

Netawek Iikjikum

Voice of the Ocean

Quarterly Newsletter of the Maritime Aboriginal Aquatic Resources Secretariate

Vol. 4 Issue 4, March 2009

Fishermen and Scientists Research Society (FSRS) 16th Annual Conference

NS CARDA Franz Kesick attended the 16th Annual Conference of the Fishermen and Scientists Research Society (FSRS) held at the Glengarry Conference Centre in Truro on February 20 & 21, 2009.

A joint FSRS-Gulf of Maine Lobster Foundation (GOMLF) lobster science workshop was held prior to the FSRS Annual Conference on February 19, 2009. The workshop centered on "*Lobster Post Larval Collector Research Collaboration*" and on "*Using Science to Better Understand the Environment and Economic Impacts of the Lobster Fishery.*"

The FSRS Annual Conference was a huge success again this year. Approximately 140 people attended and there were numerous displays from all sorts of industries and groups.

Many interesting topics were covered in the two day conference including Climate Change, Ocean Tracking Networks, Lobster Blood Sample Studies and Marine Ecosystem Surveillance using satellites.

By Franz Kesick

Nova Scotia CARDA

We Extend Our Hand on Invasive Alien Species

By IKANAWATIKET Regional Facilitator Joshua McNeely

Since the creation of the Nova Scotia Invasive Species Working Group (NSISWG) in September of 2007, IKANAWTIKET has been working with other NSISWG members from the Nova Scotia departments of Natural Resources, Agriculture, and Transportation, Acadia University, Canadian Food and Inspection Agency, Fisheries and Oceans Canada, Clean Annapolis River Project, Cape Breton University, and others to organize and host the first ever Nova Scotia invasive alien species (IAS) stakeholders workshop. The workshop, entitled *Stepping Up: Planning for the Challenges of IAS in Nova Scotia*, was held at Acadia University on December 3 & 4, 2008. Academia, provincial and federal government departments, ENGO's, some small industry associations in Nova Scotia, concerned members of the public, and other provincial IAS groups from around Canada attended. IKANAWTIKET Joshua McNeely gave a short presentation setting the stage for the inclusion of Aboriginal Peoples in IAS related research, activities, and government policy and also handed out information about Aboriginal Peoples and organizations in Nova Scotia.

The Hon. David Morse, Minister of Natural Resources, gave some opening remarks highlighting the disastrous example of government inaction in Australia leading to massive outbreaks of invasive alien species in that country. Minister Morse stated that he is looking forward to receiving suggestions and recommendations on invasive alien species from the workshop, because we cannot let any Minister be asleep at the wheel and allow invasive alien species to be a problem in Nova Scotia.

As has been the continued practice of the Mi'kmaq in our relations with the government, IKANAWTIKET extended a hand to work with the government and other IAS practitioners in Nova Scotia to include Aboriginal Peoples in IAS activities, research, and policy development. Together, we can address the clear and present threat of invasive alien species in Nova Scotia. The IKANAWTIKET Regional Facilitator has been active in laying groundwork for the development of a new government-public-Aboriginal coalition in Nova Scotia called ISANS (the Invasive Species Alliance of Nova Scotia). Anyone interested in learning more about ISANS or its sister groups in New Brunswick or PEI, or if you are interested in learning more about invasive alien species in the Maritimes or participating in invasive alien species research or activities, please contact IKANAWTIKET at ikanawtiket@mapcorg.ca or (902)895-2982.

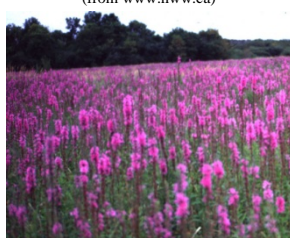


The Maritimes Region has the largest number of Invasive Alien Species per area

Asian Long Horned Beetle
(from www.exoticpests.gc.ca)



Purple Loosestrife
(from www.hww.ca)



Smallmouth Bass
(from www.getsomebass.com)



European Green Crab
(from www.ec.gc.ca)



Eastern Scotian Shelf Integrated Management (ESSIM) Initiative Stakeholders Advisory Council (SAC) Meeting

By NS CARDA Franz Kesick

NCNS MAPC-MAARS SAC Representative Franz Kesick attended the 12th meeting of the ESSIM Stakeholder Advisory Council (SAC), held at the Holiday Inn Harbourview on January 27 & 28, 2009.

DFO departmental updates were presented as well as an update from the Regional Committee on Oceans Management (RCOM).

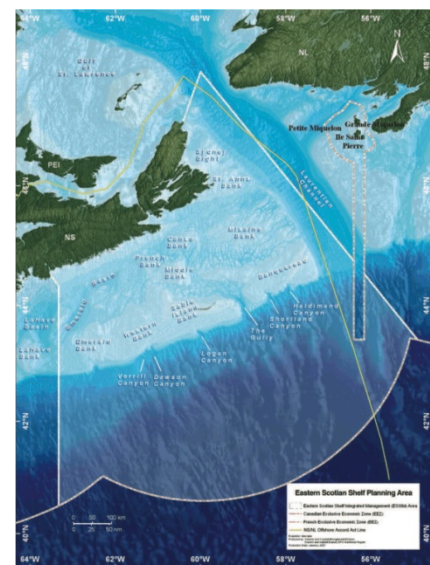
All members of the ESSIM SAC gave updates in regards to their respective organizations. This provided for information and discussion on current and future activities in the ESSIM area. All members agreed to discuss their memberships with their organizations in order to finalize any changes to the SAC membership. These changes, if any, will take place after the next SAC meeting scheduled for April 2009. The election of a non-government Co-chair will also take place at the April 2009 meeting.

A presentation of the work being done on the development of a Marine Protected Area network and the process of selecting Area's of Interest was presented by Tracy Horsman and Maxine Westhead.

A report on the 4th ESSIM Forum Workshop held in November 2008 was presented by Bruce Smith. There were approximately 150 people in attendance, representing various organizations from Industries, Governments, Community Groups and others. The workshop report is currently in preparation and will be added to the ESSIM website at <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-intro-e.html>.



Mrs. Melanie Maclean facilitating a group discussion during a work planning exercise at the ESSIM meeting on January 28th, 2009



Digging Happy Clams along Nova Scotia's Shores

By Sadie Beaton of the Ecology Action Centre

“I love the expression, ‘happy as a clam’”, notes poet Dean Young, in an ode to the oft-overlooked beach resident. “How it imparts buoyant emotion to a rather, when you get down to it, non-expressive creature.”

The soft-shell clams (*Mya Arenaria*) found deep in mud and sand flats across Nova Scotia's beaches, bays and estuaries may have chalky, inscrutable faces. This does not, however, mean that these creatures are uninteresting or insensitive. Many of us already know that they are delicious steamed and dipped in garlic butter - but their sensitivity also makes them tremendously valuable as ecological indicators of good water quality and beach health.

Soft shell clams belong to the animal kingdom family Mollusca, which includes bivalves (two-shelled shellfish), gastropods (snails) and cephalopods (squids, cuttlefish and octopi). They have a thin, brittle shell of calcium carbonate, hence the name, which sets them apart from their tougher-shelled cousins the quahogs (*Mercenaria mercenaria*). They've also earned the nickname of ‘squirt clam’ or ‘piss clam’, because of their habit of ejecting a spurt of water when disturbed by diggers.

This spurt of water is shot from a distinguishing leathery tube which can be up to three times as long as the shell and encases two well-developed retractable siphons. Voracious filter feeders, soft-shelled clams use their siphons like a snorkel to respire and to filter food particles from the water column. These creatures pump incredible quantities of water through one siphon, often straining two litres or more per hour over their gills, where food particles can collect, and then back out the other siphon.

Soft-shell clams are “happiest” five to ten centimeters deep in wet coastal sediment where the seawater's saltiness is tempered by a source of freshwater. This makes them especially well adapted to bays, the mouths of estuaries and barachois ponds. Shellfish harvesters, often called “clammers” look for tell tale siphon-holes during low tide, using hand tools to quickly dig down into the sediment, collecting the mature clams in buckets.

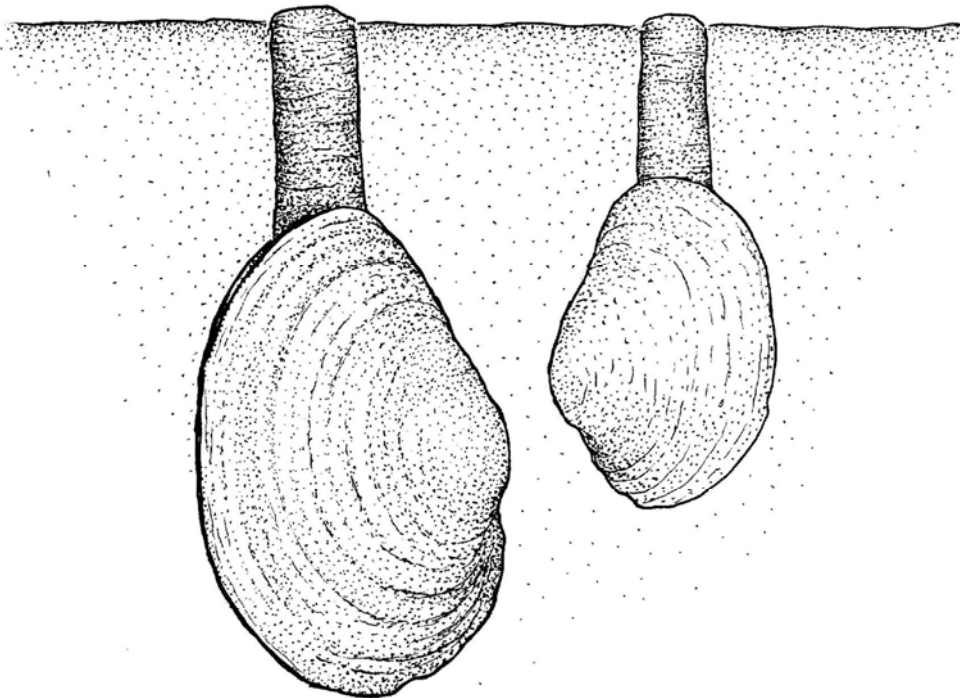
Most clam food comes in the form of microscopic plant cells known as phytoplankton, but also includes a helping of microscopic animals, bacteria, dead plant material, and detritus. In areas where fresh water is polluted, soft-shell clams may concentrate harmful contaminants in their guts. This capacity to concentrate toxins can impact their health and also makes them harmful to eat.

Unfortunately, sewage and septic contamination has compromised beach health and water quality in many important clamming areas, with serious implications for Nova Scotia's shellfish harvesting

industry. The number of beach closures due to water quality concerns has more than doubled in Nova Scotia over the past 15 years at an estimated cost of \$8 million each year in lost revenues.

These sensitive, if non-expressive, bivalves serve as a vital reminder of the importance of protecting Nova Scotia's watersheds. Soft-shell clams also provide an opportunity for communities to monitor the health of their local watersheds and beach ecosystems, and to ask the government for land use policy changes and infrastructure upgrades where and when they are needed. A beach full of happy, healthy clams means that local septic and sewer systems are in good working order, the local watershed is being protected from runoff and spillage pollution, and that our hard-working clammers are happy, too.

Sadie Beaton coordinates the Coastlines monthly natural history column and is currently craving a feed of local fresh hand-dug non-depurated clams, steamed and dipped in garlic butter. Coastlines is coordinated by the Coastal Issues Committee at Ecology Action Centre and supported by the Nova Scotia Habitat Conservation Fund with contributions from hunters and trappers.



Two soft-shell clams enjoying a day at the beach Illustration by Sydney Smith

Putting SARA on Track

IKANAWTIKET Regional Facilitator Joshua McNeely

Over 75 Aboriginal delegates of the five National Aboriginal Organizations (Congress of Aboriginal Peoples, Assembly of First Nations, Métis National Council, Inuit Tapiriit Kanatami, and Native Women's Association of Canada) met in Halifax, Nova Scotia on February 10-12, 2009 at the annual NACOSAR National meeting. Delegates voiced concerns (which has been the practice for the past 4 years) on the implementation of the Species at Risk Act (SARA). Officials of Environment Canada (EC), Fisheries and Oceans Canada (DFO), Parks Canada Agency (PCA), the Aboriginal Traditional Knowledge Sub-committee of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC ATK-SC), and the annual meeting host – the National Aboriginal Council on Species at Risk (NACOSAR) heard the comments concerns and frustrations.

The House of Commons Standing Committee on Environment and Sustainable Development is presently undertaking a five year Legislative Review of SARA. NACOSAR held this latest annual meeting in part to prepare their evidence to the Committee and to discuss a possible Aboriginal Engagement strategy and also to share information between delegates, Government, COSEWIC ATK-SC and NACOSAR.

Sixty-two recommendations were made to NACOSAR and the Government to better implement SARA. Especially as a foundation for Aboriginal involvement in SARA there is an URGENT NEED for:

- Aboriginal capacity to deal with species at risk,
- government acknowledgement of the diversity of Aboriginal Peoples, especially when creating Government policy and Aboriginal Advisory Committees about species,
- acknowledgement by Canada that Aboriginal Peoples do have rights to traditional lands and resources and a right to develop and maintain Indigenous Knowledge, and
- a Canadian policy to respect Prior Informed Consent (PIC) before making decisions which affect Aboriginal Peoples rights, knowledge and accesses to lands and resources.



Bill Erasmus, NACOSAR Chair Annual Meeting, Feb. 10-12, 2009



National Aboriginal Council
on Species at Risk

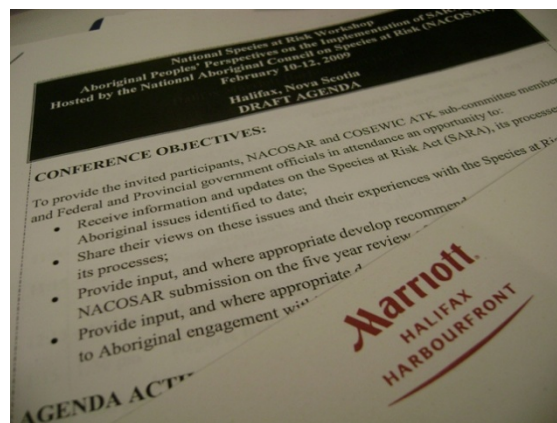
These issues and many of the other recommendations made at this workshop are not new. They have been expressed many times at provincial, regional, and national meetings since the early days of drafting species at risk legislations. Many delegates expressed frustra-

tion that SARA was being implemented too slowly, haphazardly, without meaningful consultation or support for consultation and little respect or inclusion of Traditional Knowledge of Aboriginal Peoples. The delegates made a declaration which called for action:

- that NACOSAR and the five National Aboriginal Organizations submit a joint letter with recommendations to the Prime Minister and competent Ministers for SARA within 3 months;
- that the Federal Government respond to the recommendations by August of 2009;
- that all parties commit to an effective communications plan, to fully involve Aboriginal Peoples, and to protect Aboriginal Rights, traditional territories, and traditional ways of life.



NACOSAR Delegates Annual Meeting, Feb. 10-12, 2009



NACOSAR Agenda

Many obstacles lay in the path of NACOSAR and Aboriginal Peoples effective involvement within SARA. Together, NACOSAR and the five National Aboriginal Organizations with Environment Canada, Department of Fisheries and Oceans and Parks Canada should establish a NACOSAR Secretariat with appropriate offices within sight of the Minister of Environment offices and provide NACOSAR with an approved operations budget which NACOSAR could control throughout the fiscal year. “Operating from a phone booth” is not acceptable nor respectful of the stature afforded NACOSAR in the legislation nor expectations of the Aboriginal Peoples of Canada.

These are important matters for Aboriginal Peoples involvement in SARA, particularly for our community of Aboriginal Peoples who continue on our Traditional Ancestral Homelands throughout the Maritime Region. Our Maritime Aboriginal Peoples Council IKANAWTIKET service will continue to follow these developments and send out updates on the IKANAWTIKET Discuss List. If you wish to receive more information or want to be directly involved or have ideas on how NACOSAR can advance its role, please contact Joshua McNeely at ikanawtiket@mapcorg.ca, (902)895-2982 or your Native Council Chief in your province.

NCNS Zone 4 Information Meeting

By NS CARDA Franz Kesick

MAPC/MAARS Director Roger Hunka and NS CARDA Franz Kesick attended a meeting of the Native Council of Nova Scotia's Zone 4 held at Digby Nova Scotia on February 1, 2009.

MAPC/MAARS was requested to attend this meeting to provide updates on the goals and directions that MAARS has been following as well as information in regards to Species At Risk and the Species at Risk Act (SARA). Roger explained SARA and its purpose, as well as the procedures used to list Aquatic, Terrestrial and Plant species.

Members of Zone 4 identified some plants and animals in their area which they believe are on the Species At Risk list. They encounter these plants and animals during their travels of hunting, fishing or gathering activities. After some discussion in regards to these species identified, it was suggested that MAPC IKANAWTIKET Regional Facilitator Joshua McNeely should attend Zone 4 to assist the members in making appropriate contacts in identifying and mapping positions of species.

It was suggested to Zone 4 that because of their interest in SARA they should become more involved in the consultation process for listings and recovery strategies and action plan involvement.



Pictured above is Mr. Roger Hunka MAPC/MAARS Director, Zone 4 member Cameron Cromwell and holding the Eagle Feather is Angel Hamilton Youth Member for Zone 4.

Using Satellites to find fish – The SAFARI Project

By MAARS CDIL Brett Bancroft

The waters of the Gulf of St. Lawrence (right) are midnight blue in this Moderate Resolution Imaging Spectroradiometer (MODIS) image from the Aqua satellite on July 2, 2003. South of Nova Scotia (center), however, bright blue swirls in the water suggest a bloom of marine organisms, perhaps a kind of phytoplankton called coccolithophore, a single-celled plant whose chalky white covering can cause the water to appear bright blue. (Photo and article taken from NASA <http://visibleearth.nasa.gov/view>)



On March 13, 2009, Dartmouth, Nova Scotia, MAARS Director Roger Hunka, IKANAWTIKET facilitator Joshua McNeely, N.S. CARDA Franz Kesick, N.B. CARDA Barry LaBillois and MAARS CDIL Brett Bancroft were at the Bedford Institute of Oceanography to learn about the *SAFARI PROJECT – societal applications in fisheries & aquaculture using remotely-sensed imagery (SAFARI)*.

With Satellite technology today scientists are able to determine Sea surface temperature (SST) through Sea surface colour (SSC) as well as other important characteristics of the ocean and the ocean support of aquatic resources. This information can be used to determine possible fishing grounds, spawning areas, fish routes, sea depth and sea floor crustaceans and so forth.

The Primary objective of the SAFARI Project is to integrate the activities of selected experts in fisheries and Earth Observation (EO) to accelerate the pace of assimilation of EO into fisheries research and ecosystem-based fisheries management on a world scale. SAFARI will also help to build capacity at the science level and the operational level, and facilitate the application of rapidly evolving satellite technology to fisheries management questions. (from www.geosafari.org)

During the information session we heard from Dr. Marie-Hélène Forget who discussed how Japan and India are using remote sensing in their respective fisheries. Dr. Trevor Platt who heads the project gave a brief history of the satellites they are using today and where this technology is going in the future. Shubha Sathyendranath, discussed the practical benefits of remote sensing. Alida Bundy, discussed remotely sensed ecosystem indicators and ecosystem approaches to fisheries management. Peter Koeller, showed the relationship between shrimp egg hatch and phytoplankton bloom times and Nick Dulvy, discussed climate change and its effect on phytoplankton blooms.

National Wildlife Week

April 5-11, 2009

Celebrate your Beginnings

Get in touch with Nature with some things to do

1. Create a natural life garden to shelter and feed natural life at your home/work
2. Erect bird feeders at home/work
3. Go on a nature hike and spot animals in their natural habitat
4. Go on a bird identification walk
5. Don't throw away bread crumbs – feed birds at home or at work
6. Read up on Canada's Species at Risk and to get involved contact IKANAWTIKET at ikanawtiket@mapcorg.ca
7. Write a letter to your MLA or MP and ask them to save Canada's Natural life
8. Speak up for the preservation of local wetlands
9. Join a natural life group that monitors the state of Natural life
10. Visit a local wetland to discover the unique plants/animals there
11. Attend a lecture featuring local activists, scientists, or authors
12. Participate in a Natural life photography or painting class
13. Talk to your local manufacturing business and ask them what's "green" about their business
14. Choose "Native Plants" as a topic for a school project
15. Look for a pond that has frogs and identify the frogs
16. Volunteer to help a group rehabilitating a stream, wetland or field back to its natural state.
17. Visit a local natural area and find and draw the animal footprints you find there, then go to a library and identify the tracks
18. Display a photograph that you have taken of a bird, fish or animal
19. Search the internet for a Natural Life talk or festival and listen in
20. Ask your local mayor/alderman to proclaim National Wildlife week April 5-11

The 20 things you can do was taken and modified from Environment Canada's Website at www.on.ec.gc.ca/wildlife/wildweek/20things-e.html

Earth Day

April 22, 2009

25 years ago the people who cared about the plight of our planet Earth promoted the idea that humanity should take notice of Earth and celebrate a day of Earth's wonders and take note of our destruction of Earth.

You can make a difference by:

1. Encouraging your family to use less water;
2. Switching to energy-efficient light bulbs helps to reduce the effects for global warming;
3. Take note of Biodiversity in your yard or park;
4. Turn out the lights when you leave a room;
5. Use re-usable containers for you school/work lunches and snacks.

Nova Scotia Events

Halifax – Earth Day Walk for Water – April 22 8:30 am – 11:00 am at Point Pleasant Park

Joggins – Joggins Fossil Cliffs Open Day – April 22 9:30 am – 6:00 pm at Joggins Fossil Institute

New Brunswick Events

Fredericton – Earth Day at the DUCC – April 19 1:00 pm – 3:00 pm at Ducks Unlimited Conservation Centre

St. Andrews – Earth Day beach Clean-up April 18 1:00 pm – 2:30 pm at Indian Point, St. Andrews, N.B.



Earth Day Symbol

To learn more about Earth Day visit www.earthday.ca

World Ocean Day

June 8, 2009

The concept of a "World Ocean Day" was proposed in 1992 by the government of Canada at the Earth Summit in Rio de Janeiro. World Ocean Day is an opportunity to celebrate oceans and all life therein.

Why should we celebrate World Oceans Day?

The World's Oceans:

1. Generate the most oxygen we breathe
2. Helps feed us, provides most of the world's protein
3. Regulates our Climate
4. Cleans the water we drink
5. Offers new potential medicines
6. Provides recreational activities such as going to the beach, fishing, boating, collecting sea shells
7. Provides inspiration
8. Largest medium for international transportation of goods

June 6, 2009, Halifax, N.S.

Celebrate World Ocean Day

Hosted by the Nova Scotia Fisheries and Aquaculture dept. and co-hosted with DFO Maritimes.

Join MAARS at the Halifax waterfront to celebrate World Ocean Day. Representatives from government, industry, academic and other organizations will gather to raise awareness of the important role oceans play in everyday life. Ocean day activities will be held on the wharf behind the Maritime Museum of the Atlantic from 10:00 am – 3:00 pm. There will be interactive and educational exhibits and displays, a touch tank, demonstrations, and face painting. Admission is free.

June 6, 2009, St. Andrews, N.B.

Canada – A day in the Bay for World Ocean Day

(Events include: Hourly ocean discovery trips, Guided beach walks, Dinner/Dance, Auction, Plankton display, aquarium discounts and a photo contest) For more information contact Jim Cornall of the Huntsman Marine Science Centre



Ecology Action Centre

2705 Fern Lane, Halifax, Nova Scotia. B3K 4L3
Ph (902)429-2202 Em info@ecologyaction.ca

6 April, 2009

Dear Netawek Ikjikum Readers:

We would like to invite you to participate in the **Birds are Back Celebrity Challenge**. The Challenge will raise awareness about the incredible migration that many of our bird species undertake twice a year and will highlight obstacles they face during their journey, and also here in Nova Scotia.

We're launching the Challenge because of our love of birds and a growing concern about their future. In the *The Silence of our Songbirds*, Bridget Stutchbury, a professor at York University, confirms what many lifelong birders have feared:

"By some estimates, we may have already lost half of the songbirds that filled the skies forty years ago."

Whether you go bird watching, enjoy the birds at the backyard feeder, or simply want there to be some nature left for your children, birds need your help.

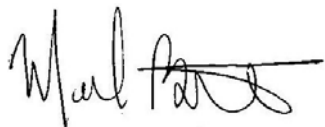
If you are thinking that you are neither a birder nor a celebrity. Don't worry. We think you are a celebrity and with a little help from Bird Studies Canada, Nova Scotia Bird Society and Ecology Action Centre you too can be a birder.

As a 'contestant' you will be given a list of twenty birds, a bird book and a month or more to see all the birds on your list with expert birders 'on call' if you need help. We will launch the Challenge April 8th at the Museum of Natural History with a breakfast and birding presentation. We will end the Challenge with another breakfast on **May 20th**, this time **at the Fairbanks Centre in Shubenacadie Park** along with a bird tally, prizes, and a guided bird walk. We will also post weekly results on our website.

We want the Challenge to be fun and educational, and at the same time precipitate actions, small and large, that will benefit birds and nature--more on this later.

We look forward to hearing from you. Please drop us an email at birds@ecologyaction.ca or call 429-5287.

Sincerely,



Mark Butler
Bird Coordinator and Policy Director



The International Year of Biodiversity 2010

By IKANAWTIKET Joshua McNeely

2010 is an important marker for the implementation of the Convention on Biological Diversity (CBD) – 2010 International Year of Biodiversity. The CBD Secretariat will be reviewing the implementation of the CBD by Member States and will make recommendations to the next Conference of the Parties (COP) and also to the United Nations General Assembly. The sixty-fifth session of the United Nations General Assembly will learn and comment on the implementation of the Convention, and at the end the international community should agree on the steps which all nations need to take to both implement and effect the goals and intent of the CBD beyond 2010.

Central to these discussions are the three pillars of the Convention: conservation, sustainable development, and access to genetic resources including traditional knowledge and the equitable sharing of benefits ('Access and Benefit Sharing' or ABS). What has Canada done to implement the Convention and involve Aboriginal Peoples and Aboriginal Knowledge? What has Canada done to respect and protect the principle of Prior Informed Consent (PIC)? What has Canada done to ensure that Access and Benefit Sharing are undertaken with involvement of the Aboriginal Peoples of Canada?

The Executive Secretary of the CBD Secretariat, Ahmed Djoghlaif, is calling on Member States to make preparations for 2010 – International Year of Biodiversity by participating in United Nations working groups and preparing key reports, including reporting on the implementation of:

- Articles 8(j) and 10(c) concerning the protection and use of traditional knowledge and customary use of biological resources,
- Article 15 and the Bonn Guidelines on ABS, and
- the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

To begin sharing information and start discussions in the Maritimes, the Congress of Aboriginal Peoples (CAP), and the Maritime Aboriginal Peoples Council (MAPC) with IKANAWTIKET held a joint Learning Session on Traditional Knowledge and Access and Benefit Sharing on March 21, 2009 in Truro, Nova Scotia. The session was held to share information and to begin to prepare a few select delegates of our Traditional Ancestral Homelands Aboriginal Peoples for discussions with Environment Canada and to pass the need for Canada to develop and adopt an "ABS Policy". The session was promoted by CAP as a beginning for developing capacity and a beginning for negotiations within the international community about ABS and the Aboriginal Peoples of Canada plight in that regard.

Special guest lecturer, Dr. Chidi Oguamanam, Director of the Law and Technology Institute at Dalhousie University, presented an overview of Traditional Knowledge and intellectual property in the context of CBD. Dr. Oguamanam gave many examples of Canada's recent failure to deal with ABS in Canada;

partly because of Canada's policy statements, Canada's promotion of a growing biotech industry, and his personal experiences having worked and continuing to work with the international committee on this subject.

The CBD and the Johannesburg Declaration recognize that the inclusion of Aboriginal Peoples is vital for conservation and sustainable development. Central to that inclusion is respect for Aboriginal Peoples rights to lands and resources and the right to protect, maintain, and promote Indigenous Knowledge and culture. Article 19 reads "States shall consult and cooperate in good faith with Indigenous Peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative or administrative measure that may affect them." (UN Declaration on the Rights of Indigenous Peoples) (UNDRIP).

Unfortunately, Canada and only one other country in the world refuses to adopt the Declaration. The Federal Government states that the concepts of Prior Informed Consent (PIC) and Aboriginal Peoples rights to traditional territories and resources, is unacceptable to Canada. Canada must settle this divisive posture, and until then remains reluctant to implement CBD Articles 8(j), 10(c), and 15 of the CBD. To advance Sustainable Development in Canada with the Aboriginal Peoples of Canada it will be vital for Canada to reconcile article 8(j) and 10(c) with articles 15 before both Canadians and Aboriginal Peoples begin to move forward. To date Canada does not have a Sustainable Development Policy nor has it invited Aboriginal Peoples to input into such a policy.

After several years of inaction on ABS and the Bonn Guidelines, Canadians and the international community are beginning to question when will Canada seriously take up the the issue of Access and Benefit Sharing and protection of Aboriginal Peoples Traditional Knowledge in that regard. Will Canada implement the Bonn Guidelines? Will Canada advance the ABS Policy beyond the 2005 one page set of guiding questions? Will Canada protect the genetic resources and Indigenous Knowledge and fairly and equally share the benefits arising therefrom? Will Canada engage the Aboriginal Peoples of Canada in meaningful discussions and consultations about ABS and the implementation of the Convention on Biological Diversity?

There are many questions that need to be answered. Canada is far behind many nations on the subject of ABS. Canadians want to join the rest of the world in celebrating biodiversity conservation, sustainable development accomplishments and examples of access and benefits sharing in 2010. So far we have little to celebrate, except our efforts to advance SARA - and that with the help of DFO.

There are many actions that the Government needs to take to initiate good faith consultations and discussions and begin to include Aboriginal Peoples. Ultimately, the final question remains: "Which is more important, industrial use of biodiversity, or, the preservation and promotion of a diversity of biological resources, the diverse Peoples and cultures that is Canada with the Aboriginal Peoples of Canada".

Don't Celebrate Just Yet

By IKANAWTIKET Joshua McNeely

When I first heard the news that Canada was ranked 3rd in the world for implementing the United Nations *Code of Conduct for Responsible Fisheries*, I was optimistic, that finally there might be some good news in store for sustainable fisheries management in Canada.

We all know that fisheries management, both in Canada and around the world, has been plagued for decades by corporatization, management decision-making based solely on economic gain, political interference and the withering of social structures which support sustainable development. In 1995, the United Nations, through its Food and Agricultural Organization (FAO), gathered a detailed consensus from the top fishing countries in the world to rethink national fisheries management in terms of conservation, food security, poverty alleviation, sustainable development, prevention of overfishing, scientific understanding, precautionary principle, low impact fishing gear, habitat preservation, sustainability, enforcement, international cooperation, responsibility, and recognition with preferential treatment for small-scale, artisanal, and Aboriginal fisheries.

Recognizing that fisheries management decisions were directing a world-wide collapse of fisheries and the utter destruction of the world's oceans, FAO created the voluntary Code of Conduct for Responsible Fisheries. To test the implementation of the Code, the World Wildlife Fund (WWF) conducted an intensive three year study of the top 53 fishing countries. The WWF asked what the fishing countries have done to implement each of the 44 recommendations of Article 7 (Fisheries Management), as a litmus test for the implementation of the entire Code. The results are not impressive.

Even using a conservative grading scale, over ½ of the countries failed the test. No countries received a grade of 'Good'. Only six countries (including Canada) receive a rank in the 60% range. Our 3rd place medal doesn't seem so shiny now.

This is embarrassing for Canada, especially considering the powers invested in the Ministry of Fisheries and Oceans and in Cabinet and our high economic wealth to implement the Code. It is also worrisome, because our barely passing grade, is setting a low bar for the rest of the world.

Particular to Canada's experience, the WWF ranked Canada high for its intentions, particularly well thought out Oceans Act and Oceans Strategy, setting explicit Target Reference Points for stocks, and enshrining Aboriginal Peoples Rights in the Canadian Constitution, but Canada lost most marks when it comes to implementing those ideals. What message are we sending to Canadians and the rest of the world – we are good with the pen only?

Some suggest that, after 10 years, the voluntary Code is either not taken seriously or not being implemented fast enough to create positive change. The question now is what should be done. Do we go back to the drawing board to draft a new Code? Should the UN embark on a convention-making process for a legal 'International Fisheries Management Convention'? Should Canada better implement the existing voluntary Code and set a better world example?

Each option has its benefits and costs. A new convention or mandatory code of conduct may be better to enforce, but costs precious time, when some experts predict that the Oceans could be dead by 2050 at our current rate of exploitation. Even in the richest countries, the Code is poorly implemented, and some poorer countries scored relatively high, indicating that money and science alone are not restricting the implementation of the current voluntary Code.

Instead, perhaps the time has come to embrace a new way of thinking and a new ethic toward fisheries management in Canada and around the world.

Our current model for fisheries management is based on a false pretense – that ecosystems provide goods and services for humans. In this homocentric world

view, humans are at the top of the ecosystem pyramid and the natural world is separate and at the bottom of the pyramid – supporting humans.

Aboriginal Peoples know this model to be false. Aboriginal Peoples recognize that humankind is interconnected and interdependent with the natural world. This eco-centric world view fundamentally influences Aboriginal harvesting under principles such as *Netukulimk*.

If there is no widely accepted definition of sustainable development, precautionary approach, poverty, food security, etc, then those statements, though forward thinking on paper, become hollow when it comes time to implement them.

Attempting to shift the thinking of resource users and managers and move from paper statements to real action, a new resource decision-making model is being promoted. Ecosystem-Based Management (EBM), flips the traditional pyramid model up-side-down, with humans as both receiving natural goods and services and also providing goods and services to the natural world to maintain and preserve our place on this planet. As a resource management decision-making tool, EBM first considers the sustained functioning and conservation of the ecosystem, based on the Precautionary Principle, and then secondly considers a diversity of human uses, which recognizes a range of values and interests, including culture and non-economic uses.

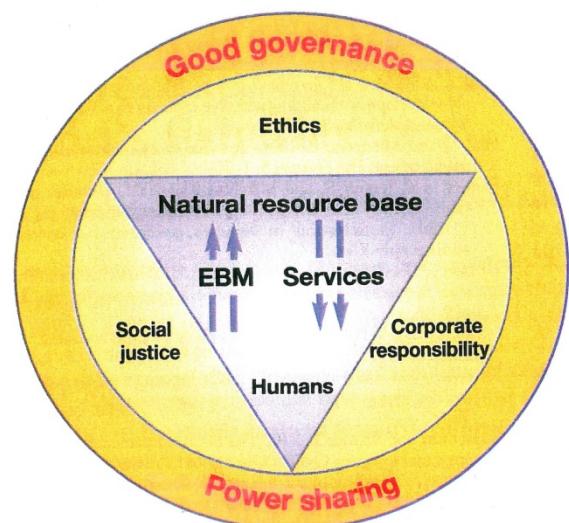
While not quite an Aboriginal eco-centric world view, EBM is an important step for shifting away from current unsustainable fishing practices. EBM is also a fundamental concept embedded in the FAO Code of Conduct for Responsible Fisheries – agreed to by fishing nations as fundamental to the Code's implementation.

Unfortunately, EBM is not widely implemented, as evidenced by the WWF study. According to the study report, “No country rated overall as ‘good’ for implementing EBM, only four countries were ‘adequate’...”.

Why is EBM not implemented, when so many experts and world leaders agree that it clearly provides much needed guidance for better fisheries management? In their 2008 paper *If Science is Not the Answer, What is? An Alternative Governance*

Model for the World's Fisheries. Researchers, led by Alida Bundy from the Bedford Institute of Oceanography in Dartmouth, argue that two factors are keeping Canada and other fishing countries from implementing EBM: “the persistent lack of acceptance of humans as components of ecosystems and the challenge of including consideration of humans in ecosystem management”.

Bundy et al suggest that to begin to implement EBM, and eventually move beyond EBM, fisheries management must begin to include concepts of corporate responsibility, social justice, and ethics as equal to, or even more important than, current decision-making based solely on science or monetary value. This also requires a shift in fisheries governance from the current economic market model, based on market forces balanced by incentive measures, to a new model of ‘Good Governance’, based on power sharing.



(Reproduced from Bundy et al)

Gone are the days of thinking about our fisheries as just a cheap source of protein. Gone are the days of ‘every man for himself’ and of ‘political favour licensing’. If we are to achieve sustainable fisheries, we must adopt a new way of thinking about our fisheries. Aboriginal Peoples have some possible solutions. We have a model which has sustained our development and our natural environment for over 10 millennia – we call it the “eco-centric world view”. But we cannot express our model on paper. To learn and adopt our model, governments need to invite and accommodate Aboriginal Peoples to be a part of Canadian fisheries management. Together we can celebrate an A+, we can realize sustainable fisheries, we can be a world fisheries leader.

Smallmouth Bass Invasion!

By N.B. CARDA Barry LaBillois

The Miramichi River is one of a few river systems that have very few predators, but, this longtime freedom took a different twist on September 26, 2008 when an angler caught a smallmouth bass on Miramichi Lake.

Miramichi lake is a 221 hectare headwater lake of the southwest Miramichi River system. To confirm the presence of smallmouth bass in the lake, the New Brunswick Department of Natural Resources conducted a survey of the lake on September 29 to October 3, 2009 using boat electro fishing equipment and gill nets. A total of five young-of-year bass were captured via electro-fishing and two bass of indeterminate age were captured in the gill nets. Using backpack electrofishing equipment, they examined selected sites on the Southwest Miramichi and the 5.3 km stream that connects Miramichi Lake to the Southwest Miramichi, named Lake Brook. Again, young-of-year, reported to be in “good condition” were discovered, though their distribution appeared to be limited to the first 300m downstream from Miramichi Lake.

Smallmouth bass are not native to the Miramichi River or even to the Province of New Brunswick. The smallmouth bass arrived in New Brunswick waters from Maine waters, through the St. Croix watershed in 1868. Smallmouth bass is not an endemic species in the Maritimes provinces but they are presently known to be in 188 lakes or rivers in Nova Scotia and 69 lakes and 34 rivers in New Brunswick.

When smallmouth bass are introduced into a water system, they prey heavily on smaller fish, and out-compete other fish species, and can become a dominate component of the food chain. Based on the surveys conducted in September and October, and the initial confinement procedures, it appears that smallmouth bass in Miramichi Lake are currently at low population densities, and that their distribution outside of the lake may be limited.

On January 27 & 28, 2009 a meeting took place at the Coastal Inn Champlain, Moncton, to discuss the potential impact of smallmouth bass introduction on Atlantic Salmon; The objectives of the meeting were: to review the historical distribution, biology, habitat requirements of and availability to smallmouth bass in the Maritime provinces, to examine evidence for negative interaction between Atlantic salmon and smallmouth bass, to conduct a risk analysis of smallmouth bass impacts on the ecosystem of the rivers of the Gulf Region, with a specific risk analysis of impacts to Atlantic salmon in the Miramichi River, and to evaluate options for and the effectiveness of mitigation measures for minimizing the risks associated with range extension of smallmouth bass. The risk analysis conducted followed the guidelines established by the Centre of Expertise for Aquatic Risk Assessment (CEARA) for assessing the biological risk of aquatic invasive species in Canada.

The overall risk to the aquatic biota for Miramichi lake is considered high with low uncertainty. The overall risk for Southwest Miramichi is considered to be moderate but with high uncertainty. A range of containment, control, eradication options, including their effectiveness and impacts on the ecosystem components were reviewed in the general context of non-native fish introductions and specifically for the Miramichi Lake.

The highest probability of controlling or eradication of non-native species is through the use of multiple approaches. The likelihood of controlling and/or eradicating smallmouth bass is reduced when actions are delayed which would give them the opportunity to become more widely dispersed.

The following is a chart of control measures:

	Effectiveness	Constraint	Effects on non-target species	Effects on habitat
Containment				
Physical barrier	<ul style="list-style-type: none"> ○ Can be 100% but fish size dependent ○ Difficult to contain early life stages 	<ul style="list-style-type: none"> ○ Size specific ○ Requires regular maintenance 	<ul style="list-style-type: none"> ○ Can restrict movements of native species 	<ul style="list-style-type: none"> ○ Minor localized habitat effects dependent upon scale of operation
Control				
Directed removals (electrofishing, netting, angling,...)	<ul style="list-style-type: none"> ○ Can reduce abundance ○ Does not eradicate ○ Does not eliminate potential for spread 	<ul style="list-style-type: none"> ○ Requires sustained intensive effort over many years 	<ul style="list-style-type: none"> ○ Can be minimized 	<ul style="list-style-type: none"> ○ Minimal
Eradication				
Poisons	<ul style="list-style-type: none"> ○ Most likely to be close to 100% effective 	<ul style="list-style-type: none"> ○ Case specific effort required ○ Probability of success depends upon complexity of lake characteristics 	<ul style="list-style-type: none"> ○ Will eradicate all non-target aquatic organisms, ○ Severe impact on ecosystem in the absence of preparatory rescue 	<ul style="list-style-type: none"> ○ Minimal

NORIGS 3 Coalition

Media Release

September 2, 2008

Contact: Denny Morrow (902)742-6167

[Yarmouth, N.S.] The coalition of fishermen, aboriginal groups, processors and environmentalists that spearheaded efforts to retain the moratorium prohibiting oil and gas exploration and development on Georges Bank in the late 1990's is once again active and will promote extending the current moratorium beyond the 2012 expiry date.

The existing moratorium was first established in 1988 and was extended until 2012 after an extensive panel review process during the late 1990's. That three person panel produced a report in 1999 after commissioning scientific studies and after holding numerous consultations to receive public input and information from the fishing and petroleum exploration industries. The 1999 report weighed the risks to the fishery and the unique, sensitive marine environment on Georges Bank against the potential benefits of a natural gas discovery and recommended that the Nova Scotia and federal governments extend the moratorium for another period.

The federal and provincial legislation that extended the moratorium through 2012 specifies that the two governments must decide whether another panel review process is warranted before June 1, 2010.

The NORIGS 3 Coalition includes lobster fishermen from south-western Nova Scotia and around the Bay of Fundy; fishermen who harvest cod and haddock and other ground fish species on Georges with hook and line and mobile gear; scallop, tuna and swordfish fleets; the two seafood processing associations in the province, aboriginal groups and members of environmental organizations. Denny Morrow, Executive Director of the Nova Scotia Fish Packers Association, has volunteered to chair the Coalition. Mr. Morrow expects participation from New England fishermen and environmental groups in NORIGS 3 since there is a moratorium on the US portion of Georges Bank that also extends to 2012.

Georges Bank is located at the entrance to the Gulf of Maine and Bay of Fundy. It is one of the most productive spawning areas for fish, shellfish, marine animals and seabirds in the Atlantic Ocean. Georges Bank falls under the jurisdiction of both Canada and the United States. The smaller Canadian portion produces important commercial landings of scallops, haddock and cod, lobsters and other species that provide many fishing and processing jobs concentrated in the southwest Nova Scotia region. It is the one area of the Canadian North Atlantic that has seen a recovery of ground fish stocks. The biomass of haddock on Georges is now the largest on record for the last 50 years.

Speaking for the NORIGS 3 Coalition, Denny Morrow says that the federal and provincial ministers of fisheries, environment and energy should use the 1999 panel report as a starting point to decide if the risks and recommendations outlined in the report should be re-examined or whether the moratorium should be extended for another 10 year period. If the Ministers decide that there have been significant changes, they should initiate another impartial panel review patterned after the process during the late 90's. The new panel would be responsible for collecting the relevant scientific information, coordinating any further research and would hold consultation sessions to gain public input before producing further recommendations on the moratorium beyond 2012.

World Ocean Day 2009

(Taken from Blue Planet News to Use March 2009)

The Ocean Project, working with the World Ocean Network, helps to coordinate events and activities with aquariums, zoos, museums, conservation organizations, universities, schools, and businesses around the world. Already, many exciting events have been planned, and if you have not yet done so, your organization still has time to plan something special!



The theme for WOD 09, "one climate, one ocean, one future", will help bring local and global attention to the impact climate change is having on the ocean (such as CO₂ saturation in its waters and the resulting acidification of the ocean: a dire threat to coral reefs, shellfish, and marine plankton, the building blocks of the ocean food chain), what that impact will mean for human life, and how we can all make important changes to reduce our CO₂ emissions, halt climate change, and preserve our children's ocean legacy.

WOD, every June 8th, provides an opportunity to join with people around our planet to celebrate our world's ocean, which connects us all. Together, we can make a real difference! Visit WorldOceanDay.org to list your event, access [celebration ideas](#), use the tools in the updated [Media and Outreach Kit](#), and more!

Special to the Maritime Aboriginal Aquatic Resources Secretariate

Nova Scotia Government renews push for Georges Bank gas exploration

By Timothy Gillespie

After an exhaustive process of review and in the wake of the 10-year, Georges Bank oil and gas exploration moratorium, the Nova Scotia government made several promises to its citizens that it would diligently pursue the scientific and other issues required for the next review in 2009. In ten years, nothing has been done to keep those promises. According to a senior official for the Department of Energy, there is no record of one dime having been spent, or one study authorized or one analysis of existing data being conducted to prepare the government for the impending decision in January of 2010 whether to conduct another review of the benefits and risks of drilling on one of the world's most productive fishing grounds.

In mid-April, Energy Minister Barry Barnett raised the controversial issue about reconsidering the ban in the area at a meeting of an offshore industry lobby group, just as his predecessor Richard Hurlburt had done a year previously. In the U.S.A. a bi-partisan congressional committee has introduced the Georges Bank Preservation Act, a bill which would reinstate the prohibition on drilling for oil or gas on the fragile and unique marine habitat at Georges Bank and nearby Gerry E. Studds Stellwagen Bank National Marine Sanctuary off the coast of Massachusetts. The US controls 80% of the rich marine habitat and fishing grounds and Canada oversees the remaining 20%. The fishing grounds there have historically been some of the most productive in the world and it is thought that drilling there could prove disastrous for the New England fishing industry.

The Nova Scotia government appears to be positioning itself to remove the current moratorium in place in Canadian waters. Under the guidance of Richard Hurlburt, senior Department of Energy staffer Bruce Cameron designed a November fact-finding trip to Norway so that participants met only oil industry representatives, but not fishermen, fisheries executives or environmental groups. Prior to and following the Norway junket, Hurlburt told oil & gas industry executives in the US and Canada that he thought drilling on Georges Bank would be compatible with fisheries there and with the marine habitat.

Cameron and Hurlburt are also reported to be the architects of the controversial Oceans First Task Force, an ostensible fact-finding group whose Hurlburt-appointed chairman declared in a recent news release that drilling posed no risk to the fisheries or habitat. This pro-drilling stance came prior to the Task Force receiving any research or conducting any of the group's required public and industry consultations. The Task Force, managed for a \$150,000 fee by the troubled, Yarmouth-based South West Shore Development Authority (SWSDA) has faced criticisms that it may be skewed towards generating off-shore business development for the Authority's primary client base in Yarmouth, rather than fairly assessing the benefits and risks of petroleum development.

The steering committee for the Task Force was populated by Hurlburt and SWSDA CEO Frank Anderson with their close political and business allies in Yarmouth, which has been positioning its port as a service centre for offshore petroleum production and which now depends upon SWSDA for support of its waterfront, industrial commission, airport and tourism association.

Despite spending tens of thousands of dollars on a junket to Norway to meet with oil & gas executives, the Oceans First Task Force has yet to meet and has yet to appoint any community, conservation, first nations or native members. The March 31 deadline for a full report has passed with no submission to government by SWSDA or the Task Force. SWSDA has said its report would not be forthcoming until they get another year's funding from the government.

Cameron, a former television reporter, and public relations head of the former Nova Scotia Petroleum Directorate (now the Department of Energy), is thought by fishing and petroleum industry sources to have a strong pro-drilling stance when it comes to Georges Bank and other marine habitat. Despite being the department's senior Georges Bank expert, Cameron has refused to comment on record about anything related to the Georges Bank, the Task Force or the government-supported Offshore Energy Environmental Research Association, upon whose board and committees Cameron plays a leading role and which sources say is a creation of Cameron himself.

In the news announcements by Minister Gordon Balseg in 2000, the Nova Scotia government issued a "Provincial Position", which committed the government to an ambitious course of action in determining the future of oil and gas development on Georges Bank. The commitment included further research, coordination of fishing and petroleum industry collaboration, cooperation with the US in considering future moratoria and a program of public awareness of the results of the research.

Energy Department and other government sources have recently admitted that that not one of the commitments from the 2000 Provincial Position has been kept. There is no record of any activity relating to supporting the Position. Not one page of research can be located by the Department for public or industry viewing. From funds collected exclusively via oil and gas lease payments, OEER has recently been awarded a \$500,000 grant to conduct Georges Bank research. The probable timeline for the research, according to senior officials with OEER, will not make the results of the research available for Georges Bank Moratorium review process, which begins January, 2010, at which time only the request for research proposals are expected to be published.

A senior official with Natural Resources Canada has informed industry colleagues that the Canadian government does not intend to consult with its US counterparts on the moratoria.

Timothy Gillespie is a Nova Scotia-based writer. More stories about Georges Bank can be found at www.NovaScotiaToday.com

COIN Atlantic Next Steps

Mr. Paul Boudreau, Project Manager, COIN-Atlantic, reprinted with permission.

Report of a Workshop held on 3-4 February 2009 at the Bedford Institute of Oceanography in Dartmouth, N.S.

COINAtlantic – the **Coastal and Ocean Information Network for Atlantic Canada** (<http://COINAtlantic.ca>) is an initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC) – see <http://aczisc.dal.ca>. COINAtlantic is working to develop, implement and sustain a network of data providers and users that will support secure access to data, information and applications, for decision-making by coastal and ocean managers and users of coastal and ocean space and resources.

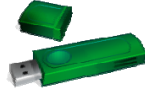
User-Centred Design - As part of the COINAtlantic user centred design (UCD), a **Next Steps Workshop** was held on February 3-4, 2009 to engage users in reviewing progress to date and to get their input on future directions for COINAtlantic development.

User-centered design (UCD) is a design philosophy and a process in which the needs, wants, and limitations of the end user of an interface or document are given extensive attention at each stage of the design process. User-centered design can be characterized as a multi-stage problem solving process that not only requires designers to analyze and foresee how users are likely to use an interface, but to test the validity of their assumptions with regard to user behaviour in real world tests with actual users. Such testing is necessary as it is often very difficult for the designers of an interface to understand intuitively what a first-time user of their design may experience.

The chief difference from other interface design philosophies is that user-centered design tries to optimize the user interface around how people can, want, or need to work, rather than forcing the users to change how they work to accommodate the system or function - see http://en.wikipedia.org/wiki/User-centered_design.

Developers should decide who the users will be and to involve them at the earliest possible opportunity. A number of ways of becoming familiar with users, their tasks and requirements are suggested:

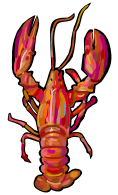
- Talk with users
- Observe users working
- Learn about work organization
- Get users to think aloud while working
- Include expert users on the design team
- Make use of surveys and questionnaires
- Visit customer locations
- Videotape users working
- Try it yourself
- Participative design
- Perform task analysis
- Develop testable goals



Throughout the months of January, February and March 2009, the MAARS CARDA's 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. IKANAWTIKET facilitator Joshua McNeely participates in a teleconference on the Nova Scotia Invasive Species Working group



2. MAARS NS CARDA Franz Kesick attends the Eastern Scotian Shelf Integrated Management (ESSIM) Stakeholder Advisory Council in Halifax NS

3. MAARS NB CARDA Barry LaBillois attends the Science Review on impact of Smallmouth Bass introduction on Atlantic Salmon in Halifax NS



4. MAARS NS CARDA Franz Kesick attends the COIN Atlantic Workshop in Dartmouth NS



5. IKANAWTIKET facilitator Joshua McNeely participates in a teleconference on Atlantic Invasive Species Working group



6. MAARS Director Roger Hunka and NB CARDA Barry LaBillois attends a Department of Fisheries and Oceans Peer review of Atlantic Salmon in Halifax NS

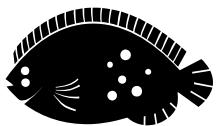
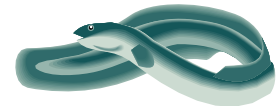


7. MAARS Director Roger Hunka attends a Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) Fishery Advisory Committee (FAC) meeting in Halifax NS



8. MAARS NS CARDA Franz Kesick attends a Southern Gulf Lobster Advisory meeting Plan in Moncton NB

9. MAARS NS CARDA Franz Kesick attends a Fishermen and Scientists Research Society (FSRS) meeting in Truro NS

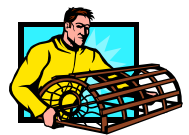


10. MAARS Director Roger Hunka, IKANAWTIKET facilitator Joshua McNeely and NS CARDA Franz Kesick attend a meeting to receive an update on Fundy Tidal Energy presented at the MAPC-MAARS main office in Truro, NS

11. MAARS NS CARDA Franz Kesick and CDIL Brett Bancroft attend a Geomatics training session in Halifax, NS



12. NS CARDA Franz Kesick attends a Gulf Groundfish Advisory Committee meeting in Moncton, NB



13. NS CARDA Franz Kesick meets with Minas Basin Pulp and Power in Truro, NS



Netawek Ikkikum

Voice of the Ocean

In this issue:

- FSRS 16th Annual Conference
- We extend our hand on invasive alien species
- ESSIM SAC Meeting
- Digging happy clams along N.S. shores
- Putting SARA on Track
- NCNS Zone 4 Meeting
- Using Satellites to find fish – The SAFARI Project
- National Wildlife Week, Earth Day, World Ocean Day
- Ecology Action Centre
- 2010 The International Year of Biodiversity
- Don't Celebrate Just Yet
- Smallmouth Bass Invasion
- NORIGS 3 Coalition
- World Ocean Day 2009
- Special Media Release
- COIN Atlantic Next Steps

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The views expressed and the information shared herein reflects those solely of the writers and does not necessarily attest to accuracy or represent the views of MAPC MAARS or any of its partner Councils with which the writers or Netawek Ikkikum is affiliated with or a part of.

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CELEBRATE LIFE - EARTH DAY APRIL 22, 2009



Maritime Aboriginal Aquatic Resources Secretariate

Collectively advancing the rightful share to Atlantic Aquatic Resources for the sustained 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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