



## S<sup>3</sup> RCN WORKSHOP III: [Linking Supply to Benefit in Ecosystem Service Models](#)

May 19<sup>th</sup> and 20<sup>th</sup>, 2016

Shelburne Farms, Shelburne Vermont

**Convener:** Scenarios, Services, and Society Research Coordination Network ([S<sup>3</sup> RCN](#)), through funding to the Harvard Forest

**Host:** Taylor Ricketts, [The Gund Institute of Ecological Economics](#), University of Vermont.

**Organizers:** Kathy Fallon Lambert, Harvard Forest, Jonathan Thompson, Harvard Forest, Spencer Meyer, The Nature Conservancy and Yale University, Katie Theoharides, Theoharides Consulting

**Facilitator:** Patrick Field, Consensus Building Institute.

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### **Description:**

Modeling ecosystem services (ES) is increasingly popular. But most efforts focus on modeling the biophysical supply of ES (e.g., floodwater retention), not the realized benefit to people (e.g., reduced damage costs downstream). This shortcoming results in partial answers that can actually mislead management efforts. Especially for ES that involve spatial flow of benefits to specific groups of people (e.g., water purification, flood control, recreation, crop pollination), modeling supply simply isn't enough. This workshop will focus on these services, to develop concrete approaches for connecting ES supply to realized benefits.

Using presentations, commissioned studies, and active group work we will start from the current state of the art in ES modeling, advance questions on regional scale modeling, and discuss the challenge we face to quantify benefits. We will then examine inspiring efforts from diverse sectors, connecting changes in nature to changes in human well-being. Finally, we will break into 3 groups to develop approaches for quantifying the realized benefits of three focal ecosystem services relevant to New England (probably water purification, flood control, recreation). As the workshop concludes we will identify next steps and opportunities for groups to continue working together on research papers, proposals and other products.

## **Objectives:**

The workshop goal is to advance the field of ecosystem service modeling to better estimate realized benefits to people by:

- **Sharing** lessons from existing efforts in ES and other disciplines that can inform regional scale modeling and estimating realized benefits
- **Developing** a general approach to creating utility functions
- **Outlining** research plans for three specific ecosystem services
- **Working collaboratively** to set stage for future work

## **Outcomes**

- Two commissioned studies to inform the workshop and publish afterward
- Outline for conceptual/review paper
- Research plans for three collaborative research projects
- Enduring working group focused on modeling ES benefits
- Insights for the S3 RCN's work to quantify the impacts of future land use scenarios on ecosystem services

## **DRAFT AGENDA**

### **WEDNESDAY, MAY, 2016**

- 3:00 pm      Check-In begins at the Inn at Shelburne Farms
- 5:00 pm      Welcome reception at Shelburne Farms
- 7:00 pm      Dinner

### **THURSDAY, MAY 19, 2016**

- 8:30 am      Welcome and Challenge**  
Taylor Ricketts, The Gund Institute of Ecological Economics, University of Vermont
- 8:45 am      Introduction to the S<sup>3</sup> RCN: The Challenge of Modeling Future Ecosystem Services and Beneficiaries**  
Kathy Fallon Lambert, Harvard Forest  
Jonathan Thompson, Harvard Forest
- 9:00 am      Participant Introductions**

### **SESSION 1: Challenges of Linking Ecosystem Service Models to Beneficiaries**

- 9:30 am      Keynote**  
Stephen Polasky, College of Biological Sciences, University of Minnesota

**10:00 am Break**

**10:30 am Presentations and discussion of 4 case studies** detailing approaches for modeling biophysical supply and linking with beneficiaries: water, health, other (15 minutes each)

**12:00 pm Lunch**

## **SESSION 2: Moving Forward**

**1:00 pm Keynote**

Elena Bennett, McGill School of the Environment, McGill University

**1:30 pm Discussion** of potential general framework for linking supply and beneficiaries

**2:00 pm Working groups – 3 groups, one for each service**

**5:00 pm Adjourn**

**5:30 pm Group hike or free time**

**6:30 pm BBQ Dinner at Orchard Cove house**

## **FRIDAY, MAY 20th, 2016**

### **SESSION 3: Work Session**

**9:00 am Welcome back** – Revisit charge for the day and key questions each group should address

**9:30 am Working groups continue**

**11:30 am Report back** on Working Groups (10 minutes per group)

**Noon Group discussion**

**12:30 pm Lunch**

### **SESSION 4: Next Steps**

**1:30 pm Assemble a general framework** for linking supply and beneficiaries

**2:30 pm** Discuss and outline joint papers or proposals

**3:30 pm** **Formal meeting adjourns**

**4:00 pm** Combined tour of Vermont's micro-breweries and forests

**6:30 pm** Dinner for those staying