

Netawek Ikkikum

Voice of the Ocean

Quarterly Newsletter of the Maritime Aboriginal Aquatic Resources Secretariate

Vol. 6 Issue 4, March 2011

MAARS receives the 2011 Marshall Award for Aboriginal Environmental Leadership

March 4, 2011: The Maritime Aboriginal Aquatic Resources Secretariate received the 2011 Nova Scotia Environmental Network Marshall Award for Aboriginal Environmental Leadership.

Also of note, the Nickerson Lifetime Achievement Award went to Stephen Hawboldt. The NSEN Eco-Heroes group of the year was

presented to No Farms No Food. The NSEN Eco-Hero Environmentalist of the Year was presented to Michael Ciarrocco who is a Co-Chair of NSCC-Annapolis Valley Campus Environmental Committee. The Cole Award in Excellence for Environment and Health was presented to Donna Smyth and Gillian Thomas of the Citizen Action to Protect the Environment (CAPE). Youth Environmental Leadership award was presented to James Hutt of the Sierra Club. The Award for Environmental Political Will was given to the Town of Wolfville and the Langille Honour in the Woods Award was presented to Wade Prest.





Magdalen Islands, December the 14, 2010

Dear Mister, Madam,

The issue of oil exploitation in the Gulf of St. Lawrence has recently been highly discussed in the media. Indeed, drilling in the Old Harry site, located in the core of the Gulf, seems increasingly possible. The Gulf of St. Lawrence and its coasts, a unique environment, already shares its resources among five Canadian provinces. Thus, the possible development of a new industry in these waters requires a joint discussion. In this context, the Municipality of Magdalen Islands has agreed to gather Gulf's coastal communities to an interprovincial Forum, on April 8 and 9, 2011, in the Magdalen Islands.

Under the title *Exploration and exploitation of hydrocarbons in the Gulf of St. Lawrence: concerns of coastal communities*, the Forum will bring together stakeholders from communities around the Gulf (NS, NB, PEI, NL). The Forum's objectives are providing information needed to develop a strategic position on hydrocarbons issues. The Forum also aims to promote intersectional exchanges (municipal, tourism, environmental and fisheries), cooperation and the establishment of common guidelines or recommendations.

This bilingual forum is held over 2 days. It will contain, during the first day, lectures on various topics related to the Gulf and the offshore oil industry: the Gulf's state, legislation governing the industry, Old Harry project, environmental impacts, repercussions on coastal communities, Norwegian industry portrait, etc. The second day will host workshops on the development of the Gulf, its future for the neighboring communities, its integrated management.

You will receive more information in January (program, registration details, costs, website, etc.). Meanwhile, book **April 8 and 9, 2011** on your calendar to attend the Forum *Exploration and exploitation of hydrocarbons in the Gulf of St. Lawrence: coastal communities concerns, in the Magdalen Islands*. For more details on the event, please contact Catherine Chevrier-Turbide, Project Manager, at 418-986-2225, ext 226.

I am looking forward to have the pleasure of discussing our respective concerns during the event.

Yours faithfully,

Joël Arseneau, mayor
Municipality of Magdalen Islands
460, chemin Principal, Cap-aux-Meules
(Québec) G4T 1A1
418-986-3100



**Municipalité des
Îles-de-la-Madeleine**

Ekurawak ukw mawin

Atlantic Aboriginal Protection of Species Committee

By MAARS Director Roger Hunka

Dartmouth, February 16-17, 2011: Designated representatives to the Atlantic Aboriginal Protection of Species Committee (AAPSC) convened a working meeting at the Hampton Inn in Dartmouth, Nova Scotia. Representatives, working directly in the field of natural life, species at risk, habitat protection, as well as Indigenous Knowledge and scientific knowledge, developed their 2011-2012 annual workplan.

The goal of AAPSC is to increase Aboriginal participation in the identification, involvement, discussions, education, maintenance, preservation and recovery of species in Atlantic Canada.

The current and future challenge involves conserving and recovering species at risk populations and habitats through the use of knowledge-based processes, which includes Aboriginal Traditional Knowledge, applied through existing mechanisms, as deemed appropriate. The complex challenge of recovering species and protecting vital habitats must be achieved in an atmosphere of co-operation and trust among participants.

The committee members work collaboratively with the sole purpose of sharing knowledge and providing informed advice to their respective Aboriginal organizations, entities or councils.

AAPSC also performs a Mi'Kmaq/Malecite early alert function. Because committee members are involved daily in natural sciences, species at risk, habitat protection, research and literature reviews on the subject; they frequently spot and, amongst themselves, quickly analyze emergency issues or matters which should be brought to the attention of their organizations decision-makers. AAPSC is not a consultation body rather a body of experts and technicians providing knowledgeable insight.



Above is a group shot of some of the Committee members present

New Publications from MAARS and IKANAWTIKET

To obtain your copy of any of these publications, contact MAARS CDIL Brett Bancroft at (902)895-2982 or bbancroft@mapcorg.ca.

ESSIM:

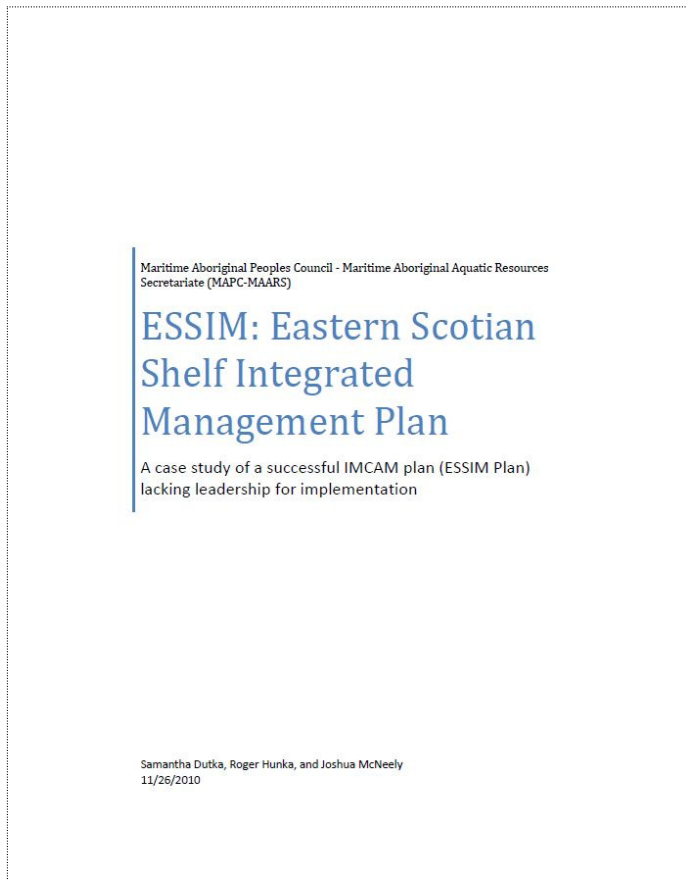
In accordance with the *Convention on Biological Diversity* (CBD) Conference of the Parties Decision VII/22, the Executive Secretary of the CBD Secretariat called upon governments, non-government organizations, Indigenous Peoples,

Initially, ESSIM stakeholders and DFO, working in partnership through a transparent public process, advanced the ESSIM initiative, which resulted in a proposed ESSIM Plan, backed with broad support from stakeholders and regional offices of DFO. The ESSIM Plan addresses numerous concerns and issues from a diversity of resource users, government offices, Aboriginal Peoples, academics, and non-government organizations. However, since being submitted to the Minister of Fisheries and Oceans for signature, the ESSIM Plan has suffered from “a sudden lack of national leadership for approval and implementation”.

The MAARS case-study on ESSIM briefly backdrops the history of oceans management in Canada, and the benchmarks set internationally by the *Convention on Biological Diversity* and the *United Nations Convention on the Law of the Sea*, and the requirements under Canada’s *Oceans Act* to initiate oceans management through the creation of Large Ocean Management Areas (LOMAs). The ESSIM initiative was announced in 1998 as the test pilot for Canada’s first integrated oceans management area.

The authors of the report question why has the ESSIM Plan not been signed off by the Minister after almost 10 years of effort? Given that the ESSIM Plan has been ready since 2007, ESSIM has a multi-sectoral Stakeholder Advisory Council ready to move ahead, and that the Minister has recently approved and signed off the Beaufort Sea Plan, we can draw the conclusion that there is a lack of national leadership to implement ESSIM.

The Stakeholder Advisory Council is made of 32 regional members, representing government, Aboriginal Peoples, industry, fisheries, academia and others who volunteer their time to develop the Plan. The lack of national implementation leadership is disheartening to say the least.



and academia from around the world to submit case-studies on successful and unsuccessful implementation of Integrated Marine and Coastal Area Management (IMCAM), as well as any relevant information relating to the lessons learned from the implementation of IMCAM.

As part of that review, MAARS prepared and submitted a paper on *ESSIM: Eastern Scotian Shelf Integrated Management Plan – A case-study of a successful IMCAM plan (ESSIM) plan lacking leadership for implementation*.

SARA:

Species at risk programs and listings have also suffered from a lack of Ministerial direction and lack of an approved overarching policy to effectively and measurably implement Canada's *Species at Risk Act* (SARA).

Earlier last year, Environment Canada released a *Draft Species at Risk Act Overarching Policy Framework*, in an attempt to fill the federal policy gap between SARA legislative requirements and practical on-the-ground implementation of SARA. Interests were invited to comment on the Draft Policy Framework.

Since enactment in 2002, SARA continues to flounder. On the one hand, volunteer efforts on-the-ground continue to drive SARA implementation. On the other hand, Canada's overarching economic policy of resource exploration and exploitation at the cost to biodiversity, undermines the broad intent and purposes of SARA, as well as many on-the-ground efforts. A reconciliation of SARA and government policy is required at the highest levels. However, the Draft Policy Framework provides nothing new in the way of national policy to clarify or guide towards full and meaningful implementation of SARA. Leadership is woefully unprepared or blind to the facts and reality of SARA and its significance to Canadians and Aboriginal Peoples.

MAPC and IKANAWTIKET responded to the call for comments on the Draft Policy Framework with a *Policy Critique on the Draft Species at Risk Act Overarching Policy Framework*.

The Policy Critique highlights the growing call for a new approach toward the governance and use of natural resources in Canada and why SARA is poised to initiate real action in real time with real results. As Canada's leading national legislation for the implementation of the *Convention on Biological Diversity* in Canada, SARA requires:

- new knowledge to be acquired about biodiversity, including scientific, Aboriginal knowledge, and community knowledge;
- critical assessments of habitats, species, and threats;
- supports for Canadians to protect biodiversity;
- legal enforceable protection of SARA Listed species and their critical habitats;
- broad strategies to bring private, public, and voluntary sectors together to recover species and habitats – mainstream biodiversity protection and public involvement;
- specific and measurable plans and actions to achieve recovery; and
- building Canadian's awareness about the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.

For the Aboriginal Peoples of Canada, SARA is much more. It is an opportunity for Aboriginal Peoples to be involved in decision-making about natural biodiversity in Canada. Through SARA, Aboriginal Peoples can begin to reverse the constraints of subjugation, dispossession, disinheritance, denial of natural biodiversity and natural habitats, and disrespect for Aboriginal Knowledge about those.

Maritime Aboriginal Peoples Council – IKANAWTIKET

Policy Critique of the Draft Species at Risk Act Overarching Policy Framework

Perspectives for the Improvement of the Government of Canada's
Implementation of the Species at Risk Act

Joshua E. McNeely and Roger J. Hunka

January 2011

MPA's:

Another area suffering from lack of vision and implementation is Canada's network of Marine Protected Areas (MPAs). MPAs are vital elements of *Canada's Oceans Strategy* and also international efforts to achieve, at minimum, 10% formal protection of the world's marine environment. MPAs are envisioned as starting points or staging grounds to learn about the oceans, provide sanctuary for marine species, and test new methods and ideas in the search for a balance between economic development, social advancement, and environmental integrity in our increasingly important oceans.

After years of DFO promotion for the creation of new MPAs under the *Oceans Act, 1997*, much remains unrealized and Canadians grow weary of many promises without concrete actions. Less than 1% of Canada oceans receive some protection as a patchy smattering of MPAs. Even less area is fully protected as marine parks. The only way forward is for the whole of the Government of Canada: federal, provincial, territorial, and municipal, along with Aboriginal Peoples, and with the whole of society

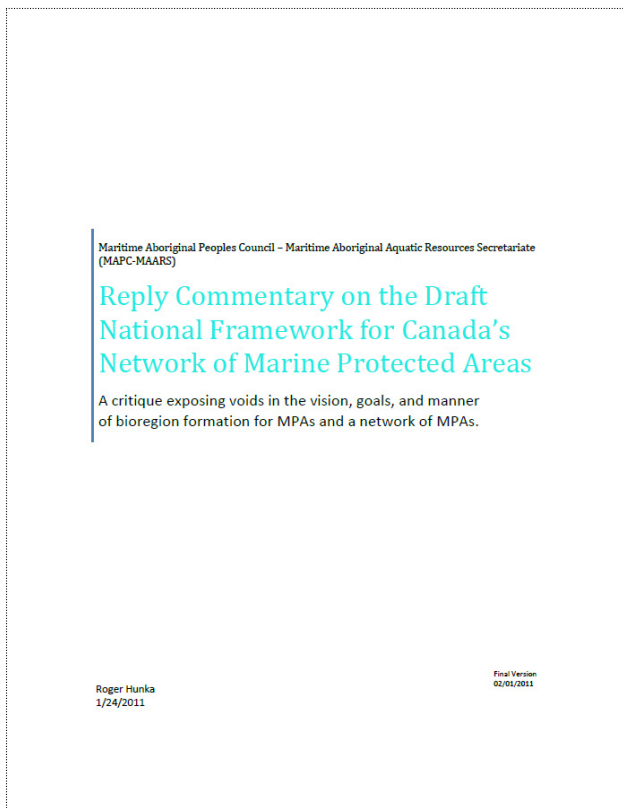
(academia, non-government organizations, industry and citizens), to buy-into and advance a cohesive, comprehensive, and strategic national network of connected, representative, and fully funded MPAs. However, DFO still remains alone, among the Government of Canada, to keep kicking at the file, with no new money and no new political will.

Responding to a request from the Regional Director Generals of both Gulf and Maritimes Region. The Maritime Aboriginal Aquatic Resources Secretariate prepared a *Reply Commentary on the Draft National Framework for Canada's Network of Marine Protected Areas: A short critique exposing voids in the vision, goals, and manner of bioregion formation for MPAs and a network of MPAs*.

We do not buy that changing the boundaries of bioregions, or redrafting visions and promises from yesteryear, or spending time and money on desktop exercises to produce paper networks, is a new breath of air in the increasingly stale MPA file, or that a new framework will suddenly change minds about Canada's oceans.

What is more worrisome, is that Canada's vision for MPAs has grown cloudy after 13 years of neglect by politicians and governments.

Does a rebranding, through a new *Draft National Framework for MPAs* make MPAs any more palatable? We maintain that MPAs, MPA networks, and regional classifications do not need to change. What does need to change is the attitude of the Government of Canada and society about the need to have MPAs. If funded and advanced, we can work within the current system to create MPAs. If Canada cannot advance the Oceans file beyond DFO, then we are simply blowing against a prevailing wind of excessive exploration and exploitation for wealth creation alone without any regard or conscience for fulfilling Canada's obligations for sustainable development, the application of the precautionary approach, or our International commitments to the CBD and the UN Convention on the Law of the Sea.



NOAA and Partners Assist Entangled Right Whale off East Coast of Florida

Provided by the National Oceanic and Atmospheric Administration (NOAA) Dec. 31, 2010

A team of state and federal biologists assisted a severely entangled North Atlantic right whale off the coast of Daytona, Fla., yesterday. The team successfully removed more than 150 feet of ropes wrapped around the whale's head and fins, and cut portions of entangling ropes that remain on the animal.

“We were very concerned about this whale as the entangling ropes appeared to be life threatening,” said Jamison Smith, Atlantic Large Whale Disentanglement Coordinator for NOAA's Fisheries Service. “However, given the efforts of the disentanglement team we are optimistic the whale may shed the remaining ropes on its own, so we will continue to monitor its condition via aerial surveys and intervene again if necessary.”

A team from the Florida Fish and Wildlife Conservation Commission first sighted the entangled whale on Christmas Day, during routine aerial surveys designed to spot right whales in their only known calving, or birthing, grounds off Georgia and northeast Florida. These aerial survey teams alert mariners to the presence of right whales, enabling ships to alter their course to avoid potential collisions with the animals.

This particular animal is a young whale estimated to be approximately 30 feet long and was born during the 2008-2009 calving season. Prior to this recent entanglement, it was last observed gear free by aerial survey teams off Florida's northeast coast in February 2010.

Immediately after spotting the whale on Christmas Day, an FWC team of scientists responded to the whale to further assess the severity of the entanglement and the physical condition of the whale. While on scene, the team was able to attach a satellite tracking buoy to the trailing lines.

The disentanglement team for this event, lead by Georgia Department of Natural Resources, consisted of land, sea, and air support from NOAA's Fisheries Service, FWC, Wildlife Trust, Provincetown Center for Coastal Studies, and New England Aquarium.

Disentangling a right whale takes a great deal of planning, expertise, and coordination among agencies. Because of the speeds at which the animals move and distances they travel, it sometimes takes days or even weeks under ideal weather and oceanographic conditions to safely and successfully free an entangled whale.



Photo credits: Florida Fish and Wildlife Conservation Commission
Right whales spend their summers feeding off the New England and Canadian coasts, then travel to the southeast waters to give birth to their calves from mid-November through mid-April. Scientists typically document one or two entangled right whale cases in the southeast each year.

Fishing gear removed from whales in previous southeast cases originated from locations as far away as New England and Canada. Fishing gear removed from the whale yesterday included ropes and wire mesh material, similar to what is found in the trap or pot fisheries for fish, crab and lobster along the mid-Atlantic, northeast U.S., and Canadian coasts.

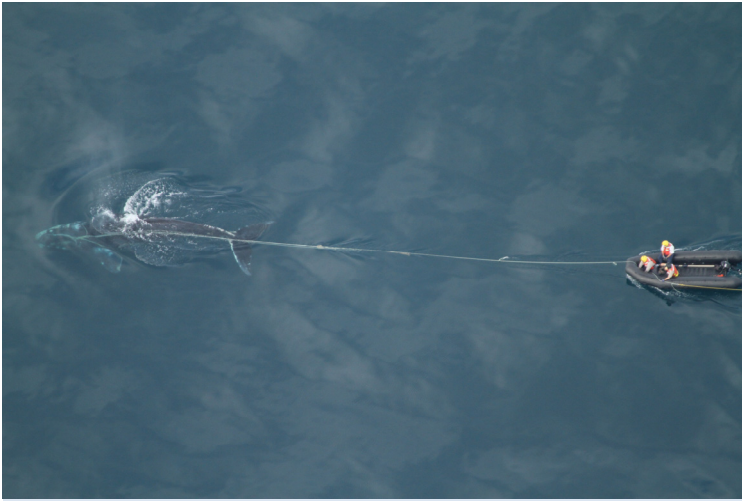


Photo credits: Florida Fish and Wildlife Conservation Commission

However, the specific fishery and its geographic origin are pending examination by experts at NOAA's Fisheries Service.

With only 300-400 in existence, North Atlantic right whales are among the most endangered whales in the world. They are protected under the U.S. Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972. Vessel strikes and entanglement in fixed fishing gear are the two greatest threats to their recovery.

NOAA Fisheries Service encourages people to report sightings of dead, injured, or entangled whale to the Florida Fish and Wildlife Conservation Commission at 1-888-404-FWCC (3922) or the Georgia Department of Natural Resources at 1-800-2-SAVE-ME (272-8366). All live right whale sightings should be reported to the USCG via Channel 16.

For more information on this story, please contact:

Kim Amendola, Communication Specialist, NOAA Fisheries Service

Office: 727-551-5707 Cell: 727-403-6533 Email: kim.amendola@noaa.gov



Pictured above are Cory Francis, Douglas McLeod and Frank Jesty of the Native Council of Nova Scotia's Netukulimkewe'l Commission, proudly displaying their completion certificates for the Aboriginal Fishery Guardian Course held at the Coast Guard College in Sydney Nova Scotia.

Cory, Douglas and Frank are three of the fifty eight participants who attended the three week course sponsored by the Department of Fisheries and Oceans. The training includes monitoring of fisheries, harvest data collection, patrolling and reporting of all fishing activities in designated areas. Cory, Frank and Doug are trained in enforcement of both Netukulimkewe'l Commission harvesting guidelines for the Traditional Ancestral Homelands Mi'Kmaq/Aboriginal Peoples continuing throughout Nova Scotia and DFO regulations. Congratulations.

Mammal Entanglement in Atlantic Canada

By NS AMDO Franz Kesick

There has been little effort in Canada directed toward reducing entanglements in fixed fishing gear and the last three right whales disentangled in US waters were dragging Canadian fishing gear. There is interest in the fishing community to work with biologists to reduce the risk of entanglement in Canadian waters. An analysis is underway at Dalhousie University to examine the overlap between right whales and fixed fishing gear in the Bay of Fundy and around southern Nova Scotia.

Innovative solutions are urgently needed to reduce the conflicts between fishing gear and right whales. The Canadian government has not undertaken any efforts to reduce the probability of entanglement; rather they have equipped a couple of teams with disentanglement equipment. While disentanglement can help, not all entangled right whales are found (75% of the population bear scars from gear entanglements), and the ones that are found are notoriously difficult to disentangle. Solutions that minimize the chance for entanglement and the effects on conservation actions, and fishing industry practices, will only be found by whale scientists and industry working together. Hopefully with an analysis underway at Dalhousie we may find the solutions within the next three to five years. (<http://www.canadianwhales.org/join.html>)

Campobello Whale Rescue Team (CWRT)

The Campobello Whale Rescue Team is a volunteer organization of fishermen who have first-hand knowledge of the Bay of Fundy and Gulf of Maine, as well as the commercial fishing gear and how it is used.

- Team members are trained and equipped to disentangle large whales from fishing gear and work with weir owners to release entrapped whales.
- The team is permitted to disentangle whales in the Maritimes and provide assistance to the National Marine Fisheries Service for disentanglement events in the northeast USA.
- The team has provided basic whale rescue training to fishery officers based in New Brunswick and Nova Scotia.
- Calls to the toll free number are received 24/7 by the Marine Animal Response Society and relayed to the CWRT.
- Depending on the time of day and weather conditions, the CWRT will respond immediately.
- It is critical that the reporting vessel stand by the entangled whale.
- Once the CWRT arrives on scene, the entanglement will be assessed, documented with photos or video, and they will attempt to disentangle the whale if it is feasible and safe. (http://www.rightwhale.ca/includes/disentanglement_poster_2010.pdf)

The Marine Animal Response Society (MARS)

The Marine Animal Response Society is a charitable organization dedicated to marine mammal (whales, dolphins, porpoises, and seals) conservation in the Maritimes through rescue, education and research. The society, formerly known as the Nova Scotia Stranding Network, was established by a group of volunteers in 1990 to monitor and respond to stranding's and incidental catches of marine mammals. (<http://marineanimals.ca/site/>)

Our toll-free hotline is available 24 hours every day for emergencies
involving all Marine Mammals is **1-866-567-6277**

Pre-cosewic peer review meeting for striped bass

By NB AMDO Barry LaBillois-Excerpts with Commentary

Barry LaBillois, AMDO New Brunswick, attended a Department of Fisheries and Oceans (DFO) science peer review meeting to consider current DFO information on the status of the Striped Bass (*Morone saxatilis*) in eastern Canada, which took place on February 2nd & 3rd, 2011, at the Coastal Inn in Moncton, New Brunswick.

In 2002, information by DFO and the provincial government of Quebec on the Striped Bass populations throughout Atlantic Canada was provided to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) at a National Advisory Process meeting in Halifax, Nova Scotia. Using that information and information from other available sources, COSEWIC identified and assessed three designatable units (DU) of Striped Bass in eastern Canada in November 2004. COSEWIC assessed the southern Gulf of St. Lawrence DU and the Bay of Fundy DU as ‘Threatened’ and the St. Lawrence estuary DU as ‘Extirpated’.

- Population St. Lawrence estuary

Status: Extirpated

Reason for designated: The population from the St. Lawrence estuary has disappeared as a consequence of illegal fishing, with the last record dating from 1968.

Occurrence: Quebec

- Population Southern Gulf of St. Lawrence

Status: Threatened

Reason for designation: This fish was once commercially important and is still highly prized by anglers. Threats include by catch in various fisheries such as gaspereau and rainbow smelt. Illegal take, particularly during ice fishing, is also believed to be a threat.

Occurrence: Quebec, New Brunswick, Prince Edward Island, Nova Scotia

- Population Bay of Fundy

Status: Threatened

Reason for designation: repeated spawning failures led to the disappearance of the Annapolis and Saint John River populations. These disappearances are thought to be due to changes in flow regime and poor water quality. In the Shubenacadie River population, the presence of the introduced chain pickerel in overwintering sites may constitute a threat. Another threat to the population is by catch from various commercial fisheries. The Bay of Fundy is also used by Striped Bass breeding in rivers in the United States. These fish were not assessed.

Occurrence: New Brunswick, Nova Scotia

As part of the DFO advisory process to the Minister concerning the listing of Striped Bass under Schedule 1 of the *Species at Risk Act* (SARA) DFO prepared Recovery Potential Assessments for the three DUs in 2005. Despite this collection of information and advice from 2002-2006, there has yet to be a SARA

recommendation by the Minister to the Governor-in-Council. Only recently, October 13, 2010, has the Minister even acknowledged receipt of the COSEWIC assessment for the St. Lawrence Estuary DU. The Minister has yet to take any actions on the other two COSEWIC assessments.



NB AMDO Barry LaBillois with a Striped Bass

In my view, the Minister has avoided a SARA listing for Striped Bass by not formally acknowledging receipt of the COSEWIC assessments; thereby stalling SARA listing timelines and process through a technicality.

Now, six years later, sufficient time has passed and information gathered, which requires COSEWIC to undertake a reassessment of Striped Bass. I question, when will DFO move ahead with the previous COSEWIC assessments and the Minister forward the COSEWIC listing recommendations to the Governor-in-Council? It is a mockery of the system if DFO has not dealt with the last assessments before COSEWIC is required to undertake reassessments. Is this the future of Striped Bass, for their fate to spin around and for them to be dealt with cavalierly or ignored by those in power who could stop their extinction?

For the benefit of our readers who are asking “what is the current situation for Striped Bass”, I provide some excerpts from the meeting and information provided. See end of the article for further information.

Striped Bass Biology

Striped bass is an anadromous percoid that spawns in many estuaries along the eastern seaboard of North America. Striped bass historically have spawned in five locations within eastern Canada, The St. Lawrence estuary (Quebec), the Miramichi estuary of the southern Gulf of St. Lawrence, and the Saint

John, Annapolis and Shubenacadie estuaries of the Bay of Fundy. Genetic analyses and tagging studies indicate that Striped bass in the southern Gulf are isolated from those in the Bay of Fundy.

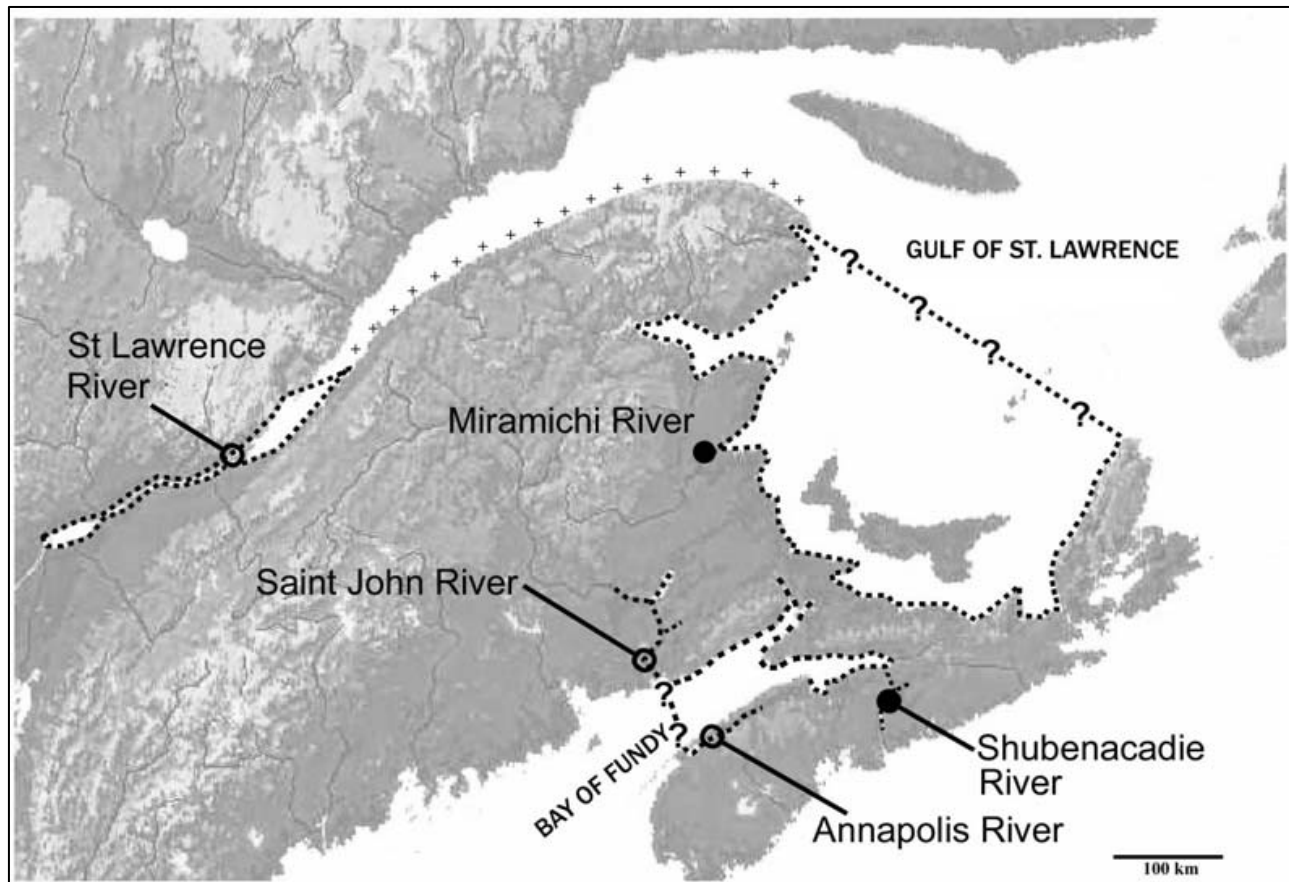
Striped bass spawn in tidal freshwater near the upper limit of the salt wedge of estuaries usually during May and June when water temperature range from 10-15°C depending on the river system. Milt and eggs are broadcast simultaneously into the water column, float freely, and hatch in 2-3 days depending on water temperature and conditions. Larval striped bass exhaust their yolk reserves in 1-2 weeks at which time exogenous feeding begins on small zooplankton and benthic invertebrates. Growth rate can be rapid during the summer months with end of season on fork length ranging between 8 and 20 cm. Young-of-the-year (YOY) striped bass move to the near shore habitats of estuaries shortly after transition from larvae to juvenile is complete. Juveniles exhibit a downstream range extension into saline environments throughout the summer. By October, their range can extend from a few to hundreds of kilometres away from their river of origin, both YOY and adult striped bass return to estuaries or freshwater habitats in the fall to spend the winter. As striped bass grow and become high order predators within estuarial and ecosystems, their diet shifts to include small fishes and invertebrates such as silverside, alosids, herring, American eels and crabs. Canadian spawning striped bass can be long lived, reaching a maximum age of 20 years and a maximum length of over 1 m.

Current populations

The St. Lawrence Estuary population of Striped Bass has been designated as extirpated since the species disappearance was observed in the late 1960s. Although the original striped bass population is gone a new population is currently rebuilding, efforts to restore that population with striped bass of Miramichi origin began in 1998-99. Approximately 10-20 thousand young-of-the-year striped bass from the Miramichi River have been transported to Quebec for direct stocking to the St. Lawrence Estuary or the development of brood stock at a hatchery in Baldwin Mills (2002). Since 2002 more than 6300 striped bass larger than 60mm and nearly 6.5 million larvae 2-4mm has been introduced into the St. Lawrence between saint-Pierre-les-Becquets and Rivière-Ouelle. The reintroduction is aimed at introducing up to 50 000 fall fry in order to create a population that can sustain itself. During monitoring in 2008 it showed that natural spawning had occurred in the estuary as 38 striped bass individuals born that year were captured, and no stocking had occurred for this age group that year.

The Southern Gulf of St. Lawrence was listed as threatened in 2004 with the Northwest Miramichi River is the only striped bass spawning area in the Southern Gulf of St. Lawrence. A commercial fishery existed in the southern gulf shows a historical high in 1917 with 61t being caught followed by a significant decline until 1934. No commercial landings were reported in the subsequent 33 years (from 1935-1968). This is attributed to the very low abundance of striped bass during this period, commercial fishing resumed in 1969 which landings peaking in 1981 at 48t then falling less than 1t in the early 1990s. The commercial striped bass fishery in the southern gulf was closed in 1996. Spawner estimates for the Miramichi River showed a spawner abundance fell from 50 000 in 1995 to approximately 8 000 in 1996 and 1997, and then less than 4 000 between 1998 and 2000. In then increased to 24 000 in 2001 and to 29 000 in 2002, the sharp decline in spawner abundance is believed to be due to the commercial fishery which was subsequently closed. The recent recovery is believed to be due to the high survival rates of the 1998 year class. Spawner estimates in 2008 (92,200) and 2009 (50,200) match or exceed the highest estimate (50,000 in 1995) of the short time series (1993-2010). Since 1999 a trend is happening that older

fish are not there in comparison to the previous year where the age class of 11 years old are gone, and again in 2002 the 9 years and older are missing, in 2004 the 7 years and older are gone, till present the only striped bass that are left are from age 3-5 and size from 30-50 cm range.



Location of five rivers in Eastern Canada that have supported spawning striped bass populations. The filled-in circles indicate extant populations and the open circles indicate rivers for which no spawning activity has been observed for 20 years or more. The dotted line defines the probable extent of occurrence, or at least the known part of it. In the case of Bay of Fundy populations, striped bass catch records are not enough to define the extent of occurrence in the bay, because it is also used by bass from U.S. rivers. On the south shore of the St Lawrence Estuary, about 200 specimens were collected between 1975 and 1994 (depicted by the “+” symbols in the figure). These are believed to be vagrants that originated from the Miramichi River.

Bay of Fundy Tributaries

The Shubenacadie River is the only of three historical spawning locations within the Bay of Fundy DU where Striped Bass continue to be produced annually. . In 2002, the Shubenacadie River population totalled between 18,000 and 27,000, at least 15,000 of which were of minimum reproductive age (3 years or more) and at least 7,000 of which were 4 years and over. Like the beach seine surveys of young-of-the-year, recaptures of tagged bass seem to suggest a summer range of this population in the inner portion of Minas Basin. This population is the only population of the Bay of Fundy group for which it has been possible to conduct sampling of young-of-the-year in recent years. It is showing no evidence of decline.

However, a sufficiently long time series of population estimates is not yet available to formally confirm that its abundance is stable.

Striped bass from the Shubenacadie River migrated upstream to overwinter in Grand Lake, where they can be caught in the winter ice fishery. In May, They migrate downstream to Minas Basin in the southern Bay of Fundy. Striped bass Spawn in the Stewiacke River in, a tributary of the Shubenacadie River.

Annapolis River/ Saint John River

Surveys of recreational striped bass fishers in the Annapolis River suggest that this Population declined from 1971 to 1978. The data collected show not only significant variations in the number of catches but, more importantly, changes in the characteristics of the fish caught, indicating very low recruitment and an aging of this population since 1971: an increase in average length, weight and age, combined with a sharp decline in the proportion of young fish. Starting in 1975, the majority of bass captured were adults, with juveniles being rare. There is no evidence that new individuals have been produced since 1976.

It has also been suggested that the construction of the Royal Annapolis dam in 1960 and the Mactaquac dam in 1967 on these two rivers may have modified spawning, incubation and rearing habitat. However, there is no consensus on how these changes have affected striped bass reproduction

Striped bass egg sampling conducted in 1975 on the Saint John River showed that 96% of the eggs captured had ruptured membranes, a phenomenon that may be due to the presence of contaminants or to a sudden change in osmotic conditions. Similarly, on the Annapolis River, spawning occurred several times in the 1980s, but none of the eggs survived in the river. However, when they were transferred to fish farms, they developed normally and produced juveniles.

Genetics analysis of Striped Bass collected in the Saint John River since 2000 revealed the presence of Shubenacadie origin, USA origin, and a potential third group of fish which could not be assigned to any known population. These fish exhibit greater genetic similarity to the southern Gulf and Shubenacadie populations than to any USA origin populations included in the analysis. The evidence for existence of a previously unidentified population occurring within the Bay of Fundy, while introducing uncertainty in the stock structure of Striped Bass in the Bay of Fundy, is not considered sufficient to entertain the possibility of a status review of the Bay of Fundy Striped Bass DU at this time.

If you would like additional information related to this article please see:

CSAS Science Response 2009/018 – *Potential Impact of Accidental Captures by Commercial and Recreational Fisheries on the Survival and Recovery of the Striped Bass (Morone Saxatilis) Population in the St. Lawrence Estuary*

CSAS – *Assessment of Striped Bass in the Southern Gulf of St. Lawrence 2006-2010*

CSAS Research Document 2006/041 - *Assessment of status and recovery of striped bass in the southern gulf of St. Lawrence*

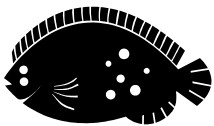
CSAS Science Advisory Report 2006/053 - *Recovery Assessment Report for the St. Lawrence Estuary, Southern Gulf of St. Lawrence and Bay of Fundy Striped Bass (Morone saxatilis) Populations*

COSEWIC *Assessment and Status Report on the Striped Bass Morone saxatilis* 2004

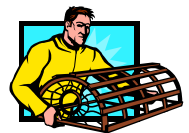
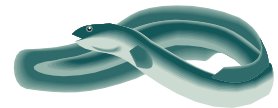


Throughout the months of January, February, March 2011, the MAARS Staff attended many Fishery: Stakeholders/ Advisory/ Committee/ Area Meetings, Science Workshops, Oceans Planning & Management Sessions.

Listed is a very small sample of predictable interfaces between MAARS and the Fishing Industry, Government and Science.



1. MAPC MAARS Director Roger Hunka and IKANAWTIKET Joshua McNeely participate in a Environment Canada Boreal Caribou consultation session for CAP. Concerns were raised over the recovery process.
2. NS AMDO Franz Kesick attends a Inshore Scallop Advisory Committee Meeting to learn about: review of agenda, Science review, quota on recommendations, management measures and Integrated Fisheries Management Plan (IFMP).
3. MAARS Director Roger Hunka, NS AMDO Franz Kesick and Mime’j Seafoods Manager Tim Martin meet with DFO representative’s Mr. Greg Stevens and Mr. Carl MacDonald to discuss green crab licenses and give the Native Council of Nova Scotia allocations for snow crab.
4. NS AMDO Franz Kesick and MAARS SCAA Mary Rose Watts attend a Nova Scotia Environmental Network open house to showcase their new place of business.
5. MAARS Director Roger Hunka with NS AMDO Franz Kesick meet with Mr. Michael Butler to discuss the International Ocean Institute and how to get Aboriginal participation in the program.
6. MAARS Director Roger Hunka attends a Ambassadors briefing on the outcomes of the Climate Change conference in Cancun, Mexico.
7. MAARS Team attends the Nova Scotia Environmental Network Eco-Hero awards where MAARS was chosen as the 2011 Marshall award for Aboriginal Environmental Leadership.
8. NB AMDO Barry LaBillois and Mime’j Seafoods Ltd. Manager Tim Martin attend a Atlantic Large Pelagics meeting.
9. NS AMDO Franz Kesick attends a Lobster Fishing Area (LFA) 33 meeting.
10. NS AMDO Franz Kesick attends the 18th Fishermen and Scientists Research Society annual conference.
11. MAARS Team hosts a Access and Benefit Sharing meeting.
12. L’nu Fisheries Manager Jordan Crane attends the Gulf Groundfish Advisory Committee meeting.



Netawek Ikkikum

Voice of the Ocean

In this issue:

- MAARS receives the 2011 Marshall Award for Aboriginal Environmental Leadership
- Magdalen Islands Forum
- Atlantic Aboriginal Protection of Species Committee (AAPSC)
- New Publications: ESSIM
- New Publications: SARA
- New Publications: MPA's
- NOAA and Partners Assist Entangled Right Whale off East Coast of Florida
- Mammal Entanglement in Atlantic Canada
- Pre-COSEWIC peer review meeting for striped bass

Netawek Ikkikum is a free quarterly communiqué profiling the **Maritime Aboriginal Aquatic Resources Secretariate** activities.

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Go to votemyfundy.com to vote Canada's Bay of Fundy in the New7Wonders of Nature Campaign

Maritime Aboriginal Aquatic Resources Secretariate

Collectively advancing the rightful share to Atlantic Aquatic Resources and Aquaculture Operations for the sustained, viable economic growth of the Maritime Aboriginal Peoples

MARITIME ABORIGINAL PEOPLES COUNCIL-COLLABORATIVE MANAGEMENT BODY
A partnership of the Native Council of Nova Scotia,
New Brunswick Aboriginal Peoples Council & Native Council of Prince Edward Island

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