Ebb & Flow

A Newsletter of the Atlantic Coastal Action Program (ACAP)

Winter 2008

The Future Looks Bright!

News from Environment Canada's Atlantic Coastal Action Program office

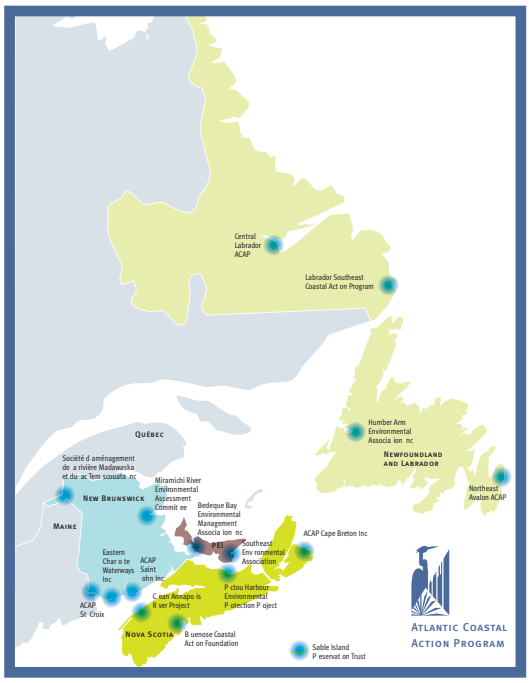
As we wind down the third phase of the Atlantic Coastal Action Program, it's time to begin planning for the future. Phase 3 has seen many successes throughout the Atlantic region, including moving forward on sewage treatment in several locations, opening closed shellfish harvesting areas, and sites winning numerous awards, both locally and nationally. We've welcomed two new Labrador-based Atlantic Coastal Action Program sites to our family, and many others have also expanded their own boundaries and mentored other groups.

It is time to fully take stock of what we have done over the past five years and over the history of the Atlantic Coastal Action Program.

The next two years will see Environment Canada continue to work with and support the Atlantic Coastal Action Program and ecosystem initiative groups and their on-the-ground results. During this time Environment Canada will be looking towards the future to see how it may continue to work with our community partners. Environment Canada staff will need to do a lot of work documenting the achievements of the past and determining where the department will focus future efforts, nationally, regionally, and at the local scale. Ecosystem overviews will be completed which will outline the state of the environment in larger ecosystems in the Atlantic region and systematically identify priority issues of concern and potential areas for future work and partnerships. Environment Canada will be looking to the Atlantic Coastal Action Program sites to help identify new threats and priority areas of concern at the local scale. We will also engage in broader discussion with the provinces, other federal departments, academia, First Nations, and the private sector for potential future collaboration on issues and areas of concern.

It's an exciting time for the Atlantic Coastal Action Program – a time for reflection on past achievements and a time to get involved in mapping out a path for the future. Put your thinking caps on!

For more information, contact Colleen McNeil, ACAP Coordinator **(902) 426-5777**.



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Produced bi-annually, this newsletter serves as a communications tool for those involved in ACAP and any others interested. This edition provides a snapshot of some exciting programs from selected ACAP groups. Other groups will be featured in the next edition.

Helping to Protect a Unique Population of Atlantic Cod

Labrador Southeast Coastal Action Program, Labrador

Formed in November of 2006, and hiring its first Executive Director in March of 2007, the Labrador Southeast Coastal Action Program has had a busy year. The current priority for the Labrador Southeast Coastal Action Program is to complete a community environmental profile for its region. The group will be hosting public visioning meetings, as well as conducting research in the 11 communities that are distributed throughout its area (Cartwright – Lodge Bay, Newfoundland and Labrador).

The Labrador Southeast Coastal Action Program has also formed a partnership with the federal Department of Fisheries and Oceans to provide community coordination services for the Gilbert Bay Marine Protected Area. Located between the communities of Port Hope Simpson and William's Harbour, Gilbert Bay is home to a resident population of genetically distinct Atlantic cod. While it had been know for some time by locals that these cod seemed to be different from offshore cod, their distinction was confirmed in 1996 through research conducted by scientists from Memorial University of Newfoundland and Labrador in collaboration with the Department of Fisheries and Oceans. As a result of this finding and through the work of the Gilbert Bay Steering Committee, Gilbert Bay was officially designated as a Marine Protected Area in October, 2005.

As a result of the contract with the Department of Fisheries and Oceans, the Labrador Southeast Coastal Action Program has hired a part-time coordinator from Port Hope Simpson to assist with the Gilbert Bay Steering Committee's work in Gilbert Bay.

Over the course of this past summer and fall the coordinator has assisted the department through such work as:

- providing information on the Gilbert Bay cod population to the public
- assisting with the Department of Fisheries and Oceans' sewage outfall monitoring in Gilbert Bay
- updating the Gilbert Bay web site
- assisting with Memorial University's fieldwork in Gilbert Bay, and
- provision of administrative services to the Gilbert Bay Steering Committee.

For more information on the Gilbert Bay Marine Protected Area please visit **www.gilbertbay.com** or contact our Marine Protected Area Community Coordinator at **gilbertbaympa@yahoo.ca**.

As the Labrador Southeast Coastal Action Program becomes better known throughout its region, it looks forward to developing further working relationships with other organizations to deliver and assist in the implementation and management of environmental and environmentally related work in the area.

For more information, contact Rex Turnbull at the Labrador Southeast Coastal Action Program at (709)960-1010, email **lscap@nf.aibn.com**, or visit **www.lscap.ca**.

Working with Clam Harvesters in the Annapolis Basin

Clean Annapolis River Project, Nova Scotia

Fifty years ago, the Annapolis Basin produced approximately 60% of the soft-shelled clam harvest in Nova Scotia. In recent years, the resource has been reduced to one-tenth of historical levels, arguably as a result of environmental pressures from land-based sources of marine pollution and continued demand for a shrinking resource.

Clam harvesters at either end of the Annapolis Basin are pointing fingers at each other in frustration as the reduced resource prevents them from making a sustainable living. Past attempts to bring everyone to the table to manage the troubled resource have been tried and have failed.

In an effort to address the issues facing the industry the Annapolis Watershed Resource Committee was formed. This multi-stakeholder committee is working to support the rehabilitation and sustained management of the clam industry, and other resources. The committee is chaired by the Clean Annapolis River Project (CARP) and is made up of a number of organizations including the Bay of Fundy Marine Resource Centre, Bear River First Nation, Digby County and Annapolis County clam digging associations, clam buyers, and representatives from all levels of government.

Several problems must be addressed including continued pollution and a lack of catch limits with almost as many licenses as existed 50 years ago. Recently, the provincial Department of Fisheries and Aquaculture granted 10-year aquaculture leases in all closed areas in the basin to a depuration company, (where contaminated clams undergo a controlled purification) effectively denying access to some areas and putting further pressure on the seed stocks. There is now little incentive to clean up the contaminated beaches.

Through the efforts of the Clean Annapolis River Project and the committee, water quality monitoring has begun and has resulted in the conditional opening of 200 hectares on an important clam harvesting area. Stock assessments were conducted on two beaches and there are plans to launch a re-seeding program. The Clean Annapolis River Project has been pleased to work alongside community members and groups in an attempt to better manage this resource.

For more information, contact Steve Hawboldt at Clean Annapolis River Project (902)532-7533, e-mail **carp@annapolis-river.ca**, or visit **www.annapolisriver.ca**.

Raising Awareness of Blue-Green Algae in Lac Témiscouata

Société d'aménagement de la rivière Madawaska et du lac Témiscouata inc., New Brunswick

In recent years the phenomenon known as blue-green algae has been affecting several lakes in the Madawaska area. Blue-green algae are found naturally in lakes but multiply considerably when the lake water contains high phosphorus levels. The phosphorus can come from sources such as fertilizer and manure, wastewater treatment, non-compliant septic tanks, and soil erosion.

In large quantities, microscopic bacteria that photosynthesize just like algae release toxins that can affect the health of animals and humans who drink the water or come into contact with it.

A campaign by the Société d'aménagement de la rivière Madawaska et du lac Témiscouata to inform and raise awareness among shoreline property owners is underway this year. The campaign addresses fertilizer use, reforestation of shorelines, regular maintenance of septic tanks, and the use of alternative cleaning products that contain low phosphate levels or are phosphate-free.

For more information, contact Monique Girouard at the Société d'aménagement de la rivière Madawaska et du lac Témiscouata at **(506) 739-1992**, or email **sarmlt@nbnet.nb.ca**, or visit **www.umce.ca/sarmlt**.

Building Sandcastles and Studying Nutrients in PEI

Southeast Environmental Association, Prince Edward Island

A strong nor'easter storm on December 27, 2004, damaged coastal infrastructure and sensitive dune habitat at Panmure Island, near Montague, PEI. Building Sand Castles and the Science of Climate Change allowed the Southeast Environmental Association (SEA) to help restore the damaged areas by developing partnerships to reestablish and replant 800 metres of dunes with marram grass.

SEA led an educational component with 100 grade eight students at two local schools which focused on coastal habitat, making the connection between everyday actions, climate change, and coastal ecosystems. The students evaluated their greenhouse gas imprint and discussed actions they could take to reduce that imprint. Educational brochures were developed and distributed through the students and at Panmure Island throughout the summer.

The Montague Nutrient Study is an ACAP Science Linkages Project that identifies the contribution from different land uses to nutrient loading in the watershed. SEA divided the general area of study into three distinct zones:

- the Valleyfield river watershed
- the Montague River watershed, and
- the Montague Estuary.

In each of the zones we identified the different types of land use.

Within the Valleyfield watershed, 24% is classified as agricultural land use, whereas 46% of the Montague River watershed is classed as agricultural land. The mean level of nitrate in the Montague was higher than that of the Valleyfield, but it is surprising that the highest nitrate level is not found at the site with the greatest percentage of farming land; this site is actually lower than two of the other sites.

Two years of data indicates that nitrate levels are getting worse. As a next step with the project, SEA is in the process of establishing a Nutrient Task Force to look at troublesome areas and potential solutions. There is interest from the local town council, the chamber of commerce, tourism operators, the harbour authority, residents, farmers, and the aquaculture industry.

For more information, contact Sarah Jane Bell at SEA at **(902) 838-3351**, or email **sea@pei.aibn.com**, or visit **www.seapei.ca**.

Studying Sparrows and Terns on Sable Island

Sable Island Preservation Trust, Nova Scotia

Sable Island Preservation Trust's (SIPT) conservation activity on Nova Scotia's Sable Island increased significantly in 2007. Three separate teams established programs focusing on researching Sable Island's birds and their unique habitat. Beginning in early spring, conservation biologist teams flew to the island and established base camps at Environment Canada's meteorological station.

The first team arrived in April to work on Ipswich Sparrows. A subspecies of the widespread Savannah Sparrow, they breed only on Sable Island. Our biologists used stable isotope analysis to determine the breeding winter location of Ipswich Sparrows, and investigated whether this location was related to measures of reproductive success such as pairing data, nest timing and success, and number of broods

A second team arrived in June, a particularly difficult and foggy time of the year to fly aircraft, to research the Roseate Terns that nest collectively with Arctic and Common Terns on Sable Island. In the previous year, endangered Roseate Tern adults had been spotted and heard calling from the large mixed colonies, but specific nesting locations had not been yet identified. This year, all of the island's tern colonies were located, mapped, and estimates of numbers taken. Specific locations of Roseate Tern nests with chicks were photographed and recorded using a global positioning system for mapping purposes. Confirmation of significant Roseate nesting locations will impact future on-island human activity.

The third team arrived on Sable Island somewhat differently in late August. The trust chartered a traditional Lunenburg-based schooner named Avenger that provided both transportation and an operations/accommodation base. The focus this time was on the large number and species composition of roosting or loafing terns on South Beach and East Spit. The estimates of numbers and their recorded locations taken will be useful when establishing the trust's next research priorities for the upcoming year.

For more information, contact Rick Welsford at SIPT at **(902) 425-7225**, or email **rwelsford@sabletrust.ns.ca**, or visit **www.sabletrust.ns.ca**.

Outdoor Learning in Cape Breton

ACAP Cape Breton, Nova Scotia

The Shipyard Elementary Outdoor Learning Centre is an ACAP Cape Breton venture that began in March 2007. There are seven learning stations focusing on the surrounding natural habitat, environmental issues, active living, and ACAP Cape Breton's stewardship role. ACAP Cape Breton hopes this will provide new development in the teaching protocol. Their goal is to provide the basis for a "living curriculum" and create a new understanding of education – one where observation, investigation, and celebration are all integral to the learning structure. Shipyard, with its unique ecological surroundings, has the potential to provide a diverse learning experience.

The Shipyard Elementary property leads from the school through a section of the surrounding forest and proceeds down to Wentworth Creek. ACAP Cape Breton has mapped out the area and created a corresponding 86 page Teachers' Guidebook for the 2007/08 school year. The guide identifies and defines animals (vertebrate and invertebrate) and plants – both aquatic and terrestrial – in this ecosystem. A trail was also established with a safety guide rope to lead teachers and students down the easiest route to Wentworth Creek. In creating the trail, the natural habitat was observed and no disruption of areas acute to a species' survival is assured.

A number of projects have been implemented since the inception of the Outdoor Learning Centre. These include ecological restoration and education (riparian planting and plant taxonomy), vermicomposting workshops, active living with Walk to School Month, and discovery walks on forest succession, stratification, and spring bud growth.

The Outdoor Learning Centre is an ongoing project which will be expanded by ACAP Cape Breton, Cape Breton Victoria Regional School Board, and numerous other partners. In particular, Cape Breton University has offered their expertise through class workshops. These will vary from forensic entomology to holistic First Nation herbal uses. ACAP Cape Breton is excited to bring these new ideas to the community.

To learn more about the Shipyard Elementary Outdoor Learning Centre, please contact Eleanor Anderson, ACAP Cape Breton at **(902) 567-1628**, or email **eleanor@acapcb.ns.ca**, or visit **www.acapcb.ns.ca**.

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Comments or Questions?
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