

## Tropical Coastal Resilience

**Award Year:**

2013

**Principal Investigator:**

Ellen Hines, San Francisco State University

Rebecca Lewison, San Diego State University

**Associated Program:**

[Ventures](#) [1]

**Collaborative Site:**

[Group Collaboration](#) [2]

**Email List:**

[tcr@lists.sesync.org](mailto:tcr@lists.sesync.org) [3]

Conditions in coastal zones worldwide, barraged by multiple stressors, are deteriorating rapidly. Due to a lack of integration across human and natural sciences, we have a limited understanding and ability to solve resilience-related problems, despite the importance of these systems in supporting human populations and biodiversity.

This Venture will use a Drivers-Pressures-State-Impact-Response (DPSIR) model of coastal resilience to illustrate the principal dynamics that govern coastal systems with an international team of researchers, local managers, and key stakeholders. Group members will refine an existing conceptual framework and generate testable hypotheses of the critical linkages among ecological, biophysical, social, governmental, and economic drivers of coastal system resilience. Guided by that framework, they will use spatially-explicit layers to integrate available social and natural science data (e.g., remotely sensed images, landscape complexity, governance structure and market access) to evaluate these linked-process hypotheses.

The Venture's discovery-driven, participatory workshops at SESYNC will engage scientists, natural resource managers, and planners from two representative coastal sites. By building partnerships between scientists and management agencies from disparate geographic areas, the group's comparative approach will introduce new technological applications and create an innovative framework to guide critically-needed, integrated approaches that will advance coastal resilience and resource management.

**Participants:**

Claudia Baldwin, University of the Sunshine Coast

Maria Beger, University of Queensland

Ratana Chuenpagdee, Memorial University of Newfoundland

Philip Dearden, University of Victoria

Maha El Meseery, University of Regina

Orland Hoerber, University of Regina

Christian Martyn Jones, University of the Sunshine Coast

Chalatip Junchompoo, Marine and Coastal Resources Research and Development Center

Suthida Kan-Atireklap, Marine and Coastal Resources Research and Development Center

Scott Lieske, University of the Sunshine Coast  
Tiffany Morrison, University of Queensland  
Richard Pollnac, University of Rhode Island  
Murray Rudd, Emory University  
Laddawan Sangsawang, Marine and Coastal Resources Research and Development Center  
Suvaluck Satumanatpan, Mahidol University

---

**Source URL:** <https://www.sesync.org/project/ventures/tropical-coastal-resilience>

#### **Links**

- [1] <https://www.sesync.org/ventures>
- [2] <http://collab.sesync.org/groups/tcr>
- [3] <mailto:tcr@lists.sesync.org>