Other effective area-based conservation measures

Tools and options for documenting biodiversity of a potential OECM site

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OECM* definition

OECM: “a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the *in situ* conservation of biodiversity, with associated ecosystem functions and services and, where applicable, cultural, spiritual, socioeconomic, and other locally relevant values” (CBD, 2018)

There must be a **reasonable probability** **that the area** in question **has significant biodiversity values.**

Reasonable probability means that there are **reports of significant biodiversity values** or other **tangible evidence** **of suitable habitat**.

The available information must demonstrate the relevance to the site of **at least one of the significant biodiversity values**.

* Recognizing Other Effective Conservation Measures (OECM) within Continental Québec , 2024 Guidelines, 1st edition

Examples of potential sites

- Voluntary conservation sites not recognized as Protected Areas
- Regional parks
- Municipal parks managed with the aim to maintain biodiversity values
- University, community, and research forests
- Cemeteries or burial sites in natural areas
- Military bases and other national defence lands
- Drinking-water source protection areas
- Sites within UNESCO biosphere reserves
- Wetlands and bodies of water with effective conservation measures
- National historic sites
- Heritage sites
- Places of worship or lands belonging to religious congregations
- Conserved areas and areas of Indigenous interest
- Outstanding geological sites
- Lands dedicated to wildlife conservation and enhancement
- Forestry easements
- Outdoor recreation areas and/or outdoor accommodation areas and summer camps
- Maple groves where superior maple syrup production practices are used that benefit from an effective approach to conservation

Significant biodiversity values

1. Rare, threatened or endangered species and habitats, and the ecosystems that support them, including species and sites on the IUCN Red List of Threatened Species, the IUCN Red List of Ecosystems, or equivalent national lists.
2. Representative natural ecosystems.
3. Areas with a high level of naturalness, characterized by the occurrence of the full range of native species and supporting ecological processes. These areas will be intact or will be capable of being restored under the proposed management regime.
4. Key biodiversity areas.
5. Range-restricted species and ecosystems in natural settings.
6. Significant aggregations of species, including during migration or spawning periods.
7. Ecosystems especially important for species' life stages, feeding, resting, moulting and breeding .
8. Areas important for ecological connectivity or to complete a conservation network within a landscape or seascape.
9. Areas that provide critical ecosystem services, such as clean water and carbon storage, in addition to in-situ biodiversity conservation.
10. Species and habitats that are important for traditional human uses, such as medicinal plants, in addition to *in situ* biodiversity conservation.

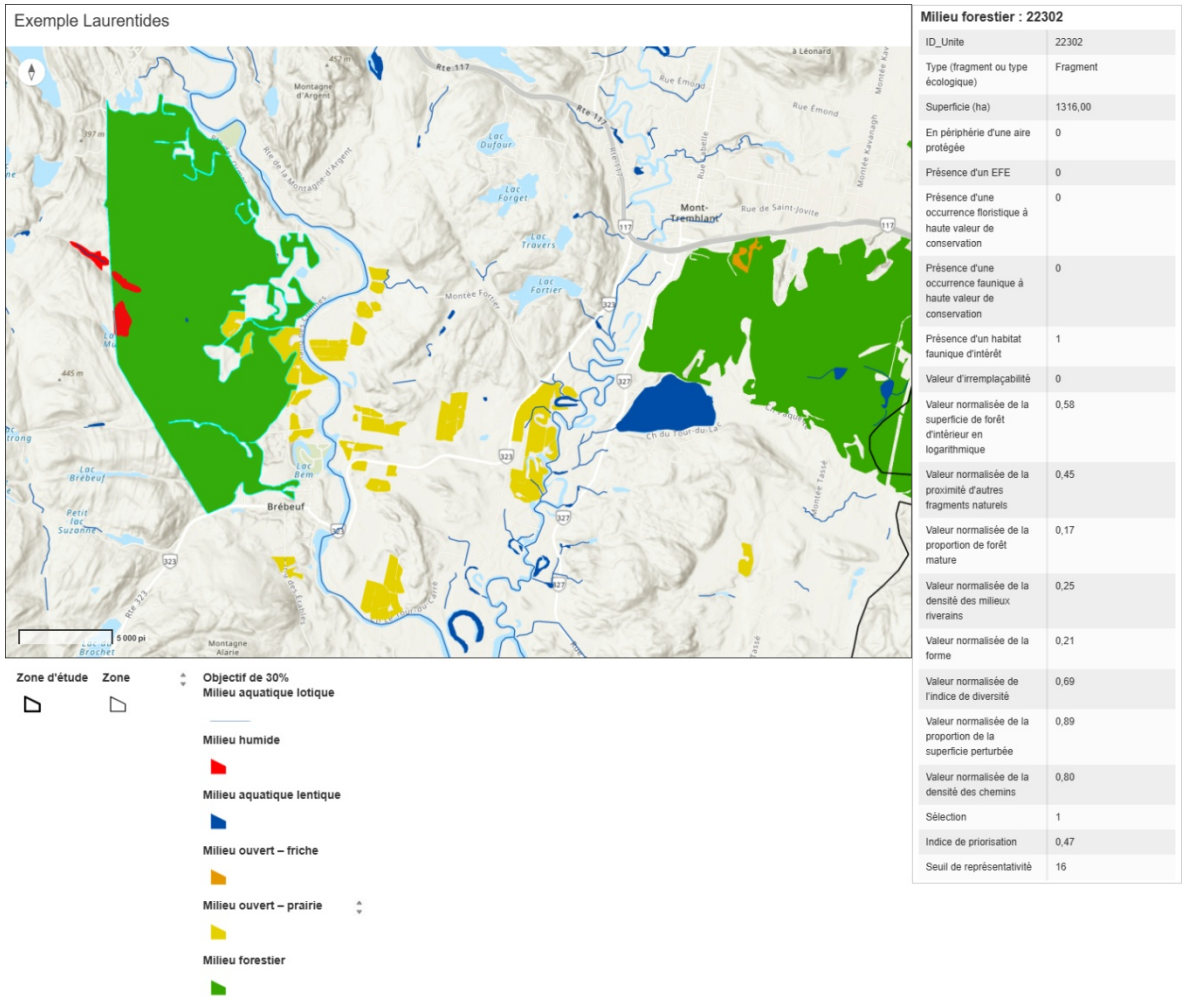
Existing documentation

Where to find reports on the significant biodiversity values of a given site that will render it eligible for OECM recognition

Published and accessible sources for analyses of the biodiversity value of natural environments

Interactive map with data

- Atlas of natural environments of conservation interest in the Southern Laurentian Natural Province
- Methodology report



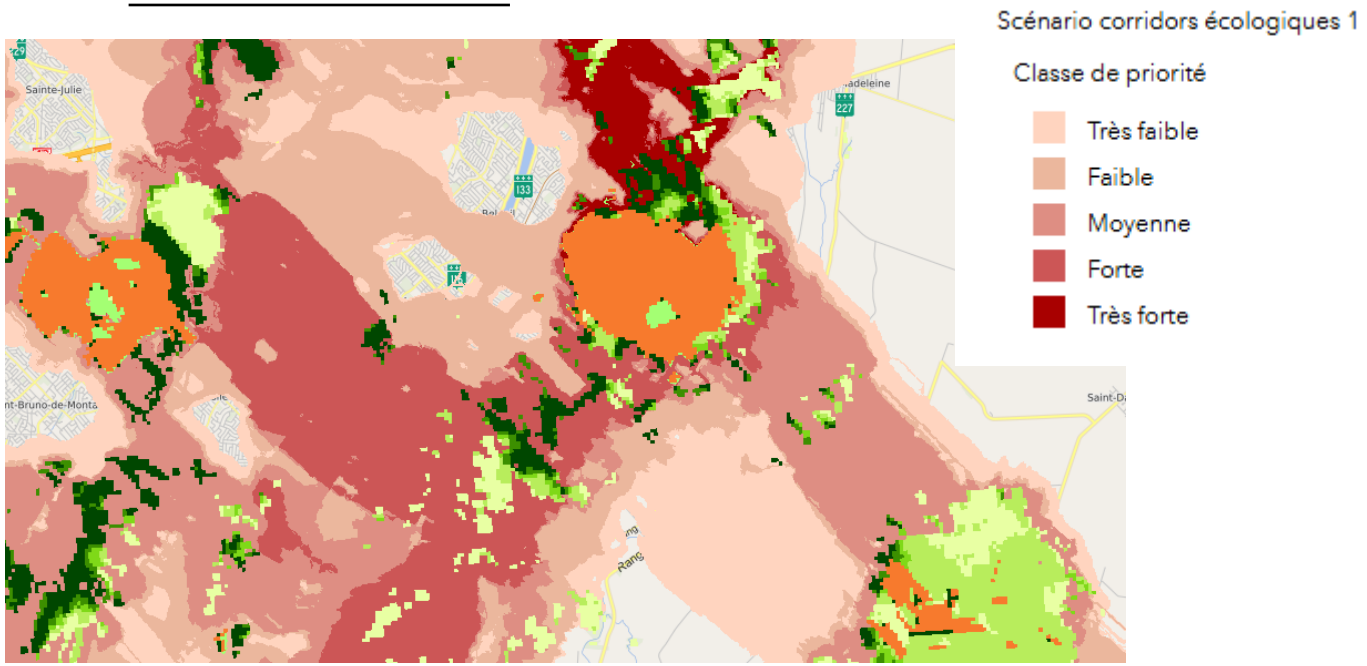
Published and accessible sources for analyses of the biodiversity value of natural environments

Database

- Atlas of areas of conservation interest in the St. Lawrence Lowlands
- Atlas of coastal areas of conservation Interest in the Estuary and Gulf of St. Lawrence
- Georeferenced data from the CMM's metropolitan land use and development plan

Interactive map

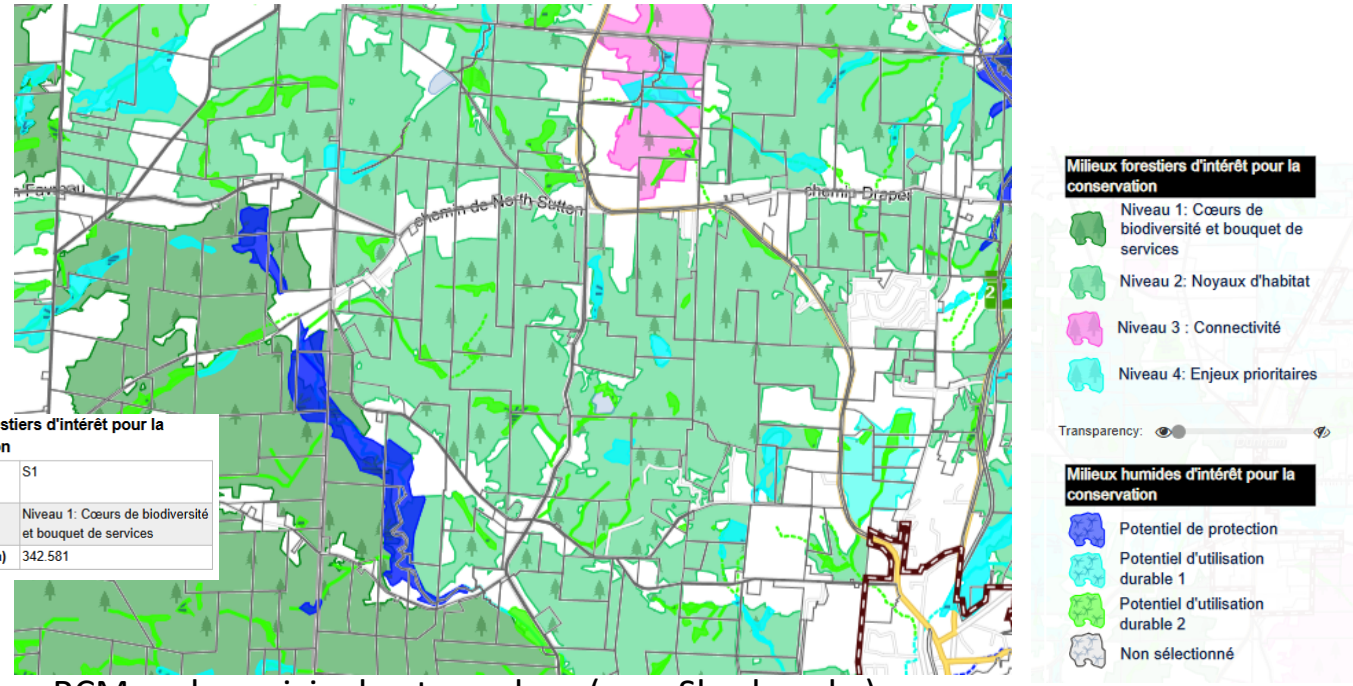
- Ecological connectivity of natural environments in the St. Lawrence Lowlands



Published and accessible sources for analyses of the biodiversity value of natural environments

Interactive map

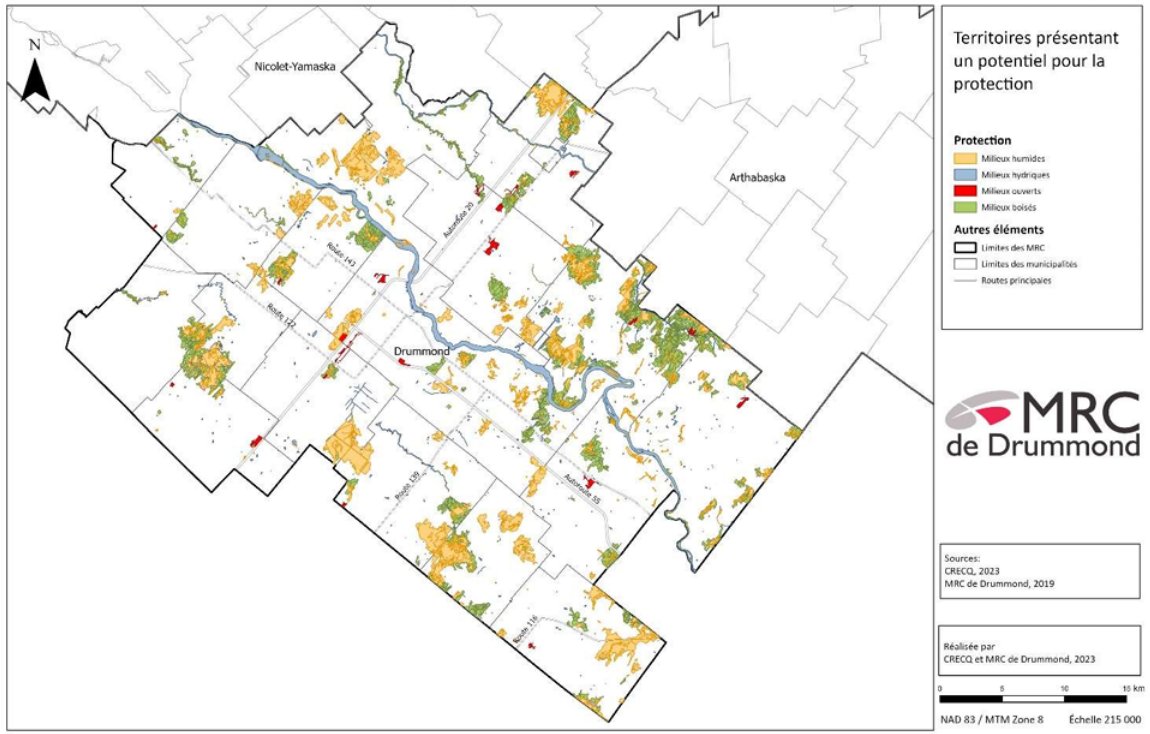
- Brome-Missisquoi MRC Regional Natural Environment Plan (PRMN)
- Brome-Missisquoi MRC directory of sensitive natural environments (RCI)



- RCM and municipal nature plans (e.g., Sherbrooke)
- Regional wetlands and water environment plans (PRMHHs) in several RCMs (e.g., Estrie)
- Some RCMs have an interactive map of their wetlands and water environments but do not provide conservation priority rankings.

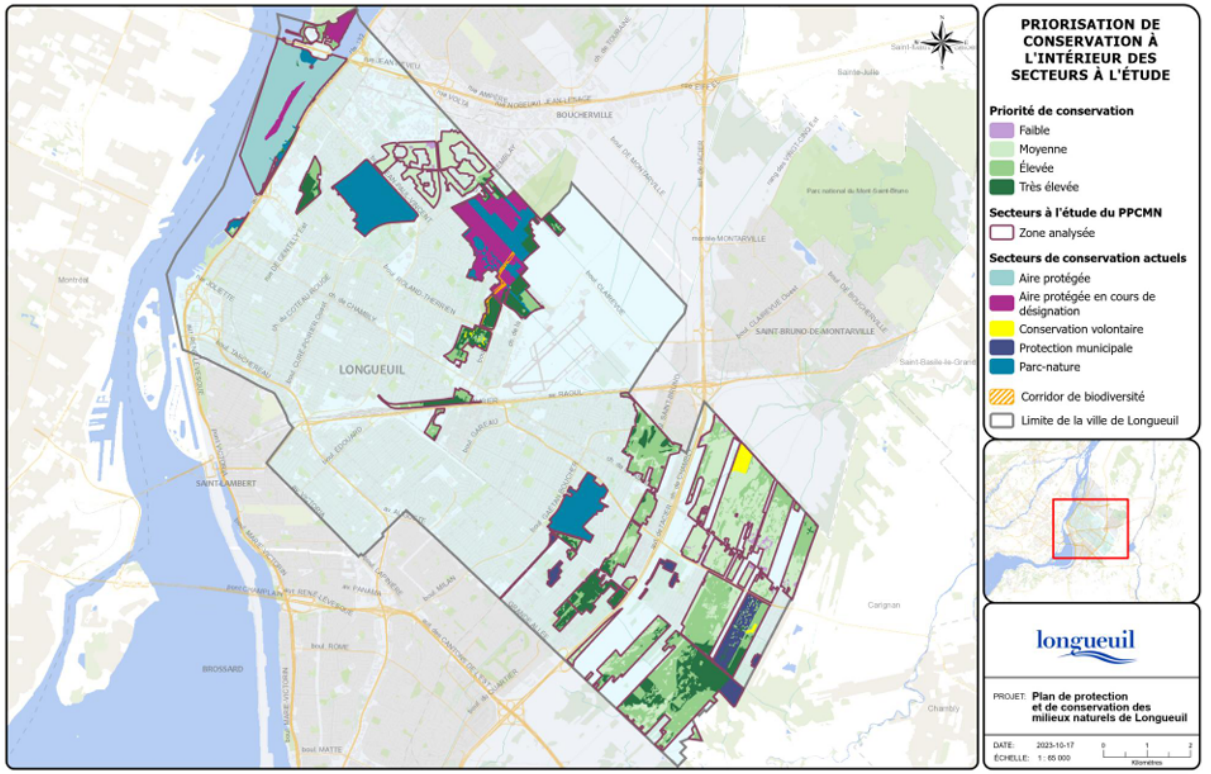
Other possible sources (CMM, CMQ, RCM)

- Regional wetlands and water environment plans (all RCMs)
- Natural habitats of biodiversity interest in the Communauté métropolitaine de Québec (CMQ)
- Metropolitan directory of municipal conservation initiatives in the Communauté métrpolitaine de Montréal (CMM)
- Natural environment plans (e.g., the Papineau and Drummond RCMs)



Other possible sources (municipalities)

- Master plans for conservation and management of natural environments (e.g., Mont-Tremblant, Saint-Lazare, Saint-Bruno-de-Montarville, Longueuil)

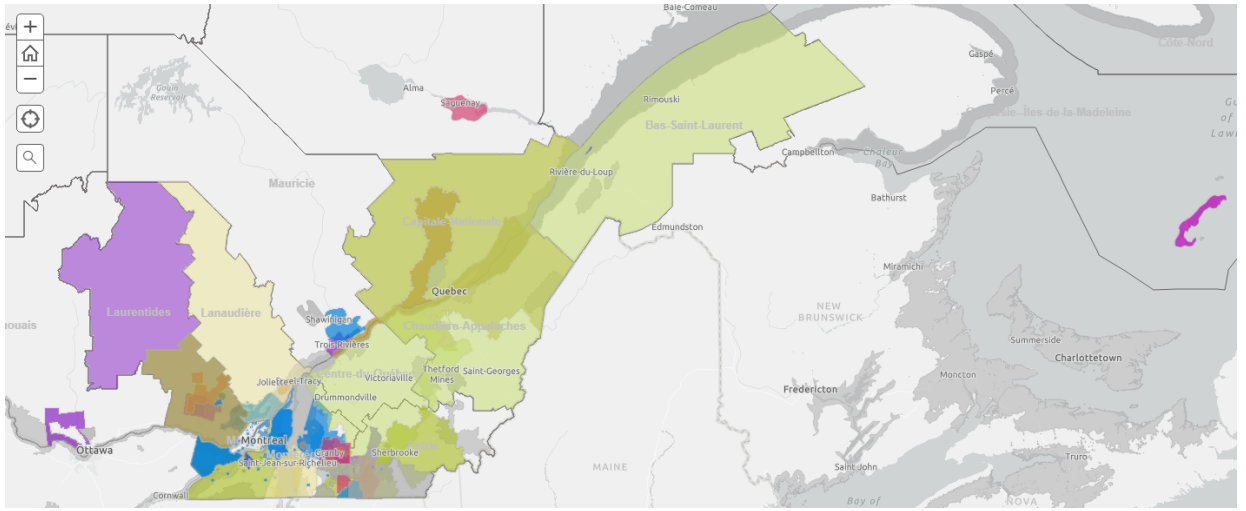


- Granby conservation and development plan for nature parks

Other possible published or unpublished sources

Plans for natural areas, sites of action, or other sites

- Conservation organizations
  - Nature Conservancy of Canada
  - Appalachian Corridor
  - Nature-Action Québec
  - Ducks Unlimited
  - Nature-Avenir
  - 60+ organizations



- Coalitions (e.g., Coalition montérégienne)
- Regional environmental councils, watershed organizations

Tangible proof

Where and how to find tangible proof of suitable habitat in a given site, making it eligible for OECM recognition

Wood turtle

Species at risk and their habitats

Guidelines: *Rare, threatened or endangered species and habitats, and their supporting ecosystems, including species and sites identified on the IUCN Red List of Threatened Species, the Red List of Ecosystems or national equivalents.*

- Species that are threatened, vulnerable or likely to be designated as such under Québec's *Act respecting threatened or vulnerable species.*
  - Interactive map from the Centre de données sur le patrimoine naturel du Québec (CDPNQ)
  - Digital data
  - Information on hidden species

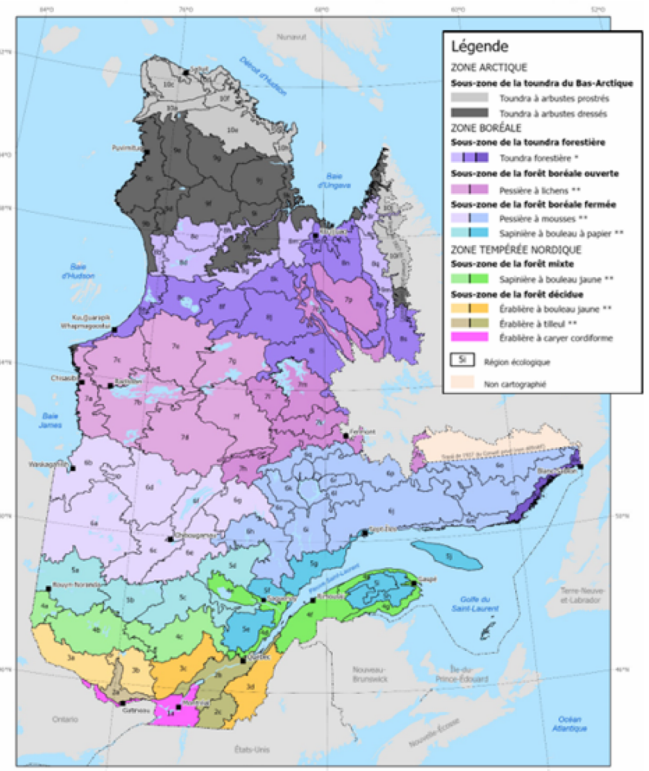
- Species at risk under Canada's *Species at Risk Act*
  - Interactive map and data from Environment and Climate Change Canada (ECCC)
  - Information on hidden species

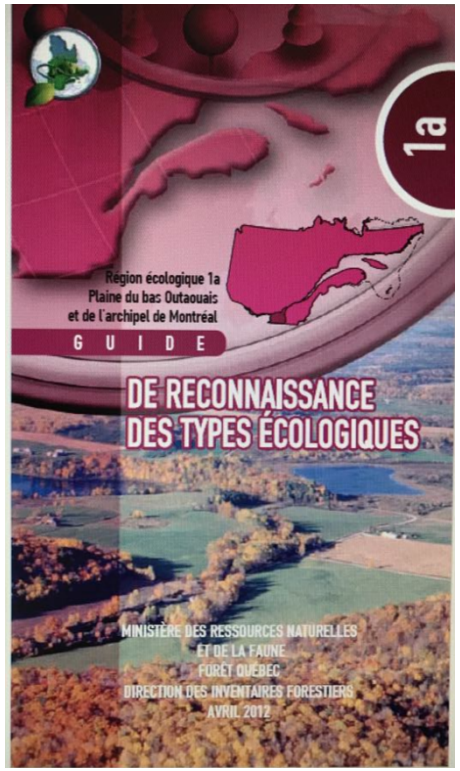
- Inventories conducted by experts or experienced volunteers in areas with unclear boundaries or new data

Representative natural ecosystems

(guidelines to be established)

- **Flora representative of** a specific type of ecosystem
- **Types of ecological forests** representative of bioclimatic domains



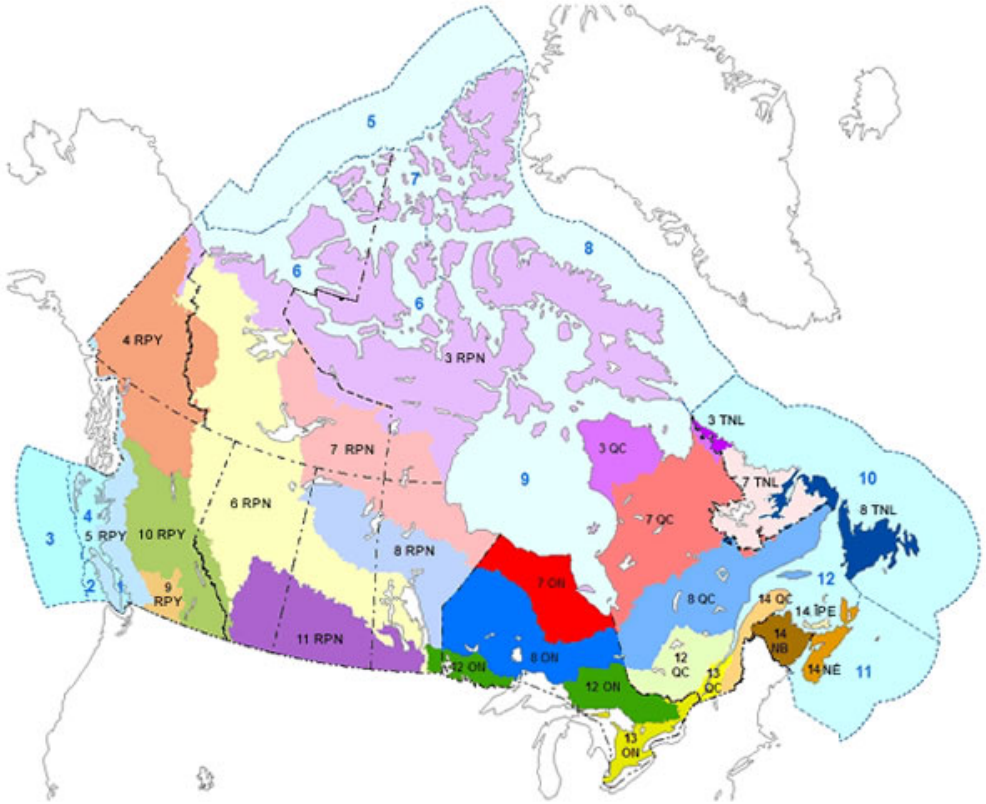


- **Forested wetlands or swamps** An MELCCFP pilot project in collaboration with the Biodiversité Conseil consulting firm and Louise Gratton

Representative natural ecosystems

(guidelines to be established)

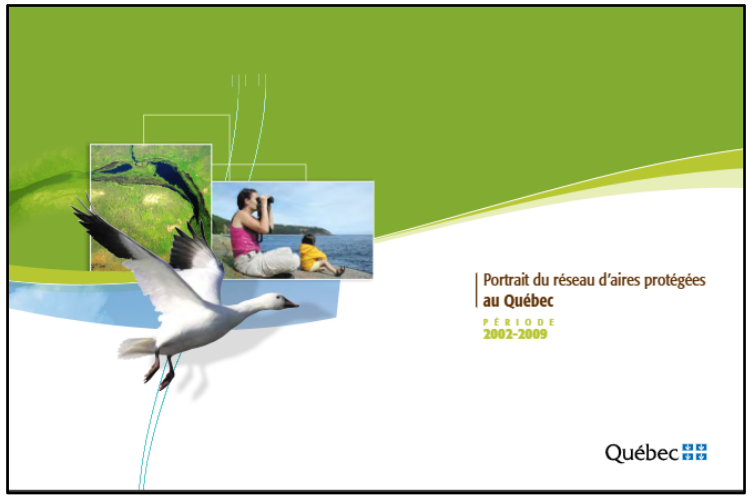
- **Representative fauna**
  - Bird Conservation Areas of Canada



Representative natural ecosystems

(guidelines to be established)

- Ecosystems selected in keeping with the aim of reflecting the diversity of ecosystems in a given geographic unit (e.g., Atlases)
- Analysis of the representative character of the physiographic elements (soil, geology, slope, altitude) of the protected area network.
  - Redundancy and gaps
  - Climate change adaptation



Québec's ecological reference framework (MELCCFP)

Areas with a high level of naturalness

Guidelines: Areas characterized by the **occurrence of the full range of** native species and supporting ecological processes. These areas will be intact or will be capable of being restored under the proposed management regime.

Definition: The wildness of a landscape or natural environment (in contrast with rural or urban areas).

- Forests and wetlands (swamps and wooded peatlands)
  - Predominance of characteristic native species (flora and fauna)
  - Evidence of regeneration of shrub and tree species (seedlings and saplings)
  - Occurrence of litter and woody debris on the ground
- Wet grasslands and marshes
  - Predominance of characteristic native species (flora and fauna)
- Open areas
  - Predominance of characteristic native or naturalized species (flora and fauna)
- Inventories conducted by experts or experienced volunteers
- Blitz, applications, photographs, etc.

Key biodiversity areas

- Key biodiversity areas (KBAs):
  - Sites that contribute significantly to biodiversity persistence
  - Unique or ecologically rare places
  - Places that are recognized internationally or nationally for their biodiversity value and that may ultimately be targeted for stewardship.
  - Comprehensive approach based on the elements of biodiversity (species, ecosystems, ecological integrity)
  - Can be identified for a single species, multiple species (all taxa) and ecosystems in aquatic, marine and terrestrial environments.
- Québec's KBAs
  - 5 sites: Baie des Escoumins and Grandes-Bergeronnes, Lagune du Havre aux Basques and Plage de l'Ouest, Baie de Gaspé, La Falaise and Muraille in Gaspésie.
- Important Bird Areas (IBAs)
  - 102 in Québec, including 12 with conservation plans
  - KBA conversion program

Range-restricted ecosystems and species

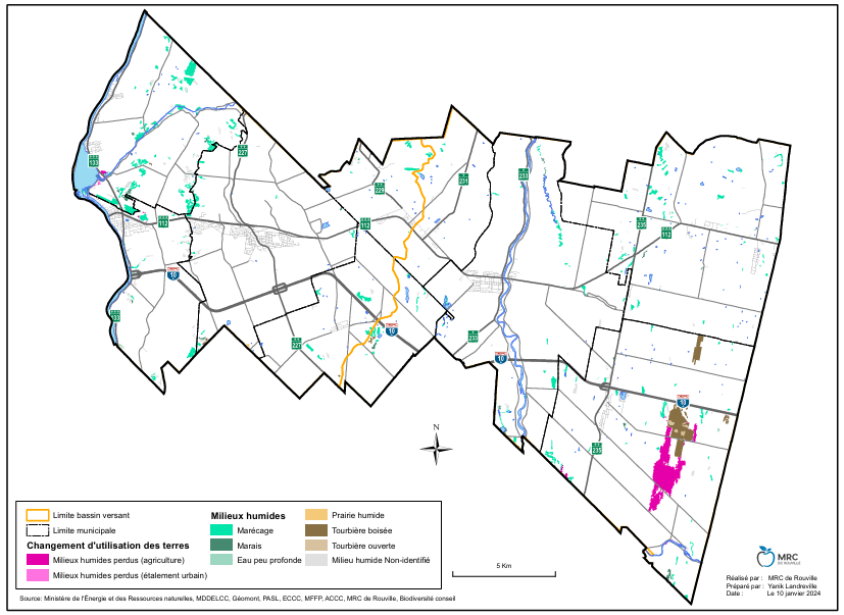
- Species with restricted distribution
  - Species not included in the list of threatened or vulnerable species, or species likely to be designated as such, produced by the Centre de données sur le patrimoine naturel du Québec (CDPNQ), and which are supported by credible references or experts

Pachydiplax longipennis
Saint-Joachim-de-Shefford
Alain Mochon. biologist

- Restricted-range ecosystems (listed in full or in part)
  - The alvars
  - Exceptional forest ecosystems (old-growth forests, rare forests, refuge forest)
    - Regional agencies for the development of private forests
    - Forests that meet the criteria of the previous three and have been evaluated by credible experts

Range-restricted ecosystems and species (continued)

- Range-restricted ecosystems (several avenues to explore using various reference frameworks)
  - The area occupied relative to the scale of natural environments in a given geographical unit.



  - The area occupied by old-growth forests relative to the state of the forests in a given geographical unit.
  - An ecological type relative to the representation of ecological types in a given natural province
  - The irreplaceability of an ecosystem type (e.g., Atlas)
  - Opinions of credible experts or experienced volunteers

Significant aggregations of species, including during migration or spawning periods

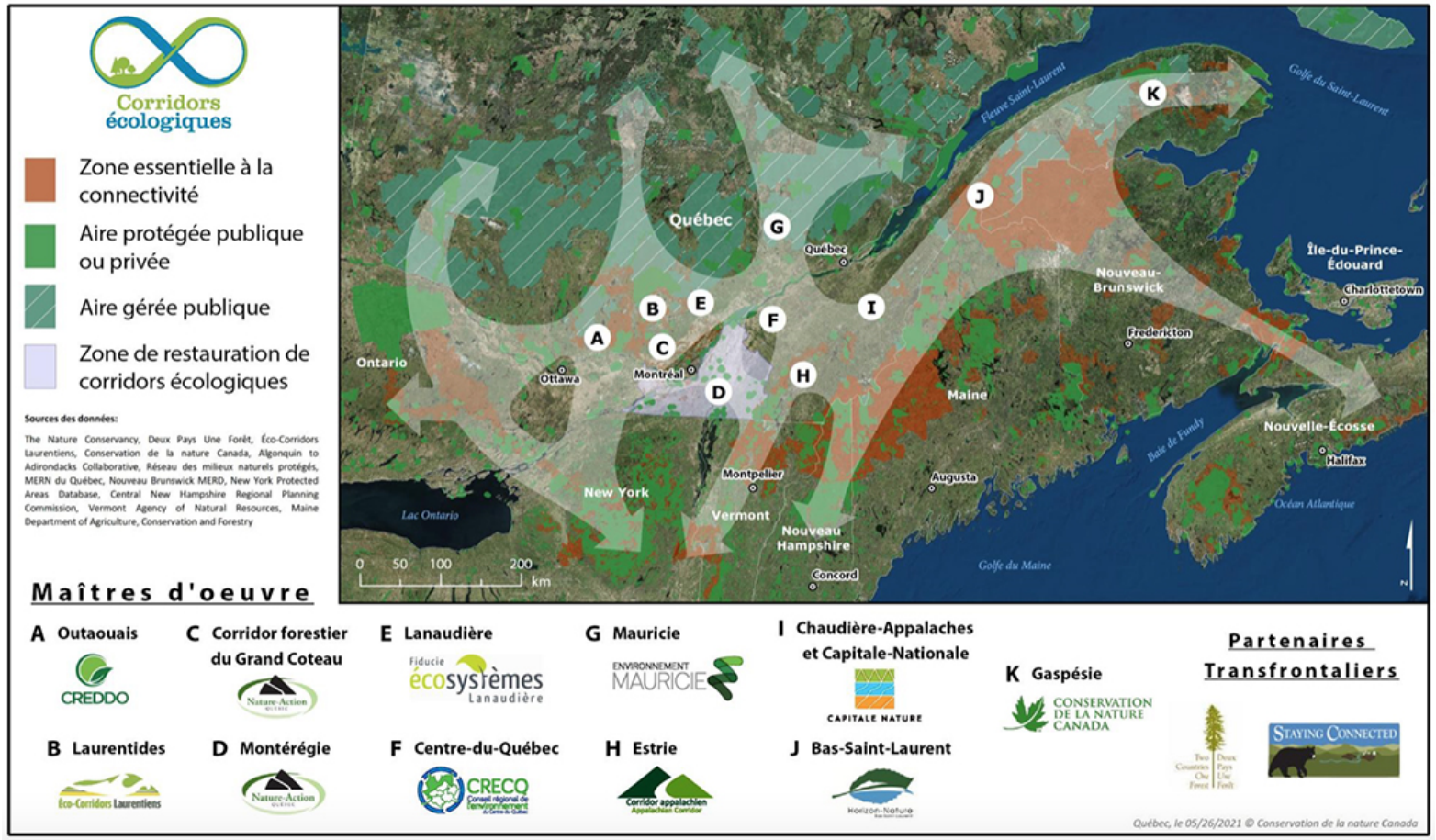
- Migratory stopovers for waterfowl and shorebirds
- Migration corridors (e.g., raptors)
- Islands and peninsulas, and isolated woodlands within an agricultural matrix (e.g., migrating passerines)
- Multispecies heronries
- Multispecies spawning grounds
- Bat hibernacula
- Snake hibernacula
- Communal hibernation of turtles

Ecosystems are particularly important for the different life stages of species, and for their feeding, resting, moulting and reproduction.

- Designated wildlife habitat on private land
  - White-tailed deer confinement area
  - Heronry
  - Caribou calving ground
  - Island or peninsula inhabited by bird colonies
  - Muskrat habitat
  - Fish habitat
- Raptor nesting site
- Waterfowl nesting site
- Any other site identified by experts or experienced volunteers

Areas of importance for ecological connectivity or that are important to complete a conservation network within a landscape or seascape

- [Large-scale terrestrial connectivity projects run by NGOs]



Areas important to ecological connectivity or to complete a conservation network within a landscape or seascape (continued)

- MELCCFP
  - Interactive map and database on the ecological connectivity of natural environments in the St. Lawrence Lowlands
- Municipal Nature Plans
  - Communauté Métropolitaine de Montréal (CMM): Metropolitan woodlands and forest corridors
  - Quebec Metropolitan Community (QMC): Maps and statistics, Geosuite -2023
  - A few examples of Regional County Municipalities:
    - Papineau RCM: Biodiversity conservation strategy for the MRC de Papineau
    - Brome-Missisquoi RCM- Maps and geomatics: Directory of sensitive natural environments
    - Towns and RCMs collaborate on NGO project
- Map of natural environments and conservation targets in the CMM by the Québec office of the World Wildlife Fund (WWF-Canada)
- Proximity index: In a fragmented landscape, where natural vegetation cover accounts for less than 50 per cent of the territory, a natural area has value for connectivity if it is less than one kilometre from a natural area of the same type.

Areas that supply critical ecosystem services, such as clean water and carbon storage,
in addition to in situ biodiversity conservation

- Examples of identified ecosystem services
  - *Regulation of the quantity, location and flow of freshwater*: free flow of bodies of water; natural environments feeding a surface or underground source of drinking water (groundwater recharge zone).
  - *Climate regulation*: a local cool island
- Likely ecosystem services
  - *Water quality regulation*: riparian wetlands
  - *Soil formation, protection and decontamination:* extended, natural and restored riparian buffer strips.
  - *Pollination and seed dispersal*: restored agricultural corridors
  - *Carbon sequestration*: peatlands and mature forests
  - *Physical and psychological experiences*: opportunities for close contact with nature

Species and habitats important for traditional human uses, such as medicinal plants,
in addition to in situ biodiversity conservation.

- Traditional human uses by First Nations, including:
  - Medicinal practices
  - Food practices
  - Spiritual practices
  - Other practices