



SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center

SHORT COURSE | Bayesian Modeling Course Goes Virtual



Instructors for SESYNC's Most Popular Short Course Return for 7th Year

This December, our popular Bayesian Modeling for Socio-Environmental Data short course took on a new look—as it moved entirely online due to the pandemic. The transition was made possible by our team of incredible instructors returning for a seventh year to teach the course:

- Dr. **Mary Collins**, an environmental sociologist and Assistant Professor at the SUNY College of Environmental Science and Forestry
- Dr. **Chris Che-Castaldo**, an ecologist and research scientist at the U.S. Forestry Service Pacific NW Research Station and the Mount St. Helens Institute
- Dr. **Tom Hobbs**, an ecologist and Emeritus Professor from Colorado State University and co-author of *Bayesian Models: A Statistical Primer for Ecologists*

As in past years, the course aimed to show how Bayesian hierarchical models can provide a powerful approach to analysis of socio-environmental problems by:

- Providing a principles-based understanding of Bayesian methods needed to train students, evaluate papers and proposals, and solve research problems
- Communicating the statistical concepts and vocabulary needed to foster collaboration between ecologists, social scientists, and statisticians
- Providing the conceptual foundations and quantitative confidence needed for self-

teaching modern analytic methods.

SESYNC is especially grateful to Tom, Mary, and Chris, whose hard work to develop an engaging and successful online version this year received great reviews! Enrollment for the Bayesian modeling course is free but always gets far more applications than we can accommodate—a testament to the instructors!

CYBER BLOG | Making Your Shiny App Accessible

Check out our two-part blog series below on Shiny App Accessibility from SESYNC's Data Science Team. Find more on the SESYNC [cyber blog](#).

Shiny App Accessibility, Part 1: Only You Can Prevent Link Rot








By: Kelly Hondula

Links to content on the web are increasingly common in published papers—sometimes as cited references, but more often appearing elsewhere in articles. This includes links to web applications, such as those created with RShiny, where readers can explore data, models, and visualizations of results presented in a manuscript through dynamic content and interactive websites created by the authors. Web applications may even be the main focus of a paper, such as a description of software like a decision support tool. Although interactive content and visualizations have great potential to enhance communication and engagement around the topic of an article, current practice has raised alarm as a significant step backwards in the trajectory of scientific publishing because of the amount of information that is likely to become inaccessible or lost within a relatively short period of time. [Read on](#) if you are considering linking to a Shiny app in a publication!



Shiny App Accessibility, Part 2: Accessible Design

By: Kelly Hondula

 follow a linear logical layout		 spread content all over a page	
 structure content using HTML5	<code><h1></code> <code><nav></code> <code><label></code>	 rely on text size and placement for structure	36pt, bold 

This year marks the 30th anniversary of the [Americans with Disabilities Act](#), a transformative civil rights law that followed decades of action by disability activists. It is now commonly recognized that considering accessibility in design choices has ubiquitous benefits, i.e., the “curb cut effect.” This holds especially true for technology, such as how captions on videos that make it possible for people with disabilities to access content also provide access to anyone who happens to be in a noisy environment. As you [consider ways to provide long-term access to a shiny app](#), it’s also a good time to consider how design choices might unintentionally hinder people from using your app. [Read more](#).

AVAILABLE VIDEOS | Catch Up on Our Fall Seminar Series

What to Watch Next

Our fall seminar series may be over, but you can find recordings of most of them

[here on our YouTube channel.](#)

There, you can find talks on topics ranging from global nitrogen decline, to mixed methods approaches, to ocean planning and more!

And keep an eye out for an announcement about our spring seminar series, coming in January!

The screenshot shows a video player with the title "Too much of a good thing". The video content includes a slide titled "Progression of N deficiency" showing four leaves of varying sizes and colors (green to yellow to white) labeled "Guide to Nutrient Deficiency Symptoms", "Obvious", and "Advanced". Below this is a slide titled "N builds protein" showing a chemical structure of a protein chain with a sulfur atom (S) and a nitrogen atom (N) highlighted. The video player interface includes a progress bar and a volume icon.

NEW POSTDOC ARTICLE | Concept of Plague



Why Do We Assume Pandemics Result in Devastation?

Researchers found that early doctors and scholars who studied ancient plagues have shaped our fears and expectations of pandemics today.

Researchers at the University of Maryland's National-Socio Environmental Synthesis Center (SESYNC) and the Hebrew University of Jerusalem discovered that late 19th-century misconceptions about outbreaks of plague in the ancient world led to

an ingrained belief that pandemics inherently cause widespread death and change the course of history.

Their work reveals that at the turn-of-the-20th century, doctors and scientists misrepresented localized outbreaks of plague that occurred across Europe and Asia more than a thousand years earlier, and over time, scholars transformed the exaggerations into a massive historical event known as the Justinianic Plague that ended the ancient world. [Read more.](#)

THANK YOU | Reflecting on Our Community's Efforts

Thank You from SESYNC!

As 2020 draws to a close, we want to take a moment to thank the SESYNC community. Despite this year marked by tremendous loss, uncertainty, and difficulty, our network of researchers has continued to amaze us with an unwavering commitment to not only their research but also to each other. From members of our Pursuit and Workshop teams to those of you who joined us this year for an online workshop, short course, or seminar, we thank you. Your flexibility, patience, and engagement have enabled us to continue to learn from and share with one another—even while far apart. We appreciate your efforts and we very much look forward to seeing you at the Center once we can safely gather once more. – SESYNC

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Subscribe to SESYNC's YouTube channel to be among the first to know when we've released a new video. Subscribe today, so you'll never miss out!



Lessons Learned for Interdisciplinary Collaboration on Socio-Environmental Problems

all environmental problems are social problems ...

NEW PUBLICATIONS | SESYNC in the Journals

"Examining privilege and power in US urban parks and open space during the double crises of antiblack racism and COVID-19." Published in *Socio-Ecological Practice Research* by SESYNC postdoc Fushcia-Ann Hoover and colleague Theodore C. Lim.

"The evolving landscape of agroecological research." Published in *Agroecology and Sustainable Food Systems* by SESYNC postdoc Rachel E. Mason and colleagues Alissa White, Gabriela Bucini, Janica Anderzén, V. Ernesto Méndez, and Scott C. Merrill.

"Phosphorus use efficiency in agricultural systems: A comprehensive assessment through the review of national scale substance flow analyses." Published in *Ecological Indicators* by Rubel Biswas Chowdhury and Xin Zhang, associated with the Pursuit [Understanding Dynamic Environmental and Socio-Economic Interactions in Food Systems to Support Decision-Making Towards a Sustainable and Resilient Agriculture](#).

"The Justinianic Plague and Global Pandemics: The Making of the Plague Concept." Published in *The American Historical Review* by SESYNC postdoc Merle Eisenberg and former SESYNC postdoc Lee Mordechai.

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