



# Chênaie-des-Îles- Finlay ecological reserve

**Conservation plan**



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## **Introduction**

The ecological reserve status assigned to the Finlay islands permanently ensures the protection of the biological diversity of land composed of well-preserved marshes and swamps, thick forest stands and dry beaches forming rare wildlife habitats. There are six species on the islands likely to be designated as threatened or vulnerable species, a number of indications of the presence of species of turtles and several species of amphibians and birds.

### **1. Official toponym**

The official toponym of the Chênaie-des-Îles-Finlay ecological reserve "Réserve écologique de la Chênaie-des-Îles-Finlay" refers to the presence on the islands of a stand of bur oak (*Quercus macrocarpa*), a forest community extremely rare in Québec.

## **2. Plan and description**

### **2.1. Geographic location, boundaries and dimensions**

The Chênaie-des-Îles-Finlay ecological reserve is located in the territory of Municipalité de Waltham, Municipalité régionale de comté de Pontiac, in the Outaouais administrative region, and consists of the parts of the Finlay islands in the Outaouais river at an elevation higher than 106.68 metres. The territory is designated as parts of islands 52 and 54 in reference to the cadastre of Canton de Waltham, registration division of Pontiac. In reference to the original survey, the territory forms part of the Outaouais river islands fronting Canton de Waltham.

The land in the reserve covers an area of approximately 94 hectares. It is located on the plan prepared on 27 July 2006 by land surveyor Denis Fiset which appears as Schedule 1.

### **2.2. Ecological overview**

The ecological reserve forms part of the Ottawa Plain (provisional name) natural region which lies within the natural province of the St. Lawrence Lowlands.

#### **2.2.1. Representative elements**

##### ***Climate:***

The land of the ecological reserve lies within the sugar maple–bitternut hickory bioclimatic domain. It is characterized by a moderate, subhumid climate with a long growing season. The average annual temperature is 4.5 C°, average annual precipitation is 1,065 millimetres and the average growing season is approximately 201 days.

##### ***Geology:***

The basement rocks of the Finlay islands are formed of Ordovician rocks including limestone, dolomite, mudrock and sandstone. The basement rocks have no influence on the soils or vegetation because they are covered by Quaternary fluvial deposits of sand, gravel and clay. On the southern island (island 54), the wind is believed to have caused the deposits to shift to form an eolian deposit which then became colonized by vegetation.

**Archaeology:**

There has been no archaeological work on the Finlay islands to date. The islands have enormous archaeological potential, however, because the Outaouais river is a major waterway which provided an east-west transportation link for generations of Amerindians. Archaeological research carried out in recent years has shown the potential of the Aux Allumettes island area slightly west of the Finlay islands. The archaeological sites that may be discovered in the area will be extremely fragile because they are generally close to the surface and as a result any disturbance of the soil could partially or completely destroy them. The ecological reserve will ensure their preservation.

**Vegetation:**

Silver maple predominates on the fringe of the marshy areas of the Finlay islands where the soils are subject to seasonal flooding. Red ash (*Fraxinus pennsylvanica*), black ash (*Fraxinus nigra*), bur oak (*Quercus macrocarpa*) and American elm (*Ulmus americana*) are frequently found in these forest communities while the herbaceous layer is formed exclusively of sensitive fern (*Onoclea sensibilis*).

The silver maple stands give way to red oak stands slightly upslope on the sites which are not affected by annual flooding. The latter forest community is largely dominant, covering over three quarters of the Finlay islands.

The stand of bur oak grows at the higher elevations on the Finlay islands. The main companion species in the oak stand are silver maple (*Acer saccharinum*), yellow birch (*Betula alleghaniensis*), black ash (*Fraxinus nigra*), butternut (*Juglans cinerea*) and basswood (*Tilia americana*).

Pine stands are found in the better-drained areas, including the eolian deposit. These stands are on the southern island (island 54). White pine (*Pinus strobus*), red pine (*Pinus resinosa*) and jack pine (*Pinus banksiana*) are the dominant species in these softwood forest communities along with a range of other pioneering species.

**Fauna:**

Various species of amphibians, birds and mammals have been inventoried on the Finlay islands.

**Amphibians:** The inventories have confirmed the reproduction of the spring peeper, leopard frog and green frog. The presence of bull frogs, blue-spotted salamanders, American toads and gray treefrogs has also been observed.

**Birds:** A total of 44 species of birds were observed on the Finlay islands while the inventories were being conducted: great blue heron, Canada goose, wood duck, American black duck, broad-winged hawk, red-tailed hawk, spotted sandpiper, great horned owl, ruby-throated hummingbird, belted kingfisher, yellow-bellied sapsucker, downy woodpecker, hairy woodpecker, northern flicker, eastern woodpecker, least flycatcher, great crested flycatcher, eastern kingbird, yellow-throated vireo, warbling vireo, red-eyed vireo, blue jay, American crow, black-capped chickadee, red-breasted nuthatch, white-breasted nuthatch, veery, American robin, cedar waxwing, yellow warbler, yellow-rumped warbler, blackburnian warbler, pine warbler, black-and-white warbler, American redstart, northern waterthrush, chipping sparrow, song sparrow, rose-breasted grosbeak, red-winged blackbird, common grackle, brown-headed cowbird, Baltimore oriole and American goldfinch.

**Reptiles:** During field trips, no turtles or snakes were observed despite the presence of much ground material where snakes would normally be found. Turtle egg laying has been confirmed through the observation of five predated nests found on the dune on the southern island.

**Mammals:** During inventories, red squirrel, beaver, muskrat and white-tailed deer were noted. Traces of white-tailed deer, muskrat, raccoon and black bear and feces of black bear, raccoon and white-tailed deer have also been noted, confirming the presence of at least six species of mammals, without counting the four species of small mammals observed: the short-tailed shrew, masked shrew, meadow jumping mouse and white-footed mouse.

### **2.2.2. Outstanding elements**

At least five threatened or vulnerable plant species likely to be so designated have been inventoried on the Finlay islands to date. They are the white oak (*Quercus alba*), woolly hudsonia (*Hudsonia tomentosa*), *Cyperus lupulinus subsp. macilentus*, *Sporobolus cryptandrus* and *Polygonella articulata*. These plants have all been observed on the eolian dune deposit found on the southern island. The habitat of a sixth plant species that is part of the group of threatened or vulnerable species, *Gratiola aurea*, has also been reported on the dry beaches of both the Finlay islands.

The Finlay islands have considerable wildlife potential because of two species of turtle, namely the spiny softshell (*Apalone spinifera*), designated as threatened, and the map turtle (*Graptemys geographica*) which is found on the list of wildlife species likely to be threatened or vulnerable. The presence of the map turtle on the islands was reported in the 1990s.

### **2.3. Occupation and land uses**

The land is public property and no rights have been granted within the boundaries of the ecological reserve.

### **3. Protection status**

Ecological reserve status will allow a representative sample of the large sand-covered islands characteristic of the Outaouais river to be integrally preserved on a permanent basis.

### **4. Activities framework**

The activities carried on within the boundaries of the Chênaie-des-Îles-Finlay ecological reserve are governed by the Natural Heritage Conservation Act (R.S.Q., c. C-61.01). This conservation plan does not specify any prohibited activity other than those prohibited in the ecological reserves under the Act; nor does it authorize any other activities, or set any additional constraints on the activities permitted by the Act.

#### **4.1. Prohibited activities**

- General prohibitions under the Act

As provided in the Natural Heritage Conservation Act, the main activities prohibited in an area to which ecological reserve status has been assigned are

- forest management within the meaning of section 3 of the Forest Act (R.S.Q., c. F-4.1);
- mining, and gas or petroleum development;
- mining, gas and petroleum exploration, brine and underground reservoir exploration, prospecting, and digging or boring;
- the development of hydraulic resources and any production of energy on a commercial or industrial basis;
- hunting, trapping, fishing, earthwork and construction activities, agricultural, industrial or commercial activities and, generally, any activity likely to alter the state or nature of ecosystems.

No person may be in an ecological reserve, except for an inspection or for the carrying on of an activity authorized under the Act.

The Minister of Sustainable Development, Environment and Parks may, however, give written authorization on the conditions the Minister determines for any activity consistent with the purposes of an ecological reserve or with its management.

## **4.2. Activities governed by other statutes**

As stated above, certain activities consistent with the purposes of an ecological reserve, such as educational and scientific research or management activities may be conducted with the prior authorization of the Minister. That authorization from the Minister does not imply an exemption from the permit or authorization requirements of other statutes or regulations that apply to the ecological reserve.

## **4.3. Supervision of activities**

The Minister of Sustainable Development, Environment and Parks is responsible for the application of the Natural Heritage Conservation Act, and is therefore responsible for management of the ecological reserves established under that Act. The Minister supervises and monitors the measures in the Act as they relate to activities permitted in protected areas. In addition, the Minister has authority over the land which forms part of the domain of the State.

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## Schedule 1



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