SESYNC Feedbacks
News from the National Socio-Environmental Synthesis Center

VIRTUAL TEAM SCIENCE | Helpful Tips and Resources

We hope you're staying safe and well during these difficult and uncertain times. As we all adjust to the "new normal," SESYNC remains committed to supporting our teams, even as they work virtually. Thus, we have launched new and expanded forms of support.

Elevating Your Team Science in an All-Virtual World

NEW Personalized Support for SESYNC Teams

While upcoming meetings at SESYNC have been canceled, our staff is ramping up remote support services for our teams. Our trained facilitators, team science experts, and data scientists are here to help you overcome the unprecedented challenges your team may be facing in this extended period of distancing and isolation. Please reach out to us with any problems, questions, or uncertainties you are experiencing---big and small.

Team Science Support:

Need advice on designing efficient and effective virtual meetings? Having issues maintaining team engagement and momentum? Unsure how to facilitate certain team dynamics without the benefit of face-to-face interaction? Unclear how to integrate ideas or results into a broader synthesis narrative? We're here to help with a new support service: **teamhelp@sesync.org**! Contact us with team science questions or issues directly related to your SESYNC-supported work and we will happily connect you with one of our experts on staff. Help can take the form of:

- Q&A over email
- Live online coaching sessions over Zoom (up to 1 hour each)
- Feedback on meeting agendas, team documents, and other Pursuit materials.

Expanded Access to Computational Support:

Are you having issues with cleaning or harmonizing your data? Got data analysis problems? We're here to help! Contact **cyberhelp@sesync.org** with your data science questions, or visit **cyberhelp.sesync.org** to view our frequently asked questions, quick-start pages describing how to use SESYNC resources, and full-length lessons on topics including text mining, creating maps, and agent-based modeling. We are available to help via email, or we can schedule a Zoom meeting to discuss your data science problems in depth. Common issues that the Cyberhelp team can assist you with include:

- Processing/analyzing data on remote servers (e.g., "Slurm" computing cluster, Rstudio server, Jupyter server)
- Sharing code and results (e.g., git, GitHub/GitLab, GitHub gists, data visualization, interactive visualizations)
- Sharing and managing data (e.g., SESYNC storage, SQL databases).

Tips and Best Practices for Virtual Collaborations

As we navigate this brave new world of virtual-only professional interactions, you may have questions and concerns about how to successfully keep doing team science without in-person meetings. And while we're all becoming more adept at remote collaboration, the nature of SESYNC projects and teams can provide unique challenges. Below, we provide some tips and resources for SESYNC teams to navigate this new way of working. We also provide details on how to contact us for tailored team support.

Click here for tips and best practices for virtual collaborations.

Short Courses
It's back! **Introduction to Spatial Agent-Based Modeling Short Course**
Dates: July 13-17, 2020
Deadline: April 20, 2020, 5:00 p.m. ET

This 5-day short course will introduce participants to the theory and practice of spatially explicit agent-based modeling (ABM). You will learn the essential theoretical background and technical expertise needed to conceptualize, build, and analyze your first agent-based model. This course is intended as a foundational course for anyone interested in adding ABM to their analytical toolkit, regardless of prior modeling experience. *Learn more*.
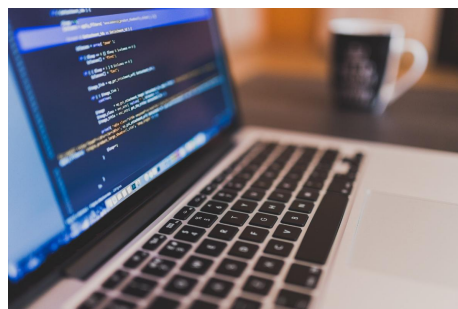
Open Position
Postdoctoral Researcher: Incorporating LiDAR Remote Sensing of Forest Structure into Bird Species Distribution Models
Start Date: Autumn 2020
Deadline: For best consideration, please apply by April 20, 2020, 5:00 p.m. ET.
A two-year postdoctoral position is available to work with Dr. Andrew Elmore and Dr. Matt Fitzpatrick at the University of Maryland's National Socio-Environmental Synthesis Center (SESYNC). The postdoc will lead the development of methods that combine measurements of forest structure with spatial modeling methods to understand and predict changes in bird habitat and distribution resulting from forest management practices in Pennsylvania. The position is ideally suited to researchers with interests in combining Light Detection and Ranging (LiDAR) and other types of remote sensing with novel spatial modeling methods to better understand and forecast how forest birds respond to changes in forest and landscape structure. *Learn more*.

Note about Graduate Pursuit RFP
The call for the 8th cohort of Graduate Pursuit proposals, originally scheduled to be released March 2020, has been postponed due to the worsening public health crisis and subsequent university closures. We expect that a final decision around this opportunity will be made in the coming weeks. Thank you for your patience as we await greater clarity on the long-term severity of the COVID-19 situation.

NEON | Workshop Explores NEON AOP's Use in S-E Research

New SESYNC Workshop Highlights the Potential Use of NEON AOP Data in Convergent Socio-Environmental Research

Videos from this workshop are now available on SESYNC's YouTube Channel.

Images of the Earth from airplanes and satellites awe and inspire the viewer, but to scientists, these images aren't just spectacular photographs---they're also remotely sensed data. Such data can provide a spatially and temporally consistent framework for characterizing the environmental impacts and social responses that result from changes in land use and land cover change. When scientists evaluate the interactions between socio-environmental (S-E) processes together, their convergent research has greater potential to find solutions to some of our most vexing environmental challenges. While such work is challenging, a community effort to synthesize information provided by a variety of remote sensing data platforms with socially relevant data collected on the ground is now possible.

To explore this foundational opportunity, the National Socio-Environmental Synthesis Center (SESYNC) held a first-of-its-kind workshop, called People, Land, Ecosystems: Leveraging NEON for Socio-Environmental Synthesis. The workshop focused on the use of the National Ecological Observatory Network's (NEON) Airborne Observational Platform (AOP) remote sensing data, which includes imaging spectroscopy, Light Detection and Ranging (LiDAR), and high-resolution digital photography. **Read more**.

IN THE NEWS | SESYNC Postdoc Interviewed on CNN International

Last month, SESYNC postdoc Merle Eisenberg, an environmental historian, was interviewed on CNN International about parallels being drawn between the coronavirus pandemic and plague.

Learn more about the interview **here**.

Follow our social media to stay up to date on everything SESYNC-related !

OTHER NEWS | Updates from SESYNC Postdocs

Postdoc Creates Resources for Educators Transitioning to Virtual Classrooms

By Merle Eisenberg

To address instructors' needs, SESYNC postdoc Merle Eisenberg, with colleagues, has created two new resources for teachers. The first is a website called **Middle Ages for Educators**, and the second is a podcast/blog with former SESYNC postdoc Lee Mordechai called Infectious Historians (set to debut later this week). **Learn more**.
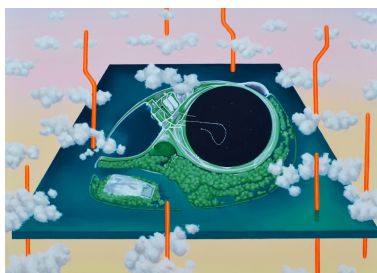
Exploring the Connections between One Postdoc's Art and Scientific Research

By Se Jong Cho

Artist and SESYNC postdoc Se Jong Cho reflects on the relationship between her scientific and artistic work in addressing complex socio-environmental problems. Learn about how her art has informed her approach to research and her interdisciplinary training has broadened her artistic boundaries **in her own words**.

Examining the Potential Use of Google Dataset Search in S-E Research

By Rachel Mason

Interested in the new tool Google Dataset Search? SESYNC postdoc Rachel Mason gives her review of it after using it to aid her efforts to compile a large global dataset of plant foliar nitrogen measurements. Read the latest **SESYNC cyber blog** to find out if she gives it a thumb's up or thumb's down for use in S-E research.

NEW PUBLICATIONS | SESYNC in the Journals

"Who are boundary spanners and how can we support them in making knowledge more actionable in sustainability fields?" Published by Kristen A. Goodrich, Kathryn Dana Sjostrom, Catherine Vaughan, Leah Nichols, Angela Bednarek, and Maria Carmen Lemos in *Current Opinion in Environmental Sustainability*, as part of the Foundation, [Advancing the Science of Knowledge Use Mechanisms, Applications, and Gaps](#).

"Forest restoration scenarios produce synergies for agricultural production in southern Ethiopia." Published by Kevin F. Yang, Sarah E. Gergel, and Frédéric Baudron in *Agriculture, Ecosystems & Environment,* as part of the Pursuit, [Food and Landscape Diversity](#).

"Sponsoring actionable science: what public science funders can do to advance sustainability and the social contract for science." Published by James C. Arnott, Christine J. Kirchhoff, Ryan M. Meyer, Alison M. Meadow, and Angela T. Bednarek in *Current Opinion in Environmental Sustainability*, as part of the Foundation, [Advancing the Science of Knowledge Use: Mechanisms, Applications, and Gaps](#).

"International river basin organizations, science, and hydrodiplomacy." Published by Anita Milman and Andrea K. Gerlak in *Environmental Science & Policy*, as part of the Pursuit, [Actionable Science in Transboundary River Basins](#).

"Socio-ecological connectivity differs in magnitude and direction across urban landscapes." Published by Monika Egerer, Nakisha Fouch, Elsa C. Anderson, and Mysha Clarke in *Scientific Reports*, as part of the Graduate Pursuit, [Examining a Vacant Lot to Urban Garden Transitions to Determine Drivers of Ecological Wealth and Dearth](#).

"Coevolutionary Governance of Antibiotic and Pesticide Resistance." Published by Peter Søgaard Jørgensen, Carl Folke, Patrik J. G. Henriksson, Karin Malmros, Max Troell, Anna Zorzet, and Living with Resistance Project in *Trends in Ecology and Evolution*, as part of the Pursuit, [Living with Resistance](#).

"Sowing Uncertainty: What We Do and Don't Know about the Planting of Pesticide-Treated Seed." Published by Claudia Hitaj, David J. Smith, Aimee Code, Seth Wechsler, Paul D. Esker, and Margaret R. Douglas in *BioScience*, as part of the Pursuit, [Putting Pesticides on the Map to Guide Conservation of Pollinators and Their Ecosystem Services](#).

"Introduction to the Special Issue: The role of seed dispersal in plant populations: perspectives and advances in a changing world." Published by Noelle G Beckman, Clare E. Aslan, and Haldre S. Rogers in *AoB Plants*, as part of the [Seed Dispersal Workshop](#).

"Forest Conservation: A Potential Nutrition-Sensitive Intervention in Low- and Middle-Income Countries." Published by Ranaivo A. Rasolofoson, Taylor H. Ricketts, Anila Jacob, Kiersten B. Johnson, Ari Pappinen, and Brendan Fisher in *Frontiers in Sustainable Food Systems*, as part of the Pursuit, [Evaluating Relationships among Human Health and Welfare, Ecological Condition, and Natural Resource Governance](#).

"Landscape sustainability and the landscape ecology of institutions." Published by Graeme S. Cumming and Graham Epstein in *Landscape Ecology*, as part of the Pursuit, [Testing and Extending Ostrom's Frameworks: Quantitative Synthesis and Modeling of Social-Ecological Dynamics](#).

<div align="center">

GET MORE SESYNC

</div>