

Collaborating on southern Gulf Research



Participants learned about 13 research projects currently underway.

On June 12th, approximately 50 members of the Southern Gulf Research Network gathered at Chateau Moncton to learn more about the research currently underway in the southern Gulf of St. Lawrence.

“My goal in organising these meetings is to keep people informed so we can build on each other’s knowledge,” says Mike Chadwick, Oceans and Science Director at Fisheries and Oceans. “It’s important for us to know what research programs are going on in the southern Gulf. Also, by identifying the gaps in our knowledge, we can plan future projects that strengthen our collaborations.”

In the morning, 13, ten-minute presentations outlined research projects ranging from a multi-beam survey of Shippagan Bay, N.B. to lobster migration in the Northumberland Strait.

Euclide Chiasson of the Maritime Fishermen’s Union described how his members are collaborating with several partners to figure out why lobster catches are lower than they used to be. They are looking at different options, such as seeding young lobsters with a program similar to that used for scallops. In 2002, they invited people working in Maine to come to Shippagan to look at the possibility of rearing stage four lobsters in the lab at the Centre Marin. They are also looking at the use of artificial reefs and other ways to improve lobster habitat in the Gulf Region.

Marc Lanteigne of DFO described a monitoring program started in 1995 that records coastal water temperatures. Data loggers are attached to navigational buoy lines, thereby recording surface and bottom water temperatures. Bottom temperature fluctuations have been linked to lobster catchability, so it is important for lobster scientists and fishermen to have baseline information of this sort. Marc explained that the Coast Guard is planning to contract out the installation of the buoys in the future. This could potentially require more effort to contact all contractors (rather than just one person) to co-ordinate the placement

of the data loggers each year. However, he remains optimistic that the partnership and the collection of data will continue. In the future, he hopes to make this data available on a web site.

In the afternoon, participants compiled lists of collaborative projects, monitoring projects, missing/needed projects and ways to improve linkages between SGRN members.

Eric Tremblay of Kouchibouguac National Park reminded participants that National Parks provide stable, long-term sites for research. Though their budgets are almost non-existent, Eric pointed out that staff, vehicles, labs and equipment are often available for collaborative work and that more people should take advantage of these facilities.

“Our parks aren’t here just for people to go camping and to lie on the beach,” says Tremblay. “They also play a role in contributing to our scientific knowledge and our mandate is to maintain ecological integrity. In order to do that, we have to know more about the state and health of our ecosystems. We can’t do this alone and that’s why we encourage others to work with us.”

Collaborative Projects in 2003 (Contact person in parentheses)

1. Lobster Index Fishers Program (M. Comeau, DFO)
2. PECTEN + Botsford Professional Fishermens’ Association (E. Chiasson, MFU, D. Murray, BPFA)
3. Scallop sea sampling
4. Aquaculture Collaborative Research and Development Program ACRDP - 12 Projects (T. Landry, DFO)
5. Oyster restoration, Caraquet
6. Soft-shelled clam, Richibuctou (A. Boghen, Université de Moncton)
7. Invasive species vectors project, *Styela clava* action research group (SCARG)
8. Best management practices – seafood processing (S. Poirier, CRDPM)
9. Sea sampling on P.E.I., N.B. N.S. lobster (F. Savoie, DFO)
10. Centre for Aquatic Health Sciences – Atlantic Veterinary College (L. Hammell, AVC)
11. Mussel genetics, P.E.I.
12. Watershed management projects
13. P.E.I. watersheds – buffer zone project for agriculture
14. P.E.I. strategies for integrated pest management techniques
15. Shellfish health (J. Davidson AVC, T. Landry, DFO)
16. Youth Internship Program (L. Robichaud, DFO)
17. Tagging projects; lobster, salmon, crab
18. Aquanet –social study aquaculture integration (Jean Paul (Vanderlinden, Université de Moncton)
19. Pulp mills EEF (S. Courtenay, DFO)
20. Municipal waste treatment
21. Sentinel fisheries (G. Chouinard, DFO)

22. Marinas – pleasure boat discharges (septic systems)
23. Richibucto Environment and Resource Enhancement Project (REREP), (Andrew Boghen, Université de Moncton)
24. Basin Head Marine Protected Area (MPA)
25. Ste. Cecile – artificial lobster reef
26. FAO – Ecoport (lobster) (R. Cormier, CFIA)
27. Mussel/environment interaction study – Tracadie Bay, P.E.I. (P. Crawford, DFO)
28. Harmful Algal Bloom – GEOHAB monitoring program (S. Bates, DFO)
29. Estuarine habitat mapping (see bullet 6)
30. Peat harvesting impacts (Rogersville, etc.)
31. GADOLIFE – prey consumption of cod
32. CMS (quahaug, mussel, oyster)
33. Kouchibouguac – freshwater mussels, health indicators
34. Estuarine index of biotic integrity
35. Seal movement and diet, Miramichi, Kouchibouguac (M. Hammill, DFO)
36. Bay by bay management of aquaculture
37. PICLO – CFIA/DFO/cotiers/semihauturiers/hareng qualité/communication (S. Poirier, CRDPM)

Monitoring in 2003
(Contact person in parentheses)

1. Ecosystem survey in September (bio-diversity). 200 sites, 32 years of data. (G. Chouinard, DFO)
2. Land-based climate change (Hugo Beltrami, St. Francis Xavier University)
3. Oyster/Mussel Monitoring Network, 50 sites (temp. etc.), (L. Comeau, DFO)
4. PECTEN – 3 sites, scallop spat (E. Chiasson, MFU)
5. Oyster/Mussel spat, N.B. 3 sites, P.E.I. 12 sites
6. Mackerel-egg survey, June, 21 years, zooplankton, ichthyoplankton (F. Gregoire, DFO)
7. Shellfish Health – 5 sites (M. Stephenson, DFO)
8. Northumberland Strait Trawl Survey, 3 years (M. Hanson, DFO)
9. P.E.I. Northumberland Strait (invasives) 2 years with 24 sites, 2003 will sample 5 sites (A. Locke, DFO)
10. EEM, 5 pulp mills, every 3 years x 3 (benthos and fish), (S. Courtenay, DFO)
11. Snow Crab Trawl Survey, 14 years (Mikio Moriyasu, DFO)
12. Bio-monitoring (Trevor Reynoldson, Acadia University, ACAP)
13. Commercial landings (M. Audet, DFO)
14. Fish health survey (A.-M. MacKinnon, DFO)
15. Diadromous fish traps, Miramichi (etc.), (G. Chaput, DFO)
16. Electrofishing (Miramichi, Restigouche Rivers), (G. Chaput, DFO)
17. Snorkelling (Restigouche), (G. Chaput, DFO)
18. Canadian Shellfish Sanitation Program (every 3 years, rotation)
19. Kouchibouguac Park - clam monitoring (10 years), (E. Tremblay, Kouchibouguac Park)
20. Water classification (water quality and invertebrates, 3 years)

21. Seabirds – Kouchibouguac – nesting season shifts, tern abundance since 1971, mergansers since 1992, (E. Tremblay, Kouchibouguac Park)
22. Web-based info on ice distribution since 1966 (G. Bugden, DFO)
23. Atlantic Zonal Monitoring Program (J. Chassé, DFO)
24. CWS surveys – herons, shore birds
25. Marine plant survey, West P.E.I. 15 years (G. Sharp, DFO)
26. Erosion – geomorphology, survey sites (Dominic Bérubé, NBDNR), Kouchibouguac

**Missing/Needed Projects
(Contact person in parentheses)**

1. Monitoring of ballast water – invasives, harmful algae (A. Locke, DFO)
2. Confederation Bridge impacts (D. Maynard)
3. Species at Risk – groundfish, molluscs (M. Lanteigne, DFO)
4. Climate change – invasive species, sea level changes, seasonal changes, eutrophication, erosion (L. Vasseur, Université de Moncton)
5. Monitoring of eutrophication (G. Lindsay, Environment Canada)
6. Census of recreational activities – small boats
7. Assessment of carrying capacity of aquaculture sites (REREP – A. Boghen, Université de Moncton, T. Landry, DFO)
8. Integration of new activities and sharing of productivity by water basin
9. Impacts of horticulture, landscaping, fertiliser on shoreline and coastal waters
10. Impact of domestic and agricultural pesticides on lobster
11. Depuration of shellfish, monitoring of harmful algae
12. Monitoring of by-catch (estuarine fisheries)
13. Zoning of coastal areas for multiple users (Provincial and Federal jurisdiction)
14. Abundance and distribution of seabirds, marine mammals and other non-commercial species
15. Communication of above to public (local, regional, national, international)
16. Barriers (e.g. causeway) to fish migration
17. Dredging – what are alternatives?

How to Improve Linkages

1. Use Parks Canada – 4 sites in Gulf Region
2. Ecological Monitoring Networks – historical data
3. Watershed Management Groups – build relationships
4. Marine Environmental Network
5. Long-term funding is a big issue
6. Priorities – communicate, define objectives
7. Need good indicators of productivity or health
8. Build comprehensive monitoring program of near-shore (protocols for sampling etc.)
9. Look at successful examples (Puget Sound, IFREMER, eel grass monitoring)
10. Long-term is greater than 5 years
11. Examine historical data sets - monitoring (EMAN?)
12. Use Southern Gulf Coalition web site