



SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

GRADUATE PROGRAM | Increasing Diversity, Equity, & Inclusion



Grad Student Workshop Promotes Increasing Diversity, Equity, and Inclusion in Interdisciplinary Research

This year, SESYNC's annual *Graduate Student Workshop on Socio-Environmental Synthesis* took on a new focus---increasing diversity, equity, and inclusion (DEI) in team-based, socio-environmental (S-E) synthesis research. To reflect this change, SESYNC renamed the event, as the *Diversity, Equity & Inclusion in Socio-Environmental Synthesis Workshop*, aiming to:

1. Celebrate the insights, abilities, and problem-solving capacities gained from embracing diverse backgrounds and identities in S-E synthesis research and on teams.
2. Provide a research platform to channel such benefits into fully funded, independent, interdisciplinary team experiences (i.e., Graduate Pursuits) that help advance and highlight underrepresented voices and contributions in science.

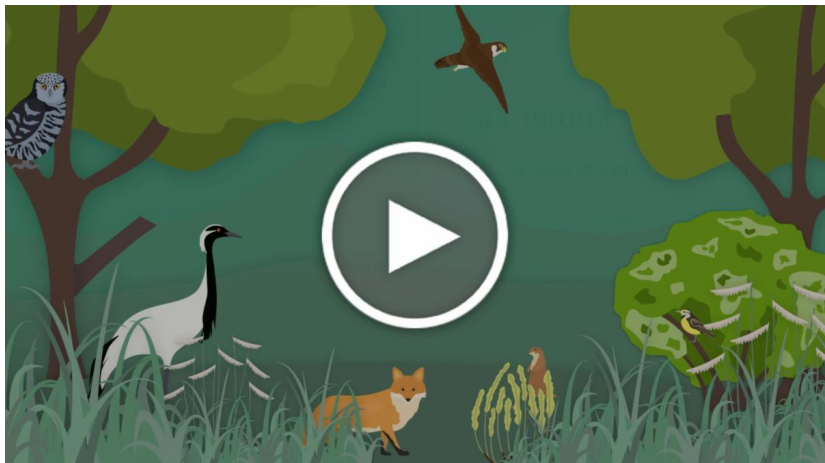
Over an 8-week period, 25 graduate students---representing universities across North America and a wide array of disciplines and backgrounds---gathered together weekly for 2 hours of intensive and interactive online training. Each week's session focused on a different topic---such as "Enhancing S-E Synthesis Capacities to Promote Diversity, Equity, Inclusion, and Justice (DEIJ)" and "Advancing DEIJ with Actionable Science"---to help participants build the skill set needed to undertake an interdisciplinary S-E research collaboration, while simultaneously advancing DEIJ through research practices, processes, and outcomes. [Read more.](#)

NEW TUTORIAL VIDEO | Introduction to Ecological Networks

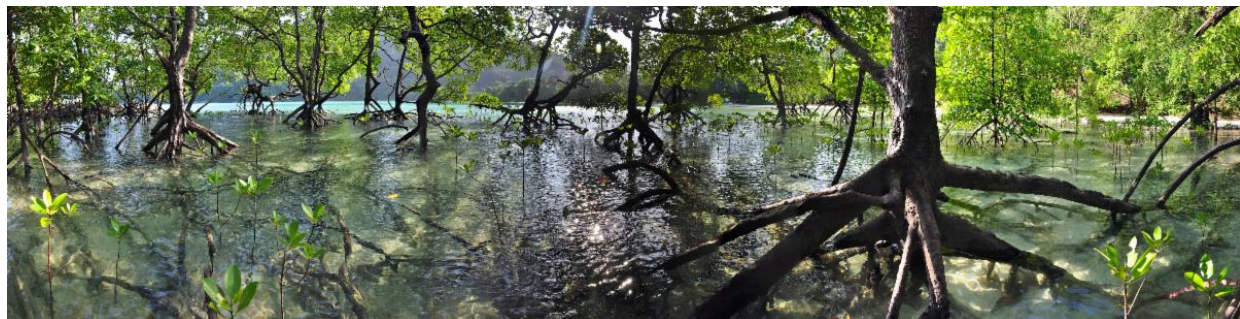
Introduction to Ecological Networks Video

Check out SESYNC's newest tutorial video, featuring **Dr. Phillip P.A. Staniczenko**, of City University of New York (CUNY), as he explains: what ecological networks are; why they're useful; and where he thinks the field is heading next.

[Watch it now!](#)



RESEARCH PROGRAM NEWS | Newly Supported Projects



SESYNC Announces Four Newly Supported Pursuits and Workshops

The selected projects came from SESYNC's Spring 2020 request for proposals for collaborative team-based synthesis research Pursuits and Workshops around emerging socio-environmental synthesis topics. Due to the ongoing COVID-19 pandemic, these projects will initiate their research virtually, while one of the workshops will be conducted entirely online. More information about the selected projects, which include two Pursuits and two Workshops, can be found below.

Pursuit: Mangrove Science for Action---How Threats and National Governance Shape Mangrove Conservation Outcomes

PIs: Dominic Andradi-Brown, World Wildlife Fund U.S.; Mischa Turschwell, Griffith University
Read the [abstract](#).

Pursuit: Migration, Marginal Agricultural Land, and Tree-Cover Expansion in Low- and Middle-Income Countries

PIs: Jeffrey Vincent, Duke University; Sara Curran, University of Washington
Read the [abstract](#).

Workshop: A Socioecological Systems View of Urban Green Spaces for Evaluating Use and Equity

PIs: Christopher Lepczyk, Auburn University; Charles Nilon, University of Missouri

Read the [abstract](#).

Workshop: Does Current Science Support the Management and Policy Needs of Cold-Water Refuges for Salmonids in a Changing World?

PIs: Francine Mejia, U.S. Geological Survey; Valerie Ouellet, University of Birmingham

Read the [abstract](#).

SESYNC SEMINARS | Free, Virtual Seminars Open to All

Our Fall Seminar Series Continues!

Seminars are held every other Tuesday at 11 a.m. ET and are **free** to join and **open to the public**. Registration is required. See our upcoming seminars below. Full list [available here](#) and for [download](#).



**Dr. Olaf Jensen,
University of Wisconsin**

**"Conservation at a Cost: U.S. Fisheries
Management Under the Magnuson-Stevens Act"**

November 3, 2020

Learn more and register [HERE](#).



Dr. Yoon Ah Shin, SESYNC

**"Risk Perception of Political Leadership toward
Climate Change Risk: Applied with the Theory of
Planned Behavior"**

Dr. Fushcia-Ann Hoover, SESYNC

**"Dissecting the Decision-Making Processes
Behind Green Infrastructure Siting"**

November 17, 2020

Learn more and register [HERE](#).



**Dr. Theresa Ong,
Dartmouth College**

"Chinatowns as Alternative Food Networks"

December 1, 2020

Learn more and register [HERE](#).

IN CASE YOU MISSED IT | Get Caught Up on Previous Seminars

"Making the Invisible Visible: Intervening on Cumulative Environmental Neurodevelopmental Risks Using a System Dynamics Approach"

During SESYNC's recent virtual seminar, attendees had the chance to learn about the advantages of using a system dynamics approach to solve complex research problems, particularly in relation to developing interventions for neurodevelopmental disorders in children.

Leading this talk was Dr. Devon Payne-Sturges, an Associate Professor in the University of Maryland's School of Public Health. Dr. Payne-Sturges began by describing the typical approach used to solve problems---examine one aspect at a time, close up, to make the issue at hand seem more manageable. While common, this approach can cause individuals to lose sight of how one piece of the problem connects back to the larger whole, she said. [Read more.](#)



"Evidence, Causes, and Consequences of a Global Decline in Available Nitrogen"

Watch Dr. Rachel Mason, of SESYNC, present her research, below. [Learn more.](#)



"Does Ocean Planning Deliver Socio-Ecological Benefits Relevant to the Sustainable Use of Ocean Ecosystems?"

Watch Dr. Rachel Zuercher, of SESYNC, present her research, below. [Learn more.](#)



STAYING CONNECTED | Follow SESYNC on Social Media

While we're apart for the time being, be sure to follow us on [Facebook](#), [Twitter](#), [LinkedIn](#), and [YouTube](#) to catch up on all things SESYNC, including blogs, events, and research resources.



SESYNC @sesync · Oct 15

This blog, from @kellyproof & Rachael Blake of @sesync's data science team, recommends some technological solutions that can help streamline your virtual project, using hypothetical team scenarios. Learn more here: sesync.us/mcdu1



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NEW PUBLICATIONS | SESYNC in the Journals

"The Earth has humans, so why don't our climate models?" Published in *Climatic Change* by Brian Beckage, Katherine Lacasse, Jonathan M. Winter, Louis J. Gross, Nina Fefferman, Forrest M. Hoffman, Sara S. Metcalf, Travis Franck, Eric Carr, Asim Zia, and Ann Kinzig. This paper resulted from the Venture, [Integrating Human Risk Perception of Global Climate Change into Dynamic Earth System Models](#).

"Reorientation of aquaculture production systems can reduce environmental impacts and improve nutrition security in Bangladesh." Published in *Nature Food* by former SESYNC postdoc Jessica A. Gephart and colleagues Alon Shepon, Patrik John Gustav Henriksson, Robert Jones, Khondker Murshed-e-Jahan, Gidon Eshel, and Christopher D. Golden.

"Accounting for land in the United States: Integrating physical land cover, land use, and monetary valuation." Published in *Ecosystem Services* by Scott A. Wentland, Zachary H. Ancona, Kenneth J. Bagstad, James Boyd, Julie L. Hass, Marina Gindelsky, and Jeremy G. Moulton. This paper resulted from the Pursuit, [Accounting for U.S. Ecosystem Services at National and Subnational Scales](#).

"Elements of disease in a changing world: modelling feedbacks between infectious disease and ecosystems." Published in *Ecology Letters* by Elizabeth T. Borer, Lale Asik, Rebecca A. Everett, Thijs Frenken, Angelica L. Gonzalez, Rachel E. Paseka, Angela Peace, Eric W. Seabloom, Alexander T. Strauss, Dedmer B. Van de Waal, and former SESYNC postdoc Lauren A. White. This paper resulted from the Pursuit, [Microbial disease dynamics, ecosystem processes, and human eutrophication of the environment](#).

"Consequences of multiple imputation of missing standard deviations and sample sizes in meta-analysis." Published in *Ecology and Evolution* by Stephan Kambach, Helge Bruelheide, Katharina Gerstner, Jessica Gurevitch, Michael Beckmann, and Ralf Seppelt. This paper resulted from the Pursuit, [Land Use-Biodiversity-Ecosystem Services Trade-Offs](#).

"Beyond 'trees are good': Disservices, management costs, and tradeoffs in urban forestry." Published in *Ambio* by former SESYNC postdoc Dexter H. Locke and colleagues Lara A. Roman, Tenley M. Conway, Theodore S. Eisenman, Andrew K. Koeser, Camilo Ordóñez Barona, G. Darrel Jenerette, Johan Östberg, and Jess Vogt.

"Socio-technical scales in socio-environmental modeling: managing a system-of-systems modeling approach." Published in *Environmental Modelling & Software* by Takuya Iwanaga, Hsiao-Hsuan Wang, Serena H. Hamilton, Volker Grimm, Tomasz E. Koralewski, Alejandro Salado, Sondoss Elsawah, Saman

Razavi, Jing Yang, Pierre Glynn, Jennifer Badham, Alexey Voinov, Min Chen, William E. Grant, Tarla Rai Peterson, Karin Frank, Gary Shenk, C. Michael Barton, Anthony J. Jakeman, and John C. Little. This paper resulted from the Workshop, [Use of Socio-Environmental Systems Modeling in Actionable Science: State-of-the-Art, Open Challenges and Opportunities](#).

"Assessing the role of humans in Greater Antillean land vertebrate extinctions: New insights from Cuba." Published in [Quaternary Science Reviews](#) by Johanset Orihuela, Lázaro W. Viñola, Osvaldo Jiménez Vázquez, Alexis M. Mychajliw, Odlanyer Hernández de Lara, Logel Lorenzo, and J. Angel Soto-Centeno, as a result of the Pursuit, [The Death and Life of Biodiversity: Modeling Extinction and Resilience on Islands](#).

"Integrating physical and economic data into experimental water accounts for the United States: Lessons and opportunities." Published in [Ecosystem Services](#) by Kenneth J. Bagstad, Zachary H. Ancona, Julie Hass, Pierre D. Glynn, Scott Wentland, Michael Vardon, and John Fay, as a result of the Pursuit, [Accounting for U.S. Ecosystem Services at National and Subnational Scales](#).

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