SESYNC Feedbacks
News from the National Socio-Environmental Synthesis Center

May Deadlines for Research Funding

Proposals Due May 15 for Collaborative Pursuits & Workshops

SESYNC invites proposals for collaborative team-based research (Pursuits) that synthesize existing data, methods, theories, and tools to address a pressing socio-environmental problem. Projects that bring together quantitative and qualitative data and knowledge are of special interest. In this Request for Proposals we are introducing two NEW Themes, and have a particular interest in developing portfolios of projects to address aspects of each.

New Themes:

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

Please note that proposals do not need to fall within one of SESYNC's previous Themes or the new Themes listed above.

SESYNC is also accepting proposals for Workshops that are single meetings of up to 25 participants that focus on a broad topic or a set of topics related to socio-environmental science.

Proposals for both Pursuits and Workshops are due May 15. Click here to find out more about SESYNC's Requests for Proposals.

Graduate Student Research

In addition to the above Request for Proposals, SESYNC is also accepting applications for Graduate Student Pursuits.

Click here to find about more about the Grad Student RFP. **Applications are due May 26.**

New Postdoc Opportunities

SESYNC invites applications from early career scholars for two-year postdoctoral fellowships that begin in August 2017.

Applicants should submit their CV and a detailed cover letter by May 18. A follow-up proposal will be requested of qualifying applicants at the end of May.

Postdoctoral Fellowship: Supply Chain Commitments

This Postdoctoral Fellow will be working with Dr. Rachael Garrett of Boston University and Dr. Kimberly Carlson of University of Hawaii, who are leading a **SESYNC Pursuit** focused on zero-deforestation commitments, commodity flows, and land use change in South America.

Applicants are expected to propose ideas for a data synthesis or modeling project that contributes to our understanding of the effectiveness of zero-deforestation commitments in reducing the environmental impacts of agricultural expansion in South America.

Want to learn more? Click here for more information and for online application instructions.

SESYNC-RTI Postdoctoral Fellowship: Modeling the Impacts of Climate Variability on the Nutritional Value of Crops and Potential Effects on Human Health and Well-being

A collaborative research team led by Dr. Robert Beach at the Research Triangle Institute (RTI) and colleagues at the International Food Policy Research Institute (IFPRI) is working to characterize and model the complex dynamics

between climate variability, nutrition, and human health.

The successful candidate will co-develop the project with collaborating mentor Dr. Robert Beach at RTI, and will take advantage of the data science and synthesis expertise of SESYNC. The applicant will bring their own expertise in the social and/or public health dimensions of the impacts of climate variability.

Click here for more information and for online application instructions.

SESYNC-Microsoft Postdoctoral Fellowship: Big Data and Socio-Environmental Sustainability

Microsoft has developed two novel environmental datasets, and applicants are expected to propose ideas for a data synthesis or modeling project that addresses an important environmental question that makes use of one or more of these assets:

Geospatial Socio-Environmental Research
In collaboration with Microsoft, the Chesapeake Conservancy and the Washington State Department of Fish and Wildlife have pioneered the production of high accuracy, high-resolution (1 meter) land cover datasets for the Chesapeake Bay and Puget Sound watersheds. Applications are invited for a project that leverages these high-resolution land cover data to address one or more important socio-environmental research questions.

Project Premonition and Socio-Environmental Systems
Working with academic partners, **Microsoft's Project Premonition** designed mosquito traps with smart cells that can identify mosquito species based on wing movements, and capture those of interest along with key environmental data including time, temperature and light levels.
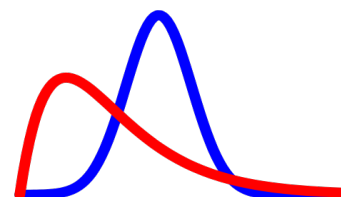
Applications are invited for a project that leverages these data. Particular areas of interest include: exploration of host diversity or population dynamics as they relate to land cover and micro-climates, human disturbance gradients, and other factors.

Click here for more information and for online application instructions.

Short Course Opportunity

Bayesian Modeling for Socio-Environmental Synthesis

Solutions to pressing environmental problems require understanding the connections between human and natural systems. Analysis of these systems requires models that can deal with complexity, are able to exploit data from multiple sources, and are honest about uncertainty that arises in different ways. Synthesis of results from multiple studies is often required. Bayesian hierarchical models provide a powerful approach to analysis of socio-environmental problems that are complex and that require synthesis of knowledge.

SESYNC will host a nine-day short course August 15 - 25, covering basic principles of using Bayesian models to gain insight from data. **Click here to find out more information and to apply online**.

Recent Publications

Linking macroecology and community ecology: refining predictions of species distributions using biotic interaction networks. SESYNC Postdoctoral Fellow Phillip Staniczenk led this publication in the journal *Ecology Letters.*

Interactive Effects of Physical and Biogeochemical Feedback Processes in a Large Submersed Plant Bed. Led by Cassie Gurbisz, SESYNC Postdoctoral Fellow, in the journal *Estuaries and Coasts*.

Uncertainty assessment in ecosystem services analyses: Seven challenges and practical responses. Led by Perrine Hamel in the journal *Ecosystem Services* from a **SESYNC Workshop**.

Resilience indicators support valuation of estuarine ecosystem restoration under climate change. Co-authored by SESYNC Postdoctoral Fellow Cassie Gurbisz in *Ecosystem Health and Sustainability* .

Associations between sociodemographics and green infrastructure placement in Portland, Oregon. Published in the *Journal of Sustainable Water in the Built Environment* by Kristal Hopkins, former SESYNC Postdoc, as part of her **Replumbing Cities** project.

Neighbourhood defence gene similarity effects on tree performance: a community transcriptomic approach. Led by SESYNC Postdoctoral Fellow Jenny Zambrano in the *Journal of Ecology* .

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