



Louisiana Department of Wildlife and Fisheries
Natural Heritage Program

Botrychium jenmanii Underwood
Dixie Grapefern, Alabama Grapefern

Identification: Evergreen perennial. Usually only producing one frond per season, with each frond having both sterile and fertile portions. Blade 3-pinnate (or even 4-pinnate), up to 18 by 26 cm. Pinnae, up to 5 pairs that are well separated, basal ones remotely alternate and long stalked. Pinnules ovate to fan-shaped, margins uniformly finely toothed, apex rounded, venation like ribs of fan with short midrib. Sporophore 2-pinnate, 1.2-2.5 times the length of blade with sporangia short-stalked.

Key ID characters:

- Usually evergreen.
- Sterile and fertile portions found on same frond.
- Both portions of frond always compound.
- Basal pinnae remotely alternate and long stalked.
- 3-pinnate vegetative fronds, up to 18 by 26 cm.
- 2-pinnate fertile portion.



Illustration by Robin A. Jess. Reprinted with permission from N.H. Holmgren, *The Illustrated Companion to Gleason and Cronquist's Manual: Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada*, p. 9, Copyright 1998, The New York Botanical Garden.

Habitat: Open hardwoods, especially pine woods, old fields, pastures, and lawns. Often associated with *B. biternatum* and *B. lunarioides*.

Taxonomic Comments: This species is a member of the family Ophioglossaceae, of which two genera, *Botrychium* (5 species) and *Ophioglossum* (5 species), are represented in LA. *B. jenmanii* is possibly the allopolyploid derivative resulting from the hybridization between *B. biternatum* and *B. lunarioides*.

Status:

Wetland: No Data

Global: G3G4 - Vulnerable - Apparently Secure

State: S1 - Critically Imperiled



Mixed Hardwood-Loblolly Forest

Range: Alabama, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, and Virginia.

Soils: Prefers soils with rich humus layer.

Similar Species: *B. biternatum*, *B. dissectum*, *B. jenmanii*, *B. lunarioides*, and *B. virginianum* are all the species of the genus *Botrychium* known to occur in LA. *B. jenmanii* is the only species that exhibits the feature of remotely alternate basal pinnae with long stalks (all other species of *Botrychium* have opposite to subopposite and short-stalked pinnae). It should be noted that only the distributions of *B. biternatum* and *B. dissectum* are known to overlap that of *B. jenmanii*. Members of the closely related genus *Ophioglossum* are distinguished by having simple and entire leaves.



B. virginianum



Botrychium sp., Photo by L. Urbatsch

Reason for Rarity: Habitat loss, and occurring in Louisiana on fringes of its habitat range.

Known Distribution in Louisiana:

Washington

Dates of Natural Heritage Program

Observations:

1972, 1976(4), 1979, 1985

Best Time for Viewing this Species:

J	F	M	A	M	J	J	A	S	O	N	D



Distribution in Louisiana

References :

USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, VA, USA: NatureServe. Available: <http://www.natureserve.org/explorer>.

Thomas, R. Dale, and Charles M. Allen. *Atlas of the Vascular Flora of Louisiana, Vol. I: Ferns & Fern Allies, Conifers, & Monocotyledons*. Baton Rouge: Louisiana Dept. of Wildlife and Fisheries, 1993.

Gleason, Henry A., and Arthur Cronquist. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. Bronx: New York Botanical Garden, 1991.

Radford, Albert E., Harry E. Ahles, and C. Ritchie Bell. *Manual of the Vascular Flora of the Carolinas*. Chapel Hill: The University of North Carolina Press, 1968.

Wagner, Warren H., Jr., and Florence S. Wagner. *Flora of North America, Vol. 2, Pteridophytes and Gymnosperms*. New York: Oxford University Press, 1993.

Holmgren, Noel H., et al. *The Illustrated Companion to Gleason and Cronquist's Manual*. Bronx: The New York Botanical Garden, 1998.

Thieret, John W. *Louisiana Ferns and Fern Allies*. Lafayette: The University of Southwest Louisiana, 1980.