

IN TUNE

Priority Wildlife Species of the St. Lawrence River

Under SLV 2000, a number of wildlife species that inhabit the St. Lawrence have been targeted for protection. This initiative is aimed at protecting and promoting the recovery of threatened or vulnerable plant and animal species. Two of the animal species are profiled here. Next month, two plant species will be featured.

Advisory Committee Report

The Committee describes its activities during its first two years of operation.

ZIP Committee Update

The ZIP Committee representing the north shore of the Estuary instituted its Ecological Rehabilitation Action Plan (ERAP) last January. Some projects are already under way.

Priority Wildlife Species of the St. Lawrence River

The Species Subcommittee, set up by the Biodiversity Coordination Committee of the St. Lawrence Vision 2000 (Phase III) action plan, is composed of representatives from the Quebec government (Quebec Department of the Environment, Wildlife and Parks division) and from the federal government (Environment Canada, Fisheries and Oceans Canada). This working group has prepared a list of the species of the St. Lawrence River corridor that deserve protection on a priority basis, because their populations are either threatened or in decline. In all, 28 plant species and 20 animal species have been designated as priorities. The present article describes several activities aimed at improving the population status of two animal species. Plant species will be dealt with in the next issue.

The mandate of the Species Subcommittee is to protect and, if need be, to promote the recovery of threatened or vulnerable plant and animal species, along with species whose populations are at a low level or in decline, with a view to ensuring their long-term survival. In cooperation with the Habitats Subcommittee, this group is also mandated to identify priority sites on behalf of the species at risk.

Priority species of the St. Lawrence

The priority species of the St. Lawrence have been selected firstly based on the critical importance of the river and its tributaries as a component of their geographic range in Quebec. Secondly, these species are recognized as being in trouble because of their drastically reduced numbers or the existence of major threats to their survival.

In all, the Subcommittee has identified twenty animal species requiring protection on a priority basis: one insect, six fish species, one amphibian, one reptile, ten bird species and one mammal. During phase III of the St. Lawrence Vision 2000 action plan, the principal

SUMMARY

PRIORITY WILDLIFE SPECIES OF THE ST. LAWRENCE RIVER	1
• SPINY SOFTSHELL TURTLE	2
• BARROW'S GOLDENEYE	4
NEWS IN BRIEF	5
THE ADVISORY COMMITTEE: ASSESSMENT OF ACTIVITIES 1996-1998	6
ZIP CHRONICLE	7

List of priority plant species for Phase III of the St. Lawrence Action Plan

Group	Species
Insects	1. Maritime ringlet butterfly
	2. Atlantic sturgeon
	3. American shad
	4. Copper redhorse
	5. Striped bass
	6. Channel darter
	7. River redhorse
Amphibians	8. Western chorus frog
Reptiles	9. Spiny softshell turtle
Birds	10. Horned Grebe
	11. Harlequin Duck
	12. Barrow's Goldeneye
	13. Bald Eagle
	14. Peregrine Falcon
	15. Yellow Rail
	16. Piping Plover
	17. Caspian Tern
	18. Roseate Tern
	19. Loggerhead Shrike
Mammals	20. Beluga whale

objectives related to these species are to prepare and carry out plans to protect them. This will entail identifying the cause of the species' dwindling numbers along with potential threats, establishing recovery objectives and a list of actions, and preparing an implementation plan. In some cases, research will have to be conducted to acquire essential knowledge on ways to promote the species' recovery.

To illustrate the types of measures implemented to protect priority species of the St. Lawrence, we present you the case of the spiny softshell turtle and the Barrow's Goldeneye.

The spiny softshell turtle

Spiny softshell turtles occur around large bodies of water in southwestern Quebec and in the Ottawa River region. These turtles are aquatic, but they like to bask ashore and also lay their eggs on riverbanks.



Photo : Raymond A. Saumure

Radio-tracking work done over the past few years has provided researchers with information on the spiny softshell's patterns of habitat use. Michel Huot, a Quebec government biologist (Wildlife and Parks) said: "We have discovered that this species' use patterns are haphazard and that it travels considerable distances on a daily basis. Some turtles may even travel as much as several kilometres a day."

Threats to the species' survival

Quebec's climate probably serves as a factor limiting the geographic distribution of the spiny softshell turtle in the province. Our short, cool summers rarely provide the conditions needed for this species' eggs to develop properly and hatch.

Various human activities have also had an adverse effect on the turtle's population. Habitat alteration and losses, along with the use of such



Raymond. A. Saumure

areas by humans, are among the main threats to the survival of this species. This encroachment has occurred because the spiny softshell turtle lives near populated areas and because the rivers and riverbanks that form its habitat constitute an environment prized by humans for various uses. Water pollution and an increase in populations of predators that feed on the species' eggs are other factors that may have adversely affected the population.

Why adopt measures to protect the species in Quebec?

In Quebec, protective measures are essential because the turtle is a unique component of the province's wildlife. Furthermore, Quebec is required to implement measures, in concert with Ontario and the United States, to conserve breeding populations of the spiny softshell turtle in the northeastern part of its range. In fact, Lake Champlain is the only remaining place where these turtles can be observed regularly and the only place where nesting has recently been confirmed. Observations in other regions have been sporadic, with no recent evidence of nesting.

Concrete actions to promote recovery

A November 1997 report on the status of the spiny softshell turtle in Quebec [Rapport sur la situation de la tortue-molle à épines (*Apalone spinifera*) au Québec] indicates that, given the few records of the species, its limited effective habitat area and its small population, any further disturbance to the animal or its environment might accelerate its

disappearance. However, the species' long lifespan and considerable reproductive capacity (a female can produce a large number of eggs during its lifetime) provide potential for solid population growth. By protecting and enhancing habitats, improving survival rates of both eggs and young and limiting disturbances and accidental mortalities, it should be possible to maintain and even increase the population size, as well as expand the species range.

A recovery plan has been drawn up for the spiny softshell turtle in Quebec [Le Plan d'intervention sur la tortue-molle à épines (*Apalone spinifera*) au Québec]. It lists a number of objectives for improving the species' situation and increasing its population. Many activities are planned, including research on habitat needs and efforts to protect and enhance habitat. For example, a project to look for spiny softshell turtles will be undertaken in summer 1999. "We will enlist the active support of amateur naturalists in order to ensure the success of this undertaking," said Mr. Huot, specifying that the targeted areas include the Ottawa River region, Lac des Deux Montagnes, Lake St. Louis, the Richelieu River and Missisquoi Bay. Groups interested in participating are asked to contact the St. Lawrence Valley Natural History Society at (514) 457-9449 or by e-mail: ecomus@total.net

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Source :

MINISTÈRE DE
L'ENVIRONNEMENT ET DE LA
FAUNE 1997. Plan d'intervention
sur la tortue-molle à épines
(*Apalone spinifera spinifera*) au
Québec. Restoration team of the
spiny softshell turtle, 68 p.



Photo : Raymond A. Saumure



The total world population of Barrow's Goldeneye is divided geographically into three separate groups. The largest of these, comprising 90% of the total number, breeds and overwinters west of the Rockies. The other two duck populations are located in Iceland and Quebec.

The duck population that overwinters in Quebec is concentrated primarily in the Charlevoix (Malbaie–Pointe au Pic and Baie des Rochers) and North Shore (Baie Comeau) regions. However, some individuals can also be found on the Gaspé Peninsula and Anticosti Island in winter.

"We estimate that 2,000 to 4,000 goldeneyes spend the winter in Quebec," said Michel Robert, a biologist with Environment Canada's Wildlife Service (CWS). He stated further that these ducks represent the bulk of the species' contingent found in eastern North America. "Until a few months ago," noted Mr. Robert, "many aspects of the Goldeneye's biology—for example, nesting sites, moulting areas and its movements along the St. Lawrence Estuary—were either unknown or poorly documented." With a view to uncovering some of these mysteries, the Canadian Wildlife Service initiated a satellite-tracking project.

On the trail of the Barrow's Goldeneye

For nearly a year now, CWS biologists have been using satellite tracking to monitor the movements of seven goldeneyes. These individuals were captured at Baie des Rochers and Mistassini in February 1998, and a tiny radio-transmitter, whose frequencies can be detected by satellite, was carefully inserted into the abdomen of each bird. Thanks to this monitoring technology, biologists have been able to follow the location of the birds from day to day.

Since the project began, CWS have discovered many of the Goldeneye's secrets. "Thanks to satellite tracking, we now have irrefutable proof that these ducks nest in Quebec," Mr. Robert said. The nesting sites that have been identified are located in inland areas, on the north shore of the St. Lawrence, between Tadoussac and Mingan.

Although biologists already knew that the male ducks return to moulting areas after the nesting season (leaving the females behind), the location of these sites was not known. Satellite tracking has been instrumental in locating them. Mr. Robert said: "We now know that male goldeneyes travel distances of up to 1000 kilometres to reach the moulting areas, which are situated in Ungava Bay, Hudson Bay and Labrador."



Photo : Michel Robert

With a view to tracking the movements of goldeneyes in the Estuary and Gulf of St. Lawrence during the winter, four additional birds were captured in Parc du Bic last November and fitted with satellite tags. Through this research, biologists hope to learn more about the species' concentration areas and also evaluate the effect that freeze-up has on the ducks' movements.

A question of status

The Barrow's Goldeneye is an arboreal duck, which means that it lays its eggs in natural cavities in trees. Logging can therefore pose a threat to this species. To counter the negative effects of forestry on the duck's breeding habitat, biologists have installed artificial nesting boxes at the nesting sites identified through satellite tracking.

At present, the Barrow's Goldeneye does not have protected status like that accorded threatened species. However, the satellite tracking data, along with the terrestrial surveys planned for winter 1999, will be used to determine whether the species deserves special protection. On this topic, Mr. Robert noted: "We already believe that, given its small population size and the fact that so many individuals congregate in specific sectors of the Estuary and Gulf during the winter, the Barrow's Goldeneye may qualify for designation as a vulnerable species. All of the information derived through satellite tracking will be compiled to prepare a report for submission to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) this fall."

In the meantime, you can keep track of the goldeneyes and also obtain research updates at the Canadian Wildlife Service Web site: www.qc.ec.gc.ca/faune/sauvagine/html/garrot_dislande.html

The next issue of Le Fleuve will feature the second article in the series on endangered species protection. It will focus on priority plant species of the St. Lawrence River.

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Sources:

BEAULIEU, H. 1992. *Liste des espèces de la faune vertébrée susceptibles d'être désignées menacées ou vulnérables*. Ministère du Loisir, de la Chasse et de la Pêche, Québec, 107 p.

BONIN, J. 1997. *Rapport sur la situation de la tortue-molle à épines (Apalone spinifera) au Québec*. Ministère de l'Environnement et de la Faune, Direction de la faune et des habitats, 62 p.

GAUTHIER, J. and Y. AUBRY (editors) 1995. *The Breeding Birds of Quebec: Atlas of the Breeding Birds of Southern Quebec*. Association québécoise des groupes d'ornithologues, Quebec Society for the Protection of Birds, Canadian Wildlife Service, Environment Canada, Quebec Region, Montreal, xviii + 1295 p.



FORCES Magazine is dedicating its February 1999, no. 122 to the St. Lawrence issue. Many themes pertaining to this great river are being explored, including its unique characteristics, its different uses and its state of health.

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On June 6th 1996, Ministers from Environment Canada and Environnement et Faune Québec announced the creation of the St. Lawrence Vision 2000 Advisory Committee. Presided by Mr. Harvey Mead, the mandate of this committee was to advise administrators regarding viable approaches and intervention methods for the SLV 2000 Action Plan. Two years after its creation, the Advisory Committee has made an assessment of its activities, the major areas of which are the focus of this article.

The SLV 2000 Advisory Committee: Assessment of Activities

It is noteworthy to mention that, from 1996 to 1998, the Advisory Committee included some thirty volunteer members representing the gamut of socio-economic groups. The committee's activities would therefore reflect the public's interest in the protection and enhancement of the St. Lawrence. During its initial two years of existence, eight plenary sessions were held. Members also formed subcommittees and met numerous times to address more specific problems and draw up preliminary motions that would later be submitted to the committee.

Ideas in motion

All participating members felt that, as a whole, the committee had proven to be very productive and its workings adequate. As well as drafting a preliminary study of agricultural concerns, the committee also drew up four principal motions pertaining to the following areas:

- SLV 2000 Action Plan status report;
- Environmental assessment of the St. Lawrence;
- Environmental recognition plan for SLV 2000 organizations;
- Development of the phase three of the St. Lawrence Action Plan.

Motions were forwarded either by the president at the request of administrators of the Action Plan or by the committee itself. This ensured that the committee retained the independence and autonomy required in order to remain receptive to requests made by concerned organizations and individuals. Committee members consider that they made a significant contribution while evaluating the status report of the Action Plan and its components. During its mandate, the Advisory Committee also had the opportunity to consult with various individuals in the field. A productive meeting held in Rimouski, which focussed on the importance of the St. Lawrence Gulf in the various action plans, led the Advisory Committee to address and inform government authorities concerned with the issues that had been discussed.

"The Advisory Committee definitely made a real impact during the elaboration of Phase III of the Action Plan", says Mr. Harvey Mead, who was acting president. "Many of the committee's recommendations, presented in guideline documents as well as during discussions with various groups elaborating different components of this phase, were accepted." He cites as an example the choice of Concertation, Partnership and Action as the project's overall theme as well as the creation of coordination committees that involve non-governmental partners in the implementation of Phase III. "Other recommendations made by the Advisory Committee include the creation of the Navigation component, fostering the increased participation of Stratégies Saint-Laurent and providing additional funding to ZIP Committees", adds Mr. Mead.

The Advisory Committee pursues its mandate

In May 1998, co-presidents of Phase III of the SLV 2000 Action Plan asked the president of the Advisory Committee to extend its mandate for an additional year. It would be spent preparing a report containing a detailed assessment of its activities, recommendations for the creation of a new committee and a list of the challenges it would face. "Members met during the Fall to establish guidelines for the creation of the new Advisory Committee, which began its mandate in November 1998", explains Mr. Mead, adding that members act individually and are not involved with organizations

associated with implementing the Action Plan.

Since its creation, the twenty-six members of the new Advisory Committee have already had their first meeting. It is important to note that these meetings are public and all are invited to participate. In this way, committee members can be made aware of public concerns and continue to convey these interests to administrators of the St. Lawrence Vision 2000 Action Plan.

For further information on the Advisory Committee's activities, contact:

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Sources:

St. Lawrence Vision 2000 Advisory Committee, 1998. Activities Report 1996-1998; 8 pages.

St. Lawrence Vision 2000 Advisory Committee, 1998. Assessment of Activities 1996-1998; 13 pages + annexes.

Chronicle
ZIP Committees in
the Heat of the Action

Between 1993 and 1998, the Priority Intervention Zones Program, or ZIP, led to the creation of twelve Zip Committees. These regional coordination committees cover several distinct regions up and down the St. Lawrence. Phase III of the St. Lawrence Vision 2000 Action Plan is committed to implementing the Ecological Rehabilitation Action Plans (ERAP) elaborated by each of these riverside communities. Furthermore, two new committees are expected to be created during the course of Phase III. The purpose of this chronicle is to inform the public of what ZIP Committees all over Quebec are doing to protect, restore and enhance the St. Lawrence.

The North Shore Estuary ZIP Committee

ERAP is put into action

The North Shore Estuary Zip Committee covers the area that stretches from Tadoussac to Pointe-des-Monts in the village of Baie-Trinité. With its 365 kilometres of shoreline and 4,470 square kilometres of marine habitat, it is one of the largest territories covered by a single committee. Founded originally as the Baie-Comeau ZIP Committee, the committee changed its name in November 1998. The designation of North Shore Estuary corresponds more accurately to the territory covered and facilitated the inclusion of the Upper North Shore area.

ERAP is officially launched



The name change also intended to reflect the committee's commitment to extend its activities over the full expanse of the territory's designated Priority Intervention Zones (ZIP). This commitment was demonstrated recently by the official launching of ERAP (Ecological Rehabilitation Action Plan) in Les Escoumins and Baie-Comeau, on January 18th and 19th respectively. "Over fifty people attended the inaugurations and the events were well covered by the media", says Mr. Marc Larin, who is the committee's co-ordinator. He adds that the events also served to inform the public of the results of two years of committee consultations as well as attracting many new members.

The Ecological Rehabilitation Action Plan that was elaborated includes fourteen technical charts that list concrete and detailed solutions that are to be implemented over the course of the next few years in order to protect, safeguard or enhance these areas of the St. Lawrence.

Projects are already underway



Certain projects are already being implemented. This is the case notably for a project whose purpose is to study riverbank erosion in the region in order to prepare an action plan that is adapted to the area's needs. For the past several months, the committee has also been working to organize a regional symposium on the problem of riverbank erosion (L'érosion des berges : Vers une gestion intégrée des interventions en milieu marin). This event, which is being jointly organized by the M.R.C. of Manicouagan, will be held at the Hôtel Le Manoir in Baie-Comeau from February 19th to the 21st. "Specialists, decision-makers and citizens alike are invited to assist

and discuss the many facets of this problem and to help elaborate tools and intervention methods that are adapted to the various estuary zones", explains Mr. Larin. He adds that all those who are interested in the symposium are invited to contact the committee in order to obtain a detailed program of the event.

Furthermore, over the course of the next few weeks, the committee intends to prepare an intervention guide for the protection and enhancement of coastal habitats of interest in the area (Guide d'intervention en matière de protection et de mise en valeur des habitats littoraux d'intérêt). This guide will provide regional administrators with a working outline that furnishes a descriptive summary of habitats found in the region, an evaluation of their relative contribution to the ecological balance of the St. Lawrence as well as establish the course for future interventions. This particular undertaking, which provides an accessible, reliable and global understanding of coastal habitats in the area, is a direct product of the many issues and concerns identified and addressed in ERAP.

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