ISOETES ECHINOSPORA Dur. Spiny-spored Quillwort

- FAMILY: Isoetaceae
- SYNONYMS: *Isoetes echinospora* Dur. subsp. *muricata* Love & Love; *Isoetes echinospora* Dur. var. *muricata* (Dur.) Engelm.
- HABIT: Entirely or partially submersed perennial, flaccid and twisted leaves to 35 cm; sporulating throughout the growing season.
- SIMILAR SPECIES: The onion-like tufts of quillworts are easily confused with many aquatic monocots. They can be distinguished by the hollow leaf bases containing sporangia. Most species in this genus are very similar. Species identification requires high magnification of the spores.
- TOTAL RANGE: Circumboreal; in North America s. to NJ, OH, MN, MT, CO and n. CA.
- STATE RANGE: The species was collected three times in Portage County between 1913 and 1919.
- HABITAT: Shallow water and shores of natural lakes and sluggish, slightly acidic streams.
- HAZARDS: Mechanical disturbance of habitat, turbidity, or sudden changes in water level.
- RECOVERY POTENTIAL: Unknown, probably poor due to the paucity of pristine, natural lakes in northeastern Ohio.
- INVENTORY GUIDELINES: Collect complete specimens with spores.
- COMMENTS: The habitat for this species in Ohio has been largely destroyed. However, the plant is inconspicuous and difficult to identify. It should be sought in suitable habitat in northern Ohio.

SELECTED REFERENCES:

- Billington, C. 1952. Ferns of Michigan. Cranbrook Institute of Science, Bloomfield Hills, MI. 240 pp.
- Boiven, B. 1961. *Isoetes echinospora* Durieu in North America. Amer. Fern Jour. 51: 83-85.
- Dorn, R.D. 1972. The nomenclature of *Isoetes echinospora* and *Isoetes muricata*. Amer. Fern Jour. 62: 80-81.
- Lellinger, D.B. 1985. A field manual of the ferns and fern-allies of the United States and Canada. Smithsonian Institution Press, Washington D.C. 389 pp.

Love, A. 1961. Cytotaxonomy of the *Isoetes echinospora* complex. Amer. Fern Jour. 52: 113-123.

Love, A. and D. Love. 1961. Some nomenclatural changes in the European flora.II. Subspecific categories. Bot. Not. 114: 48-56.



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