

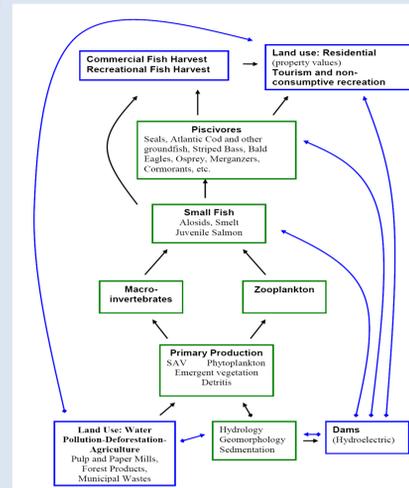
Ecological and economic recovery of the Kennebec and Androscoggin rivers, estuary, and nearshore marine ecosystem - Bowdoin, Bates, USM

Research Questions

What are the constraints limiting ecological recovery and how are benefits from further recovery distributed across people and time in two adjacent river systems with contrasting ecological and social legacies?

Project objectives

1. Identify the major interactions and feedbacks between human activities and the river-estuary-nearshore marine ecosystem.
2. Understand the biophysical and social obstacles to further ecological recovery.
3. Estimate the potential for ecological recovery and how neighboring communities would benefit from further recovery.
4. Educate our students and the general public about the possibilities for and benefits of ecological recovery

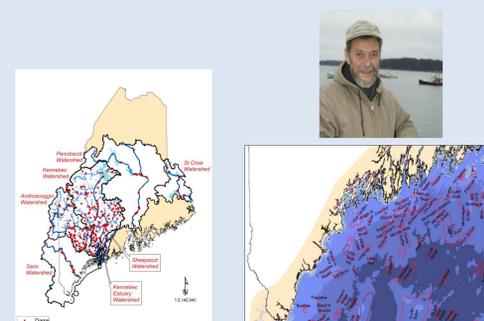
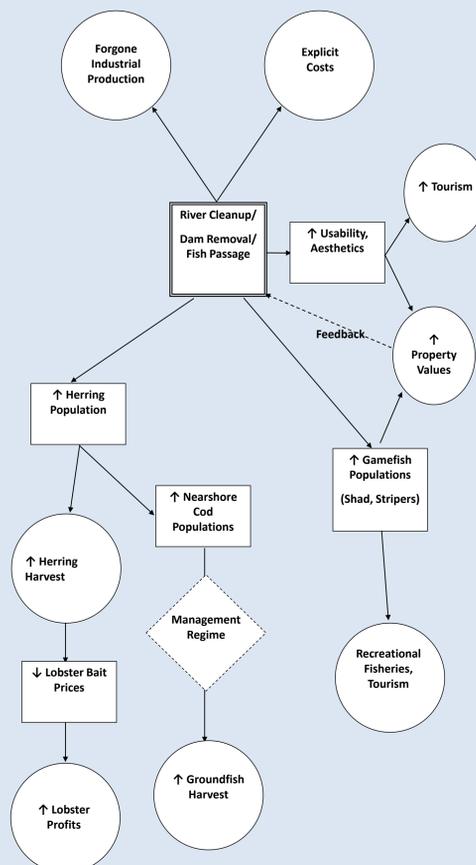


Inputs

- Comprehensive review of ecological and social science literature related to the Kennebec-Androscoggin system.
- Observational and experimental field studies designed to deliver information about potential biophysical constraints on recovery.
- "Long term paleoecological data sets will provide information on the connectivity between nearshore and terrestrial aquatic ecosystems prior to recent human activity, and will significantly enhance our ability to predict, manage and restore the current nearshore GOM fishery."
- Stakeholder information and participation in conducting original research. Stakeholders include commercial fishers and alewife harvesters, fisherman, fishing guides, non-profits, local towns and individuals.
- Survey information about public understanding of ecological principles and attitudes toward restoration. Information about the conditions necessary and processes involved in successful restoration efforts in the past.

Integration

Construct economic models into which ecological information is input to estimate potential economic benefits of different restoration scenarios.



Source: Maine Office of GIS; Fishing Grounds of Maine, C.B. Goode, 1887

Outputs

- Better understanding of the linkages and feedbacks between human activities and ecosystem processes as well as the limits of and constraints on ecological recovery.
- Genuine stakeholder involvement that bridges the gap between the research community and individuals with important empirical experience and knowledge.
- Knowledge-to-action effort that educates the public and catalyzes ecological restoration for the benefit of wild species as well as local communities.