

Prototype Quillwort

Isoetes prototypus

STATUS

Special Concern 

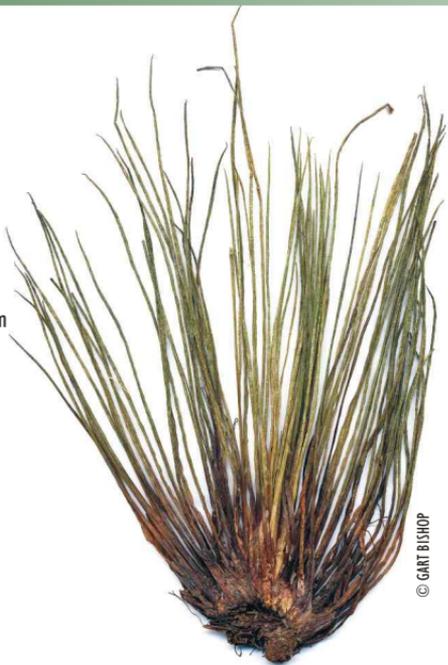
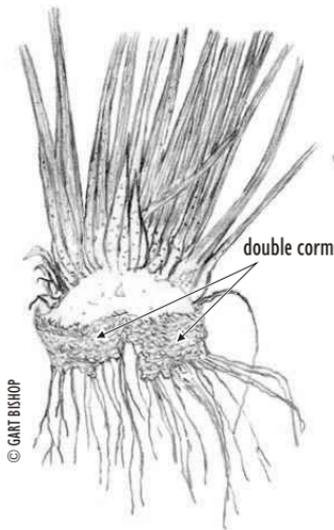
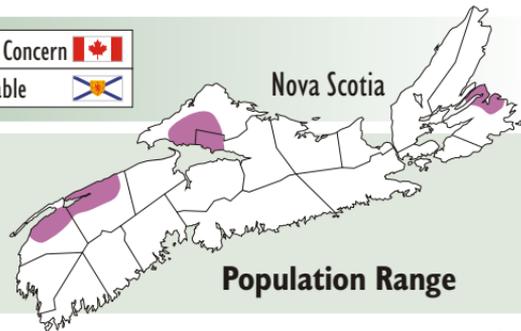
Vulnerable 

61

Nova Scotia

Currently known to occur in nine lakes in Nova Scotia. Has an estimated Canadian population of 250,000 individuals.

Population Range



Species Description

Prototype Quillwort is a perennial aquatic plant. Its straight, brittle leaves are swollen at the base and arise from a short, solid, two-lobed corm (globular rootstock). Its 4-12 cm long leaves are dark green with a chestnut-coloured base.

Habitat

Occurs in nutrient poor, spring-fed lakes 1.5-2.5 m below the lake surface. Found on lakes with gently sloping, well defined shorelines that are not marshy. It grows in oozy sediment overlying sand or gravel substrates and typically forms dense mats. Occasionally found floating on the lake surface



Prototype Quillwort is found on lake bottoms. It occurs with other aquatic species such as *Eriocaulon aquaticum* and *Isoetes lacustris*.

Interesting Points

- Discovered as a new species in 1988!
- Other than the Nova Scotia populations, in the world this species is only known at three lakes in New Brunswick and one lake in Maine.
- This species is considered a living fossil with “nothing else like it in the world” (D. Brunton).



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Quillwort washed ashore

Similar Species

Other aquatic Isoetes species may be confused with this one, and are typically distinguished with the use of a scanning electron microscope.

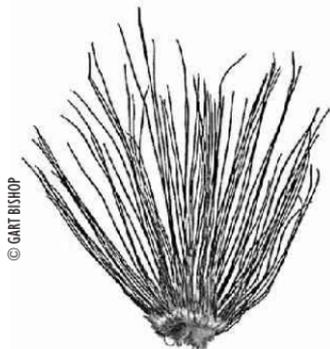
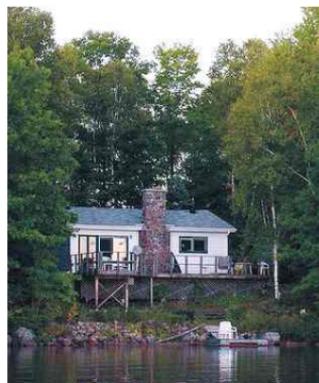
Prototype Quillwort differs from other Isoetes species by its very brittle leaves that often break when the tips are pushed downwards. The base of the leaves are chestnut-coloured and not white.

Threats to Survival

- Habitat modifications such as road, causeway, and cottage development, shoreline deforestation, water dams, eutrophication, siltation, changes in pH levels and competition from introduced exotic plants.
- Direct damage from activities such as boating, fishing, raking swimming areas, snorkelling, the installation of water intake pipes and wildlife activities.

How You Can Help

Leave a natural shoreline buffer, install and maintain your septic system, and avoid using pesticides and fertilizers. If you think you have found a Quillwort plant washed ashore, carefully collect and press the specimen and send to a herbarium for identification. This will assist in determining the distribution of this species.



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Contacts, Information & Sighting Reports

Contact: NS DNR (902) 679-6091

Info: www.speciesatrisk.gc.ca, www.cosewic.gc.ca

Sighting Reports: 1-866-727-3447 or sightings@speciesatrisk.ca