


Mountain Holly Fern

Polystichum scopulinum

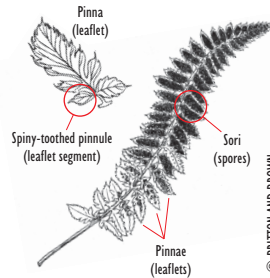
STATUS	Not Listed		Not Listed	
Threatened		Not Listed		Not Listed
				



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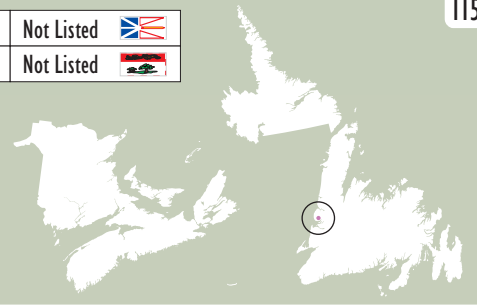
Species Description

Mountain Holly Fern is an evergreen, perennial fern about 10-50 cm long and 3-7 cm wide. It grows upright in tight clusters. The bottom of the rachis (stem) has lots of brown scales. 20-40 oblong pinnae (small leaflets) grow along each side of the rachis; each is at least partially divided into spiny-toothed pinnules (leaflet segments). Sori (clusters of microscopic spores) are round and often found underneath pinnae.



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Occurs sporadically in mountainous areas of North America; only one location in western Newfoundland.



Habitat

Mountain Holly Fern requires open, sparsely-vegetated rock outcrops of serpentine (ultramafic) bedrock. Serpentine soil's high levels of magnesium, iron, nickel, and chromium, and its low levels of nitrogen, potassium, phosphorus, and calcium often result in sparsely-vegetated rock barrens. The lone Newfoundland occurrence was found on "southerly slopes of dry serpentine ridge."



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© JOHN WAINWATER

The only known location in Atlantic Canada is in serpentine rock outcrops just west of Corner Brook, NL. This plant has not been seen since 1950.

Interesting Points

- Areas of serpentine rock were formed, in eastern North America, when huge sections of oceanic crust and upper mantle were forced upwards, onto the continental margin, by tectonic events, approximately 450 million years ago.
- The only other occurrence of this species is in eastern North America is on the Gaspé Peninsula of Québec.
- Ferns are one of the oldest plant groups on Earth, and their fossils are as old as 400 million years.



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Mountain Holly Fern growing in serpentine bedrock

Similar Species

Although a few similar species exist, none grow in open, montane, serpentine habitat.

Holly Fern:

Very similar, also minutely spiny-toothed and growing in clumps. Pinnae (leaflets) are not divided into pinnules (leaflet segments).



© WALTER SEGEMUND

Pinnae not further divided

Fragrant Woodfern:

Also growing in clumps. Pinnae (leaflets) more finely divided into pinnules (leaflet segments); overall plant width tapering towards base; plants fragrant.



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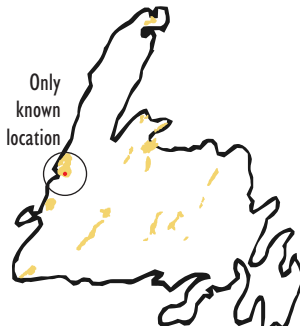
Finely divided pinnae



Scanned image of actual specimen collection from North Arm, Newfoundland, collected in 1950

Threats to Survival

- Threats to the Newfoundland population are difficult to determine since it has not been found in many decades.
- Threats for this species in other regions include mining exploration, road construction, forest fires, and botanical over-collecting.



Areas in Newfoundland with ultramafic rock that potentially support Mountain Holly Fern populations



© MEGAN CROWLEY

Rare plant tour in Newfoundland's Tablelands

How You Can Help

Do not pick this plant if you find it! If you spot this fern species in the serpentine rock outcrops near Corner Brook, submit a photo and coordinates to the Newfoundland and Labrador's Wildlife Division.

Contacts, Information, Sighting Reports & Stewardship Opportunities

Contact: NL Wildlife Division (709) 637-2026

Info: www.speciestatrisk.gc.ca, www.env.gov.nl.ca/env/wildlife/endangeredspecies/