

Porsild's Bryum

Haplodontium macrocarpum

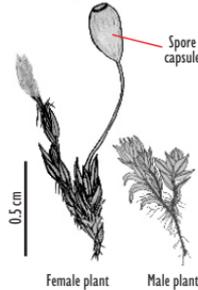
STATUS	Not Listed		Threatened	
Threatened		Not Listed		Not Listed
				



© NATHALIE DIAN-CHEGAR

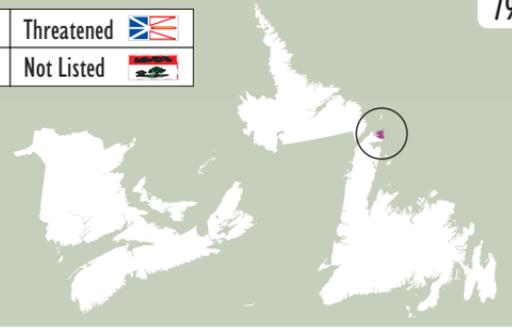
Species Description

Porsild's Bryum is a small moss (0.3-1.0 cm tall) forming dense cushions. Young plants are brilliant green with a fairly spongy texture. Stems are much branched and reddish brown. In older plants, a dense covering of red rhizoids (root like structures) are present, and leaves are often colourless except for a reddish midrib known as a costa. Projecting, globular spore capsules (sporophytes) can be abundant and distinctive in colonies of female plants.



© INVALLE CLEWITT

Range mainly includes montane areas of the northern hemisphere; only a few locations known from the Great Northern Peninsula of Newfoundland.



Habitat

In Atlantic Canada, Porsild's Bryum is found in shaded, moist sites on calcareous coastal cliffs. A seepage or splash from adjacent running water is necessary to provide moisture. Suitable coastal cliff rock includes limestone, sandstone, basalt, and shale. It generally grows directly on the rock substrate, often on fractured or crumbling rocks, but can be found growing in silt that has accumulated in cracks. This species requires a cool and humid microclimate, and may require prolonged dry, freezing winter conditions.



© TOM NEELY

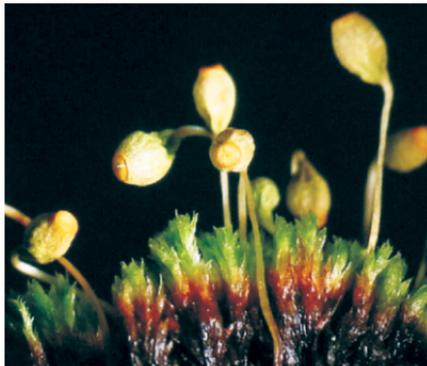


© TOM NEELY

Porsild's Bryum has been observed on bare, shaded, moist calcareous coastal rock at the northernmost tip of insular Newfoundland, often with a rich diversity of vascular plants, lichens and other mosses.

Interesting Points

- Mosses are the oldest terrestrial plants on earth.
- Mosses differ from most other plants in that they absorb water mainly through their leaves, and they produce spores not seeds.
- Also known by the scientific names *Mielichhoferia macrocarpa* and *Bryum porsildii*, hence its common name.
- All locations within just 18 km of one another!



© JOHN MAUNDER

Close-up of female plants with spore capsules



© RENE BELLAND

Female plants

Similar Species

Other Bryums and bryophyte species:

Bryophytes (mosses and liverworts) can be difficult to identify given their small size and similar appearance; therefore, expert identification is often required. In general, other Bryums and similar mosses do occur in Atlantic Canada, but Porsild's Bryum is particularly silky in appearance up close and grows in tight bright green cushions on constantly cool, wet ledges on calcareous coastal cliffs.



© TOM HEELY

Similar moss in Porsild's Bryum habitat

Threats to Survival

- Natural events resulting in rocks and bedrock falling from suitable cliff habitat, and changes in seepage and stream hydrology.
- Naturally low and slow dispersal and establishment rates, given the scarcity of suitable habitat.
- Climate change and changes in sea levels.



© NATHALIE DIJAN-CHEGAR

Researcher pointing out Porsild's Bryum in coastal cliff habitat

How You Can Help

Avoid areas with Porsild's Bryum, given the potentially fragile cliff habitat. Also avoid nearby roads and trails found upstream from known locations of this species. Join a naturalist club and start your own collection of common (not at-risk) mosses.

Contacts, Information, Sighting Reports & Stewardship Opportunities

Contact: NL DEC Wildlife Division (709) 637-2026

Info: <http://www.env.gov.nl.ca/env/wildlife/endangeredspecies/>