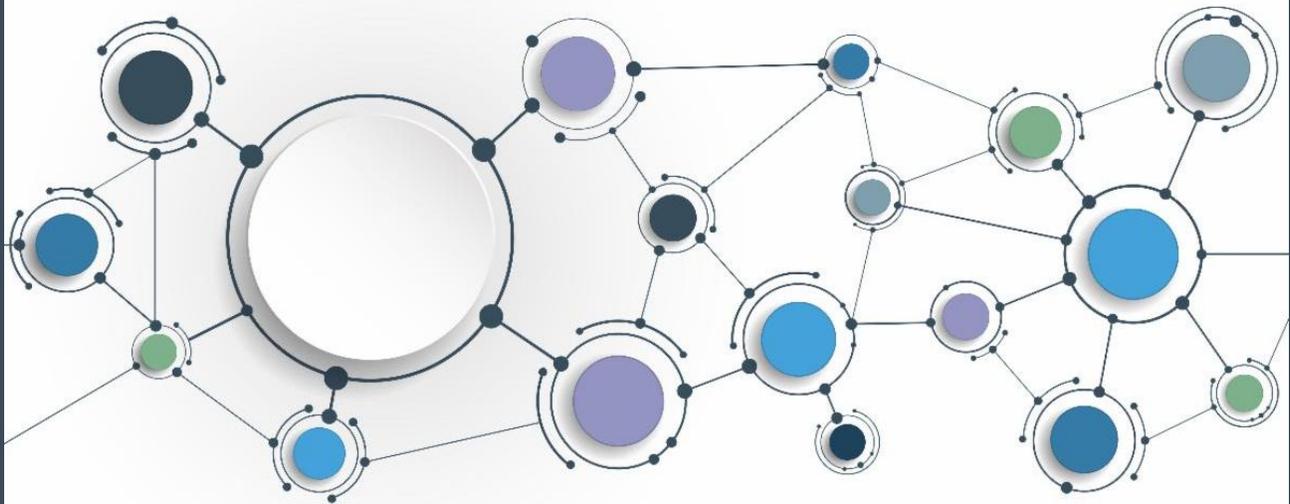


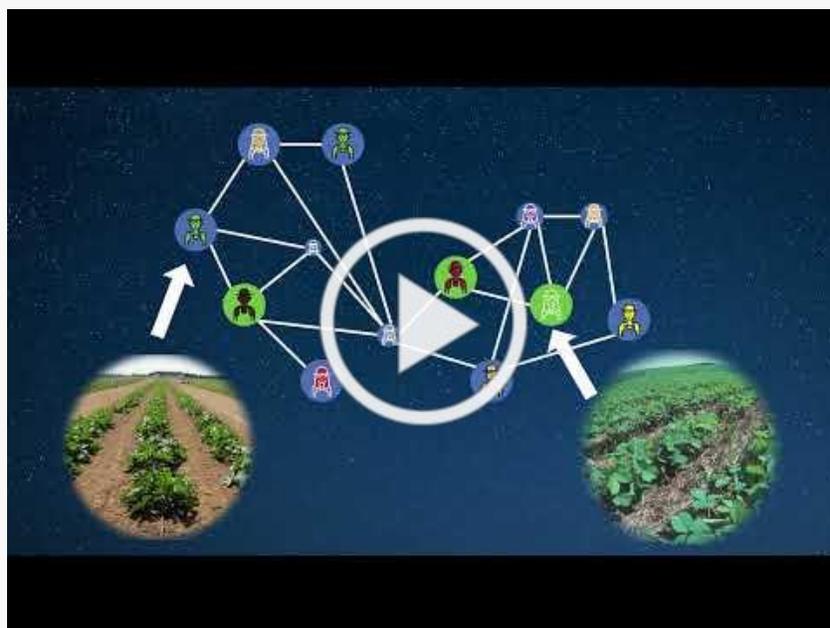


SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center



NEW VIDEO TUTORIAL | An Introduction to Network Models



New Video Tutorial – Network Modeling for Socio-Environmental Systems

This **brief tutorial**, by Dr. Margaret Palmer and Dr. Jaime Ashander, introduces networks as simpler depictions of the structures of complex systems—explaining their characteristics, as well as how researchers can use them as representations of socio-environmental systems in

different ways.

The video begins by discussing the motivation for using network analysis, some basic terms and concepts, and the origins of networks. It also explains networks' representation, a few measures used to understand network structure, and some examples of the use of networks by socio-environmental researchers. It concludes by reviewing the steps involved in their use.

Find a complete list of our [Resources for Socio-Environmental Systems Modeling here](#).

CONNECTIONS | Understanding Social, Ecological, & S-E Networks

Introductions to Networks and Their Applications to Sustainability Problems

What is a network? And, how can researchers use networks to understand complex socio-environmental systems? The resources below introduce the basics of networks to learners, explaining their characteristics and their use as a tool for understanding the relationships among subjects in a socio-environmental system.

Lessons

Network Methods to Understand Complex Systems Lessons

Part 1: Ecological Networks

In Part 1 of this three-part series, this lesson uses ecological systems to introduce basic network concepts. Keystone species is one of many foci.

Part 2: Social Networks

Part 2 uses social systems to introduce basic network concepts and then uses a published study to illustrate the use of these concepts. The study focuses on the role of influential households in patterns of resource sharing among subsistence Alaskans.

Part 3: Socio-Environmental

Part 3 introduces network concepts associated with fully coupled socio-environmental networks. It covers some basics on network metrics, motifs, and multiplex networks and uses a study on the illegal trafficking of wildlife species to illustrate why network analysis can be useful in managing natural resources.

Slides

Network Properties: Short Introductory Slides

These slides use the metric of centrality to illustrate the concept of network metrics, which can enable one to quantitatively measure the structure of a given area of interest, for instance, an ecological community—providing insights into key areas of interest, such as: stability, robustness, resilience, and persistence.

Tutorial Videos

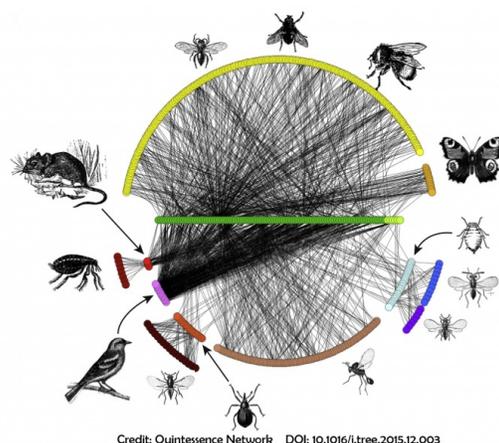
Introduction to Social-Ecological Networks

Part 1: Introduction to Ecological Networks

In the first part of this two-part series, Dr. Phillip P.A. Stanciczenko introduces ecological networks, including what they are, why they're useful, and where the field is heading next.

Part 2: Introduction to Social Networks

In the second part of this two-part series, Dr. Lorien Jasny presents the history of social networks, important concepts of network structure, their application to environmental management, and an analysis of social-ecological networks



Credit: Quintessence Network DOI: 10.1016/j.tree.2015.12.003

Mitigating the Impact of "Natural" Disasters by Examining the Influence of Societal Factors

In the latest episode of Succinct Science, SESYNC's Erin Duffy has a conversation with [Dr. Lori Peek](#), Professor of Sociology and Director of the Natural Hazards Center at the University of Colorado Boulder. Here, Dr. Peek explains what sociology is (hint: everything!) and why it's critical to integrate disciplines such as sociology with fields such as engineering to reduce harm and suffering from disasters.

Additionally, they discuss what the Natural Hazards Center does, what the difference is between a natural hazard and a natural disaster, and what Hurricane Katrina has taught us about disasters. [Listen here.](#)



• Environmental Sociology

In this delightfully enthusiastic episode we talk with the unparalleled kind, Dr. Lori Peek, who is a Professor of Sociology and Director of the Natural Hazards Center ...



Aug 31 · 49 min 18 sec

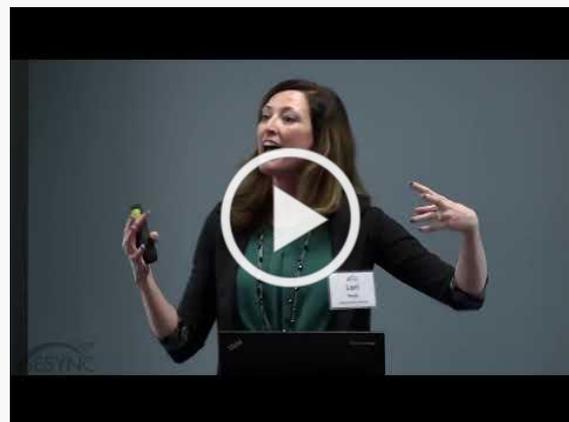
SOCIOLOGY INTRO | Sociology Resources for Environmentalists

Introduction to Sociology for Non-Sociologists

Sociology has a long and rich tradition of using theory to understand societies and social behavior. As humans are inextricably linked to their surroundings, it's nearly impossible to study environmental problems without considering the sociological factors that contribute to the. The following SESYNC resources provide an overview of what anyone studying the environment needs to know about sociology.

Watch Dr. Lori Peek's Lecture Explaining "What is Sociology?"

In this introductory video to the discipline of sociology, Dr. Lori Peek gives an overview of the focus, history, and approach of sociological inquiry. She highlights some key sociological concepts, including structure and agency, social stratification, and inequality. She also discusses the future of sociology and highlights the move toward inter-disciplinary work and new methodologies to address wicked problems. [Watch now.](#)



Check out some of SESYNC's other [resources on sociology](#) and the environment below:

[Sociological Methods in Brief](#)

In this video lecture, Dr. Andrew Jorgensen provides an overview of the diverse approaches and methods sociologists use to explore the discipline's theories and other hypotheses. The approaches range from ethnographic to highly sophisticated statistical and computational methods. The latter is particularly the case for sociologists working on environmental problems. [Learn more.](#)

Contemporary Sociological Theory

In this collaborative presentation, Dr. Simone Pulver provides a summary of contemporary sociological theory, organizing theorists, and schools of thought in terms of their historical genesis and the level of analysis on which they focus. Several sociologists then present the key ideas of specific contemporary theorists. [Learn more.](#)



Sociological Approaches to the Environment Lesson

This lesson introduces learners to hybrid epistemological approaches that explore socio-environmental challenges, using an example related to agricultural irrigation. After introducing the theories and methods of sociology, the lesson focuses on three areas inherent to environmental sociology: material, ideological, and solutions-based approaches. [Learn more.](#)



Paradigm Shifts Applied to the Food System Lesson

This lesson is planned for advanced students who wish to understand how sociology paradigms have evolved in concert with environmental degradation, and who may seek to integrate ideas of risk tolerance and socio-environmental futures that involve both sustainable design and advanced technologies. [Learn more.](#)

Environmental Sociology on Campus Lesson: A Field Trip

This lesson aims to get natural science students involved in empathic and perspective-building interactions with the less privileged members of their campus community. It will also expand their sense of what counts as ecological work and how environmental justice can factor into equitable socio-environmental solutions. [Learn more.](#)

Sustainability, Resilience, and the Dimensions of Risk: Hazard, Exposure, Vulnerability Explainer

While this explainer is applicable to many fields, it covers material central to contemporary work in sociology. Nicely deconstructing the concept of resilience, it moves on to briefly cover its conceptualization and use as an analytical tool by ecologists, social scientists, and those studying socio-environmental systems and their problems. It explains why resilience, and more generally sustainability, are closely tied to risk and why risk itself is multi-dimensional, consisting of hazard, exposure, and vulnerability. [Learn more.](#)

NEW PUBLICATIONS | SESYNC in the Journals

"Competition, Chromium, and Contracts: The Interaction Between Bidding Intensity and Toxic Waste Releases." Published in *Society & Natural Resources* by Dustin T. Hill and former SESYNC postdoc Mary B. Collins.

"The role of climatic similarity and bridgehead effects in two centuries of trade-driven global ant invasions." Published in *Journal of the Agricultural and Applied Economics Association* by Paul Mwebaze, Andrew M. Liebhold, Cleo Bertelsmeier, Derek Kellenberg, Olivia K. Bates, Michael R. Springborn. This paper resulted from the Pursuit, [Global socioeconomic drivers of insect invasions.](#)

www.sesync.org

