

Common Name: LAX WATER MILFOIL

Scientific Name: Myriophyllum laxum Shuttleworth ex Chapman

Other Commonly Used Names: piedmont water-milfoil

Previously Used Scientific Names: none

Family: Haloragaceae (water milfoil)

Rarity Ranks: G3/S2S3

State Legal Status: Rare

Federal Legal Status: none

Federal Wetland Status: OBL

Description: Perennial, aquatic **herb** with slender **underwater stems** up to 3 feet (1 meter) long, branched, rooting on the bottom, reddish with black bumps (hydathodes). **Underwater leaves** 1 - 2 inches long (3 - 5 cm) and about ½ inch (1.5 cm) wide, green or reddish, usually in whorls of 3 - 5 leaves, sometimes alternate; each leaf divided into 7 - 21 narrow, flexible, intertwining segments; number of leaves per whorl and number of segments per leaf may vary, depending on water conditions. **Abovewater stems** 1 - 6 inches (2.5 - 15 cm) long, with tiny,

bract-like leaves. **Flower spike** erect at the tip of abovewater stems (photo, lower right), with female flowers usually on the lower portion of the spike. **Flowers** tiny, reddish, with 4 petals. **Fruits** tiny, oval or round, red.

Similar Species: The submerged leaves of other water milfoils are more feather-like, with the leaf segments opposite, stiff, and not intertwined. Some species (*Myriophyllum pinnatum* and *M. heterophyllum*) have larger leaves on their abovewater stems. Eurasian water milfoil (*M. spicatum*) and parrot feather (*M. aquaticum*, synonym: *M. brasiliense*) are invasive, exotic species with reddish stems; their underwater leaves are stiff and feather-like.

Related Rare Species: None in Georgia.

Habitat: Fall Line sandhill ponds, spring runs, limesink or spring-fed ponds, and clear, sand-bottomed creeks through Atlantic white cedar forests.

Life History: Little is known about the biology of lax water-milfoil, but it may share life history traits with other *Myriophyllum* species. Milfoils typically reproduce by fragmentation; fragments of stem root at the leaf nodes and develop into new plants. Milfoils also flower and set seed, but this probably accounts for only a small part of their reproduction. Abovewater stems bear flowers that are wind-pollinated; submerged flowers probably self-pollinate. Abovewater flowers produce fruits that dry out and split into four segments that are shed into the water.

Survey Recommendations: Surveys can be conducted throughout the year.

Range: Coastal Plain of Georgia, Florida, Alabama, Mississippi, South Carolina, North Carolina, and Virginia.

Threats: Pollution, sedimentation, draining, and degradation of ponds and pond margins. Competition from exotic, invasive water plants. Drawdown of water table from irrigation wells.

Georgia Conservation Status: About 25 populations are known, none on conservation lands, although several sites occur on Fort Benning.

Conservation and Management Recommendations: Protect natural hydrology and water levels in ponds. Prevent pollution runoff and sedimentation into ponds and streams. Eradicate invasive water milfoil species. Prevent trampling by cattle around pond edges. Maintain historic water table levels. Limit motorized boat use in ponds.

Selected References:

Aiken, S.G. 1981. Conspectus of *Myriophyllum* (Haloragaceae) in North America. Brittonia 33(1): 57-69.

Burks, K.C. 2001. Haloragaceae. *In*, R. P. Wunderlin and B. F. Hansen. Flora of Florida, Vol. 2. In progress.

Chafin, L.G. 2007. Field guide to the rare plants of Georgia. State Botanical Garden of Georgia and University of Georgia Press, Athens.

Godfrey, R.K. and J.W. Wooten. 1981. Aquatic and wetland plants of southeastern United States, Vol. 2, dicotyledons. University of Georgia Press, Athens.

NatureServe. 2007. NatureServe Explorer. Arlington, Virginia. http://www.natureserve.org/explorer

Patrick, T.S., J.R. Allison, and G.A. Krakow. 1995. Protected plants of Georgia. Georgia Department of Natural Resources, Natural Heritage Program, Social Circle.

Sorrie, B.A. 1993b. *Myriophyllum laxum* element stewardship abstract. The Nature Conservancy. Arlington, Virginia.

Weakley, A.S. 2008. Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas. University of North Carolina Herbarium, Chapel Hill. http://www.herbarium.unc.edu/flora.htm

Author of Species Account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, June 2008: original account K. Owers, Feb. 2010: added pictures



