



SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

SESYNC | New Research Opportunities

SESYNC announces its **Fall 2019 Request for Proposals (RFP)** for collaborative team-based research projects that synthesize existing data, methods, theories, and tools to address a pressing socio-environmental problem.

Proposals are due September 16, 2019.



Pursuits are highly interdisciplinary synthesis research projects that address pressing socio-environmental problems. Teams of a **maximum of 12 members** meet at our center in Annapolis for three meetings of three to five days each over 18-24 months.

We invite **innovative and creative proposals** on any pressing socio-environmental problem. Below we list a few focal themes for the Fall 2019 RFP:

- Any Pressing Socio-Environmental Problem(s)
- Social and Environmental Dimensions of the Food-Water-Energy Nexus
- Global Change and Health
- Freshwater and Ecosystems in a Changing World
- Socio-Environmental Implications of Large-Scale Infrastructure Projects

Workshops are single meetings of up to 25 participants.

ALSO NOTE: We are now accepting proposals for the **2020 Postdoctoral Fellowship** program. Applications are due Nov. 8th.

See all of our opportunities here: www.SESYNC.org/opportunities

[Here are some tips for applying to our Pursuits and Workshops](#)

WORKSHOP | Networks-of-Networks

Pre-register for Livestream: Developing International Networks-of-Networks

Workshop focused on team science and the fundamentals of organizational management

September 12-13, 2019

SESYNC will hold a 1.5-day workshop focused on team science and the fundamentals of organizational management. Remote participants of the workshop can attend via livestream.

This workshop prepares researchers to respond to the NSF "Accelerating Research through International Network-to-Network Collaborations" (AccelNet) Call for Proposals, which funds the development of international networks-of-networks.

[Sign up to pre-register for the livestream.](#)

PUBLICATION | Assessing Environmental and Economic Effects of Food Loss and Waste

Reducing Food Loss and Waste

SESYNC science team assesses food sustainability interventions through economic lens

A SESYNC-supported science team, led by Mary Muth, director of food, nutrition and obesity policy research at RTI International, brought together economists, environmental scientists, members of the private sector and the non-profit sphere to tackle the economic and environmental challenges of food loss and food waste. Their review article was recently published in the journal [Science of the Total Environment](#).

[Read SESYNC news story here](#)



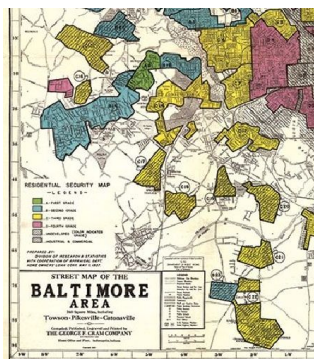
SESYNC | Our Researchers at Ecological Society of America Meeting



Food waste and the environment

How much do proposed interventions to reduce food loss and waste benefit the environment, climate, and biodiversity?

[Learn more about Quentin D. Read's session here](#)



Urban systems and social-environmental justice

Examining Baltimore through the lens of political ecology and segregation, SESYNC researchers focus on ecological relationships and social exclusion.

[More about Dexter Locke and Billy Hall's session](#)



Macroecological patterns in ecological networks

Our understanding of broad-scale ecological patterns is based largely on the study of horizontal communities.

[Learn more about Evan C. Fricke's session](#)

ON THE COVER | FRONTIERS

Exotic Pets Can Become Pests with Risk of Invasion

As international exotic pet trade grows, a better understanding of forces driving the trade is needed to reduce the threat of new invasion events

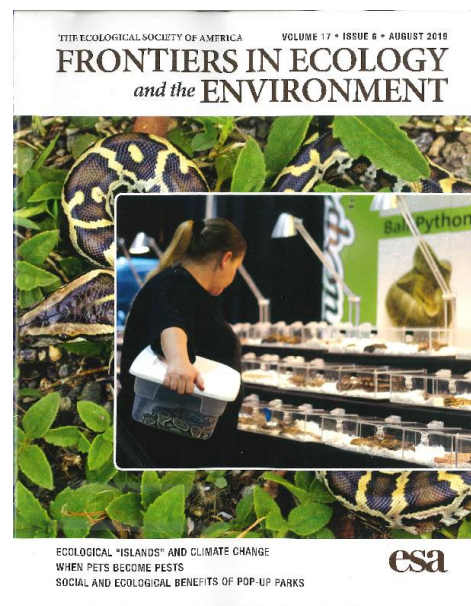
A large proportion of successful vertebrate invasions can be traced to the global exotic pet trade. However, surprisingly little is known about the economic, social, and ecological factors that shape the trade and how they influence the establishment of self-sustaining populations of non-native species.

A SESYNC science team, led by Julie Lockwood, gained further insight into the dynamics of the exotic pet trade and the role it plays in the introduction of invasive vertebrate populations across the globe.

"The market in exotic pets has grown considerably since the 1970s, and the volume of vertebrate animals that are traded worldwide is shocking, even to relatively seasoned invasion biologists," says Lockwood, lead author of the paper and professor in the Department of Ecology, Evolution, and Natural Resources at Rutgers University. "In particular, the numbers of reptiles and marine fish have really skyrocketed over the past couple of decades, most of which could easily be traced back to an upsurge in their popularity as exotic pets."

[Click here to read more about the SESYNC team](#)

Have a story to share? Let us know how your research has advanced S-E synthesis.
Email communications@sesync.org



NEW PUBLICATIONS | SESYNC in the Journals

SESYNC Publications

A systems approach to assessing environmental and economic effects of food loss and waste interventions in the United States. Published in [Science of the Total Environment](#) by Mary Muth and colleagues including SESYNC postdocs Quentin Read and Jessica Gephart as part of the Foundation project [Food Waste and the Environment](#).

Climate vulnerability mapping: A systematic review and future prospects. Published in [WIREs Climate Change](#) by Alex de Sherbinin and colleagues as part of the [Pursuit Meta-Analysis of Climate Change Vulnerability Mapping Studies](#).

Key issues in co-creation with stakeholders when research problems are complex. Published in [Evidence & Policy: A Journal of Research, Debate and Practice](#) by Gabriele Bammer as part of the Pursuit [Co-Creative Capacity](#) within the Theme [Building Resources for Complex, Action-Oriented Team Science](#).

Challenges and Opportunities of Social Media Data for Socio-Environmental Systems Research. Published in [Land](#) by SESYNC postdoc Bianca Lopez and colleagues.

How does gendered vulnerability shape the adoption and impact of sustainable livelihood interventions in an era of global climate change? Published in [Environmental Research Letters](#) by postdoc Maia Call and colleague Samuel Sellers.

Global estimates of mammalian viral diversity accounting for host sharing. Published in [Nature Ecology and Evolution](#) by former SESYNC postdoc Colin Carlson and colleagues.

Protected areas and biodiversity conservation in India. Published in [Biological Conservation](#) by Mousumi Ghosh-Harihar and colleagues including SESYNC postdoc Varsha Vijay.

Linking intra-specific trait variation and plant function: seed size mediates performance tradeoffs within species. Published in [Oikos](#) by SESYNC postdoc Evan Fricke and colleagues.

Hydrological Functioning of an Evolving Urban Stormwater Network. Published in [Water](#)

CONNECT | Go Social for Center News!

Follow [@SESYNC](#) on social media to stay up to date on all exciting news and opportunities at the National Socio-Environmental Synthesis Center!



FROM THE ARCHIVES | New Look at Old Trees

A road map for utilities and policy makers to assess green infrastructure

Shade from trees reliably cools humans and the environment in which they live, but trees have not been well quantified, monitored, or verified for their energy savings. Until now, no one could compare energy savings from tree shade with options like energy-saving appliances or light bulbs. Through new data discovery, former SESYNC postdoctoral fellow Joseph Maher gained a clearer picture of the savings offered by trees.

Maher learned that a Florida company provided an online energy portal designed to help citizens save on their energy bills. He also learned that the city had updated its tree protection policy to require authorization, permits, and mitigation for cutting down large trees. The two ideas led him to merge energy data and public records of tree removals to precisely compare a home's energy consumption with a tree and without one. [Read more here.](#)

This post was originally published in 2017 and is excerpted and adapted from Lisa Palmer's article in [Nature Energy](#). This is part of our ongoing series to share our most popular stories from the SESYNC research archives.

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