



Issue 1
July – September, 2006

The Huntsman Marine Science Centre In Depth



In an effort to communicate the educational and research activities taking place at the Huntsman Marine Science Centre (HMSC), this newsletter will act as an informative link between the HMSC community and the day to day activities on campus.

International Aquatic Innovation Centre (IAIC) Research Activities:

- Researchers: Dr. Jane Symonds, Dr. Seumas Walker and Dr. Amber Garber
Atlantic Cod Genomics and Broodstock Development project which involves the rearing and evaluation of cod families.
Research development is being performed at the HMSC and the St Andrews Biological Station (SABS)
- Researcher: Dr. Greg Page (Mapleleaf Foods, Shur-Gain AgResearch)
Atlantic Salmon and Trout Feed Trials
The Broodstock Technology Building and Cove Greenhouse on the lower HMSC campus.
- Researchers: Dr. Joern Gessner (Society to Save the Sturgeon) and Dr. Jane Symonds
Atlantic sturgeon Broodstock rearing – for restocking the Baltic Sea
Green Quonset on the lower HMSC campus.



Cod Family Rearing Tank



Juvenile Cod



Atlantic Reference Centre (ARC) Research Activities:

- Ashley Holmes, Dr. Gerhard Pohle and Mary Greenlaw
Benthic invertebrates found in the muddy bottoms of the deep waters of Jordan Basin.
- Dr. Gerhard Pohle, Mary Greenlaw and Karen Ross
Antarctic zooplankton taxonomy (for Woods Hole Oceanographic Institute)
- Dr. Gerhard Pohle, Mary Greenlaw and Karen Ross
Newfoundland zooplankton taxonomy for Department of Fisheries and Oceans (DFO) Newfoundland
- Dr. Gerhard Pohle, Mary Greenlaw and Karen Ross
NB Aquatic Insects Taxonomy – completed (for Kouchibouguac National Park)
- Dr. Gerhard Pohle, Rebecca Milne and Lou Van Guelpen. (Industrial Partner: Ocean Horizons Ltd.)
Biodiversity monitoring beneath salmon sea cages using ROV technology
- Dr. Gerhard Pohle, and Dr. David Wildish
Ecology of passive pockmarks in Passamaquoddy Bay
- Lou Van Guelpen, Dr. Gerhard Pohle and Dr. Gail Chmura (McGill University)
Impact of climate change on commercial marine species
- Lou Van Guelpen, Dr. Stephen Clifford (Dalhousie University), Dr. Paul Bentzen (Dalhousie U.) and Dr. Ellen Kenchington (DFO)
DNA barcoding Canadian Atlantic fishes
- Lou Van Guelpen and Bob Branton (DFO)
Biodiversity informatics: metadata (Gulf of Maine Ocean Data Partnership)
- Lou Van Guelpen, Dr. Jean-Denis Dutil (DFO)
Characterization of specimen identification problems on Gulf of St. Lawrence research surveys
- Lou Van Guelpen, Dr. Gerhard Pohle, Dr. Edward Vanden Berghe (Flanders Marine Institute), and Mary Kennedy (DFO)
Marine Species registers for the western North Atlantic; use of the registers as a basis for DFO Maritimes research surveys



ARC: 2006 Summer Staff



Christofor Research Lab (CRL) Research Activities

- Dr. MDB Burt (UNBF), Hon. Res. Assoc. J.W. Smith, H. Randhawa, Gillian MacLean and Garret Brodersen.
NSERC CRD Project: Diseases of wild and captive gadoids
- Dr. MDB Burt (UNBF), HRA J.W. Smith
Parasites of gastropod molluscs
- Dr. MDB Burt (UNBF), Gillian MacLean and Georgina Cox
Parasites of sympatric species of *Fundulus*: *F. heteroclitus* & *F. diaphanous*
- Brian Lynch (UNBSJ) and Dr. Remy Rochette (UNBSJ)
Interactions between sub-adult American lobsters and European green crabs
- Chris Rieken (University of Massachusetts-Dartmouth) and Dr. Mary Beth Saffo (Harvard University)
Coevolution of molgulid tunicate and apicomlexan symbiosis
- Bob Frank (University of Guelph)
Collection of marine specimens for the Aqualab
- Eli Bamfo (Ryerson University)
Stochasticity of whale watching and its implications for management



Chris Rieken aboard HMSC Research Vessel (WB Scott)

Education Research Activities

- Tracey Dean
Passerine Migrations Monitoring
- Peter Morrison (in association with UNB)
CRYSTAL Project: Studying the impacts of after school and outreach science programs on student's attributes and interests.
HMSC Education Department, UNB Department of Education & 6 participating schools in New Brunswick (St. Stephen Middle, Princess Elizabeth Middle, Lorne Middle, St. Stephen Elementary, Princess Elizabeth Elementary and Centennial Elementary).



Courses on Campus

Public Education

- NB Naturalists – Nature Camp
- Marine Biology Course (Summer High School Level Field Course)
- HMSC Teachers Institutes:
 - Beachcombing for Marine Biodiversity
 - Discovery the Mysteries of Marine Biology – A Family Adventure
- Ashbury College, Ottawa, ON
- Ottawa Catholic High Schools, Ottawa, ON
- Bell High School, Ottawa, ON
- Kenner Collegiate & Vocational Institute, Peterborough, ON

University Programs

- Marine Mammals and Seabirds, University of Waterloo, Waterloo, ON
- Biology of Marine Mammals, McGill University, Montreal, QC
- Experimental Studies in Marine Biology, University of Western Ontario, London, ON
- Ecology and Adaptation of Marine Animals, University of Western Ontario, London, ON
- UNBSJ Marine Semester, University of New Brunswick, Saint John, NB
- Fisheries and Wildlife Management, McGill University, Montreal, QC
- Fish Biology, University of New Brunswick, Fredericton, NB



Students in Teaching Lab

NSERC Major Resources Support Grant

- **Support for the Huntsman Marine Science Centre as a national research facility.**
P.I.: G. Pohle (HMSC)
Co-Applicants: G. Anderson (U. Manitoba); M. Barbeau (UNB); T.J. Benfey (UNB); P. Bentzen (Dalhousie); M.M.R. Best (McGill); M.D.B. Burt (UNB); G.L. Chmura (McGill); T. Chopin (UNB); R. Rochette (UNB).

“...By virtue of its location, the HMSC provides access to the unique flora and fauna of the Gulf of Maine. Its research infrastructure is available to Canadian universities, researchers outside of Canada, and provides incubator facilities for start-up commercial companies in the marine sector of the economy, a public aquarium, and teaching facilities for university, high school and other students. It is recognized as unique among marine facilities in Canada for "providing strong and continuous interface between Government/Private Sector/Universities". . .”