Public Consultation on Québec's Sustainable Development Strategy

Green Coalition Brief
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INTRODUCTION

The Green Coalition is a non-profit association of grassroots volunteers. Its member-groups and individual members are dedicated to the conservation, protection and restoration of the environment. Members have been actively involved in many issues such as saving Montreal's last natural green spaces, preventing road building through established Nature-Parks and other green spaces, boosting public transit strategies; promoting alternatives to pesticides, pressing for the clean up of waste-water runoff and polluted creeks, and for responsible waste reduction and management. In short, the Green Coalition has worked vigorously in Montreal, to shape a sustainable development city. In recent years we have turned our attention to the urgent conservation needs in the broader Montreal region.

INTERNATIONAL STANDARDS AND CONVENTIONS

The 1987 report of the World Commission on Environment and Development, ***Our Common Future*** *(also called the Brundtland Report)*, and ***Bill 118, the Sustainable Development Act*** alike define sustainable development as *"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* Here in Québec, as in the wider world, it now remains only to fully establish what those needs to be met are, what they will be perceived to be in future, and how they may be met or compromised through our present actions or lack of same.

Will meeting our needs in the rapidly changing bioclimatic domain around Montréal include conserving, to at least the internationally defined standards of 12%, a rich flora and fauna unique in Québec?

World Summits addressing the sustainability of human activities in the years since Brundtland, and the reports and updates that have emerged periodically since, have universally sounded the same refrain: that World civilization can proceed sustainably only in an environment with ecological integrity and with its biodiversity secure. Universally, these same summits and reports tell of a deterioration of the Earth's living systems and the services they provide to humankind. ***Agenda 21, Chapter 15: Conservation Of Biological Diversity, Earth Summit 1992*** states: *"Our planet's essential goods and services depend on the variety and variability of genes, species, populations and ecosystems. ... The current decline in biodiversity is largely the result of human activity and represents a serious threat to human development."*

The 2010 Biodiversity Target, the Strategic Plan for the Convention on Biological Diversity, is explicit: *"Biodiversity is essential to our planet, human well-being and to the livelihood and cultural integrity of people. However, biodiversity is currently being lost at unprecedented rates due to human activities."* This Strategic Plan commits ***"to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on earth."*** Among the focal areas within the ***Strategic Plan's*** framework guiding action at national and regional levels, notably, are:

(a) Reducing the rate of loss of the components of biodiversity, including: (i) biomes, habitats and ecosystems; (ii) species and populations; and (iii) genetic diversity;
(b) Promoting sustainable use of biodiversity;
(c) Addressing the major threats to biodiversity, including those arising from invasive alien species, climate change, pollution, and ***habitat change*** *(our emphasis);*
(d) Maintaining ecosystem integrity, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being;

This *2010 Biodiversity Target* was subsequently endorsed by the World Summit on Sustainable Development. The National Assembly's endorsement in 1993 of Canada's signing on to the Convention on Biological Diversity means that Québec must also be bound to this target, As of this writing there is barely more than two years left before the deadline is upon us.

QUÉBEC'S SUSTAINABLE DEVELOPMENT LAW

Bill 118, the Sustainable Development Act, passed into law and given assent in April 2006 reflects the growing global consensus that human well-being is intimately linked to the protection of biodiversity. There is recognition that people's entitlement to a healthy and productive life bears with it the condition of being in harmony with nature. Particularly notable among principles the Administration is to take into account when framing its actions are the following:

6. (*c*) "*Environmental protection*": To achieve sustainable development, environmental protection must constitute an integral part of the development process **;**

(*l*) *"Biodiversity preservation"*: Biological diversity offers incalculable advantages and must be preserved for the benefit of present and future generations. The protection of species, ecosystems and the natural processes that maintain life is essential if quality of human life is to be maintained;

(*m*) "*Respect for ecosystem support capacity*": Human activities must be respectful of the support capacity of ecosystems and ensure the perenniality of ecosystems;

The Green Coalition applauds the inclusion of these three elements as criteria for development that is sustainable. But, it is now urgent to move beyond the law, and its laudable mandate, to immediate and effective action, particularly where biodiversity conservation is most urgently needed.

Sustainable Development Law 118 also mandates a change to the Quebec Charter of Rights such that ***"46.1. Every person has a right to live in a healthful environment in which biodiversity is preserved, to the extent and according to the standards provided by law."*** *The Green Coalition* notes that this right is not unconstrained and will be subject to how standards are defined in law. We hope that provisions in law will be rigorously applied, giving benefit of doubt to the needs for conservation before development. Further we hope for new and more stringent laws that address biodiversity loss that is occurring on Québec's territory at an accelerating pace.

To be meaningful the above mentioned right must be expressed where people live and where they can derive the benefits in as close to their immediate surroundings as possible.

THE MONTRÉAL REGION AND THE SUGAR MAPLE-BITTERNUT HICKORY BIOCLIMATIC DOMAIN *(DOMAINE DE L'ÉRABLIÈRE À CARYER CORDIFORME)*

The ***Québec Biodiversity Atlas,*** published in September 2005 by the ***Ministère du Développement durable, de l'Environnement et des Parcs,*** divides Québec's 1 667 441 km^2 area into ten bioclimatic domains each with its own distinctive ecological character. The ***Sugar Maple-Bitternut Hickory Bioclimatic Domain,*** including and surrounding Montréal, is the smallest of these, with an area less than 1% of the province's total. Its territory is, roughly, a quadrilateral defined in the north by a line stretching from Lachute to Sorel, in the east by a line stretching southward from the mouth of the Yamaska river, and in the south and west by the American and Ontario borders. The ***Atlas*** tells us that *"Climate is the most decisive factor in the distribution of Québec's biodiversity … In southernmost Québec, the sugar maple-bitternut hickory domain is marked by a wealth of flora and fauna, notably because many thermophile species are in the northern limit of their range."*

HABITAT LOSS

Many species extend their range uniquely into this corner of Québec, where more than half of Quebec's population lives. Also, in this by far the most densely populated part of the province, there has been the highest degree of land transformation from the original natural state.

Historically, vast areas of forest and wetland have given way to intensive agriculture, and the pressure on what remains intensifies as commercial, industrial and residential development proceeds unabated. Small stream ecosystems, important for their own unique biodiversity, have largely been converted to ditches for the purpose of draining farm fields or wetland, hence, biologically and ecologically impoverished. In urban areas, the majority of these watercourses, now having been landfilled to make way for development, flows in underground conduits and has become part of the surface drainage infrastructure. As of 2007, more than 80% of the original forest cover and 94% of the wetlands in the Sugar Maple-Bitternut Hickory Bioclimatic Domain have disappeared.

THREATENED AND VULNERABLE SPECIES

The decline of threatened and vulnerable species, as well as the spaces they occupy, are most pronounced in this domain. And it is here where specific "hotspots" of species decline are concentrated. The ***Québec Biodiversity Atlas*** is explicit about where the greatest pressures on biodiversity are situated in the province and why:

"Species that are extirpated and most imperilled Québec-wide are distributed throughout the territory but concentrated in the south." *(Page 15)*

"It is in Québec's most temperate fringe, the sugar maple-bitternut hickory domain (see p. 11), that many southern species reach the northern limit of their American range. They are rare and imperilled due to the fact that they are confined to relatively small area, significantly affected by development (Lavoie, G., N. Dignard, N. Lavoie, A. R. Bouchard and J. Labrecque, 2001. Les plantes menacées ou vulnérables de la zone boréale. Naturaliste Canadien 125: 157-167.)." *(Page 18)*

"Moving northward, the diversity of threatened or vulnerable species decreases, as for plants and animals in general. It is higher in the northern temperate zone, specifically the sugar maple-bitternut hickory domain."*(Page 20)*

"The distribution of declining species is closely linked to human occupation of the territory for urban development, farming, logging or recreational activities." (*Page 23)*

CONSERVATION NEEDED

The Green Coalition recognizes the need for conservation throughout our territory. We note and applaud Québec's establishment of new national parks in Nouveau Québec. However, biodiversity conservation cannot be a smorgasbord that allows us to pick and choose according to taste or convenience. We cannot choose to favour some domains while sacrificing others because that seems the simpler and more expedient way. Conservation should not be an exercise to get the numbers up overall. We insist that protection of natural heritage should be distributed in a proportional way, and that an equal percentage of lands be protected in each of the province's bioclimatic domains. **At present barely 2% of the sugar maple-bitternut hickory domain has been conserved in perpetuity.**

The ***Québec Biodiversity Atlas*** confirms that it is in this tiny corner of the province where biodiversity is most immediately at stake. The land lies preponderantly in private hands and conservation measures will doubtless entail intricate and creative negotiation with landowners. And while that is evident, it remains for the Quebec government to place the greatest priority for conservation initiatives here, where the situation is most urgent.

BROAD-BASED PARTNERSHIP URGES ACTION

At a press conference held on October 1, 2007, a partnership of 43 environmental organizations and advocacy groups from around the Montréal metropolitan region launched a vast, new, and innovative concept, the ***Parc écologique de l'Archipel de Montréal***. This extraordinary association of organizations has called for a project of

national scope and significance to address the serious conservation deficit in the bioclimatic domain that has Montréal as its core. Uniquely, the scattered remnants of forests, wetlands, water courses, islands and shorelines, of all the ecosystems that typify the area, would be gathered together into an ecological lacework and united by the great rivers of the region. The *Green Coalition* is proud to be a constructive part of a growing consensus that now calls on the Québec government to exercise its leadership in making this scheme a reality.

CONCLUSION

Land cannot be ecologically impoverished without likewise impoverishing the people who live there. ***Global Biodiversity Outlook 2***, an overview of the implementation of the ***Convention on Biological Diversity*** and on the progress towards the ***2010 Biodiversity Target*** makes this case resoundingly: *"The Millennium Ecosystem Assessment— a scientific undertaking involving over 1300 experts working in 95 countries—recently confirmed the overwhelming contributions made by natural ecosystems to human life and well-being."* The once contiguous sugar maple-bitternut hickory domain is now highly fragmented and on the verge of disappearance. Unrelenting and uncompromising urbanization has put unique spaces, as well as species unique in Québec, at risk. **If there is any place in Québec where development of natural milieux is <u>not</u> sustainable, it is here. It has come time to enact the conservation measures that are needed.**

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November 12, 2007

ANNEXED ON THE NEXT PAGE IS THE PRELIMINARY VERSION OF

The Montreal Archipelago Ecological Park Project Outline

As prepared by the Green Coalition

The Montreal Archipelago Ecological Park

– Project Outline –

Objectives

The Montreal Archipelago Ecological Park project is a proposal for a National Park in the ecologically distinct region of south-western Québec. The goal is to protect the region's remaining ecologically valuable natural spaces in a vast conservation zone that links unprotected private and public areas with existing parks and reserves by way of water or land.

The main objectives are to:

- contribute to the global target of the Convention of Biological Diversity (to which Canada is a party) to significantly reduce the loss of biodiversity by the year 2010 (also known as the 2010 target);
- redress the negative effects of habitat loss and fragmentation on the region's biodiversity and to re-link vital ecosystems to ensure their viability in the long term;
- protect the remnants of the unique maple-hickory forest domain (domaine de l'érablière à caryer) in south-western Québec, an ecological domain rich in species found nowhere else in Québec, many of which are at risk of extirpation.

Time is a crucial factor as valuable natural space is sacrificed for development faster than conservation action can protect these areas and devise alternative uses. The project is truly participatory in that the Green Coalition is working with private and public partners and the government to implement the steps necessary for the creation of the Montreal Archipelago Ecological Park.

Justification

The loss of biodiversity as caused by human population growth, habitat fragmentation and unsustainable resource use, is viewed globally as the biggest threat to human health and well-being in the long term (Millennium ecosystem assessment, 2005).

Biological diversity, or biodiversity, is the term given to the variety of life on Earth. It is the combination of life forms and their interactions with one another, and with the physical environment that has made the earth habitable for humans. Concern over the loss of biodiversity and the recognition of its important role in human life motivated the creation, in 1992, of the Convention of Biological Diversity, a legally binding global treaty. In 2002, the Conference of the Parties of the Convention adopted a Strategic Plan, with the mission "to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at the global, regional and national level […] to the benefit of all life on Earth" (Sec. of the CBD, 2006).

Increasing awareness at all levels of society about the phenomenon of on going extinction, habitat and biodiversity loss, as well as climate change, has created a real sense of urgency to address these problems, bringing together many citizens' groups in favor of a conservation action project in south-western Québec. In the Montreal Archipelago project, individuals and groups from all walks of life are working together in partnership to protect the last remaining ecologically valuable natural spaces in a densely populated urban area.

South-western Québec (Québec méridional) is a recognized centre of endemism in Northeastern North America and known for its distinct biodiversity patterns (Québec Biodiversity Atlas, 2005). At the same time it this bio-geographical region where biodiversity is most threatened. Wetland species have been dramatically affected by drainage for agriculture, construction and settlement in the floodplains. Several amphibian and reptile species unique to south-western Québec are on the list of endangered or vulnerable species, along with the plant communities that provide for their habitat.

The Montreal Archipelago project addresses the loss of biodiversity at the regional level. Increasing urbanization and urban sprawl pose specific challenges as humans and other species compete for space and resources. Irreversible residential and industrial development in many of the region's municipalities overrides environmental regulations and health and quality of life considerations. Natural areas provide recreational potential for urban dwellers that nurtures physical and mental well-being, diminishing health care costs. Green environments enhance the quality of life that attracts people, economic investment and enterprise. Above all, the establishment of the Montreal Archipelago Ecological Park can provide access for the youth to the natural environment so that they may enjoy and learn about what is their rightful inheritance.

In view of the knowledge already accumulated about the state of the environment in south-western Québec, the reports written, plans conceived and recommendations issued, this project aims to implement recommendations made in the past, thereby building on existing initiatives. The project complements the Quebec action plan on biodiversity 2004-2007, and the Saint-Lawrence Plan for a sustainable development 2007-2010. The Saint-Lawrence plan singles out the western and the eastern ends of the Hochelaga archipelago at the confluence of the Saint-Lawrence River with several of its tributaries as priority conservation areas for intervention.

In line with the Saint-Lawrence action plan, the Montreal Archipelago project aims to protect a mosaic of forests, floodplains, wetlands, natural corridors, and islands that are linked together by the great waterways of south-western Québec.

Because of the large number of administrative units covered by this project, (at least 25 of the 75 electoral districts of Québec), it is essential that the Government of Québec, at its highest level fully supports the conservation of biodiversity through the creation of a large protected area in the lower Saint-Lawrence plains and its watersheds.

Biogeographical and administrative context

With a population of about 3,63 million people, the Montreal metropolitan region is the most densely populated area of Québec, representing about half the population of the province of Québec (Statistics Canada 2006).

The area targeted for conservation action by the Montreal Archipelago project is located in the natural province of the Lower Saint-Lawrence plains, within the northern temperate climate zone (Fig. 1). In south-western Québec, remnants of the unique sugar maple-bitternut hickory forest domain (domaine de l'érablière à caryer) (Rouleau et al. 1990) represent the northern-most centers of distribution for several tree species that appear on the Québec list of species designated to be vulnerable or endangered. (La Gazette officielle du Québec, 1993, Ministerial order, 2006). Pockets of the more northern (sugar maple-yellow birch) as well as the more southern vegetation zones (sugar maple-basswood) are intersecting with the main forest domain in areas with adequate soils and meso-climates.

Québec méridional with its unique species and habitats, has the greatest biodiversity in all of Quebec. It is also the region with most threatened or vulnerable species due to the pressures of urbanization (Fig. 2). The Montreal Archipelago project merits the immediate attention and action of both citizens and all levels of government to conserve the endangered natural heritage of south-western Quebec.

Sites identified for inclusion

Nearly 100 major sites have been identified so far for inclusion in the Montreal Archipelago Park project. They are located within a radius of about 60 km, comprising more than 50 distinct administrative units.

Major sites so far identified include:

- four National Parks (Oka, les Îles- de-Boucherville, Mont Saint-Bruno, De Yamaska) ;
- eight Nature Parks (Anse à l'Orme, Cap St-Jacques, Bois-de-l'Île-Bizard, Bois-de-Liesse, Bois-de-Saraguay, Île-de-la-Visitation, Bois-d'Anjou, Pointe-aux-Prairies) ;
- one Agricultural Park (Bois-de-la-Roche) ;
- one Regional Park (Parc de la Rivière-des-Mille-Îles) and
- one planned Regional Park (Projet de parc régional de la rivière Saint-Jacques et des bois de Brossard/La Prairie et La Prairie) ;
- ten eco-territories on Montreal Island;
- 32 forests of ecological value identified by the CMM in 2003 and proposed for interim control regulations (RCI);
- small islands and archipelagos.

Historical context: past and ongoing initiatives

The idea of great park dates back to the 1970s, when a 'Projet de l'Archipel de Montréal' was endorsed by the Parti Québécois to be implemented by the Ministère du loisir, de la chasse et de la pêche. Sponsored by Hydro-Québec, the plan also envisaged the construction of a hydro-dam in the ecological sensitive area of the Lachine rapids. This was a major point of contention, and while about $50,000 was spent in research and reports, the plan was never implemented. A

similar plan by the name ‘Projet de l’Archipel d’Hochelaga’ was proposed by the same ministry in 1986.

In 1989, in response to citizens’ appeals, the Communauté Urbaine de Montréal adopted its $200 million Green Space Acquisition Program. New nature-parks were established on Montreal Island; others were expanded. In 1992, after one-half the monies had been invested and about half the targeted sites were acquired, a moratorium was imposed on all greenspace spending. The moratorium lasted for ten years and during that decade, more than 1,000 hectares of forests were stripped from the metropolis.

In 2002, all the municipalities on the Montreal Island were merged into the Montreal megacity and the moratorium on greenspace spending was lifted. In September 2004, then Québec Environment Minister Thomas J. Mulcair, endorsed a proposal of the Green Coalition to create a National Park to protect the natural spaces of the Montreal Archipelago in the watershed of its great waterways. At the same time, the Coalition was promoting widespread local support for this overarching strategy for biodiversity and habitat conservation throughout the region.

In December 2004 the City of Montreal’s natural spaces policy was adopted and ten ‘ecoterritories’ on the Island of Montreal were identified for protection. However, major development projects and road building are permitted within the limits of these ecoterritories despite recommendations from the Office de consultation de Montréal. After lengthy hearings in the spring of 2004, the Office called for a moratorium on all development projects in the ecoterritories’ natural spaces and buffer zones. A fund of $36 million was set aside for this policy.

While the interim control regulations of the CMM have not been implemented, technical datasheets have been produced for five regions: Couronne nord (10), Laval (4), Montréal (4), Longueuil and Couronne sud (10). Of these sites identified by the CMM, some overlap with the ecoterritories, which were identified in the City of Montréal’s *Politique de protection et mise en valeur des milieux naturels*. However, the term ‘ecoterritory’ has no legally binding conservation status.

In one case, a special partnership between the Nature Conservancy and the Association for the Protection of Angell Woods lead to the protection of a portion of Angell Woods, a century old forest of exceptional ecological value, located within Rivière-à-l'Orme ecoterritory in the municipality of Beaconsfield. Another partnership between Ducks Unlimited and the cities of Montreal and Beaconsfield conserved a 22 hectare portion of Angell Woods in 2007.

In addition to these efforts, the Nature Conservancy of Canada with the support of Canadian Heritage produced a master plan ‘Un fleuve, Un parc’ (2002) with the objective to assess the conservation status of several islands that have been targeted for conservation since 1971. This master plan only addresses the islands of the Saint-Lawrence River and not its shorelines.

An inventory of all the remaining forests on the Montreal Island was published in the ‘Atlas des bois de Montréal’ (2003). Although conservation was not the objective of this initiative, several of the forests identified in the atlas will be included in the Montreal Archipelago Park project

Following the National Park proposal of the Green Coalition, in 2005, the Ministère du Devéloppement durable et des Parcs (MDDEP), looked into the possibilities of realizing the project and a preliminary master plan for a vast conservation area was under consideration. However, in the spring of 2006, the park plan was relegated to the CMM where the dossier remains inactive.

For its part, the CMM, in its 'Cadre d'aménagement et orientations gouvernementales, Région métropolitaine de Montréal, 2001-2021' offers guidelines for conservation in the metropolitan region including the elaboration of a conservation plan and its implementation.

Citizens initiatives

The existence of today's nature parks and protected islands in the Montreal region is largely due to conservation action by concerned citizens in the respective areas. The Islands of Boucherville Park as well as the 'Parc de la Rivière-Mille-Îles' exist because the land was acquired by dedicated individuals and conservation groups.

Grassroots conservation work and inventories on wetlands and endangered or vulnerable species on the south-shore of Montreal recently culminated in the adoption of a conservation and management plan for the wetlands of the Longueuil municipality (Ville de Longueuil, 2003). With the assistance of the Habitat Stewardship program of Environment Canada, work on endangered or vulnerable species is underway in another nine municipalities on the south-shore.

In Laval, spearheaded by the Conseil régional de l'environnement (CRE) de Laval, inventories are being carried out, e.g. the identification of exceptional forest ecosystems and updates on all the wetlands on the Laval territory (CRE de Laval, 2002).

The Montreal Archipelago Ecological Park project is a truly participatory project that will contribute to biodiversity and habitat conservation. The protection of natural vegetation also serves to offset the effects of urban pollution on air, soil and water, to moderate ambient temperatures and to mitigate climate change. Moreover, for the municipalities of south-western Québec the park project offers economic Eco-recreo-touristic opportunities, consistent with conservation goals.

Workplan and criteria for inclusion in the Montreal Archipelago project

Ground work towards achieving the goal of the creation of a Park is being carried out in kind by a growing number of members and partners of the Green Coalition who volunteer their time and expertise.

A preliminary map outlining the geographical extent of the project is being produced and criteria for inclusion in the project are being developed. The entire process of extensive consultation with stakeholders, mapping and documentation is envisaged as follows:

- Selection and identification of existing natural and semi-natural areas for inclusion in the Park concept;
- Identification of possible corridors linking the selected areas;
- Description of the legal, biological and conservation status of each of the selected areas and corridors, including the identification of areas worthy of acquisition for conservation;

- Consolidation of the existing information into a central database;
- Consultation with stakeholders, including the governments of Québec and Canada;
- Grouping of areas into management categories;
- Identification of appropriate management authorities;
- Creation of a map outlining the geographical and management boundaries of the selected areas and accompanying documentation;
- Presentation of the park project to the government and the public for adoption;

Timeframe and organization

The following preliminary time frame covering the years 2007-2010 is proposed:

- March – September 2007 (and ongoing): Identification of representative ecosystems, delineation of focal area, gathering support and building the database;
- Fall 2007: Official launch of the project
- October 2007 and ongoing: Presentation of the project to stakeholders and the government, updates and refinement;
- October – November 2007: Preparation of a detailed project proposal, including costing to be submitted to various donor and government agencies;
- December 2007 – March 2008: Development of strategies for support and implementation;
- March 2008 – December 2008: Preparation of a preliminary master plan;
- 2009: Adoption of regulations towards implementation;
- 2010 and onwards: Implementation

References

Biodiversity portrait of the St. Lawrence 2007. Environment Canada.. http://lavoieverte.qc.ec.gc.ca/faune/biodiv/en/sites/conserv_plan.html.

Communauté métropolitaine de Montréal. 2003. Règlement de contrôle intérimaire de la communauté metropolitaine de Montréal.

Conclusion des travaux du comité conjoint du Ministère du Développement durable, de l'Environnement et des parcs et de la Ville de Longueuil sur la conservation et la gestion des milieux humides, 2005.

Conseil régional de l'environnement de Laval, 2002. Caractérisation des milieux humides de la ville de Laval. Rapport final prépare par Richard Pelletier)

Conservation de la nature. 2002. Un fleuve, un parc – plan directeur. Kim Marineau & Daniel Néron.

La gazette officielle du Québec. 1993. List of threatened or vulnerable species which are likely to be so designated.

Millennium ecosystem assessment. 2005. Ecosystems and Human well-being. Island Press, Washington DC.

Ministerial Order concerning the establishment of a list of threatened or vulnerable vascular plant species which are likely to be so designated and a list of threatened or vulnerable vertebrate wildlife species which are likely to be so designated, R.Q. c. E-12.01, r.1, 2006.

Plan d'action québecois sur la biodiversité biologique 2004-2007. Pour la mise en oeuvre au Québec de la Stratégie québécoise sur la diversité biologique et de la Convention sur la diversité biologique des Nations Unies. Groupe de travail interministériel, MDDEP.

Politique de protection et mise en valeur des milieux naturels. 2004. Montréal.

Québec Biodiversity Atlas. 2005. Bernard Tardif & Gildo Lavoie. Environnement Canada.

Région métropolitaine de Montréal 2001-2021. Cadre d'aménagement et orientations gouvernementales. Ministère des Affaires municipales et de la Métropole.

Rouleau, R. et al. (eds.). Petite flore forestière du Québec. 1990. Ministère des ressources naturelles du Québec.

Secretariat of the Convention on Biological Diversity. 2006. Global biodiversity outlook 2. Montréal, 81 +vii pages.

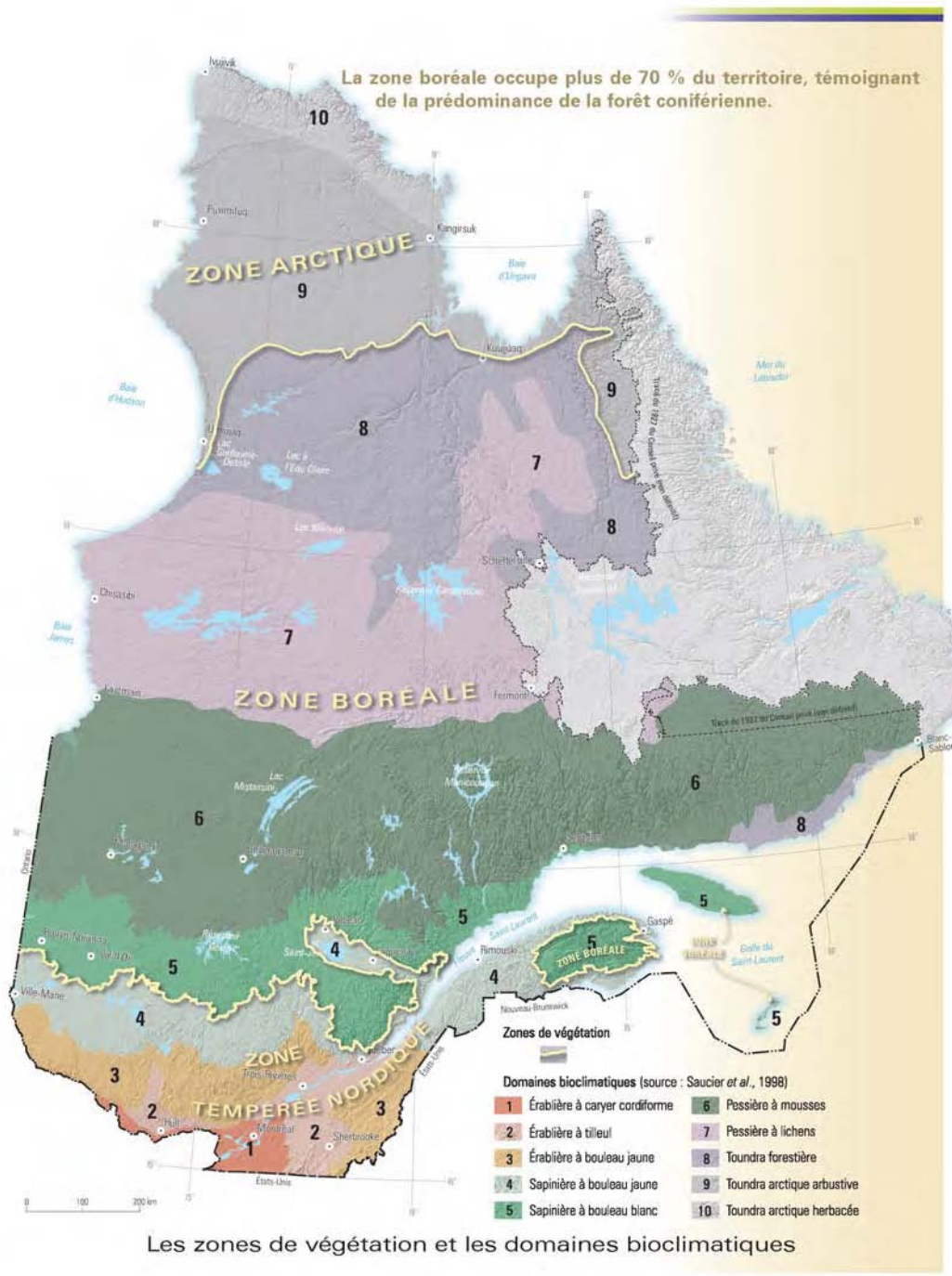
Société de la Faune et des Parcs du Québec, 2003 : Plan de conservation et de mise en valeur - Projet de parc régional de la rivière Saint-Jacques et des bois de Brossard/La Prairie et La Prairie – Volet Faune. Direction de l'aménagement de la faune de Montréal, de Laval et de la Montérégie, Longueuil. Préparépar Kim Marineau, 29 pages.

Thiffault, C., 2003. Atlas des bois de Montréal. Environnement Québec, Communauté Urbaine de Montréal, ZIP Ville-Marie, Zip Jacques-Cartier

Towards Gondwana alive. 1999 : Promoting biodiversity and stemming the Sixth Extinction. John M. Anderson (ed.), National Herbarium, National Botanical Institute, Pretoria, South Africa.

Ville de Longueuil. 2003. Inventaire des milieux humides et des espèces menacées ou vulnérables sur le territoire de la municipalité de Longueuil.

Fig. 1: Vegetation zones and bioclimatic domains
(Source: Biodiversity Atlas of Québec)



Les zones de végétation et les domaines bioclimatiques

Fig. 2: Distribution of occurrences of threatened or vulnerable species (Source: Biodiversity Atlas of Québec)