

## Plant Survey of White's Cove Property, Digby Neck, Digby County, Nova Scotia

**Client:** Paul G. Buxton,  
P.O. Box 98,  
Annapolis Royal,  
Nova Scotia  
B0S 1A0

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**Botanist:** Ruth E. Newell, B.Sc. (Hons.), M.Sc.  
General Delivery,  
Wolfville,  
Nova Scotia  
B0P 1X0

### **Introduction:**

This report represents the results of a botanical survey carried out on a 380-acre site situated on Digby Neck, Digby County, Nova Scotia in the vicinity of White's Cove. The property is located primarily on the northwest-facing slope of the North Mountain. It also encompasses an approximately 3 km section of the Bay of Fundy shoreline. Vehicle access is off of Highway 217 between the communities of Little River and Mink Cove.

This plant survey was carried out over three days (July 2<sup>nd</sup>, 3<sup>rd</sup> and 7<sup>th</sup>, 2002) by botanist, Ruth Newell and an assistant. Time spent in a given habitat depended on potential for rare plant species based on the Atlas of Rare Vascular Plants of Nova Scotia (Pronych and Wilson, 1993). Two days were spent surveying coastal habitats (headlands, coastal wetlands, rocky shoreline and mountain streams) and one day was devoted to the forested areas.

The entire coastline was surveyed and the vegetation recorded for both the headlands and the rocky shoreline. Two small streams flowing off of the North Mountain to the Bay of Fundy were also examined along their lengths to the extent that they occurred within the property boundaries. A coastal bog/marsh located approximately .6 km northeast of White's Cove was checked. The woodlands were surveyed by walking one broad northeast/southwest transect for most of the property length with two perpendicular transects off of the main transect, to the coast. Transect width varied from 20 - 40 m. A significant proportion of the woods along the top of the mountain has been recently clearcut, as has a section of the woods in the vicinity of White's Cove. These clearcut areas are not evident on the air photo. These areas were briefly examined during this study.

Locations of most of the populations of rare plant species observed on the property were documented digitally with a GPS unit (Garmin 12). Due to technical difficulties however,

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the locations of the various populations of *Primula laurentiana* (Bird's-eye Primrose) found on site were not marked with a GPS unit. There were instead, pinpointed on an aerial photo at the time of observation. All rare species observed were photographed with a 35 mm camera with the exception of *Conioselinum chinense* /Hemlock Parsley, and flagged. The approximate population size for each rare species was also recorded. Locations of all the rare plant species found during this survey are indicated on the air photo located on the last page of this report.

Habitat descriptions and a list of plant species for each, is provided in APPENDIX 1.

### ***Results:***

#### **Rare Species found on the White's Cove Property during this survey:**

1) *Prenanthes racemosa* (Glaucous Rattlesnake-root). *Photo 1.*

ACCDC ranking: S1; listed as rare for Nova Scotia by Maher *et al.* (1978) and Pronych & Wilson (1993). (See APPENDIX 2 for an explanation of the ACCDC Ranking System)

Map coordinates for the location of this species on the White's Cove property: NAD 83, 19T 0726914E, 4926924N.

This plant has been reported in the past, in low numbers, from nearby Sandy Cove and Whale Cove (Roland, 1998), but has not been seen in either area, for approximately fifty years. One clump, consisting of approximately 15 closely associated plants, many small and probably not reproducing, was found on a very sheltered, narrow rock ledge on a layer of peaty soil, along the upper portion of the rock shoreline.

It should be noted here that these plants were not in flower when discovered, so identification is based on vegetative material and comparison with herbarium specimens. It would be advisable to make a return visit to the site in August or September when these plants are normally in flower or fruit to confirm identification. A return visit is also advisable in terms of looking for other plants of this species. Glaucous Rattlesnake-root was reported from an exposed Juniper-crowberry headland at Whale Cove on Digby Neck (Roland, 1998). Although the headlands in the White's Cove area were examined closely, this species would be difficult to spot amongst the dense carpets of Juniper and Crowberry unless in flower or fruit. In other words, it would be more conspicuous in the field at this time and therefore more likely to be found if present.



**Photo 1.** *Prenanthes racemosa* (Glaucous Rattlesnake-root) growing on a rock ledge on the White's Cove property.

2) *Arenaria groenlandica* (Mountain Sandwort). *Photo 2.*

ACCDC ranking: S2; listed as rare for Nova Scotia by Maher et al. (1978) and Pronych & Wilson (1993).

Map coordinates for the location of this species on the White's Cove property: NAD 83; 19T 0727702E, 4928232N – this represents the northeast limit of the population.

Approximately 15 small clumps of Mountain Sandwort were observed on the coast, about .6 - .7 km northeast of White's Cove. Most of the plants occur in shallow soil on the edges of flat outcroppings of basalt well up on the shoreline. One clump only, was found along an ATV trail on bare, peaty substrate. This species seems to be restricted to two locations on the White's Cove property. These are points on the coast where the shoreline broadens into three, terraces of flat basalt outcropping and headland vegetation, inland of the outer rock shoreline. The Mountain Sandwort seems to be restricted to the middle bedrock terrace in all cases. This particular habitat structure only occurs immediately northeast and immediately southwest of the cove marking the location of the coastal bog/marsh that was also surveyed for this study (see aerial photo). Most of the plants found occurred to the northeast of the bog. Two clumps were found southwest of the bog. This species inhabits areas with seemingly harsh environmental conditions where there is little competition from other plants species.



**Photo 2.** *Arenaria groenlandica* (Mountain Sandwort) in shallow soil on the edge of a coastal basalt outcrop, northeast of White's Cove.

3) *Conioselinum chinense* (Hemlock Parsley) (no photo available)

ACCDC ranking: S2S3

This member of the carrot family is sparsely distributed along the coastline southwest of White's Cove. It was not observed northeast of White's Cove. It occurs in small numbers both on the headlands and with *Primula laurentiana* on the upper portion of the rocky shore. Most plants were vegetative and very small. Several more robust plants were along the stream near the southwest corner of the property. These latter plants had young flowering stems.

4) *Primula laurentiana* (Bird's-eye Primrose). *Photos 3 & 4.*

ACCDC ranking: S3; listed as rare for Nova Scotia by Maher *et al.* (1978) and Pronych & Wilson (1993).

Bird's-eye Primrose was observed intermittently along the coast in approximately 10 locations from White's Cove, southwestwards to the property line. It was not located along the shoreline northeast of White's Cove. It is found as scattered small populations on disturbed, often relatively bare soil where the headland and rock shoreline habitats meet. It also grows in shallow soil in the lee of rock faces or large boulders on the upper section of the rocky shoreline. These are damp, shady micro-habitats sheltered from the elements. Approximately 300 plants in total were observed, ranging from fruiting specimens to non-flowering/fruiting rosettes to seedlings.



Photo 3.



Photo 4.

**Photos 3 & 4.** Photographs taken on site of *Primula laurentiana* (Bird's-eye Primrose) in flower (top) and in fruit (bottom) (top photo courtesy of G. Alliston).

5) *Symplocarpus foetidus* (Skunk Cabbage) *Photo 5.*

ACCDC ranking: S3; listed as rare for Nova Scotia by Maher et al. (1978) and Pronych & Wilson (1993).

Map coordinates for the location of this species on the White's Cove property: NAD83, 19T 0727407E, 4927074N.

Only one plant of Skunk Cabbage was found during this survey. It was found in the woods, in a low area between two boulders under White Birch with Cinnamon Fern growing nearby. Because the entire forested area of the property was not surveyed, it is possible that other plants of this species may occur here.



**Photo 5.** *Symplocarpus foetidus* (Skunk Cabbage) in woods northeast of White's Cove Road.

***Recommendations:***

1. It is recommended that the coastal communities remain undisturbed due to the presence of four rare plant species including an ACCDC S1- ranked plant, Glaucous Rattlesnake-root (*Prenanthes racemosa*).
2. It is recommended that a field visit be made later in the season (in August or September) when Glaucous Rattlesnake-root is in flower or fruit, to search for more plants in the headland areas.

**References Cited:**

- Maher, R.V., D.J. White, G.W. Argus and P.A. Keddy. 1978. *Rare Vascular Plants of Nova Scotia*. Syllogeus 18. Ottawa: National Museum of Sciences. 37pp.
- Pronych, G. and A. A. Wilson. 1993. *Rare Vascular Plants of Nova Scotia*. Nova Scotia Museum, Halifax. 2 vols. 331 pp.
- Roland, A.E. 1998. *Roland's Flora of Nova Scotia*. 3<sup>rd</sup> edition. Nimbus Publishing and the Nova Scotia Museum, Halifax, N.S.

**Web Sites**

Atlantic Canada Conservation Data Center: <http://www.accdc.com>

**APPENDIX 1. Habitat Descriptions and Species Lists***Habitat 1***Headland at White's Cove**

This is a low, grassy area located behind the beach at White's Cove. A number of introduced species are present which suggest some past human disturbance. Common graminoid species include: Red Fescue, Hair Fescue, Sweet Vernal Grass, and Kentucky Blue Grass. Common forbs include: Yellow Rattle, Rough Goldenrod, Sheep Sorrel, Yarrow, Knapweed, etc. Scattered shrub and tree species include Common and Creeping Juniper, Bayberry, White Spruce, Meadowsweet, etc.

## Plant List

Latin Name	Common Name	Abundance
<i>Achillea millefolium</i>	Yarrow	common
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	common
<i>Aster</i> sp.	an aster	common
<i>Campanula rotundifolia</i>	Harebell	scattered
<i>Carex viridula</i>	Little Green Sedge	common
<i>Centaurea nigra</i>	Knapweed	scattered
<i>Cerastium vulgatum</i>	Mouse-eared Chickweed	scattered
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy	scattered
<i>Dactylis glomerata</i>	Orchard Grass	occasional
<i>Daucus carota</i>	Wild Carrot	scattered
<i>Empetrum nigrum</i>	Black Crowberry	common
<i>Festuca filiformis</i>	Hair Fescue	common

<i>Festuca rubra</i>	Red Fescue	common
<i>Fragaria virginiana</i>	Wild Strawberry	scattered
<i>Hieracium floribundum</i>	King Devil	occasional
<i>Holcus lanatus</i>	Yorkshire Fog	occasional
<i>Hypericum perforatum</i>	Common St. John's-wort	occasional
<i>Hypochoeris radicata</i>	Cat's-ear	occasional
<i>Iris versicolor</i>	Blue Flag	occasional
<i>Juncus arcticus</i>	Arctic Rush	occasional
<i>Juncus bufonius</i>	Toadrush	occasional in patches
<i>Juniperus communis</i>	Common Juniper	common
<i>Juniperus horizontalis</i>	Creeping Juniper	common
<i>Luzula multiflora</i>	Common Woodrush	scattered
<i>Myrica pensylvanica</i>	Bayberry	common
<i>Panicum boreale</i>	Northern Witchgrass	common
<i>Picea glauca</i>	White Spruce	occasional
<i>Plantago lanceolata</i>	English Plantain	scattered
<i>Poa pratensis</i>	Kentucky Bluegrass	common
<i>Ranunculus acris</i>	Tall Buttercup	scattered
<i>Rhinanthus crista-galli</i>	Yellow Rattle	common
<i>Ribes</i> sp.	a gooseberry	scattered
<i>Rosa virginiana</i>	Common Wild Rose	occasional
<i>Rubus</i> sp.	a blackberry	common
<i>Rubus strigosus</i>	Wild Raspberry	occasional
<i>Rumex acetosella</i>	Sheep Sorrel	common
<i>Sisyrinchium montanum</i>	Blue-eyed Grass	occasional
<i>Solidago rugosa</i>	Rough Goldenrod	common
<i>Spiraea alba</i>	Meadowsweet	scattered
<i>Taraxacum officinale</i>	Dandelion	occasional
<i>Tragopogon pratensis</i>	Goat's-beard	scattered
<i>Vaccinium angustifolium</i>	Lowbush Blueberry	scattered
<i>Vaccinium macrocarpon</i>	Large Cranberry	occasional
<i>Veronica officinalis</i>	Common Speedwell	occasional

### *Habitat 2*

#### **Headlands northeast of White's Cove**

The headlands northeast of White's Cove are noticeably less rugged than those to the southwest. The gentler terrain has permitted the establishment of a well-traveled ATV trail from north of the property, as far south as White's Cove. Common plant species on these headlands include Three-toothed Cinquefoil, Beach Blue Flag, White Goldenrod, Common and Creeping Juniper, Black Crowberry, several large patches of Rugose Rose, the succulent, Roseroot, the sedge, *Carex panicea* (conspicuous due to its bluegreen leaves), Little Green Sedge and numerous grasses including Poverty Grass, Blue Joint and Red Fescue.

At two locations along this stretch of coast, the upper shoreline/headland area broadens into three terraces. Each of these three levels has large, relatively level patches of



exposed basalt bedrock. It is in these areas (primarily on the middle terrace) that the rare species, Mountain Sandwort (*Arenaria groenlandica*) was discovered.

#### Plant List

Latin Name	Common Name	Abundance
<i>Angelica lucida</i>	Seaside-angelica	occasional
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	common
<b><i>Arenaria groenlandica</i></b>	<b>Mountain Sandwort</b>	<b>uncommon</b>
<i>Arenaria lateriflora</i>	Sandwort	occasional patches
<i>Calamagrostis canadensis</i>	Bluejoint	scattered
<i>Carex folliculata</i>	Long Sedge	uncommon
<i>Carex panicea</i>	a sedge	locally common
<i>Carex viridula</i>	Little Green Sedge	common
<i>Cornus canadensis</i>	Bunchberry	occasional
<i>Danthonia spicata</i>	Poverty Grass	common to abundant
<i>Deschampsia flexuosa</i>	Hairgrass	common
<i>Drosera intermedia</i>	Narrow-leaved Sundew	occasional
<i>Empetrum nigrum</i>	Black Crowberry	common
<i>Ilex verticillata</i>	Canada Holly	occasional
<i>Iris setosa</i>	Beach Blue Flag	occasional
<i>Juniperus communis</i>	Common Juniper	common
<i>Juniperus horizontalis</i>	Creeping Juniper	common
<i>Osmunda cinnamomea</i>	Cinnamon Fern	common
<i>Poa compressa</i>	Canada Bluegrass	uncommon
<i>Poa palustris</i>	Fowl Meadow Grass	occasional
<i>Potentilla simplex</i>	Cinquefoil	scattered
<i>Potentilla tridentata</i>	Three-toothed Cinquefoil	common
<i>Pteridium aquilinum</i>	Bracken	scattered
<i>Radiola linoides</i>	Tiny All-seed	locally abundant
<i>Raphanus raphanistrum</i>	Wild Radish	uncommon
<i>Ribes hirtellum</i>	Gooseberry	scattered
<i>Rosa rugosa</i>	Rugose Rose	locally common
<i>Rubus</i> sp.	blackberry	scattered
<i>Salix humilis</i>	Small Pussy-willow	uncommon
<i>Scirpus cespitosus</i>	Deergrass	uncommon to common
<i>Sedum rosea</i>	Roseroot	common
<i>Solidago bicolor</i>	White Goldenrod	common

#### *Habitat 3*

##### **Headlands southwest of Whites Cove**

The coastline southwest of White's Cove is much more rugged than the coastline northeast of White's Cove. There are occasional cliffs separating the headland habitat from the lower rocky shore. In a number of spots, giant boulders are strewn over the bedrock of the outer shoreline area. Walking this shoreline is much more challenging than the shoreline to the northeast. There are two large headland areas dominated by

Juniper and Crowberry species. There is also little evidence of human disturbance along this part of the coastline. **A number of rare plant species were found here. These include Bird's-eye Primrose (*Primula laurentiana*), Hemlock Parsley (*Conioselinum chinense*) and Glaucous Rattlesnake-root (*Prenanthes racemosa*).**

## Plant List

Latin Name	Common Name	Abundance
<i>Achillea millifolium</i>	Yarrow	scattered
<i>Anagallis arvensis</i>	Poor-man's Weather-glass	uncommon
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	scattered
<i>Aster</i> sp.	an aster	common
<i>Calamagrostis canadensis</i>	Bluejoint	occasional to scattered
<i>Campanula rotundifolia</i>	Harebell	common
<i>Carex conoidea</i>	Field Sedge	uncommon
<i>Carex panicea</i>	a sedge	locally common
<i>Carex viridula</i>	Little Green Sedge	scattered
<b><i>Conioselinum chinense</i></b>	<b>Hemlock Parsley</b>	<b>uncommon</b>
<i>Danthonia spicata</i>	Poverty Grass	scattered
<i>Deschampsia flexuosa</i>	Hairgrass	scattered to common
<i>Empetrum nigrum</i>	Black Crowberry	common
<i>Euphrasia randii</i>	Small Eyebright	uncommon
<i>Festuca rubra</i>	Red Fescue	common
<i>Iris setosa</i>	Beach Blue Flag	occasional scattered
<i>Iris versicolor</i>	Blue Flag	occasional
<i>Juniperus communis</i>	Common Juniper	abundant
<i>Juniperus horizontalis</i>	Creeping Juniper	abundant
<i>Ligusticum scoticum</i>	Scotch Lovage	occasional
<i>Lysimachia terrestris</i>	Swamp Candle	occasional
<i>Myrica pensylvanica</i>	Bayberry	common
<i>Oenothera perennis</i>	Sundrops	uncommon
<i>Oryzopsis asperifolia</i>	Rice-grass	uncommon
<i>Osmunda cinnamomea</i>	Cinnamon Fern	common
<i>Panicum boreale</i>	Northern Witchgrass	common
<i>Picea glauca</i>	White Spruce	common
<i>Potentilla simplex</i>	Cinquefoil	scattered
<i>Potentilla tridentata</i>	Three-leaved Cinquefoil	scattered
<b><i>Prenanthes racemosa</i></b>	<b>Glaucous Rattlesnake Root</b>	<b>rare</b>
<b><i>Primula laurentiana</i></b>	<b>Bird's-eye Primrose</b>	<b>uncommon; occurring at interface of coastal rocky shoreline and headland</b>
<i>Rhinanthus crista-galli</i>	Yellow-rattle	occasional
<i>Scirpus caespitosus</i>	Deergrass	scattered to common
<i>Sedum rosea</i>	Roseroot	scattered
<i>Sisyrinchium montanum</i>	Blue-eyed Grass	occasional
<i>Solidago bicolor</i>	White Goldenrod	common

<i>Spiraea alba</i>	Meadowsweet	common
<i>Toxicodendron</i> sp.	Poison Ivy	locally common
<i>Vaccinium angustifolium</i>	Lowbush Blueberry	scattered to common
<i>Vaccinium macrocarpon</i>	Large Cranberry	occasional

#### *Habitat 4*

##### **Coastal marshes/open seepage slopes**

A number of small, open, marshes and seepage areas occur periodically along the shoreline on the White's Cove property. No rare plant species were observed in any of these.

#### Plant List

Latin Name	Common Name	Abundance
<i>Aster umbellatus</i>	Tall White Aster	scattered
<i>Calystegia sepium</i>	Hedge-bindweed	common
<i>Carex crinita</i>	Fringed Sedge	occasional
<i>Carex echinata</i>	Little Prickly Sedge	common
<i>Eleocharis</i> sp.	a spike-rush	common
<i>Impatiens capensis</i>	Jewelweed	common
<i>Lycopus americanus</i>	Water Horehound	uncommon
<i>Lycopus uniflorus</i>	Bugle-weed	occasional
<i>Lysimachia terrestris</i>	Swamp Candle	common
<i>Mentha</i> sp.	a mint	occasional
<i>Onoclea sensibilis</i>	Sensitive Fern	common
<i>Platanthera</i> sp	an orchid	uncommon
<i>Polygonum sagittatum</i>	Tear-thumb	occasional
<i>Potentilla anserina</i>	Silverweed	occasional
<i>Rosa virginica</i>	Common Wild Rose	common
<i>Scutellaria galericulata</i>	Marsh Skullcap	uncommon

#### *Habitat 5*

##### **Rock crevices along lower shoreline (outermost vegetated zone; situated between high tide line and headlands)**

This hostile environment is highly subject to salt spray and wind. Vegetation only occurs in crevices that offer a little bit of soil and some protection from the elements. The most prevalent and widespread species in this habitat is Seaside Plantain. Other fairly widespread species include Roseroot, Red Fescue, Beach Blue Flag and Scotch Lovage. **Bird's-eye Primrose (*Primula laurentiana*) and Parsley Hemlock (*Conioselinum chinense*) are rare species found in the upper reaches of this habitat.** These species bridge two habitats by occurring in the upper reaches of the lower rocky shoreline and the lower reaches of the grassy headland habitat.

#### Plant List

Latin Name	Common Name	Abundance
<i>Atriplex</i> sp.	an orach	uncommon
<i>Carex scoparia</i>	Pointed Broom Sedge	scattered

<i>Circaea alpina</i>	Small Enchanter's Nightshade	uncommon
<b><i>Conioselinum chinense</i></b>	<b>Hemlock Parsley</b>	<b>uncommon</b>
<i>Epilobium</i> sp.	a willow-herb	uncommon
<i>Festuca rubra</i>	Red Fescue	occasional
<i>Glaux maritima</i>	Sea-milkwort	uncommon
<i>Iris setosa</i>	Beach Blue Flag	scattered
<i>Juncus gerardii</i>	Black Grass Rush	occasional
<i>Lathyrus japonicus</i>	Beach-pea	uncommon
<i>Ligusticum scoticum</i>	Scotch Lovage	scattered
<i>Plantago maritima</i>	Seaside Plantain	common
<b><i>Primula laurentiana</i></b>	<b>Bird's-eye Primrose</b>	<b>uncommon</b>
<i>Puccinellia maritima</i>	Seaside Alkali Grass	uncommon
<i>Ranunculus cymbalaria</i>	Seashore Buttercup	uncommon
<i>Rumex pallidus</i>	Sea-beach Dock	occasional patches in low channels (fractures) through the basalt bedrock
<i>Sagina procumbens</i>	Pearlwort	occasional
<i>Scirpus caespitosus</i>	Deergrass	uncommon
<i>Sedum rosea</i>	Roseroot	common
<i>Solidago sempervirens</i>	Seaside Goldenrod	occasional
<i>Triglochin maritima</i>	Arrow-grass	occasional

### *Habitat 6*

#### **Inland boulders and outcrops**

This property is peppered with large boulders (erratics?) and small outcroppings of bedrock. Vegetation occurring in shallow soil on top of or in crevices of these must be able to tolerate drought conditions as the shallow soil would dry out fairly rapidly in sunny weather. Lichens are abundant and often dominate particularly when the boulder or exposed bedrock receives little shade. No rare plant species were observed in this particular habitat.

#### Plant List

<b>Latin Name</b>	<b>Common Name</b>	<b>Abundance</b>
<i>Achillea millefolium</i>	Yarrow	occasional
<i>Agrostis capillaris</i>	Brown Top	uncommon
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	common
<i>Aster umbellatus</i>	Tall White Aster	occasional
<i>Cornus canadensis</i>	Bunchberry	common
<i>Deschampsia flexuosa</i>	Hairgrass	common
<i>Festuca rubra</i>	Red Fescue	common
<i>Fragaria virginiana</i>	Wild Strawberry	occasional
<i>Hieracium pilosella</i>	Mouse-eared Hawkweed	occasional
<i>Juniperus communis</i>	Common Juniper	common
<i>Linnaea borealis</i>	Twinflower	common
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	occasional

Melampyrum lineare	Cow-wheat	occasional
Polypodium virginianum s.l.	Rock Polypody	common
Rubus strigosus	Wild Raspberry	occasional
Senecio vulgaris	Groundsel	uncommon
Vaccinium angustifolium	Lowbush Blueberry	common
Veronica officinalis	Common Speedwell	occasional

### Habitat 7

#### Coastal "boggy" marsh northeast of White's Cove

This is a Cinnamon Fern/shrub/Red Maple-dominated wetland with a mix of both bog and marsh plant species. A few open wet areas exist with clumps of Deergass and a variety of other herbaceous plants. No rare species were observed in this particular habitat.

#### Plant List

Latin Name	Common Name	Abundance	Comments
Acer rubrum	Red Maple	scattered	
Alnus incana	Speckled Alder	occasional to scattered	
Alnus viridis	Downy Alder	common	
Amelanchier sp.	a shadbush	occasional	
Arethusa bulbosa	Dragon's-mouth	uncommon	
Aronia sp. a chokeberry	occasional		
Aster nemoralis	Bog Aster	scattered	
Aster umbellatus	Tall White Aster	occasional	
Brachyelytrum erectum	Long-awned Wood Grass	uncommon	
Carex buxbaumii	Buxbaum's Sedge	uncommon	
Carex cf. rostrata	Beaked Sedge	uncommon	large coarse sedge vegetative
Carex echinata	Little Prickly Sedge	scattered	
Carex exilis	Coast Sedge	abundant	
Carex folliculata	Long Sedge		
Diervilla lonicera	Bush Honeysuckle	uncommon	
Drosera intermedia	Narrow-leaved Sundew	occasional	
Drosera rotundifolia	Round-leaved Sundew	occasional	
Eleocharis sp.	a spikerush	occasional	immature
Empetrum nigrum	Black Crowberry	occasional	
Eriophorum polystachion	Narrow-leaved Cotton-grass	occasional	
Eriophorum virginicum	Tawny Cotton-grass	occasional	
Ilex verticillata	Canada Holly	common	
Iris versicolor	Blue Flag	occasional	
Juncus arcticus	Arctic Rush	occasional to scattered	
Juniperus communis	Common Juniper	occasional	

<i>Kalmia angustifolia</i>	Sheep Laurel	occasional	
<i>Ledum groenlandicum</i>	Labrador Tea	scattered	
<i>Lonicera caerulea</i>	Mountain Fly-honeysuckle	occasional	
<i>Myrica gale</i>	Sweet Gale	common	
<i>Myrica pensylvanica</i>	Bayberry	occasional to scattered	
<i>Osmunda cinnamomea</i>	Cinnamon Fern	common	
<i>Osmunda claytoniana</i>	Interrupted Fern	uncommon	
<i>Osmunda regalis</i>	Royal Fern	occasional	
<i>Panicum boreale</i>	Northern Witchgrass	occasional	
<i>Platanthera dilatata</i>	Tall White Northern-bog Orchid	uncommon	
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	scattered	
<i>Pteridium aquilinum</i>	Bracken	scattered	
<i>Pyrola rotundifolia</i> (?)	American Wintergreen	uncommon	
<i>Rhododendron canadense</i>	Rhodora	occasional	
<i>Rosa nitida</i>	Swamp-rose	scattered	
<i>Rubus pubescens</i>	Dewberry	occasional	
<i>Rubus</i> sp.	a blackberry	scattered	
<i>Scirpus caespitosus</i>	Deergrass	common to abundant	
<i>Scirpus hudsonianus</i>	Alpine Cotton-grass	occasional	= <i>Eriophorum alpinum</i>
<i>Solidago uliginosa</i>	Bog Goldenrod	occasional	
<i>Sphagnum</i> spp.	sphagnum mosses	abundant	
<i>Spiraea alba</i>	Meadowsweet	common	
<i>Thalictrum pubescens</i>	Meadow-rue	occasional	
<i>Thelypteris palustris</i>	Marsh Fern	occasional	
<i>Toxicodendron</i> sp.	Poison Ivy	locally common	
<i>Vaccinium angustifolium</i>	Lowbush Blueberry	occasional to scattered	
<i>Vaccinium macrocarpon</i>	Large Cranberry	common	
<i>Vaccinium oxycoccos</i>	Small Cranberry	occasional	
<i>Vaccinium vitis-idaea</i>	Foxberry	occasional	
<i>Viburnum nudum</i>	Witherod	occasional	

### *Habitat 8*

#### **Streams**

Stream #1. A small stream, located near the northeastern extremity of the property and flowing westwards off of the North Mountain to the sea, was surveyed. It is a narrow, shallow, rocky stream running through a small gorge. Near it's mouth on the coast, it flows through a shrub thicket of Canada Holly, Meadowsweet, Downy Alder, Common

Wild Rose, Mountain Fly-honeysuckle and Witherod. No rare species were found in the vicinity of this stream.

Plant List

Latin Name	Common Name	Abundance
<i>Abies balsamea</i>	Balsam Fir	occasional
<i>Acer rubrum</i>	Red Maple	occasional
<i>Alnus viridis</i>	Downy Alder	occasional
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	scattered
<i>Aster acuminatus</i>	Wood Aster	occasional
<i>Aster macrophyllus</i>	Large-leaved Aster	common
<i>Aster umbellatus</i>	Tall White Aster	scattered
<i>Betula papyrifera</i>	White Birch	scattered
<i>Brachyelytrum erectum</i>	Long-awned Wood Grass	uncommon
<i>Carex echinata</i>	Little Prickly Sedge	uncommon
<i>Carex gracillima</i>	Graceful Sedge	uncommon
<i>Carex leptoneura</i>	Finely-nerved Sedge	uncommon
<i>Clintonia borealis</i>	Clintonia	uncommon
<i>Coptis trifolia</i>	Goldthread	occasional
<i>Cornus canadensis</i>	Bunchberry	scattered
<i>Deschampsia flexuosa</i>	Hairgrass	scattered
<i>Empetrum nigrum</i>	Black Crowberry	occasional
<i>Fraxinus americanus</i>	White Ash	uncommon
<i>Gaultheria hispidula</i>	Creeping Snowberry	occasional
<i>Ilex verticillata</i>	Canada Holly	occasional
<i>Juniperus communis</i>	Common Juniper	occasional
<i>Linnaea borealis</i>	Twinflower	common
<i>Lonicera caerulea</i>	Mountain Fly-honeysuckle	uncommon
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	scattered
<i>Myrica pensylvanica</i>	Bayberry	occasional
<i>Osmunda cinnamomea</i>	Cinnamon Fern	occasional to scattered
<i>Phegopteris connectilis</i>	Beech Fern	occasional
<i>Picea rubens</i>	Red Spruce	common
<i>Potentilla fruticosa</i>	Shrubby Cinquefoil	uncommon
<i>Potentilla tridentata</i>	Three-toothed Cinquefoil	uncommon
<i>Prenanthes</i> sp.	a lion's-paw	uncommon
<i>Pteridium aquilinum</i>	Bracken	occasional
<i>Rosa virginiana</i>	Common Wild Rose	uncommon
<i>Rubus pubescens</i>	Dewberry	occasional
<i>Smilacina racemosa</i>	False Solomon's-seal	uncommon
<i>Spiraea alba</i>	Meadowsweet	common at stream mouth
<i>Streptopus roseus</i>	Rosy Twisted-stalk	uncommon
<i>Taxus canadensis</i>	Yew	occasional
<i>Thalictrum pubescens</i>	Meadow-rue	occasional to scattered
<i>Trientalis borealis</i>	Starflower	occasional
<i>Vaccinium angustifolium</i>	Lowbush Blueberry	occasional

<i>Vaccinium vitis-idaea</i>	Foxberry	occasional
<i>Viburnum nudum</i>	Witherod	occasional

Stream #2. Only a part of a stream at the southwestern corner of the property occurs within the property boundary. This is the section that runs through the open, headland area before coming to the outer rocky shoreline. The stream is narrow and shallow and runs through a small, narrow rock gorge. Clumps of Deergrass and Little Prickly Sedge are dominant along the stream where it makes its way across the headland. Other components of the streamside vegetation include Tall White Northern-bog Orchid, Blue Flag, Meadow-rue and Tall White Aster. **A small number of Hemlock Parsley (*Conioselinum chinense*) plants were located along this stream.** These were the most robust plants of this species seen on the property and were the only ones to have immature flowering shoots. All previous plants of this species observed were vegetative.

#### Plant List

Latin Name	Common Name	Abundance
<i>Achillea millefolium</i>	Yarrow	occasional
<i>Alnus viridis</i>	Downy Alder	uncommon
<i>Aster umbellatus</i>	Tall White Aster	occasional
<i>Campanula rotundifolia</i>	Harebell	occasional
<i>Carex crinita</i>	Fringed Sedge	uncommon
<i>Carex echinata</i>	Little Prickly Sedge	common
<i>Carex panicea</i>	a sedge	common
<i>Carex viridula</i>	Little Green Sedge	occasional
<b><i>Conioselinum chinense</i></b>	<b>Hemlock Parsley</b>	<b>uncommon</b>
<i>Eleocharis</i> sp.	a spikerush	ocasional
<i>Empetrum nigrum</i>	Black Crowberry	common
<i>Festuca rubra</i>	Red Fescue	scattered
<i>Iris versicolor</i>	Blue Flag	occasional
<i>Juncus arcticus</i>	Arctic Rush	thinly scattered
<i>Juniperus communis</i>	Common Juniper	common
<i>Juniperus horizontalis</i>	Creeping Juniper	common
<i>Lonicera caerulea</i>	Mountain Fly-honeysuckle	occasional
<i>Myrica pensylvanica</i>	Bayberry	occasional
<i>Osmunda cinnamomea</i>	Cinnamon Fern	scattered
<i>Panicum boreale</i>	Northern Witchgrass	scattered
<i>Phegopteris connectilis</i>	Beech Fern	occasional
<i>Picea glauca</i>	White Spruce	occasional to common
<i>Platanthera dilatata</i>	Tall White Northern-bog Orchid	uncommon
<i>Prunus virginiana</i>	Chokecherry	occasional
<i>Rubus pubescens</i>	Dewberry	occasional
<i>Scirpus caespitosus</i>	Deergrass	common
<i>Thalictrum pubescens</i>	Meadow-rue	occasional



*Habitat 9*  
**Wooded areas**

**#1. Wooded area southwest of White's Cove Road**

The woods vary from mostly coniferous to mixed coniferous-deciduous. Dominant trees include Red Spruce and Balsam Fir. Scattered throughout are Red Maple and White Birch. The terrain along the transect consisted of a series of alternating dry knolls and damp, sphagnum hollows. There was a scattering of large boulders, usually with some vegetation on top and in crevices on the sides. A large section near the southwestern property line has numerous deadfalls. No rare species were observed along this transect.

Plant List

Latin Name	Common Name	Abundance
<i>Abies balsamea</i>	Balsam Fir	common
<i>Acer rubrum</i>	Red Maple	scattered
<i>Alnus viridis</i>	Downy Alder	occasional
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	uncommon
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	common
<i>Aster acuminatus</i>	Wood Aster	occasional
<i>Aster macrophyllus</i>	Large-leaved Aster	
<i>Aster umbellatus</i>	Tall White Aster	occasional to scattered
<i>Athyrium filix-femina</i>	Lady Fern	uncommon
<i>Betula papyifera</i>	White Birch	occasional to scattered
<i>Calamagrostis canadensis</i>	Blue Joint	occasional
<i>Carex debilis</i> var. <i>rudgei</i>	White-edged Sedge	uncommon
<i>Carex echinata</i>	Little Prickly Sedge	occasional
<i>Carex intumescens</i>	Bladder Sedge	uncommon
<i>Carex leptalea</i>	Bristly-stalked Sedge	occasional in damp areas
<i>Carex novae-angliae</i>	New England Sedge	uncommon
<i>Carex trisperma</i>	Three-seeded Sedge	common in low damp areas
<i>Circaea alpina</i>	Small Enchanter's-nightshade	forming carpets in damp wooded areas
<i>Coptis trifolia</i>	Goldthread	common
<i>Cornus canadensis</i>	Bunchberry	occasional
<i>Danthonia spicata</i>	Poverty Grass	uncommon
<i>Deschampsia flexuosa</i>	Hairgrass	scattered
<i>Diervilla lonicera</i>	Bush Honeysuckle	uncommon
<i>Dryopteris intermedia</i>	Evergreen Wood Fern	occasional
<i>Galium triflorum</i>	Sweet-scented Bedstraw	uncommon
<i>Glyceria striata</i>	Fowl Manna-grass	occasional in damp areas
<i>Gymnocarpium dryopteris</i>	Oak Fern	uncommon
<i>Ilex verticillata</i>	Canada Holly	occasional to common

<i>Linnaea borealis</i>	Twinflower	abundant
<i>Lonicera canadensis</i>	Fly-honeysuckle	occasional
<i>Lycopodium annotinum</i>	Bristly Club-moss	occasional in clearcut
<i>Lysimachia terrestris</i>	Swamp Candle	occasional in damp areas
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	common
<i>Nemopanthus mucronata</i>	False Holly	occasional
<i>Osmunda cinnamomea</i>	Cinnamon Fern	common in low damp areas
<i>Osmunda regalis</i>	Royal Fern	uncommon
<i>Panicum boreale</i>	Northern Witchgrass	uncommon
<i>Phegopteris connectilis</i>	Beech Fern	locally common
<i>Picea glauca</i>	White Spruce	scattered to common
<i>Picea rubens</i>	Red Spruce	common
<i>Poa saltuensis</i>	Drooping Bluegrass	uncommon
<i>Prunus virginiana</i>	Chokecherry	occasional
<i>Pteridium aquilinum</i>	Bracken	common
<i>Ranunculus repens</i>	Creeping Buttercup	occasional
<i>Rubus pubescens</i>	Dewberry	occasional
<i>Rubus sp.</i>	a blackberry	occasional
<i>Rubus strigosus</i>	Wild Raspberry	occasional
<i>Sambucus racemosa</i>	Red-berried Elder	uncommon
<i>Solidago rugosa</i>	Rough Goldenrod	occasional to common
<i>Thalictrum pubescens</i>	Meadow-rue	occasional
<i>Thelypteris noveboracensis</i>	New York Fern	common in damp areas
<i>Trientalis borealis</i>	Starflower	occasional
<i>Veronica officinalis</i>	Common Speedwell	occasional
<i>Viburnum nudum</i>	Witherod	thinly scattered

## #2. Wooded area northeast of Whites Cove Road

These woods range from primarily coniferous to mixed coniferous-deciduous. The main species occurring here are Red Spruce, White Spruce, Balsam Fir, Red Maple and White Birch. Occasional tree species include Mountain Maple, Moose Maple, White Ash and American Mountain-ash. A section in the vicinity of the White's Cove Road near the coast was observed to have numerous deadfalls. There are scattered dry streambeds, swamps and seepage areas throughout as well as boulders, rock faces and rock outcrops. This area has a more noticeable slope to it than the previous section. **The only rare species observed was a single plant of Skunk Cabbage (*Symplocarpus foetidus*). This was observed in a low area between two boulders. It is possible that more plants of this species may occur on the property.**

### Plant List

Latin Name	Common Name	Abundance
<i>Abies balsamea</i>	Balsam Fir	common
<i>Acer pensylvanicum</i>	Moose Maple	uncommon
<i>Acer rubrum</i>	Red Maple	common

Acer spicatum	Mountain Maple	uncommon
Alnus viridis	Downy Alder	occasional
Aquilegia vulgaris	Columbine	uncommon
Aralia nudicaulis	Wild Sarsaparilla	scattered to common
Aster acuminatus	Wood Aster	scattered
Aster lateriflorus	Calico Aster	occasional
Aster macrophyllus	Large-leaved Aster	occasional large patches
Aster umbellatus	Tall White Aster	occasional
Betula papyrifera	White Birch	occasional to scattered
Carex echinata	Little Prickly Sedge	common in swampy area
Carex trisperma	Three-seeded Sedge	common in swampy area
Circaea alpina	Small Enchanter's Nightshade	common in low areas (forming mats)
Clintonia boreale	Clintonia	uncommon
Coptis trifolia	Goldthread	occasional
Cornus canadensis	Bunchberry	occasional
Cypripedium acaule	Pink Lady's-slipper	uncommon
Dalibarda repens	Dalibarda	uncommon
Dennstaedtia punctilobula	Hay-scented Fern	scattered patches
Deschampsia flexuosa	Hairgrass	scattered
Dryopteris campyloptera	Eastern Spreading Wood Fern	occasional
Dryopteris carthusiana	Spinulose Wood Fern	occasional
Dryopteris intermedia	Evergreen Wood Fern	scattered
Fraxinus americana	White Ash	uncommon
Glyceria striata	Fowl Manna-grass	occasional in damp areas
Goodyera sp.	a rattlesnake plantain	uncommon
Gymnocarpium robertianum	Oak Fern	uncommon
Ilex verticillata	Canada Holly	occasional to common
Impatiens capensis	Jewelweed	common in wet area
Iris versicolor	Blue Flag	occasional in damp areas
Kalmia angustifolia	Sheep Laurel	uncommon
Ledum groenlandicum	Labrador Tea	occasional in marshy areas
Linnaea borealis	Twin Flower	common to abundant
Luzula multiflora	Common Woodrush	occasional
Lycopus uniflorus	Bugle-weed	occasional in damp seeps
Maianthemum canadense	Wild Lily-of-the-valley	scattered
Melampyrum lineare	Cow Wheat	occasional in dry areas
Nemopanthus mucronata	False Holly	occasional
Onoclea sensibilis	Sensitive Fern	common in damp low areas
Osmunda cinnamomea	Cinnamon Fern	common
Osmunda claytoniana	Interrupted Fern	occasional
Oxalis acetosella	Wood Sorrel	occasional to common
Phegopteris connectilis	Beech Fern	forming carpets in some areas

<i>Picea glauca</i>	White Spruce	scattered
<i>Picea rubens</i>	Red Spruce	common
<i>Platanthera obtusata</i>	Blunt-leaved Orchid	uncommon
<i>Prenanthes</i> sp.	a lion's-paw	uncommon
<i>Prunus virginiana</i>	Chokecherry	occasional
<i>Pteridium aquilinum</i>	Bracken	occasional to scattered
<i>Ranunculus repens</i>	Creeping Buttercup	occasional
<i>Ribes</i> sp.	a gooseberry	occasional to scattered
<i>Rubus pubescens</i>	Dewberry	occasional
<i>Rubus strigosus</i>	Wild Raspberry	uncommon to occasional
<i>Sambucus racemosa</i>	Red-berried Elder	occasional
<i>Solidago rugosa</i>	Rough Goldenrod	occasional
<i>Sorbus decora</i>	American Mountain-ash	thinly scattered throughout
<i>Streptopus rosea</i>	Rosy Twisted-stalk	uncommon
<b><i>Symplocarpus foetidus</i></b>	<b>Skunk Cabbage</b>	<b>uncommon</b>
<i>Thalictrum pubescens</i>	Meadow-rue	damp areas
<i>Thelypteris noveboracensis</i>	New York Fern	occasional
<i>Trientalis borealis</i>	Starflower	occasional
<i>Viburnum nudum</i>	Witherod	occasional

**APPENDIX 2. Explanation of the Plant Ranking System Used by the ACCDC (Atlantic Canada Conservation Data Centre); this information is also available on the ACCDC Web Site.**

Sub-national Rank Definitions: S-ranks

S1

Extremely rare throughout its range in the province (typically 5 or fewer occurrences or very few remaining individuals). May be especially vulnerable to extirpation.

S2

Rare throughout its range in the province (6 to 20 occurrences or few remaining individuals). May be vulnerable to extirpation due to rarity or other factors.

S3

Uncommon throughout its range in the province, or found only in a restricted range, even if abundant in at some locations. (21 to 100 occurrences).

S4

Usually widespread, fairly common throughout its range in the province, and apparently secure with many occurrences, but the Element is of long-term concern (e.g. watch list). (100+ occurrences).

**S5**

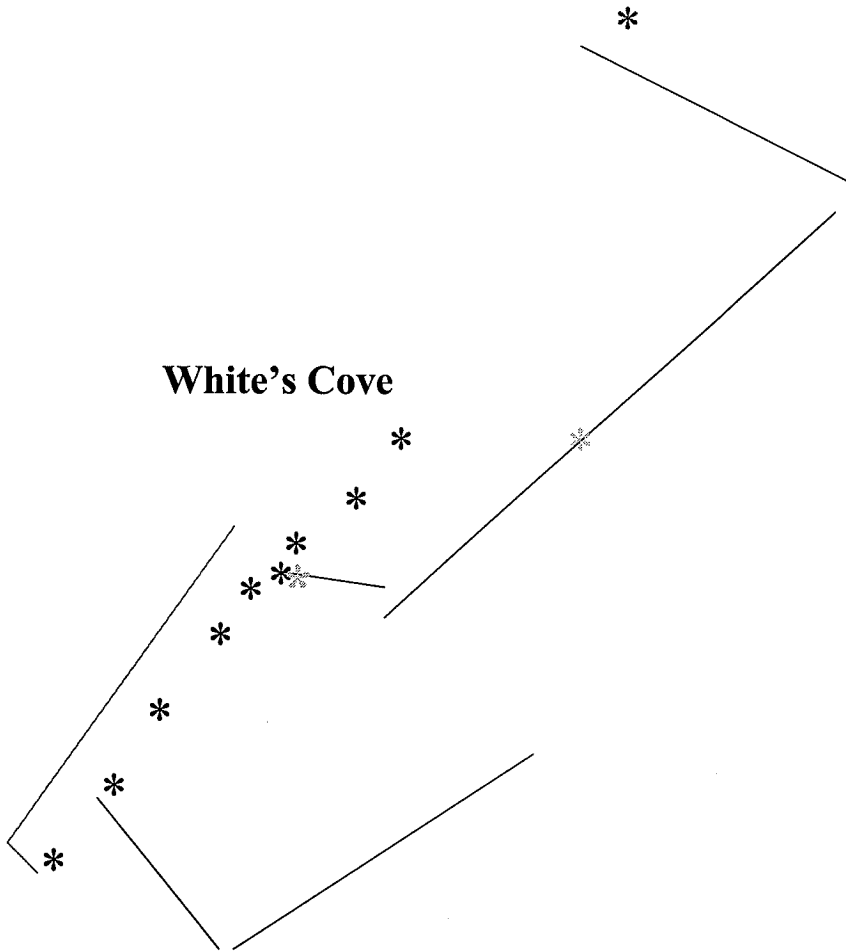
Demonstrably widespread, abundant, and secure throughout its range in the province, and essentially ineradicable under present conditions.

**S#S#**

Numeric range rank: A range between two consecutive numeric ranks. Denotes uncertainty about the exact rarity of the Element (e.g., S1S2).

**Air Photo of White's Cove Property (see following page).***Legend:*

- Outer black line: property boundary
- Inner black lines: survey transects
- Red line: section of coastline where Hemlock Parsley occurs
- Red asterisks: Locations of Mountain Sandwort
- Black asterisks: Locations of Bird's-eye Primrose
- Yellow asterisk: Location of Skunk Cabbage
- Pink asterisk: Location of Glaucous Rattlesnake-root



**Addendum to report entitled: “Plant Survey of White’s Cove Property, Digby Neck, Digby County, Nova Scotia” by Ruth E. Newell**

On August 18<sup>th</sup>, 2002, the White’s Cove Property on Digby Neck was re-visited by botanist, Ruth E. Newell, to confirm the presence of Glaucous Rattlesnake-root (*Prenanthes racemosa*) and to search for more plants of this species. Since earlier visits to the site in July had located vegetative plants, it was recommended that another visit be made during this species’ flowering period in August, to confirm the identification of these plants. On this return trip, flowering plants of Glaucous Rattlesnake-root were observed on the White’s Cove property thus confirming the presence of this rare plant species (photo 1). In addition to the original clump of 15 plants observed in July on a rock ledge south of White’s Cove, approximately 100-200 more plants were discovered (only a small proportion were flowering). These were thinly scattered throughout extensive, low, uniform beds of Creeping Juniper (*Juniperus horizontalis*) on the lower portion of the large headland just south of White’s Cove. The new site is near the original small population of plants discovered in July, 2002. Photos 2 and 3 show the headland habitat where these additional plants were located.



**Photo 1.** Flowering plants of Glaucous Rattlesnake-root (*Prenanthes racemosa*) near White’s Cove, Digby Neck, Digby County, Nova Scotia, August 18<sup>th</sup>, 2002 (on rock ledge).



**Photos 2 & 3.** Headland habitat just south of White's Cove, where 100 to 200 plants of Glaucous Rattlesnake-root (*Prenanthes racemosa*) were discovered on August 18<sup>th</sup>, 2002, growing in mats of Creeping Juniper (*Juniperus horizontalis*).



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Ruth E. Newell, B.Sc.(Hons.), M.Sc.

September 6, 2002