



SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

SESYNC Welcomes New Advisory Board

SESYNC recently welcomed a prominent group of academic, nongovernmental, and corporate leaders to its external advisory board. As leaders in social and natural sciences and in their respective disciplines, SESYNC's advisory board provides guidance and support to the Center and its mission.

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

New Cyberinfrastructure Web Resources

SESYNC's cyberinfrastructure program provides the human and computing resources needed to arrive at data-driven solutions to pressing socio-environmental problems. Our new cyberinfrastructure web resources highlight the variety of services, training, research support, and tools the cyber program offers SESYNC science teams, postdoctoral fellows, and other affiliated researchers.

To learn more, please visit our [website](#). These web resources can also be accessed from [SESYNC's main page](#) by looking under the "Focus On" tab in the menu bar.

New Publications



Coral Reefs and People in a High-CO2 World - New Paper in *PLOS ONE*

Using SESYNC'S computational resources, a SESYNC synthesis team integrated the chemical, biological, and human dimensions of ocean acidification to understand how high atmospheric carbon dioxide levels affect coral reefs. Their findings suggest that by 2050, Western Mexico, Micronesia, Indonesia, parts of Australia and Southeast Asia will bear the brunt of rising temperatures. Reef damage will result in lost fish habitats and shoreline protection, thereby jeopardizing the lives and economic prosperity of people who depend on reefs for tourism and food.

Learn [more](#).



Conceptual Framework for Illegal Killing of Large Carnivores - in *Ambio*

Historically difficult to deter and quantify, large carnivore poaching has become an important area of conservation action. This paper reviews the various factors driving large carnivore poaching and develops a framework that takes into account the socio-environmental feedbacks and complexities of illegal large carnivore killings. The authors apply this framework to case studies of tigers in Laos and wolverines in Sweden to highlight its utility. Spanning a series of motivational, vulnerability, and co-occurrence factors, this socio-environmental framework can help guide effective research, policy, and enforcement.

Learn [more](#).



Shocks to Fish Production - in *Global Environmental Change*

SESYNC postdoctoral fellow, **Jessica Gephart**, recently published research on shocks to seafood production in fisheries and aquaculture, the patterns and trends of which have historically been poorly characterized. Using a statistical shock detection approach over 35 years of aquaculture and fisheries data as well as a complementary case study approach to identify possible socio-political factors, the study suggests shocks are a common feature of seafood production. This research helps provide insight to inform policy actions and how to better support the seafood trade.

Learn [more](#).

Three New Peer-Reviewed Journals Announced

Nature Sustainability: A new, online-only journal from *Nature* is set to launch in January of 2018 that will cover research in sustainability and sustainability policy. For more information, please visit their [website](#).

Geohealth: This new, open-access journal aims to support and facilitate the emerging field of geohealth. *Geohealth* will cover issues that span environmental and Earth sciences with agricultural, environmental, and human health, and was created through a partnership with the American Geophysical Union and John Wiley & Sons, Inc.

Case Studies in the Environment: Coming in mid-2017, *Case Studies in the Environment* will include peer-reviewed case study articles with accompanying teaching notes and slides as well as articles on case study pedagogy for a variety of socio-environmental topics. With SESYNC's Associate Director of Education, **Dr. Cynthia Wei**, co-editing the Ecology and Biodiversity Conservation section, this journal hopes to inform students, educators, professionals, and more.

Also: *Water Resources Research: Special Section*: The journal *Water Resources Research* is organizing a **special section on Socio-hydrology: Spatial and Temporal Dynamics of Coupled Human-Water Systems**. For more information, please visit their [website](#). Papers must be submitted by February 28, 2017.

SESYNC Welcomes Edwin Musibira as Jr. Systems Administrator



Edwin Musibira joins us from George Washington University, where he received a Bachelor of Science in Civil and Environmental Engineering in the spring of 2016. Particularly interested in questions of how to best harness technological resources in developing countries to understand and solve environmental problems and issues related to cyber security, Musibira will utilize his experience at SESYNC to learn and grow before pursuing graduate work in computer science and law. As

Jr. Systems Administrator, Musibira provides support to SESYNC's information technology and cyberinfrastructure. He can be contacted at: emusibira@sesync.org.

Awards



We are pleased to announce that **Dr. Morgan Grove**, SESYNC social scientist in residence, has been awarded the US Forest Service 2016 Research and Development Deputy Chief's Award for Science Delivery. Grove is a research forester at the US Forest Service (USFS), team leader for the USFS' Baltimore Forest Station, and co-principal investigator of the Baltimore Ecosystem Study, and is being recognized for his distinguished research and the development and implementation of science delivery practices and programs that contribute to the quality of life, sustainability, and resilience of cities. He will receive his award during the 2016 Research & Development Deputy Chief's Award Ceremony.



SESYNC computational postdoctoral fellow Joe Maher was recently recognized for his outstanding Ph.D. dissertation, "Essays on Energy Efficiency and Forest Conservation." He will be awarded the Dr. and Mrs. Bill V. Lessley Dissertation Excellence Award on December 8, 2016, during the University of Maryland's Department of Agricultural and Resource Economics awards luncheon. Maher's **current research** focuses on energy efficiency policy, valuation of ecosystem services, and issues at the intersection of forestry and climate change.

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