





# SESYNC Feedbacks

News from the National Socio-Environmental Synthesis Center



### **SESYNC SYLLABI SUGGESTIONS | Materials for Active Learning**

#### Lesson Planning for Next Semester? Spice Up Your Syllabus with SESYNC's Learning Resources

With summer break fully in swing, you may be currently developing or revising your courses' syllabi for next semester. If you're looking for some new supplemental materials or fresh ideas for lesson plans, SESYNC's free **learning and teaching resources** are perfect for undergraduates, graduate students, and beyond. From anthropology, to agriculture, to climate change, to natural resource management, our resources cover a wide range of sustainability-related topics.

Learn what our different resource categories mean here.

# Resource Collection: Using an S-E Systems Lens to Examine Sustainability Problems

Here are a sampling of some resources for how to apply a socio-environmental lens to solving sustainability problems:

#### The Basics of Socio-Environmental Systems

Check out these brief, introductory explainer articles and videos below that provide a high-level overview of S-E systems, their main components, and their behaviors.

- Explainer: What Is A Socio-Environmental System?
- Explainer: Feedback Loops and Socio-Environmental Systems
- Explainer: Resilience Theory & Socio-Environmental Systems
- Video: Understanding Environmental Problems through a Socio-Environmental Lens
- Lesson: Introduction to Socio-Environmental Systems Lesson: A Lens to Examine Sustainability with a Food Insecurity Exercise

#### Teamwork: The Advantages of Integrating Different Disciplinary Perspectives

The following resources explain the benefits of integrating the expertise and perspectives of different disciplines in the pursuit of solving sustainability problems. The videos and articles below provide evidence for why this type of socio-environmental research is beneficial, introduce some of the core tenets of interdisciplinary team science, and suggest best practices for effective collaboration.

- Video: The Science of Team Science Part 1: Why Team Science?
- Video: Knowledge Integration Across Disciplines Part 1
- Video: Synthesis Research and Team Science Process to Address Socio-Environmental Problems
- Explainer: What Is Interdisciplinary Team Research? Are There Best Practices?
- Explainer: What Is a Shared Mental Model? Why Are Mental Models Useful for Interdisciplinary Research?

#### Explore the rest of these resources.



### **RESOURCES | Integrating Indigenous Knowledge in S-E Research**

# A Dialogue on Indigenous Knowledge and Science in Co-Creation

#### In this video, SESYNC's **Dr. Heidi Scott speaks with Dr. Billy van Uitregt**, a senior lecturer in the School of Geography, Environment and Earth Sciences at Victoria University of Wellington, *Te Herenga Waka*. Dr. van Uitregt, who is of Māori descent, provides his perspective on the integration of Indigenous knowledge, values, and worldviews into Western science and current environmental management practices. In particular, Dr. van Uitregt discusses the relationship of Māori concepts—such as mauri (roughly translated to life force); wairua (spirit or soul); and mana (power)—to the experience and conservation of the natural world. Watch here.





**Co-Evolutions Lesson: Indigenous Knowledge and Scientific Research** 

This **lesson**, developed for use in classroom and workshop instruction, has learners explore case studies of current collaborative projects in the Arctic designed around epistemological coevolution to better understand how socio-environmental research can benefit from both Western science and Indigenous ways of knowing. Learn more.



#### Case Study: Ways of Knowing – The Integration of Indigenous Knowledge and Scientific Knowledge for Natural Resource Management

This case study explores the nature of indigenous knowledge (IK) and scientific knowledge (SK) in terms of natural resource management. The goal of the case study is to encourage students to think critically about the nature of different ways of knowing the natural world and different types of evidence or

data; to consider how to integrate IK and SK for natural resource management; to explore how knowledge integration would benefit natural resource management, indigenous peoples and the scientific community; and finally to consider some of the obstacles to knowledge integration. Learn more.

## **NEW PUBLICATIONS | SESYNC in the Journals**

"Partnerships between organizations that manage protected land in California are associated with groups with environmentally oriented missions." Published in *Conservation Science & Practice* by Emily Harding, Kailin Kroetz, Hanna L. Breetz, Kaitlyn L. Malakoff, Alexandra L. Thompson, Heather Bird Jackson, Paul R. Armsworth, and Gwenllian D. Iacona. This paper resulted from the Pursuit <u>Socio-Environmental Networks of Common</u> <u>Pool Resources</u>.

"Why go green? Comparing rationales and planning criteria for green infrastructure in U.S. city plans." Published in *Landscape & Urban Planning* by former SESYNC postdoc Fushcia-Ann Hoover and colleagues Sara Meerow, Emma Coleman, Zbigniew Grabowski, and Timon McPhearson.

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