SESYNC

SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

A NOTE FROM THE DIRECTOR | Season's Greetings

An End-of-the-Year Message from SESYNC

I and the entire SESYNC staff want to wish you Happy Holidays! You all deserve a rest after a year of hard work and the continuing ups and downs of the pandemic. Take care of yourselves—we look forward to hearing from you in the New Year!

– Margaret Palmer, SESYNC Director

NEW RESOURCE | Guide to Causal Diagramming

Identifying Socio-Environmental System Solutions: A Causal Approach to Actionable Research Design

Check out our newest resource guide, by SESYNC's Director of Social Science & Policy, James Boyd—available now!

Solving socio-environmental (S-E) problems requires identifying social actions that can alter the S-E system to protect or enhance socially

beneficial outcomes. These actions could be policy interventions, or they could be efforts targeting changes in social behavior.

Identifying potential actions requires cross-disciplinary discussion and research planning to elucidate how the components of a S-E system are connected in relation to the desired outcome. To accomplish this goal, this document outlines a diagramming method that can guide a researcher's or research team's thinking about complex environmental systems and how their system of interest connects to policy, action, and social outcomes. **Download it.**

Identifying Socio-Environmental System Solutions: A Causal Approach to Actionable Research Design

James Boyd
Director of Social Science & Policy, SESYNC
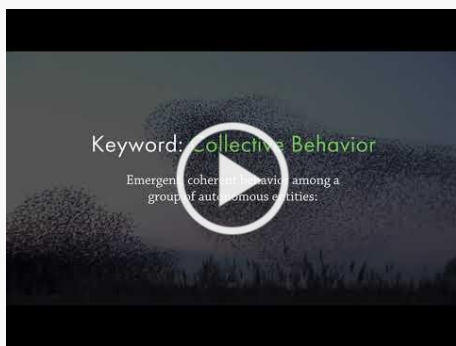Senior Fellow, Resources for the Future

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VIDEO COLLECTION | SESYNC's Newest Video Series in 2021

Wrap Up the Year with SESYNC's Video Tutorials from 2021

Introduction to Social-Ecological Networks

This two-part video series begins with Dr. Phillip P.A. Staniczenko explaining what ecological networks are, why they're useful, and where the field is heading next.

Dr. Lorien Jasny picks up with an overview of social networks, their application to environmental management, and an analysis of social-ecological networks.

Introduction to Spatial Agent-Based Models

In this two-part video series, Dr. Nick Magliocca:
- Introduces to the basics of spatial agent-based models (ABMs) within the context of socio-environmental systems
- Explains how ABMs work
- Shows applications that illustrate the flexibility of ABMs.

Knowledge Integration Across Disciplines

In this four-part video series, Dr. Deana Pennington:
- Introduces the science of knowledge integration across disciplines
- Presents the vocabulary used in this area of study
- Explains the role of mental models in interdisciplinary collaboration
- Offers strategies for integrating knowledge.

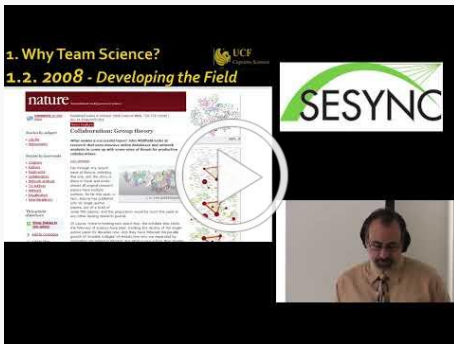### Building the Basics of Socio-Environmental

Modeling

In this three-part video series, Dr. Margaret Palmer explains:

- The fundamental characteristics of socio-environmental systems (SES) as complex adaptive systems
- How diverse modeling teams can span boundaries to understand and explore solutions to problems associated with SES
- How to choose the right modeling approach.

Socio-Environmental Systems (SES) Modeling Tutorials

In this video series, scholars explore topics related to SES modeling, such as:

- Understanding the grand challenges in SES modeling
- Confronting issues of scale in SES modeling
- Creating socio-environmental scenarios
- Futures thinking in SES.

The Science of Team Science

In this video series, Dr. Steve Fiore:

- Introduces the the science of team science
- Explains what is meant by teamwork in science, how to facilitate it, and how to measure it
- Provides some defining characteristics of teams, phases of teamwork, and multi-team systems.

Be sure to **subscribe** to SESYNC's YouTube channel to receive notifications whenever we add new videos!

NEW PUBLICATIONS | SESYNC in the Journals

"Leveraging ancillary benefits from urban greenspace – a case study of St. Louis, Missouri." Published in *Urban Water Journal* by Page Jordan, former SESYNC postdoc Fushcia-Ann Hoover, and Matthew E. Hopton. This paper resulted from the Project Green and Just.

"Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community." Published as a special feature in *Ecosphere* by SESYNC staff member Rachael E. Blake and colleagues.

"Urban forest management and governance in Latin America and the Caribbean: A baseline study of stakeholder views." Published in *Urban Forestry & Urban Greening* by Tahia Devisscher, Camilo Ordóñez-Barona, Cynnamon Dobbs, Mariana Dias Baptista, Nuria Mónica Navarro, Luis Alberto Orozco Aguilar, Jose Felix Cercas Perez, Yolanny Rojas Mancebo, and Francisco Javier Escobedog. This paper resulted from the Workshop, The Potential of Urban Nature to Support Sustainability in Latin America: A Synthesis from a Socio-Environmental Perspective.

"'Tradescapes' in the forest: framing infrastructure's relation to territory, commodities, and flows." Published in *Current Opinion in Environmental Sustainability* by Pilar Delpino Marimón, Denise Humphreys Bebbington, Anthony J. Bebbington, Laura A. Sauls, Nicholas Cuba, Avecita Chicchon, Susanna Hecht, John Rogan, Rebecca Ray, Oscar Diaz, Susan Kandel, Tracey Osborne, Madelyn Rivera, and Viviana Zalles. This paper resulted from the Pursuit, Predictive modeling of the relationships among infrastructure, resource extraction, and

environmental governance in Latin American forests.

"A qualitative systematic review of governance principles for mangrove conservation." Published in *Conservation Biology* by Elizabeth J. Golebie, Miriam Aczel, Jacob J. Bukoski, Sophia Chau, Natali Ramirez-Bullon, Mimi Gong, and Noah Teller. This paper resulted from the graduate pursuit, The globalization of conservation: How public perceptions of biodiversity and international trade patterns shape mangrove conservation.

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