

Rare Plants of Louisiana



Isoetes louisianensis – Louisiana quillwort

Quillwort family (Isoetaceae)

Rarity Ranks: S2/G2/Fed. listed endangered

	1	2	3	4	5
State		■			
Global		■			
	imperiled		rare		secure



Range: AL, LA, MS

Recognition:

- Plants sedge-like and growing in and along small streams
- Leaves weak and droopy, arranged in whorls radiating from a central point
- Leaves with 4 air chambers visible in cross-section, two above and two below
- Leaves semi-circular in cross-section (true sedges may look similar at a glance but their leaves are often triangular in cross-section and stiffer)

Time When Evident: Winter through Spring – plants go dormant during dry late summer and fall months, but may remain evident during these months if rainfall continues

Light Requirement: Usually found in shade of forest canopy, but can occur where no overstory is present (e.g. beside a bridge).

Wetland Status: OBL - almost always occurs in wetlands

Habitats: Small blackwater streams (water often tea-colored, stained with tannins released from leaf decomposition), often on sand/gravel/mud bars and stream banks. During higher water plants may be partially submersed and leaves may be seen trailing in the current. Adjacent forest type is small stream forest, with laurel oak (*Quercus laurifolia*), water oak (*Q. nigra*), loblolly pine (*Pinus taeda*), sweetbay magnolia (*Magnolia virginiana*), and swamp blackgum (*Nyssa biflora*). Coarser, more stable substrate is apparently preferred and Louisiana quillwort is not usually rooted in soft fine mucky substrate.

Threats:

- Dredging and channelizing streams
- Damming of streams to create ponds or reservoirs
- Siltation of streams from upslope activities
- Off-road vehicles and logging equipment impacts

Beneficial management practices:

- Refrain from dredging and channelizing streams and do not create any other modifications to the stream flow hydrology
- Follow Best Management Practices with respect to Streamside Management Zone width (perhaps being more



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- generous) and stream crossings, avoid quillwort colonies when planning stream crossings
- Disallow off-road vehicle access in streams



Louisiana quillwort on gravelly substrate.



Plant submersed with leaves trailing in the current



Louisiana quillwort growing in a semi-aquatic situation.



Robust plant in opening near a bridge.

References:

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Thieret, J. W. and G. Landry. *Isoetes louisianensis* (Isoetaceae), a new species from Louisiana. *Sida* 5(2): 129-130. 1973.

Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum, Lafayette. 123 pp.

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For more information, please visit our Web pages at

<http://www.wlf.la.gov/wildlife/louisiana-natural-heritage-program> or 225-765-2811

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