Environment Canada
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HABITATS

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Important Meeting On The Protection of Quebec Habitats

by Clément Dugas, Environment Canada

Representatives of some fifty organizations closely linked to wildlife and habitat conservation met in Quebec City on November 25-26, 1989, to exchange views on their major concern, the protection of Quebec habitats. This was in fact the second workshop on habitat protection organized by the Canadian Wildlife Service (CWS) as part of the implementation of the St. Lawrence Action Plan.

The first workshop, held at the same time last year, gave participants an opportunity to express their expectatinos regarding the role of the CWS and other organizations involved and the availability of financial assistance to enable environmental organizations to become more active in the acquisition, management and enhancement of habitats in Quebec. Environment Canada responded positively to this request, and on October 13 accounced that a $600,000 assistance program had been set up for this purpose.

Several topics were on the agenda for the second workshop, and a number of noted speakers participated. After a word of welcome from Jean-Pierre Gauthier, Regional Director General, Conservation and Protection, discussions on the first day centred around habitat acquisition and management. Robert Carswell, of the Canadian Nature Conservancy, dealt with a case of acquisition by a non-governmental body. Guy Lépine, of the Quebec Wildlife Foundation,

Lecturers: in usual order, Jean-Paul Desjardins, head of marketing at the Canadian Parks Service; Alban d'Amours, vice-president planning, communication and marketing at the Confédération des Caisses populaires et d'économie Desjardins; Bernard Villeneuve, executive secretary of the regional managers committee of Environment Canada.

Representatives of wellknown organisms in the Quebec conservation: Lance Laviolette, from the Société québécoise pour la protection des oiseaux, Robert Carswell and Joël Bonin, from the Société canadienne pour la conservation de la nature, and Guy Lépine, from the Fondation de la faune du Québec.

explained the acquisition process in Quebec, while Gary Richards, a communications consultant, presented the land trust concept. A number of organizations, including the Société d'aménagement récréatif pour la conservation de l'environnement du lac Saint-Pierre (SARCEL) and the Corporation d'aménagement de sites écologiques (CASE), described their experience with habitat management.

The second day concentrated mainly on partnership arrangements and sources of funding, as part of the Canadian Wildlife Service's goal of facilitating participation by conservation groups. Raynald Chabot of Légaré and Chabot, Jean-Paul Desjardins, Head, Marketing, Canadian Parks Service, and Bernard Villeneuve, Executive Secretary, Committee of Regional Executives, Environment Canada, discussed topics such as fund-raising strategies, sponsorship arrangements and government programs. Alban d'Amours, of the Confédération des Caisses Populaires et d'Économie Desjardins du Québec and Pierre Samson of Ultramar Canada described their companies' orientation and commitment to environmental protection.

The meeting was extremely successful, due to strong participation by conservation groups from across the province. It certainly met the expectations of participants, who expressed their appreciation to the Canadian Wildlife Service for its active attention to their groups and the true partnerships it is forming with environmental organizations.

CWS Regional Director, Jean Cinq-Mars, took the opportunity to launch a new bulletin, HABITATS, and

this initiative was well received by participants. All present expressed the wish that a similar workshop be organized agin next year.

The CWS will publish a report on these workshops in the near future. Copies may be obtained by contacting Francine Hone, at he Canadian Wildlife Service offices.

Habitat Management and Acquisition Assistance Program

The Habitat Management and Acquisition Assistance Program is entering its second year. Set up by the Canadian Wildlife Service as part of implementation of the St. Lawrence Action Plan (SLAP), it was developed to encourage non-governmental organizations interested in the protection of habitats in Quebec to participate actively as full-fledged partners.

The main purpose of the program is to promote setting up projects with specific habitat management, enhancement and acquisition objectives.

Deadlines for project submissions are March 1 and September 1.

Fore more information on the program and a copy of project submission guidelines, please contact the Canadian Wildlife Service at the following number: (418) 648-7225.

Habitat Management on the St. Lawrence Shoreline: don't forget the fish!

by Sylvie Desjardins and Pierre Dumont, Ministère du Loisir, de la Chasse et de la Pêche

Due to the topography of the St. Lawrence Lowlands and the hydraulic behaviour of the river, wetland areas were very common along the shoreline before the European settlers arrived. Since most of them settled along the river, these areas diminished significantly in the path of agricultural, urban and industrial growth. The most severely affected areas are those that are now urbanized or cultivated, or crossed by major highways. It would appear, for example, that in the Montreal area only 20% of the wetlands present prior to colonization still existed in 1966.

And yet, the swamps and marshes, wet grasslands and flood plains that bordered the river were major contributors to its biological wealth. This wealth takes the form of an exceptional diversity pf wetland animal species. Some 100 native Quebec fish species spawn, reproduce and feed in these shoreline areas, among them northern pike, yellow perch, brown bullhead, largemouth bass and crappies, which depend on these areas for population replacement. However, fish are not the only vertebrates that use shoreline wetlands; they are also home to 27 of the 34 reptile and amphibian species found in Quebec. In Quebec as well, 100 species of nesting birds and 52 migratory species, as well as 23 species of mammals, prefer these areas. Apart from these losses, severe habitat damage due to the construction of many water control structures and hydroelectric dams have led to the formation of dense, closed swamps that are less productive for animal life, or wetlands in which the annual water flow cycle has been significantly changed. These observations, together with increasing public concern for the environment and the growing demand for activities

Marshes of the St Lawrence plain
Photo: Pierre Pouliot, MLCP

related to wildlife use and observation, have heightened our desire to restore damaged habitats and attempt to create new ones. Organizations such as Ducks Unlimited specialize in this field.

To date, most management work has involved building dikes and water control structures to stabilize shoreline areas during the summer and thus meet the biological needs of waterfowl. Of particular interest are breeding areas with equal proportions of free water and exposedvegetation and water depths of 50 to 100 cm.

This management may be of great ecological interest. Diked swamps and the canals dug through them are considered ideal environments for the maintenance of abundant and varied flora and fauna. Such developed habitats also have a highly significant psychological effect, since they provide better protection from industrial or residential development. A managed habitat is necessarily a protected habitat.

But the new habitats may also impose major constraints on aquatic fauna. In some cases, dikes render the managed areas completely inaccessible for invertebrates and fish. In other cases, they limit the water flow between streams and flood plains, and the resulting periods of

high water allow species to migrate too early. It is commonly accepted that stabilizing water levels encourages the development of eggs and larvae in these highly productive environments. A similar habitat management model has also been widely used in North America to promote reproduction of northern pike through springtime control of water levels in wet areas near lakes and streams.

When habitats are created in an attempt to attract waterfowl, hoiwever, water levels are controlled throughout the year; breeders and fry thus remain trapped inside the dikes and their survival is jeopardized due to lack of oxygen during the hot summer periods or under ice in winter. For example, the fish fauna in the Massettes swamp, a 60-hectare wetland developed for waterfowl along the Ottawa River, was estimated at about 1.75 million individuals of seven different species in August 1989. Most of these fish will not have survived through the winter. As well, all the invertebrate production is trapped in these closed environments, and access to the developed sites is cut off for late-migrating fish species (crappies, largemouth bass, carp), and thesefish are thus deprived of their breeding grounds.

Such situations are unacceptable given the multispecies use of shoreline habitats along the St. Lawrence, and this is why partners under the Five-Year Habitat Conservation Agreement* have approved a $400,000 fund for studies and research aimed at devising new habitat management methods and new ways of controlling water levels to encourage the use of wetlands by various types of fauna. Studies are now being carried out, and a number of solutions are being examined.

In light of these eloquent examples, one conclusion becomes clear: we cannot neglect some species in favour of other, more popular species without creating imbalances in the entire ecosystem of developed habitats.

* Quebec Wildlife Foundation: Quebec Department of Recreation, Fish and Game; Quebec Planning and Development Bureau; Ducks Unlimited Canada; Wildlife Habitat Canada; Canadian Wildlife Service.

Habitat Management: focus for the year 2000

by Denis Lehoux, Canadian Wildlife Service

During the 1990s, organizations working in the environmental field will be making a considerable effort to protect strategic wildlife habitats along the St. Lawrence River. Special attention will be paid to consolidating partially protected wetlands like the national wildlife reserves, but in particulr to acquiring new areas of uncontested value. The St. Lawrence Action Plan (SLAP) and the Eastern Habitat Joint venture (EHJV) are the two spearhead movements in this area. These two programs, it will be recalled, are intended to provide comprehensive protection for nearly 30,000 hectares of vulnerable, threatened habitats and natural ecosystems alongthe Great Lakes and St. Lawrence valleys.

This is a very laudable initiative, and it is hoped that the objectives set for the coming fifteen years will be reached. The challenge is considerable. The acquisition process is often long and complex and, notwithstanding the enthusiasm of the organizations involved, their success is unfortunately not a foregone conclusion.

Hard facts, it is true, but they should not overly discourage us, since we are now preparing for our future. In Quebec, the concept of the future in the environmental field will be that of MANAGEMENT, a vast concept that covers the creation, restoration and increased produtivity of habitats and will strengthen the acquisition program. Ducks Unlimited has been a pioneer in the area of habitat management in Quebec since the early 1970s, while Environment Canada is increasingly active in this field. The goal of the Canadian Wildlife is certainly not to duplicate the work of Ducks Unlimited, but rather to complement its efforts by developing new skills and strategies.

To this end, the St. Lawrence has been divided into three priority zones: fresh water, brackish water and salt water. The objective in the fresh water region will be to work with the St. Lawrence Centre to assist in creating islands using dredging waste. The characteristics that render island habitats attractive for waterfowl have been identified, and an attempt will be made to reproduce these in the artificial islands. The next step will involve better describing the ecology of a dozen plant species that might help stabilize the new islands or improve the plant cover on existing islands.

The problem in the brackish marshes is quite different. We appear to be faced with a serious erosion problem in bulrush marshes, where active erosion may be up to five metres a year in some parts of the coastline. The challenge for the coming years in this part of the river will be to determine the extent of the problem, whether it is a local or problem one affecting all bulrush marshes, and what action, if any, should be taken.

In salt-water marshes, farming has left many scars. Drainage canals, as many as two per kilometre of marsh, seriously damage the marsh by causing it to dry out, changing the natural vegetation and creating barriers to the movement of young black ducks during the early months of their lives. Here too, restoration is needed, and corrective measures must be developed that will not interfere with the natural balance of these areas.

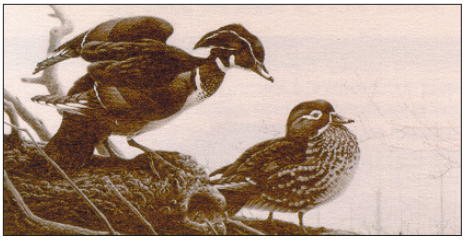
these are just a few examples of what must be accomplished in the short term to restore the St. Lawrence to its former splendour. Much work lies ahead since, if these goals are to be attained, the environmental approach

View of a salt-water marshes in the Isle-Verte region and many salt panne. These marshes are very important migration and reproduction sites for the Black ducks. Photo: Denis Lehoux

will have to be quite different from the traditional approach. More emphasis must be placed on studies dealing with various behavioural aspects, to the detriment of traditional census methods aimed only at documenting the abundance and distribution of birds, since management strts with a solid understanding of the environment involved. Knowing what a given organism does in a given habitat is the key to successful management. The day may be coming when the mentality of amateur biologists and birdwatchers will have evolved to the point where, instead of reporting the presence of 25 Brant on Isle-Verte, for example, they will report 25 Brant spending 50% of their time feeding in the dense eelgrass beds off Ile Ronde. When more and more of us have reached that stage, habitat management in Quebec will likely be a truly viable activity.

Wildlife Habitat Canada – Historical Note

by Wayne Roddick



«Wood Ducks» by Michael Dumas

Wildlife Habitat Canada (WHC) was founded five years ago as the result of cooperation between the National Habitat Coalition and the Canadian Wildlife Service. Its primary objective is to enhance and increase the socioeconomic advantages of wildlife resources and better use public and private management skills.

The foundation is now wlle recognized for its major contribution to conservation in Canada. In just five years, WHC has proved it has a role to play in the restoration and conservation of wildlife habitats and a no less important contribution to make to the efforts of Canadian conservation organizations.

Since its founding in 1984, WHC has engaged in activities that are unique in both their nature and methods. The work of WHC is only possible through the cooperation and commitment of all the many and various groups involved in conservation.

WHC has successfully used the partnership concept in habitat conservation. By joining forces with other groups, it has developed innovative funding techniques and sponsored significant programs in all of Canada's provinces and territories.

What is Wildlife Habitat Canada?

WHC is a national, non-profit foundation for the conservation, restoration and enhancement of animal and plant habitats. To further its objectives, it funds a wide variety of habitat-related projects and encourages cooperation between wildlife action groups. By early 1989, WHC had committed $15 million to over 130 habitat conservation projects valued at over $550 million. During the same year, WHC awarded its first master's and doctoral scholarships.

Wildlife Habitat Canada encourages habitat conservation projects that include environmental and economic aspects and works toward the recognition of environmental considerations in policy-making. As a catalyst organization, WHC stimulates debate and enhances the importance of wildlife in policy discussions. In this area, WHC focusses on assessing the potential impact of policies and programs on habitats.

Total landscape concept

WHC promotes a total landscape view, that is, it encourages projects aimed at integrating wildlife and its habitat into the overall landscape.

It supports projects that use incentive programs and measures to assist landowners in conserving wildlife habitats on their property. It thus demonstrates that total landscape can be protected by encouraging wildlife and habitat conservation while permitting economic activity.

WHC's special role

Through its funding and cooperation programs, WHC forges links between wildlife and environmental protection and conservation groups.

It also plays a leading role by providing technical support for national governmental, non-governmental and industry bodies from which its ten-member board is drawn.

Funding

WHC has developed innovative funding methods for its regular programs. One of these, the yearly issuing and sale of a wildlife conservation stamp and print, provides the foundation with its main source of income. Every year, a stamp and print are issued featuring a work by a wellknown wildlife artist such as Robert Bateman, J. Fenwick Landsdowne, George McLean, Jean-Luc Grondin and, for 1990, Michael Dumas with his «Wood Ducks».

Since 1985, hunters have had to obtain a conservation stamp to validate their migratory bird license. Environment Canada turns the income from the sale of this stamp over to WHC, which uses it to fund wildlife habitat conservation projects in all regions of Canada.

Limited quantifies of the prints are signed, numberedand sold in art galleries throughout North America. The stamp has turned out to be an attractive investment for collectors. Sales of the stamp and print provide WHC with 80 to 90% of its income.

As part of the «Partners in Conservation» program, non-governmental organizations may keep a percentage of the income from sales of stamps, prints and pins. This is one of the most important aspects of the stamp/print program.

New funding methods are under study, including issuing a conservation bond and holding a telethon.

WHC receives no direct government subsidies, but government agencies participate in various projects as partners with non-governmental organizations and the private sector.

In Quebec, with the participation of some thirty partners, WHC has spent nearly $2 million funding 22 projects with a total value of $8 million.

Survey on the Importance of Wildlife to Canadians

In 1987, Statistics Canada questioned 800,000 Canadians about the importance of wildlife in a survey carried out on behalf of the Federal-Provincial Wildlife Conference, under the supervision of the Canadian Wildlife Service.

The results of the survey in Quebec, involving 12,000 Quebecers 15 and over, confirmed the popularity of wildlife-related activities.

The survey shows that the wildlife plays an imporant role in Canadians' life. In Quebec, the results of the surveys demonstrates that support for wildlife conservation is stronger than in 1981. Over 4.5 million adult Quebecers participate in wildlife-related activities. Quebecers spent 240.4 million days and some $970 million dollars engaging in wildlife-related activities.

The results of the survey will have significant effects on wildlife management and habitats protection. It will also influence the elaboration of the resources policies, the programs planning and evaluation, and the current services seen from the "sustainable development" point of view.

Copies of the survey report, entitled *The Importance of Wildlife to Canadians in 1987: Highlights of a national survey*, are available from the following locations:

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Canadian Wildlife Service
C.P. 10 100, 9th Floor
1141, route de l'Église
Sainte-Foy (Québec)
G1V 4H5

Ministère du Loisir, de la Chasse et de la Pêche
Direction des Communications
150 Saint-Cyrille Blvd. East
10th Floor
Québec (Québec)
G1R 4Y1

HABITATS is published and distributed free of charge by the Canadian Wildlife Service to facilitate exchanges of information between the various groups and individuals interested in habitat protection.

Those who wish to take part in this exchange and share their experiences in the various aspects of habitat protection may do so by writing articles and sending them to Francine Hone, at the Canadian Wildlife Service.

The opinions expressed herein do not necessarily reflect the view or policies of Environment Canada.

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