

Carp Barrens continued ...

Accordingly, it supports a number of vegetation-landform complexes which are unique in Site District 6E-12 and much of southeastern Ontario. Several areas within it are identified as having particular exceptional ecological value.

The Carp Barrens is dominated by the most extensive, best-expressed complex of granite bedrock barrens on the Carp Ridge and in the site district and southern Ontario east of the Frontenac Axis. Scattered individuals and clumps of trees (White Pine, Red Maple, Trembling Aspen, White Birch, Large-toothed Aspen, Red Oak) occupy depressions where a thin layer of soil has formed. The effects of the huge fires of the late 19th century are clearly evident in the burned stumps and roots of dead trees throughout. Common Juniper forms dense, low shrub thickets on the outcrops with patches of blueberry (*Vaccinium* spp.) and Staghorn Sumac (*Rhus typhina*). Canadian Shield plants otherwise uncommon or rare in the Regional Municipality of Ottawa-Carleton are common here, including Bicknell's Geranium (*Geranium bicknellii*), Pale Corydalis (*Corydalis sempervirens*), Fernald's Sedge (*Carex merritt-fernaldii*) and the Spikemoss (*Selaginella rupestris*). Vasey's Rush (*Juncus vaseyi*), a rare boreal species almost unknown in southern Ontario, was observed on the barrens in the mid 1980s (P. M. Catling, *pers. comm.*). The regionally uncommon to rare southern grass of calcareous bedrock, Philadelphia Panic-grass (*Panicum philadelphicum*) is abundant.

The barrens are a breeding stronghold for several locally distributed and/or declining breeding bird species, including Common Nighthawk, Rufous-sided Towhee and Field Sparrow. The shrubby meadows also offer important wintering habitat for a variety of rare raptors; the Carp Ridge in general and the candidate in particular are well known, for example, for relatively frequent winter residencies by Great Gray and Hawk Owls, as well as more common predators such as Great Horned Owl and Northern Shrike.

Shallow beaver ponds and thicket swamp-dominated wetlands are common throughout. Emergent vegetation and marsh habitats are common in late summer and fall in and around these wetlands, providing feeding habitat and shelter for resident and migrant birds and mammals alike.

An extensive submature White Pine forest on bedrock dominates the southwestern edge of the candidate; few older forest stands are present as a result of past fires. These are dominated by light and drought tolerant deciduous species such as Trembling Aspen, Red Oak and Red Maple. Given the drought experienced in this upland area in most summers, frequent fire was likely a natural element of the ecology of the Carp Barrens before human settlement occurred.

The area was identified as part of the Carp Hills - South March Highlands Conservation Area by the Regional Municipality of Ottawa-Carleton in the mid 1970s. This designation was later withdrawn under pressure by landowners. A road to service the

Carp Barrens continued ...

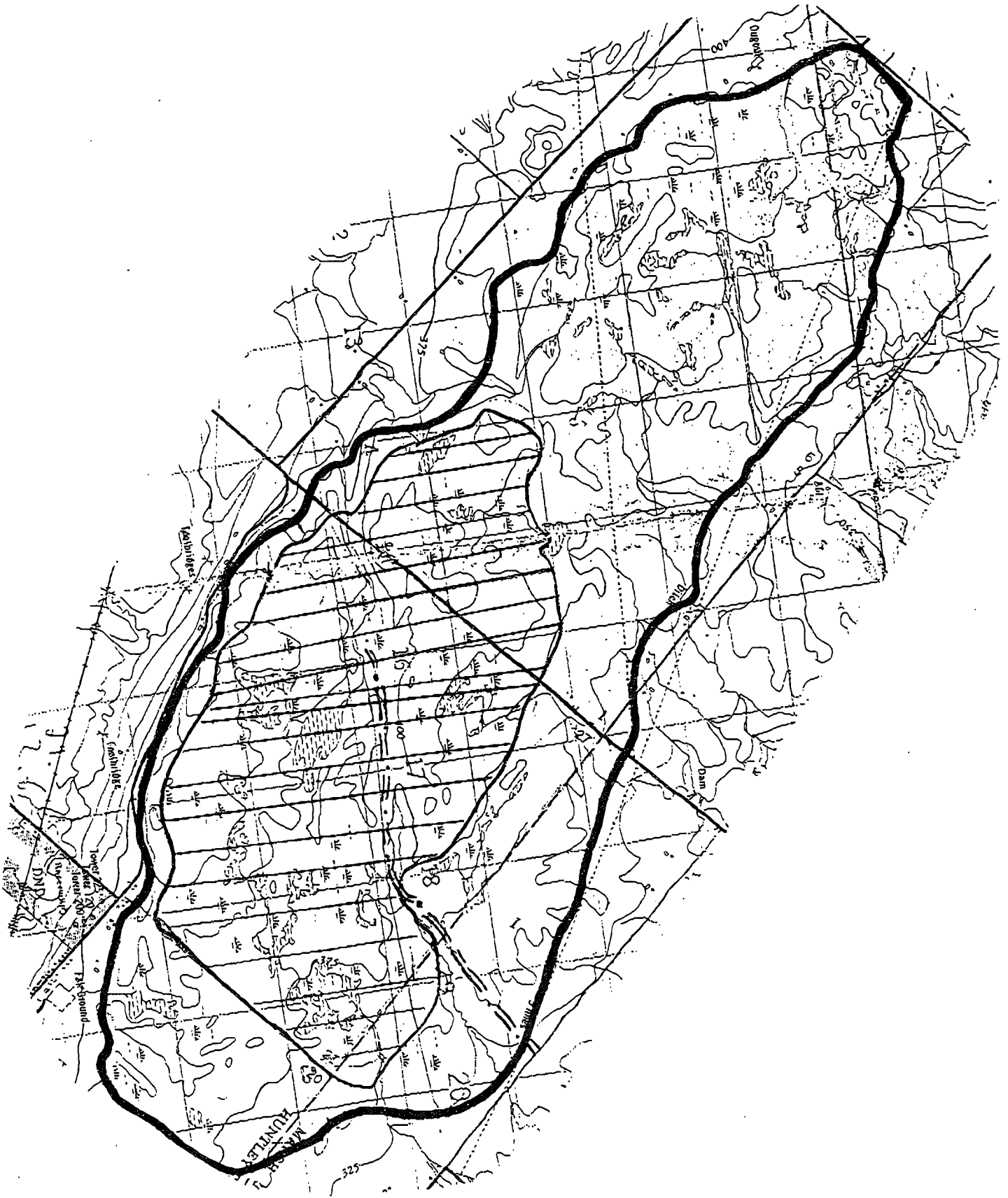
Aselford estate lot development has recently been constructed into the area of prime conservation concern (see map).

Despite the on-going estate lot development, the candidate may contain the most natural, extensive example of upland forest vegetation in Site District 6E-12. Some elements are also represented in the South March and Carp Hills but the rock barrens landform-vegetation complex in this site is unsurpassed.

The candidate is part of the Carp Hills Class 1 wetland complex. For the purposes of this study the Carp Barrens area is separated from that larger Carp Hills unit in order to identify the portion of the outcrop deemed to be of provincial significance.

Carp Hills continued ...

Carp Hills (Carp Barrens in cross-hatched area)



Carp Hills continued ...

LANDFORM TYPE(S): Rock Outcrop

PHYSICAL & BIOLOGICAL FEATURES:

The site is part of the Carp Hills (Carp Ridge) which constitutes the largest Canadian Shield outcrop in southeastern Ontario east of the Frontenac Axis. It has an extremely complex bedrock geology, containing a variety of gneissic, granitic and marble substrates. Accordingly, it supports a vegetation-landform complex which is unique in Site District 6E-12 on this 'island' of Precambrian bedrock. Several areas within it have been identified as having particular ecological significance.

The Carp Hills ANSI is typical of the entire ridge, viz. a forested upland containing a large number of shallow beaver ponds connected by small and/or intermittent streams between thinly soiled uplands supporting young to submature early successional deciduous and mixed forest (Red Maple, Sugar Maple, White Spruce, Trembling Aspen, White Birch, Bur Oak, Red Oak). Several Great Blue Heron colonies are known from such ponds which are also utilized by a variety of other breeding mammals and waterfowl.

The complex forest cover provides breeding habitat and shelter for a wide variety of birds and mammals including Coyote, Snowshoe Hare, White-tailed Deer, Porcupine, Red-tailed Hawk, Chestnut-sided Warbler, Indigo Bunting, Pileated Woodpecker, Great Horned Owl and even rare Shield species such as Golden-winged Warbler (along the eastern edge of the site near the Thomas Dolan Parkway). This also includes the core area of traditional deep yards in the northwestern and southern portions of the site.

Small, unforested and scrubby bedrock outcrops are interspersed throughout the young forest cover. Bare granitic bedrock is also common (though not as well expressed as in the associated Carp Barrens site), supporting a flora typical of cliff tops and outcrops in the Gatineau Hills of west Quebec. This is part of the breeding stronghold for several locally distributed and/or declining breeding bird species, including Common Nighthawk, Rufous-sided Towhee and Field Sparrow. Like the Carp Barrens, the shrubby meadows also offer important wintering habitat for a variety of rare raptors; the Carp Ridge is well known, for example, for relatively frequent residencies by Great Gray and Hawk Owls, as well as more common predators such as Great Horned Owl and Northern Shrike.

A relatively large woods of mature, late successional deciduous and mixed forest occurs at the north end of the site (over marble bedrock) and supports a rich diversity of regionally significant flora. These include a number of unusual orchids such as Showy Orchis (*Galearis spectabilis*), Downy and Tesselated Rattlesnake-plantain (*Goodyera pubescens* and *G. tessellata*) and Spotted Coralroot (*Corallorhiza maculata*), as well as rich

Carp Hills continued ...

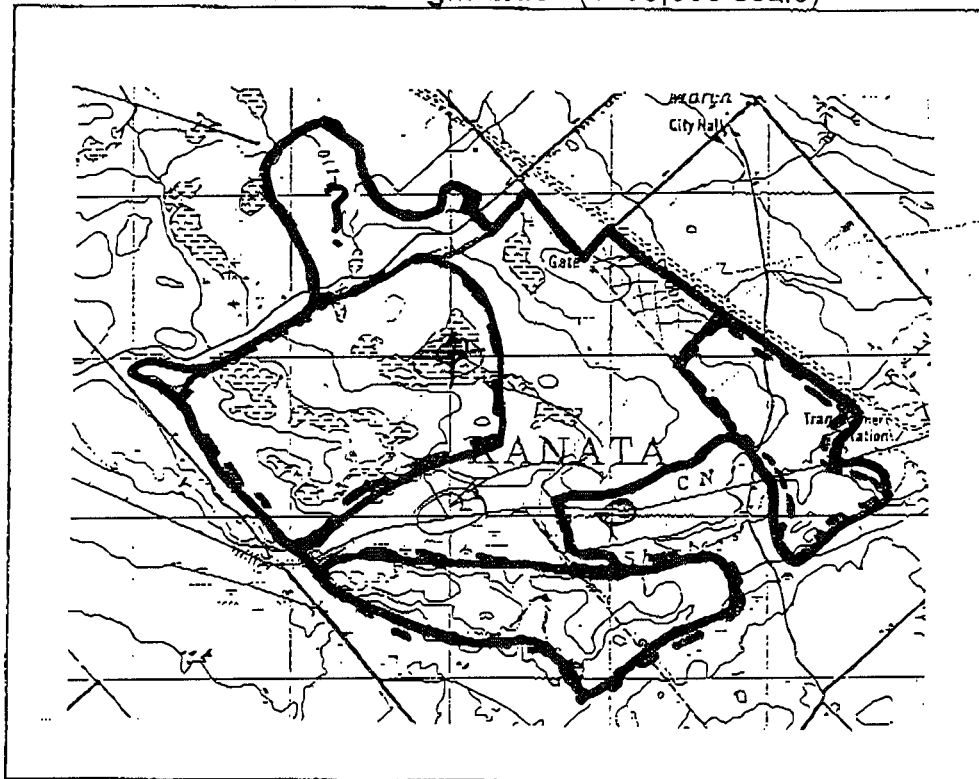
hardwood plants such as Tall Mountain-rice (*Oryzopsis racemosa*), Bottlebrush Grass (*Elymus hystrix*) and Tick-trefoil (*Desmodium glutinosum*). This habitat has been heavily logged in recent years, however, and is better represented by parts of the South March Highlands. Although otherwise rare in the site district, most of the natural environment values of this site are represented comparably or better in the provincially significant South March Highlands and Carp Barrens

The site was identified as a Conservation Area by the Regional Municipality of Ottawa-Carleton in the mid 1970s but this designation was later withdrawn under pressure by landowners. It is part of a Class 1 wetland complex.

AREA OF NATURAL AND SCIENTIFIC INTEREST LIFE SCIENCE CHECKSHEET			
<i>NAME</i> South March Highlands	<i>MAP NAME</i> Ottawa	<i>MAP NO. & UTM REF.</i> 31 G/5 250210	
<i>COUNTY, REGIONAL MUNICIPALITY</i> Ottawa-Carleton	<i>LATITUDE</i> 45° 20'N	<i>LONGITUDE</i> 75° 57'W	<i>MIN. ALTITUDE MAX.</i> 90 m 127 m
<i>LOCALITY</i> westcentral Kanata			<i>AREA (ha.)</i> ca. 750
<i>MUNICIPALITY/TOWNSHIP(S)</i> Kanata	<i>I: 50,000 SCALE BOUNDARY MAP</i> see following page		
<i>OWNERSHIP</i> private			
<i>ADMINISTRATION</i> private			
<i>SITE REGION AND DISTRICT</i> 6E-12 (Kemptonville)			
<i>MNR REGION AND DISTRICT</i> Southern (Kemptonville)			
<i>EVALUATION</i>			
Provincially significant upland forest, bedrock barrens and wetland complex			
<i>MAJOR INFORMATION SOURCES</i>			
R. M. REED (Editor). 1975. An Ecological Study of Conservation-Recreation Areas in the Regional Municipality of Ottawa-Carleton. Dept. of Biology, University of Ottawa, Ottawa; RMOC. 1977. Conservation Lands in Ottawa-Carleton. (Two volumes). Planning Department, Regional Municipality of Ottawa-Carleton, Ottawa; ANONYMOUS. 1988. Life Science Area of Natural and Scientific Interest in Site District 6E-12. (Preliminary Map). Ontario Ministry of Natural Resources, Kemptonville; D. F. BRUNTON. 1992. Natural Environment Inventory of the Kanata Lakes Study Area, Kanata, Regional Municipality of Ottawa-Carleton, Ontario. Daniel Brunton Consulting Services, Ottawa; D. F. BRUNTON. 1992. Natural Environment Inventory of the South March Highlands Study Area, Kanata, Regional Municipality of Ottawa-Carleton, Ontario. Daniel Brunton Consulting Services, Ottawa; C. FRANKTON & E. FRANKTON, pers. comm; pers. comm; on-site & aerial reconnaissance assessment, this study.			
<i>DATE COMPILED</i> October 1992		<i>COMPILER</i> Daniel F. Brunton	

South March Highlands continued ...

South March Highlands (1: 50,000 scale)



LANDFORM TYPE(s): Rock Outcrop

PHYSICAL & BIOLOGICAL FEATURES:

The site is situated on the southern end of the huge Precambrian bedrock inlier known as the Carp Ridge (see Carp Hills and Carp Barrens), a high, rolling terrain with highly irregular drainage, typically thin to absent soil and a complex and rich geology which is unique in Site District 6E-12. It supports unsurpassed representatives of a number of landform vegetation complexes for the site district, including mature deciduous and mixed upland forest and mixed and coniferous lowland forest on thinly to deeply buried granite bedrock, sandstone rockflats, granite-based escarpment forest, and bedrock barren and beaver pond complexes.

A large proportion of the site is unforested, either as bedrock outcrop or as shallow, bedrock-depression ponds and streams. Forest vegetation is predominately early successional deciduous and mixed growth, with Trembling Aspen, Red Maple, White Pine,

South March Highlands continued ...

White Cedar, White Elm, Bur Oak, White Ash and Sugar Maple. Mature Sugar Maple, American Beech and Eastern Hemlock forest is restricted to areas of deeper soil at lower elevations.

The site supports an exceptionally rich flora and fauna, with ca. 600 species of vascular plants (including the nationally rare Ginseng (*Panax quinquefolius*)) and over 80 species of breeding birds known. Many of these species have severely restricted Regional distributions within the site district.

The proposed ANSI is anchored by the three areas recently proposed as Natural Environment Area (NEA) ecological reserves in studies prepared for the city of Kanata and the major landowner in the eastern half of the site, Genstar Development Company. These areas, comprising a total of 425 ha, are indicated by the dashed line on the map (above). They include the floristically rich Trillium Woods in the east of the site which is a mature and submature Sugar Maple, American Beech forest with scattered White Pine and Eastern Hemlock. This is the most mature forest area in the candidate and supports such regionally rare significant flora as Goldie's Fern (*Dryopteris goldiana*), Glade Fern (*Diplazium pycnocarpium*), Cut-leaved Toothwort (*Dentaria laciniata*), Gray's Sedge (*Carex grayii*) and Narrow-leaved Spring-beauty (*Claytonia virginica*).

The candidate NEA forming the block of land across the southern edge of the candidate contains Sugar Maple-dominated upland forest on rugged, drier outcrops with distinctive and exceptional floristic elements and geological conditions, including representation of the escarpment forest and barrens vegetation along the Hazeldean Escarpment. This area also maintains a variety of important faunal features, including wintering habitat for both rare and common raptors.

The large block in the western half of the candidate includes a bedrock barren and beaver pond complex heavily utilized by migratory and breeding waterfowl and supporting a rich floristic and faunal diversity. It is the 'wildest' portion of the area, supports the core of a major deer yard, and provides extensive representation for features and habitats more typical of the Canadian Shield (including two active heronries). A rich aquatic flora and fauna, including regionally significant plants and uncommon reptiles such as Blanding's Turtle, are contained within the ponds, particularly the largest (Heron Pond). A rich Sugar Maple, American Beech and Eastern Hemlock forest occupies the deeper soils north of Heron Pond and west of the Heron Pond sandstone flats which harbours a regionally unique floristic association.

The exceptional late successional Sugar Maple stand forms the core of the extension north of the Old Carp Road. It apparently constitutes the tallest (oldest ?) maple grove in the Ottawa area. It is estimated that comparably mature sites make up less than 5% of forested land in the Regional Municipality of Ottawa-Carleton, and a much smaller

South March Highlands continued ...

proportion of the total Regional land base (H. McLeod, pers. comm.). These hardwoods support a large population of the regionally rare Hitchcock's Sedge (*Carex hitchcockiana*). They connect, through a corridor of earlier successional deciduous and mixed forest, with the hardwoods north of Heron Pond. They have been disturbed by selective logging and are situated between a golf course and a soon to be expanded housing development.

This proposed ANSI is formed with the three NEAs and the ancient maple forest north of the Old Carp Road forming its core areas. Linkages between them are shaped by the land use and landscape character of intervening lands and serve to facilitate and contribute to the ecological function of these cores. Accordingly, it is expected that the resulting single, coherent unit that forms this proposed ANSI would essentially be ecologically self-sustaining.

The site was identified as a Conservation Area by the Regional Municipality of Ottawa-Carleton in the mid 1970s but this designation was later withdrawn under pressure by landowners. It contains part of a very large Class 1 wetland complex. The rarity of this landform-vegetation complex and exceptional quality of the natural environment features contained within it supports the identification of this site as provincially significant.