SUSTAINABLE FORESTRY INITIATIVE PENNSYLVANIA
SFI-01141

pennsylvania DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

SFI Biodiversity Species Fact Sheet

Marguerite's Clubmoss (Lycopodiella margueritae)

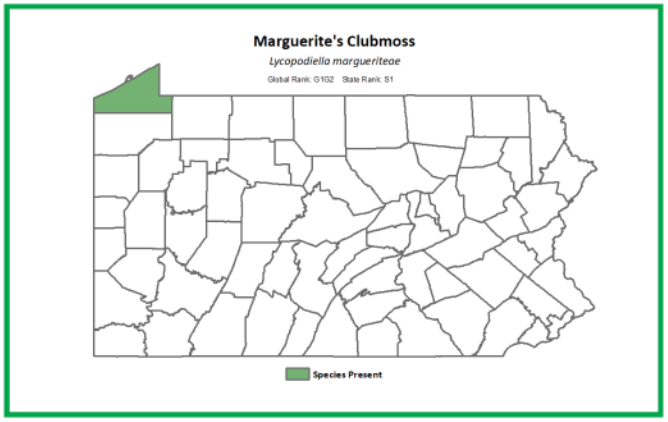
Globally Critically Imperiled Plant; State Rank: S1 (critically imperiled) Global Rank: G1G2 (critically imperiled)

Identification

Marguerite's clubmoss has upright shoots arising from leafy stems (called rhizomes) that grow flat on the surface of moist sandy wetlands and shores. Leaves are short and needle-like. It exhibits spore-producing clubs from August through October. Marguerite's clubmoss looks similar to northern bog clubmoss (L. inundata) except that it is more robust, has leaves with a few marginal teeth, and those of the erect, fertile shoots point upward. Additionally, the horizontal stems grow flat on the substrate rather than arching upwards in other species.

Biology-Natural History

Marguerite's clubmoss is a member of the Clubmoss Family (Lycopodiaceae) which are not true mosses, but seedless vascular plants with fruiting bodies, resembling clubs. Clubmosses' life cycle is unique in that it has both sexual and asexual phases. Asexual spores released from the "clubs," or strobili, grow into a sexually reproducing body called a gametophyte. The gametophyte produces eggs and sperm, which unite to form a zygote. The zygote grows into a mature sporophyte, which is the leafy, branching plant that is most visible. The sporophyte produces spores in the strobilis, and the cycle continues. Unlike some species in this family, members of this genus (Lycopodiella) reproduce asexually via horizontal vegetative stems (rhizomes) with adventitious roots and vertical stems that develop the club-like fruiting bodies.



Distribution and Habitat

Marguerite's clubmoss is found in bogs and moist, acidic soils including seasonally flooded wetlands formed in shallow depressions and potholes in glacial lake plain landscapes. In other states, this species is found in high-quality bog habitats. In Pennsylvania, there only one known population of Marguerite's clubmoss, found in Erie County.

Conservation Concerns

Threats to this species include habitat alteration, such as development of habitat, succession, or changes in hydrology, including drought. Another threat to this species is over-collection by use in dried flower arrangements. In doing so, mature fruiting individuals are removed from the population, which reduces the seed source. This leads the potential for new plants to grow in an area to decline further. This species can hybridize with northern bog clubmoss (L. inundata), which co-occur in several locations together.

Management Practices

Avoid impacting wetlands, particularly bogs and acidic wetlands. Avoid changing the hydrology including damming, draining, filling, and diverting runoff into wetlands. Reduce or restrict the use of off-road vehicles and foot traffic through known sites. Control non-native invasive species and also late successional woody species that may alter site characteristics. If anyone observes this species they should call the jurisdictional agency, DCNR Bureau of Forestry at 717-787-3444.

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