of Maryland. Effort in each will be equally divided between conducting independent synthesis research and contributing to SESYNC's programs and activities. The incumbents will have freedom and responsibility to design and conduct their own independent research program, applying ABM or system dynamics approaches to understand aspects of sustainability and address pressing problems in socio-environmental systems.

To learn more and apply, please [visit our website](#).

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#### Research Accounts Coordinator

Deadline: August 29, 2017

Reporting to the Associate Director of Finance and Administration, the Research Accounts Coordinator will be responsible for managing the financial aspects of multiple research accounts. The Accounts Coordinator will assist with new grant proposal routing and budget preparation, sub-award monitoring, accurate reporting, and compliance with federal and state regulations as well as ensuring adherence to University of Maryland policies and procedures. The incumbent will share management responsibility for SESYNC's financial operations.

To learn more and apply, please visit [our website](#).

## SESYNC Publications

**A stochastic movement model reproduces patterns of site fidelity and long-distance dispersal in a population of Fowler's toads (*Anaxyrus fowleri*)** led by former SESYNC Data Scientist, Philippe Marchand in *Ecological Modelling*.

**Do lentic and lotic communities respond similarly to drying?** co-authored by SESYNC Postdoctoral Fellow, [Albert Ruhi](#) in *Ecosphere*.

**Evaluation of infiltration-based stormwater management to restore hydrological processes in urban headwater streams,** co-authored by former SESYNC Graduate Research Assistant, Rosemary Fanelli, and SESYNC Director, [Margaret Palmer](#) in *Ecological Processes*.

**A simulation tool to scrutinise the behaviour of functional diversity metrics,** co-authored by former SESYNC Postdoctoral Fellow, [Lauren Yeager](#) in *Methods in Ecology and Evolution*.

**Keshif: Rapid and Expressive Tabular Data Exploration for Novices,** led by former SESYNC Graduate Research Assistant, Adil Yalçın in *IEEE Transactions on Visualization and Computer Graphics*.

**Incorporating Interdisciplinary Assessment to Enhance Collaborative Resource Governance: The Case of the Upper Colorado River Endangered Fish Recovery Program,** authored as a product of the 2016 Case Studies Short Course and in conjunction with the **Collaborative Water Governance and Social-Hydrological Justice (2016-1) Case Study** in *Case Studies in the Environment*.

**A novel framework for analyzing conservation impacts: evaluation, theory, and marine protected areas,** authored by the **Solving the Mystery of Marine Protected Area (MPA) Performance Pursuit** and former Postdoctoral Fellow, [David Gill](#) in *Annals of the New York Academy of Sciences*.

**Watershed Urbanization Linked to Differences in Stream Bacterial Community Composition,** co-authored by former Graduate Research Assistant, Jacob Hosen, and SESYNC Director, [Margaret Palmer](#) in *Frontiers in Microbiology*.

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