



INFO OCEANS

THE QUEBEC REGION BULLETIN — APRIL - MAY 2012/VOLUME 15/NUMBER 2

GULF WATERS CAREFULLY SCRUTINIZED

Each year, as part of the Atlantic Zone Monitoring Program, teams from Fisheries and Oceans Canada's Maurice Lamontagne Institute scrutinize the Gulf of St. Lawrence by sea and by air to determine its physical oceanographic conditions. During the analysis, which is conducted four times a year and covers the entire gulf, these teams collect various samples that are used to make observations and predictions, particularly about the water's conditions, temperature and salinity.

In summer, one of the gulf's key features is its cold intermediate layer, which is made up of cold water from the preceding winter. Its analysis is very useful to biologists who evaluate fish stocks because the core of the cold intermediate layer is a vital habitat for many organisms and provides an essential route for others. For most commercially fished species, the time spent living in the cold intermediate layer is a crucial phase. The analysis results are used as a marine resource management tool and contribute, for example, to recommendations for setting fishing quotas that are better adapted to the environmental conditions.

Results for 2011

In 2011 the physical oceanographic conditions in the Gulf of St. Lawrence were generally characterized by above-normal temperatures on the surface and in the intermediate layers, and near-normal temperatures in deep water.

The average air temperatures from January to March were higher than usual after a warm December 2010, which broke a 65-year-old record for high temperatures. Furthermore, a large portion of the ocean's surface layer had temperatures from 0.5 to 1°C above the freezing point in March 2011. This was the second time in 16 years of winter monitoring that such conditions were observed, greatly limiting the formation of sea ice. The ice cover in 2010-11 was in fact thinner than usual, very close to the record low established one year earlier.

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DFO R. PIGEON

CANADIAN COAST GUARD AN HONOURED PAST, A COMMITTED FUTURE

Over the years, the Canadian Coast Guard has certainly caught the wave of change. Its motto *Safety First, Service Always* is directly tied to the passionate people who built the organization 50 years ago and who passed the torch to those who maintain it today. Here are a few highlights of the CCG's history.



DFO C. GRENIER

The CCGS d'Iberville during icebreaking operations at the Quebec bridge, late 70s.

The radio operations era came to an end in the 60s with the arrival of VHF, marking the beginning of a new chapter: electronic navigation. One of the first marine traffic regulation systems ever established was implemented in the St. Lawrence waterway in 1967. Today, the INNAV marine navigation information system is used across the country.

The 80s brought the consolidation of the Canadian Coast Guard's navigation services and was a major period of technological change and innovation. Steamers like the CCGS D'Iberville, for example, were replaced by vessels with electric diesel engines like the CCGS Des Groseilliers.

Buoys were lit with incandescent gas bulbs in the early 2000s, but are now equipped with light emitting diodes (LED), yet another sign of evolution. This change ensures increased reliability and therefore contributes to safer navigation.

To celebrate its 50th anniversary, the Canadian Coast Guard will be at the Port of Québec from June 7 to 10, 2012, for the *Rendez-vous naval*, a tourist event highlighting the region's marine and naval history. Come meet our crew members who will be happy to give you a tour of their ship!

For more information on the Canadian Coast Guard's 50th anniversary, check out the CCG's national website (www.ccg.gcc.gc.ca)!



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OVER 200 000 km² OF MARINE ENVIRONMENT CLASSIFIED INTO 13 HABITATS

Whether you fish at sea, sail or harvest natural resources, whatever you do has an impact on hundreds of organisms from the tiniest unicellular alga to the immense blue whale. The ocean is vast. How many different habitats does it encompass? What are their geographic boundaries? What species depend on which habitat? What habitats may be affected by human activity in a given sector?

These are questions that interest researchers at the Maurice Lamontagne Institute. The area studied is vast, because it includes the estuary and , some 236,000 km². The seabed has been described using a grid composed of 100 km² cells. For each cell, the available information was collated; it includes such things as relief, the nature of the seabed, slope and bathymetry, salinity and temperature, oxygen availability, proximity of the coast and protection from inclement weather. These data were then used to identify habitat categories with similar characteristics so as to be able to assess their significance for each of the fish species inhabiting them. Ultimately, 13 major habitat categories were described: 4 in deep water and 9 in shallower water. Of these 13 categories, 4 are located in the southern gulf and 5 in the estuary and northern gulf.

This survey, built using the rich ministerial data base, also proposes a powerful environmental analysis and management method. This knowledge is used to delimit conservation areas and define the essential habitat of species at risk, including the spotted wolffish and the northern wolffish. In the case of these two species, catches have been collated so that the habitats they frequent and the environmental variables that explain their range could be collated. Researchers were also able to determine the other species with which the wolffish share these habitats. Another step forward could be taken if human activities were collated using the same analysis framework. This survey therefore helps to achieve two objectives: the protection of the habitats of fish and species at risk and the formulation of notices that simultaneously take into account a number of ecosystem components.

A report on the classification of major habitat categories has been written and this data base is now available to the general public*. The same method is currently being applied to describe, classify and map inshore and pelagic habitats (present in the water column) in this same area.

Fisheries and Oceans Canada ensures the protection of fish habitat particularly that of species at risk. This commitment is a key element of the international agreements to which is a signatory. To preserve the health and productivity of marine habitats, this commitment is subject to a legislative framework pursuant to the *Fisheries Act*, the *Oceans Act*, the *Species at Risk Act* and the *Canadian Environmental Assessment Act*.

* You will find the data base on the national web site maintained by the Department at www.dfo-mpo.gc.ca under Resources, in the online catalogue Waves.

Jean-Denis Dutil
Science



Atlantic Wolffish

DFO R. LAROCQUE

TWO NEW HARBOUR AUTHORITIES ARE CREATED!

It is official: two new harbour authorities recently joined Fisheries and Oceans Canada's Harbour Authorities Network. In both cases, users feel it is important to take charge and actively participate in managing their facilities and related activities, in collaboration with the Department's Regional Small Craft Harbour Branch.

The first harbour authority is located in the Upper and Middle North Shore region in Baie-Comeau and was established in February 2012. Its first board of directors elected Patrick Perron as chair for a two-year term.



Baie-Comeau Harbour Authority

DFO L. MORENCY

The second organization, in Chaleur Bay in Gaspé, is called the Carleton-sur-Mer Harbour Authority. This new non-profit organization is expected to elect a chair in the near future.



Boat launch at Carleton-sur-Mer

DFO J.P. HUET

The Harbour Authorities Network was established in 1990 and brings together 40 harbour authorities in the Quebec region, managing 59 harbours belonging to the Department. The harbour authorities are non-profit organizations, managed by volunteers serving their community.

A warm welcome to the new harbour authorities!

Lyne Beaumont
Small Craft Harbours

Dispatches

A FEEL-GOOD STORY ABOUT COMMUNITY

One of Fisheries and Ocean Canada's objectives is to enable the economic prosperity of fisheries and coastal villages which depend on the industry. This article highlights the importance of helping one another in difficult situations, especially in small communities.

Since spring 2011, Innus from the North Shore of Quebec have been landing crab with three of their boats in Baie-Johan-Beetz, a small community located east of Havre-Saint-Pierre. Everyone knew that this decision would change things in this community and in the Innu community as well.

In the middle of the night on April 16, 2011, a violent storm broke out in Baie-Johan-Beetz, while the Innus, whose boats were docked there, had left the town for a rest. Upon waking to strange noises coming from the dock, the citizens mobilized and worked all night to save the boats from grounding or being lost. If it hadn't been for the hard work of the villagers, the boats would have suffered very heavy damages. It might have jeopardized the entire crab season with enormous consequences for the fishers and for the whole village. When they learned of the villagers' heroic act, the Innus were very moved and organized a celebration, which took place the following August. The crab, which was graciously provided by the Innus, was the focal point of the celebration. The two communities have been united in friendship ever since.

The Innus contribute significantly to the economy of Baie-Johan-Beetz. They have hired people from the area to work on the docks and their presence has breathed new life into this Mingan community.

Jean Morisset
North Shore Area



Municipality of Baie-Johan-Beetz

DFO J. BEARDSSELL

NATIONAL RECREATIONAL FISHERIES AWARDS - TWO RECIPIENTS IN QUEBEC

In 2011, five Canadian recreational fishing enthusiasts were selected by Fisheries and Oceans Canada to receive Canada's National Recreational Fisheries Award. Two of them are Quebecers who distinguished themselves and were honoured accordingly. These recipients, Claude Bernard and Rémi Aubin, were proud and full of emotion as they attended their respective ceremonies with friends and family members. Fisheries and Oceans Canada recognizes the work and efforts of these award winners, who have both contributed in their own way to the development of recreational fishing in Quebec.

Canada's National Recreational Fisheries Awards program was created in 1989 to recognize outstanding contributions by individuals and organizations in areas such as recreational community activities, restoring and enhancing fish habitat, and promoting conservation and sustainable recreational fishing.

For more information about the National Recreational Fisheries Awards and information about nominating a person or organization for an Award, please visit DFO's national website (www.dfo-mpo.gc.ca) and consult the *Recreational Fisheries* section, which can be found under *Fisheries*.

Claude Bernard

During his career as a teacher, Claude Bernard introduced many students to fly fishing and fly tying, often devoting his lunch breaks to educating them. In addition, he has shared his knowledge and passion for the creation and maintenance of streams suitable for fly fishing, supporting the development of spawning beds and fish passages, as well as other work on the North Yamaska River. He is currently leading the development of a manual for young sport fishers participating in the *Pêche en herbe* program, which introduces children ages 9–12 to recreational fishing.



DFO P. RAMEUX

At the Québec-Maritimes Fly Fishing Forum on February 4, 2012, in Granby, Claude Bernard (centre) received his award from Patrick Vincent, Regional Director, Fisheries Management (right), together with Gérard Bilodeau (left), a long-time collaborator of the award winner.

Rémi Aubin

To share his knowledge and passion, Rémi Aubin devotes his time and energy to promoting recreational fishing on the Saguenay River. One of his promotional activities is the introductory fishing day he has been organizing for 10 years to enable schoolchildren to experience both summer and winter fishing on the Saguenay. Every winter the river becomes a prime location for thousands of ice fishing enthusiasts. It is the only area in Canada where recreational fishing for marine fish species such as cod, turbot and redfish is authorized during winter months. Conservation and responsible fishing are issues Mr. Aubin takes to heart.



DFO A. CARRIER

On February 23, 2012, Rémi Aubin (right) received his award from Patrick Vincent, Regional Director, Fisheries Management, at the Grande-Baie ice fishing village in the Saguenay region.

Patricia Faucher
Communications

Dispatches

FISHERIES AND OCEANS CANADA MEETS STUDENTS FROM QUEBEC

Every year, Fisheries Officers from Fisheries and Oceans Canada visit elementary school students in the Gaspé, North Shore, Magdalen Islands and Far North regions. The goal is to educate students about the work that the Fisheries Officers do and about fishery resource and fish habitat protection. This school year, Officers met nearly 1 000 students in around thirty schools.

The Fisheries Officers from southern Gaspé did something new this year: they came with five local commercial fishers, including one Aboriginal fisher, who all

participated in the presentations. The fishers had a chance to talk about the basics of the job and to show students some of the equipment that they use, including a snow crab measurement tool, a net hook, and a lobster fisher's electronic logbook. The whole experience was a great success that was much appreciated and is sure to take place again next year.



DFO P. GAGNON

During his presentation at the school Cap Beau-Soleil at Caplan, Jeremy Jerome of the Gesgapegiag First Nation talks about his job and shows a video of lobster fishery.



DFO P. GAGNON

Daniel Desbois, president of the Association des crabiers gaspésiens, talking with students from the Saint-Bernard school in Gascons.

Pierre Gagnon
Gaspé – Lower St. Lawrence Area

NEW SCIENCE ADVISORY REPORTS ON THE INTERNET

The following science advisory reports are now available on the Canadian Science Advisory Secretariat's Web site, www.dfo-mpo.gc.ca/csas, in the *Publications* section, *Science Advisory Reports (2005+)* for 2011 and 2012:

- Reference points consistent with the precautionary approach for northern shrimp in the Estuary and Gulf of St. Lawrence (2011/062);
- Assessment of the sea cucumber fishery in the Estuary and Northern Gulf of St. Lawrence from 2008 to 2010 (2011/063);
- Current Status of Northwest Atlantic Harp Seals, (*Pagophilus groenlandicus*) (2011/070);
- Assessment of Shrimp Stocks in the Estuary and Gulf of St. Lawrence in 2011 (2012/006).

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Moreover, during summer 2011, the conditions of the intermediate cold layer were comparable to those noted in 2006, which had been the warmest year since 1983. On the Magdalen Shallows in September 2011, the water temperature near the bottom did not drop below 0°C. This was the third consecutive summer that this occurred.

In general, deep water temperatures were close to normal, but very warm waters were recorded in Cabot Strait at a depth of 250 metres, while the estuary had very cold water. It is predicted that in two or three years, the warm anomaly in Cabot Strait will propagate into the estuary.

The analyses also showed that the freshwater input measured in Quebec City during the spring flooding was the highest it had been in 35 years. The St. Lawrence Estuary's surface salinity was also the lowest it had been since at least 1991.

Further details on the results of this research will soon be available on the Canadian Science Advisory Secretariat Web site (www.dfo-mpo.gc.ca/csas-sccs).

Peter S. Galbraith
Science

Convictions

CONVICTIONS FOR *FISHERIES ACT VIOLATIONS*

Fisheries and Oceans Canada (DFO), Quebec Region, has released the names of fish harvesters who have received fines for violations of the *Fisheries Act*. DFO continues to strictly enforce its zero tolerance policy for offenders. The Department has a mandate to protect and conserve fishery resources and is ever vigilant in its efforts to prevent poaching of marine resources. **Fisheries and Oceans Canada encourages the public to report poaching incidents by calling 1-800-463-9057. All calls are confidential.**

OFFENDER/ HOME	OFFENSE/PENALTY
Sylvain Arsenault Bonaventure	Tuna fishing without authorization. \$750
Jordan Bacon Jacques Picard Pessamit	Possession of clams smaller than the permitted size of 51 mm. \$300 each
Tony Beaudoin Blanc-Sablon	Fishing for herring with a vessel of a length greater than 12 m in a restricted area, across from Blanc-Sablon. \$500
Reiss Bilodeau Old Fort	Fishing for cod without valid commercial fishing licence terms. \$500
Mario Blais Saint-François-de-Pabos	Fishing without a licence and use of a net for groundfish fishery less than 5 m from the surface of the water. \$2,000
Marvin Buckle Old Fort	Fishing for lobster and cod without a commercial fishing licence. \$750 (lobster), \$500 (cod) + seizure of the proceeds from the sale of cod, \$23.45
Gilles Côté Grande-Vallée Raynald Richard Petite-Vallée	Sportfishing for Atlantic cod during a closed time. \$500 each
Pierre Delarosbil Godbout	Fishing for cod during a closure of the fishery. \$500
Dean Dow Shigawake Larry G. Dow Saint-Godefroi Peter Hackett Paspébiac Steven Walker Shigawake	Mackerel fishing without valid conditions. \$1,000 each
Brenda Drudge Old Fort	Fishing for salmon without a licence and obstructing the work of a fishery officer. \$750
Ivan Etheridge Brador	Possession of tuna caught with any gear other than angling gear. Seizure of the proceeds from the sale, \$351.78

OFFENDER/ HOME	OFFENSE/PENALTY
James Green Mutton Bay	Fishing for lobster without a licence. \$750
Nelson Hobbs Jr Blanc-Sablon	Possession of a seal caught using a lumpfish net. \$500
Thérèse Kenney Sainte-Anne-des-Monts	Exceeding the allowed quota for sportfishing for Atlantic cod. \$300
Bernard Labbé Valère Daraiche Percé	Use of lobster traps without valid tags. \$500 each
Michel Labrecque Petit-Cap	Unloading Atlantic halibut without a dockside observer. \$3,000
Trent Langlois Gaspé	Possession of a v-notched female lobster. \$500
Guy Leblanc Carleton	Deviation from shrimp fishing conditions by using illegal gear. \$5,000 + Confiscation of the catch and part of the illegal gear
Bertrand Monger Old Fort	Fishing for crab without a licence. \$300
Tina Pidgeon Old Fort	Fishing for salmon without a licence. \$500
Stéphane Poulin Port-Menier	Possession of lobster under the permitted size. \$750
Marcel Roy Pointe-à-la-Frégate	Greenland halibut fishing without a licence. \$13,000
Gérald Sim Baie-des-Sables	Harvesting molluscs in a closed area. \$700 + Banned from the banks of the St. Lawrence River, between Trois-Pistoles and Baie-des-Sables, for 36 months
James Micheal Sullivan Shigawake	Mackerel fishing without valid conditions. \$1,000
Andrew Vibert Percé	Lobster fishing using too many traps. \$1,500

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