

Other Natural Lands Projects



Special Protection Areas (SPAs)

The majority of RBGs approximately 900 hectares of impressive landscapes are nature sanctuaries. These areas envelope the western end of Lake Ontario and form a Nodal Park within the Niagara Escarpment World Biosphere Reserve (UNESCO). With over 750 native plant species, 277 types of migratory birds, 37 mammal species, 14 reptile species, 9 amphibian species and 68 species of Lake Ontario fish, the lands are an important contributor to ecosystems that span international borders. Despite the great extent of nature sanctuaries at RBG, urban encroachment and fragmentation has left few true sanctuary areas for sensitive species. This fragmentation combined with the continuing pressures of regional population growth led a collection of local groups to form the Cootes to Escarpment Park Vision, with the partners collectively already holding 1500 hectares of publicly accessible property. The Gardens, owning the largest wild portion, has a roll in balancing public access with protection of sensitive species. To ensure that all species have an opportunity to persist, 20 percent of the property remains without formal trails, creating core areas protected from human and other

associated disturbances. These areas have been named Special Protection Areas. For the visitor, next to these areas there are observation points and interpretive signage to help you appreciate the significance of these unique spaces. The strategic review of the properties during the creation of the Cootes to Escarpment Park vision found that existing fragmentation by roads, highways, buildings and rail lines, along with the natural topography left very little area where establishment of core protected areas could occur. Three areas were designated as Special Protection Areas based on their size and important ecological features: Spencer Creek Floodplain, Hopkins Woods, and South Pasture Swamp. To create the core areas and visitor opportunities in proximity to these areas, three formerly closed trails were reopened (adjacent to the Spencer Creek Floodplain area), two boardwalks were rebuilt, and a new observation platform was installed. In addition, one trail was closed and a second was rerouted. The identification of key spots to create visitor destination points adjacent to these areas was incorporated into the design, along with related interpretive signage. There are remaining opportunities for two further observation platforms, and if completed they would result in an overall total of nine viewing platforms throughout the RBG property.

Spencer Creek Floodplain

A Great Lakes river delta - The 44 hectare Spencer Creek Floodplain Special Protection Area is located at the western end of Cootes Paradise Marsh and encapsulates the southern side of one of the largest river mouth deltas on Lake Ontario. The deltas overall length is 2.5 km, with a total area of about 100 hectares. Two roads, an abandoned rail line, and the Desjardins Canal fragment the delta. This SPA has two key elements: the floodplain along the south side of the river mouth of Spencer Creek, the main tributary of Hamilton region; and a band of old growth Carolinian forest stretching inland 100m on the adjacent ravine slope. The floodplain is the most recent natural river delta of Spencer Creek prior to ditching and relocation into the Desjardins Canal in the 1870s. The ditching left an abandoned river channel on the delta as an oxbow pond. Water to the area is supplied by numerous springs along the base of the southern ravine slopes, as well as from major floods of Spencer Creek. The floodplain portion includes two large floodplain ponds, 1km of oxbow channel, meadow marsh, and swamp forest. The plant community includes over 150 species, but is dominated by two non native species, European manna grass (*Glyceria maxima*) meadow marsh, and European crack willow (*Salix fragilis*) swamp forest. On the adjacent slope, the old growth forest is dominated by white oaks (*Quercus alba*) and various rare and fragile understory species, with the cooler spring feed sections containing more northern species such as Hemlock (*Tsuga canadensis*). The area represents the highest quality wetland habitat within Cootes Paradise. It is also the core habitat to 20+ listed Species at Risk, highlighted by Blandings turtle (status: endangered), Prothonotary Warbler (status: threatened), and Least Bittern (status; Threatened). Three adjacent trails provide opportunities to view the area (Chegwin, Spencer Creek, and Marsh Walk), with the best location the Marsh Walk Observation Platform. The platform is situated at the current terminus of the creek delta. During fall bird migrations in particular, shorebirds and waterfowl concentrate in the area. Access is a 2 km walk from the RBG Arboretum

following the Captain Cootes trail until it reaches Marsh Walk. The area can also be visited by canoe, via Spencer Creek, with the launch found at Princess Point.

Hopkins Woods

Large Lake Ontario shoreline forest area - The 75 hectare Hopkins Woods Special Protection Area is located at the western end of Cootes Paradise Marsh on the rolling glacial dunes and planes to the north of Spencer Creek. This woodland/wetland area also completely encompasses one of the watersheds of Cootes Paradise, Mink Brook, and portions of the Borers Creek watershed. The area is unique for its complete protection of a watershed and relative size and isolation within the Golden horseshoe region. The area includes floodplain ponds, swamp forest, old growth forest and a large area of cultural lands now in spruce plantations - requiring ecological restoration. Mink Brook represents the healthiest watershed within the Golden Horseshoe area of the Lake Ontario shoreline, but has virtually no flow during the drier portions of the summer season due its small watershed. When this area is considered together with the Borers Creek Conservation Area located north of York Rd., they form the last natural corridor between Lake Ontario and Niagara Escarpment that is not interrupted by a 400 series highway. Within Hamilton region, Hopkins Woods is one of the few natural areas large enough to contain interior forest (forest >100m from an edge). Due to its size it plays a critical role in maintaining species that require larger areas of space, such as bald eagle, pileated woodpecker and bobcat. It is also the only area of size within the RBG holdings that is not fragmented by transportation corridors and urbanization, although two hydro corridors border it to the north. The forests are dominated by white oak (*Quercus alba*) and red oak (*Quercus rubra*), but contain very large white pine (*Pinus strobus*) and hemlock (*Tsuga canadensis*) in the cooler ravine areas, and silver maple (*Acer saccharinum*) in the swamp forest. The plantations, established in the 1970s & 80s include black locust (*Robinia pseudoacacia*), European larch (*Larix decidua*), and white spruce (*Picea glauca*). Three Cootes Paradise north shore trails provide opportunities to view the area (Hopkins Loop, Bulls Point, and Marsh Walk), with the best location the George North Observation Platform. The platform is situated on a peninsula overlooking this area and the Spencer Creek Delta. Access is a 2 km walk from the RBG Arboretum following Hickory Valley trail. The area can also be visited by boat with a canoe launch found at Princess Point.

South Pasture Swamp

Spring fed creek oxbow - The 10 hectare South Pasture Swamp Special Protection Area is located in the central portion of Hendrie Valley and forms the core habitat of the valley. It is based on a large oxbow pond on the south side of Grindstone Creek, set against an old growth forest slope. This slope is part of the glacial Lake Iroquois beach and is made of sand. As a result, the oxbow pond is heavily fed by springs, receiving a constant supply of cool clean water. This wetland area is part of a string of ponds totaling over 25 hectares in area along lower Grindstone Creek. Grindstone creek itself

flows from East Flamborough and Aldershot into the northwest corner of Hamilton Harbour and is the regions second largest creek. South Pasture Swamp contains areas of cattail (*Typha sp.*) organic shallow marsh, white water lily (*Nymphaea tuberosa*) floating-leaved shallow aquatic, and water willow (*Decadon verticillatus*) organic marsh. The sites name originates with the historical cattle pasture use of the valley. The clean water and restored plant community form the core habitat of the valley system providing a retreat for mink, muskrat, beaver, wood duck, and a variety of rare turtles and birds. The area is also the primary eastern Lake Ontario spawning area for northern pike. The adjacent band of forest contains towering black and red oak, and sugar maple, with the understory plants characteristic of more northern areas. Creekside Walk and South Bridle Trail provide access to the area. A newly created observation platform can be found at the western edge of the swamp where visitors are encouraged to relax and enjoy the heart of Hendrie Valley. Access is a 1 km walk from Cherry Hill Gate entrance next to Hendrie Park.



Prairie Restoration

Early explorers described and documented tallgrass prairie and oak savannah communities around the western end or “head” of Lake Ontario. It is estimated that close to 6,000 hectares (14,800 acres) of tallgrass prairie and oak savannah once covered the Hamilton area (Goodban et al. 1999). Today, less than one percent of Hamilton’s prairies and savannahs remain. Within our nature sanctuaries, remnant prairies and oak savannahs have become degraded over time due to lack of fire disturbance and introduction of invasive species. Royal Botanical Gardens is actively restoring these ecosystems through the use of prescribed burns and re-introduction of prairie plants through seeding and planting. Princess Point is the current area of focus.



York Boulevard Prairie prescribed burn area



Sassafas Point and Princess Point prescribed burn area

Fire Safety

Royal Botanical Gardens' oak savannah and tallgrass prairie burn will take place under the supervision of prescribed burn specialists from Lands & Forests Consulting Ltd. to ensure controlled conditions are maintained throughout the course of the event. Local fire departments and governments have approved the burn plan. Fuel type and length of burn indicate that smoke will be minimal, however, known or potential asthmatics are advised to avoid prolonged exposure to the smoke. Smoke from the burn may contain small amounts of poison ivy oil. Those individuals who are sensitive to poison ivy should avoid exposure to the smoke. If respiratory irritation occurs, please move immediately to an area with fresh air and contact a physician.

To Get Involved

If you are interested in volunteering for this important and exciting restoration event, or if you have any questions or concerns, please email Lindsay Burtenshaw, Royal Botanical Gardens' terrestrial ecologist, or call 905.527.1158, ext. 257.