

Strait of Georgia Ecosystem Research Initiative

Update

26 September 2008



Activities

Web site

The web site for the Strait of Georgia Ecosystem Research Initiative is up and running, maintained by Diane Masson and Lizette Beauchemin (IOS). It is available at http://www-sci.pac.dfo-mpo.gc.ca/sogeri/default_e.htm. It contains the Strait of Georgia ERI Research Plan and recent updates to the plan, summaries of the project overview and central questions, titles of on-going research projects, reports of projects funded during the January – March 2008 program initiation phase, the ERI poster prepared for the PBS Open House in April 2008, and copies of presentations given on behalf of the ERI program (see items below).

ERI-related presentations

Slides from a presentation describing the Strait of Georgia ERI program given by Diane Masson at the 2008 CMOS meeting in Kelowna are available on the web site. A presentation describing the “state of the Strait of Georgia” given by Ian Perry at the “Sustaining Wild Salmon: moving from words to actions” symposium held in Campbell River in August 2008, is also available on the web site http://www-sci.pac.dfo-mpo.gc.ca/sogeri/default_e.htm

Program support

Budgets

We have now completed the first 6 months of this fiscal year. All projects should be well into their activities. All projects should also have completed their 6 month financial review and update. **Please inform Diane and Ian if you anticipate needing more funding to complete your activities for this fiscal year,**

or if you do not expect to use all of your allocated funding. Depending on what might be available, the ERI Steering Committee will consider allocating “extra” funding among other programs.

Additional support

Marine Ecosystems and Aquaculture Division at PBS has provided additional funding to the Strait of Georgia ERI program. This funding will supplement projects on nearshore habitat classification (Jamieson et al.), forage species (Schweigert et al.), plus add a project on predator-prey dynamics of mammal-hunting killer whales and harbour seals in the Strait of Georgia (Ford et al.).

Climate Change Science Initiative pilot project

The Climate Change Science Initiative (CCSI) program of DFO (a DFO program within climate sciences that is analogous to the national ERI program) has selected our Strait of Georgia program to conduct a pilot study of “Impacts and Vulnerabilities - Climate Impacts on Ecosystems”. The funding for this pilot initiative will be \$50,000 for three years. Its objectives are to determine the impacts of climate (and in particular climate change) on ecosystems using ecosystem and regional ocean models. The Strait of Georgia ERI was selected for this pilot because we have both these types of models under development, including their connections with our ecosystem models. Diane Masson and Mike Foreman will lead this project. Details are available on our program web site.

Upcoming Meetings

Strait of Georgia ERI modeling workshop

The Strait of Georgia Ecosystem Research Initiative will hold a modeling workshop at the [Institute of Ocean Sciences](#) on [Tuesday 2 December](#). The meeting is open, and all are invited. Please contact Ian Perry Ian.Perry@dfo-mpo.gc.ca or Diane Masson Diane.Masson@dfo-mpo.gc.ca if you are interested in participating and wish to receive further details. The objectives for this workshop are to provide an opportunity for the modeling groups in this ERI program to begin comparing early results; to talk about detailed issues such as grids and linking models (for the ROMS, lower trophic level and upper trophic level models); and to discuss how to go about comparing the results from the ROMS-based and ECOPATH-based models.

DFO National ecosystem modeling workshop

A DFO national modeling workshop is being planned for January or February 2009 (specific dates not yet confirmed), most likely in Halifax. This is a joint workshop sponsored by the DFO EcoNet initiative, the ERI programs, and the CCSI program. It builds on a successful EcoNet workshop held in Victoria in October 2008: see the report at

http://www.dfo-mpo.gc.ca/CSAS/Csas/Publications/Pro-CR/2008/2008_007_e.htm.

The agenda for the workshop will include items on:

1. Compare questions being asked and ecosystem modelling approaches used among regional ERIs
 - a. generic description of ERI
 - b. detailed modeling approaches and questions
 - c. options for climate model links
 - d. issues/concerns/limitations with approaches
2. Co-ordinate efforts with respect to modelling within ERIs
3. Develop plan to explore and compare ecosystem modelling results from regional ERIs
4. Canada's commitments to National and International Agreements and significance for ecosystem modeling, ERIs and day to day life of a working scientist. – short presentation by Jake to update us on recent developments.

For questions or interest in participating, please contact Ian Perry.

Strait of Georgia Project review meeting

A reminder – as was done last year, we anticipate hosting a Strait of Georgia ERI project review meeting, at which the results of each ERI-funded project are expected to be presented and discussed. The objective will be to weave these together and to assess progress of the program. Anticipated date is likely to be in February 2009. More information will be forthcoming shortly.

Puget Sound Georgia Basin Ecosystem Conference

The biennial Puget Sound Georgia Basin Ecosystem Conference will be held in [Seattle, WA](#), from **8-11 February 2009**. Diane Masson and Ian Perry are members of the Organising Committee. This is a continuation of previous such conferences, the most recent of which was held in Vancouver in 2007. The 2009 conference theme is [The Future of the Salish Sea: A call to action](#). The conference objectives are:

- To promote a sense of place in the Salish Sea, irrespective of political borders
- To inform participants of current scientific research and management techniques in the Salish Sea and to motivate participants to engage in needed research and actions
- To foster collaboration and understanding between scientists and policy makers
- To transfer knowledge about successes and challenges of ecosystem management activities
- To identify priority research and management approaches and foster a commitment to action.

Conference sub-themes include:

- Air Quality and Climate Change
- Ecosystem Management Strategies and Techniques
- Habitat, Land Use, and Species
- Marine and Freshwater Resources

Note that the due date for abstracts is 10 October 2008. More information is available from the conference web site at www.psgbconference.org

Diane Masson and Ian Perry are submitting a proposed session titled "*Research needs for ecosystem-based management and policy development in the Strait of Georgia*". We hope that several ERI-researchers will participate with us in this

session. Please contact Diane and Ian if you are interested, and submit abstracts by 10 October 2008. The Conference Committee is particularly interested in proposals on the following topics, although submissions that address other hot or emerging topics in the transboundary Puget Sound Georgia Basin ecosystem will also be considered. Note that proposals can include entire sessions.

1. **Air Quality & Climate Change**

- *Science behind Salish Sea climate change impacts*
- *Adaptation to expected impacts and repercussions of adaptation responses*
- *Climate change mitigation – alternative energy and citizen engagement*
- *Air deposition of pollutants – effects on humans and ecosystems*
- *Climate change modeling – pathways of impacts*
- *Maritime-related sources of pollutants*

2. **Ecosystem Management Strategies & Techniques**

- *Role of monitoring in ecosystem management*
- *Ecosystem assessment tools and techniques*
- *Using ecosystem indicators to help direct and measure progress towards ecosystem goals*
- *Borderless information and coordinated data management and access – benefits and strategies*
- *Transboundary governance*
- *Science-based strategies for selection of restoration and protection actions*
- *Marine Protected Areas – effectiveness in protecting ecosystems*
- *Ecosystem services accounting and market based tools*

3. **Habitat, Land Use & Species**

- *State of and pressures on ecosystems in and around the Salish Sea*
- *Ecosystem function and resilience*
- *Coastal zone management*
- *Salmon, shellfish and other harvested resources*
- *Near-shore habitat restoration and protection*
- *Land use planning and biodiversity conservation*
- *Recovery of species at risk*
- *Exotic species management*

4. **Marine & Freshwater Resources**

- *Hypoxia / nutrient dynamics*
- *Surface to ground / ground to surface – aquifer storage and recovery*
- *Freshwater resources and water planning*
- *Trends in marine observations and data collection*
- *Marine debris – the next generation*
- *Freshwater flow requirements for healthy estuarine and marine environments*
- *Contribution of sediment contamination to water quality problems*
- *Freshwater sediment cleanup standards*
- *Low impact stormwater management techniques*
- *Traditional and new chemical contaminants, pathogens, and biotoxins*
- *Wastewater treatment technology – Infrastructure management and population growth*
- *Water Reuse – supply, demand and benefits*

There should be lots of opportunity for contributions from DFO ERI studies.

