Plants			
Triosteum perfoliatum	Broad Tinker's Weed	E	
Ophioglossum pusillum	Adder's Tongue Fern	T	
Eleocharis ovata	Ovate Spike-sedge	E	
Sources: MassWildlife 2019b; Mello 2	018, Veit 2019	20	
Notes: E = Endangered.			
T = Threatened.			
SC = Special Concern.			
Tabl	o 6 12 State Listed Dlant S	ensies of Com	n Edwards
	e 6-13 State Listed Plant S	•	Total Control of the
Scientific Name	Common Name	Status in	MA National Status
Rhynchospora torreyana	Torrey's Beak Rush	*E	G5
Thuja occidentalis	Northern White Cedar	E	G5
Triosteum perfoliatum	Broad Tinker's Weed	E	G5
Ophioglossum pusillum	Adder's Tongue Fern	T	G5
Asclepias tuberosa	Butterflyweed	WL	G5
Fuirena pumila	Umbrella Grass	WL	G5
Lechea minor	Least Pinweed	WL	G5
Lupinis perennis	Lupine	WL	G5
Polygala nuttallii	Nutall's Milkwort	WL	G5
Stachys hyssopifolia	Hyssop Hedge Nettle	WL	G5
Eleocharis ovata	Ovate Spike-sedge	E	G5



www.mass.gov/nhesp

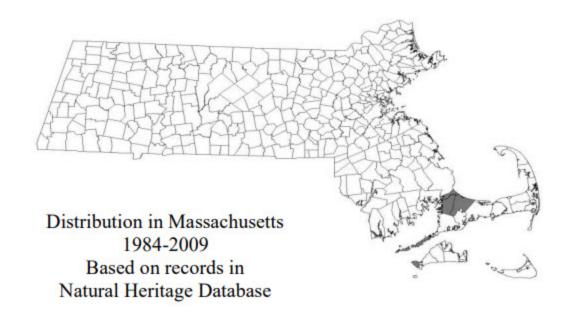
Massachusetts Division of Fisheries & Wildlife

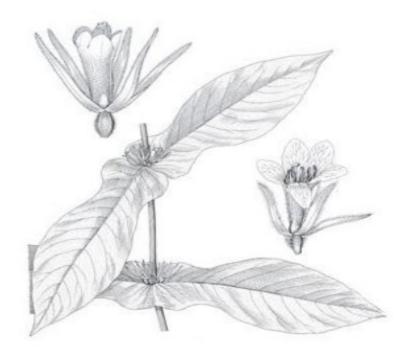
Broad Tinker's-weed Triosteum perfoliatum

State Status: Endangered Federal Status: None

DESCRIPTION: Broad Tinker's-weed (also known as Wild Coffee or Horse-gentian), a member of the honeysuckle family, is a coarse herb which grows up to 13 dm (4 feet) tall but is usually less than 9 dm (3 feet) in Massachusetts. One to six stout stems grow from a common base. Leaves are obovate or obovate-oblong, 10-22 cm (4-9 in.) long, 4-10 cm (1.5-4 in.) wide, abruptly narrow below the middle, fused around the stem, and usually softly pubescent beneath. Purplish brown or greenish sessile (stalkless) flowers grow in groups of 1 to 4 from each axil. The sepals are 10-18 mm (.25-.75 in.) long, finely and uniformly pubescent on back and margin, and often glandular. The slight fleshy fruit is greenish orange to orange-red and very conspicuous in summer/fall.

SIMILAR SPECIES: Wild Coffee, *Triosteum* aurantiacum (also called Tinker's-weed or Horsegentian), is very similar to Broad Tinker's-weed, and the two have been considered varieties of the same species by some authors. However, Wild Coffee is readily separable by its much narrower leaves which are not broadly joined around the stem – only a narrow





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

connector can be seen around the stem connecting the bases of the leaves. Ordinarily, it prefers more mesic (moderately moist) conditions than Broad Tinker's-weed.

HABITAT IN MASSACHUSETTS: In general, Broad Tinker's-weed is found in dry, open woods or thickets, usually shunning dense shade. Two stations are situated on top of shell middens from Native American camp sites, and one is in a shrubby coastal heathland. Associated plant species include Wild Columbine (Aquilegia canadensis) and Agrimony (Agrimonia gryposepala).

RANGE: Broad Tinker's-weed grows from Massachusetts to southern Minnesota and south to northern Georgia, Louisiana, and eastern Texas.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



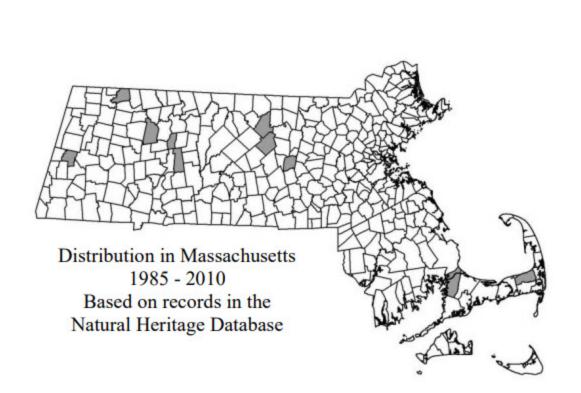
www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Adder's Tongue Fern Ophioglossum pusillum Raf.

State Status: Threatened Federal Status: None

DESCRIPTION: Adder's Tongue Fern is a small terrestrial fern, up to 30 cm (12 in) high, consisting of a single fleshy green stalk (stipe) bearing a simple leaf and a fertile spike. The stipe arises from fleshy, cod-like rhizomes and roots. About midway up the stipe is the pale green leaf, approximately 15 cm (6 in), narrowly oval to oblong. In var. pseudopodium (false foot), the widespread form, the blade gradually tapers for about 1/3 to 2/3 of its length to a narrow, 1-2 cm base that continues to run down the lower stipe. There is a finely indented network of interconnecting veins. The stipe extends well beyond the leaf blade and is terminated by a short, pale green, narrow fertile spike from 1-4 cm long and up to 5 mm wide, which consists of 2 tightly packed rows of rounded sporangia (spore cases) on the margins of the spike axis. There can be a large variation in the size, shape, and position of the blade, as well as of the fertile spike; occurrences of two fronds (leaves) per rootstalk have been observed. The plant appears anytime after early June.





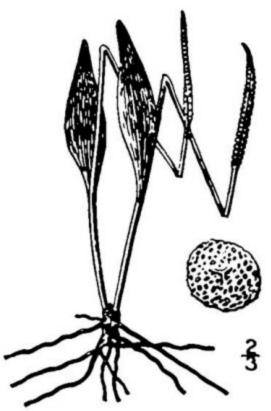


Photo: B. Legler, USDA Forest Service. Drawing: USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. 3 vols. Charles Scribner's Sons, New York. Vol. 1: 2.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



Massachusetts Division of Fisheries & Wildlife

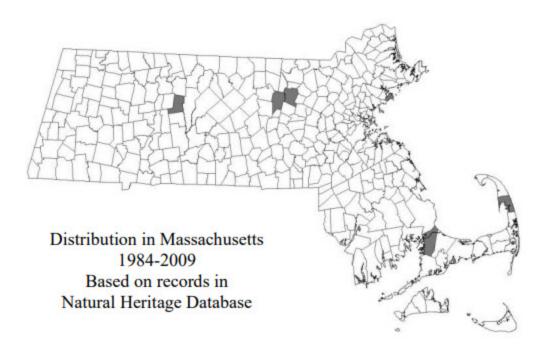
Ovate Spike-sedge Eleocharis ovata

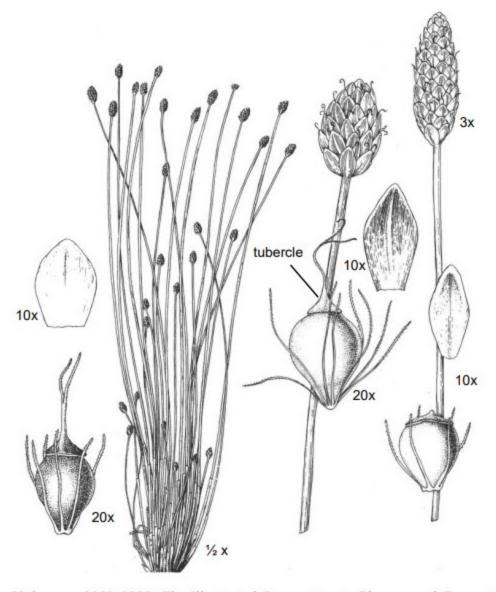
(Roth) Roemer & Schultes

State Status: Endangered Federal Status: None

DESCRIPTION: In Massachusetts, the Ovate Spikesedge (*Eleocharis ovata*) is a low (2-6 inches or about 5 to 15 cm), tufted, annual herb with straight, ascending, deep-green stems. Although the Ovate Spike-sedge and the other spike-sedges (also called spike-rushes) superficially resemble the group of plants called "rushes," they do not belong to the Rush Family, and are actually members of the Sedge Family (Cyperaceae). The spike-sedges have a single, tight cluster of inconspicuous flowers (a "spike") at the apex of each stem. The stems of spike-sedges appear leafless, and in fact these plants do not have leaf blades (the expanded part of the leaf), only leaf sheaths (the part which surrounds the stem).

AIDS TO IDENTIFICATION: To positively identify the Ovate Spike-sedge and other spike-sedges (genus *Eleocharis*), a technical manual should be consulted. It is usually necessary to look at the tiny fruits of the plant under magnification to distinguish the species of spike-sedge. Members of this genus possess a





Holmgren, N.H. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. New York Botanical Garden.

type of fruit called an "achene," which is hard and nutlike and does not split open to release its single seed. Achenes in the spike-sedges are topped by a protuberance (called a "tubercle"), which varies in shape, size, and texture among species.

It should be noted that *Eleocharis ovata* (syn. *E. obtusa* var. *ovata*) is a member of a taxonomically controversial complex within the genus *Eleocharis*. Some authors (i.e., Gleason and Cronquist, 1991) have not recognized *Eleocharis ovata* as a separate entity from the more common *Eleocharis obtusa*. There is yet additional controversy as to whether another taxon, *E. diandra*, is a

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



Massachusetts Division of Fisheries & Wildlife

Long-beaked Beaksedge Rhynchospora scirpoides

(Torrey) A. Gray

State Status: Special Concern Federal Status: None

DESCRIPTION: Long-beaked Beaksedge is a cespitose annual in the Sedge family (Cyperaceae) that occurs on coastal plain pond shores in Massachusetts. The genus name *Rhynchospora* ("beaked seed") refers to the tubercle (triangular projection) that is found at the summit of the achenes (one-seeded, dry, fruits). The species name *scirpoides* means "resembles a bulrush" (*Scirpus*), referring to the growth form and the shape of the spikes. Long-beaked Beaksedge grows 20 to 80 cm tall. It has both terminal and axillary inflorescences, with long, leafy bracts that exceed at least the axillary ones.

AIDS TO IDENTIFICATION: A technical manual and hand lens or microscope are needed for identification of Long-beaked Beaksedge and other *Rhynchospora* species. This species is best identified with mature fruits. The achenes are orbicular to lenticular, red-brown to dark brown, with a faintly rugose (horizontally wrinkled) body. The achene is 1 to 3 mm long, including a tall tubercle (0.5–0.9 mm) that is continuous with the ridged margin of the achene. The leaves are flat, narrow, 1 to 5 mm wide, and have glabrous sheaths. The lower portion of the culm (flowering stem) is leafy.







Long-beaked Beaksedge has terminal and axillary inflorescences with long, leafy bracts (top); achenes are faintly rugose, with long tubercles (bottom). Photos by Jennifer Garrett.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



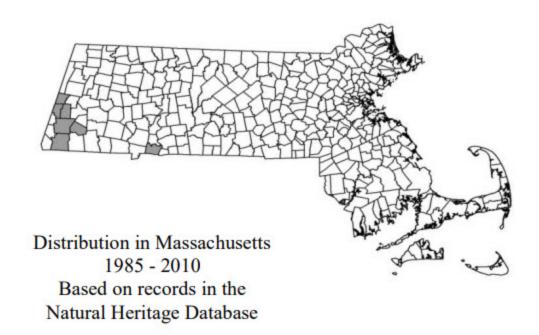
www.mass.gov/nhesp

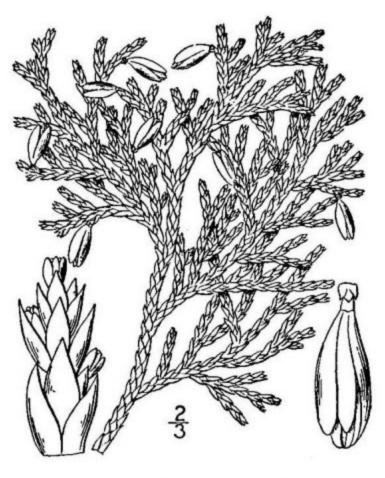
Massachusetts Division of Fisheries & Wildlife

Arborvitae Thuja occidentalis

State Status: Endangered Federal Status: None

DESCRIPTION: Arborvitae or Northern White-cedar is a medium-sized, somewhat cone-shaped tree in the Cypress family (Cupressaceae). It grows from 15 to 18 m (49-59 ft.) in height. Its short trunk is 30to 92 cm (2-3 ft.) in diameter and is frequently buttressed. Arborvitae's bark is thin, narrowly ridged and fibrous, and ranges from gray to red brown in color. The twigs are flattened in appearance and branch profusely in one plane; terminal branchlets are from 1 to 2 mm wide and form fan-shaped sprays. The 1.5 to 3 mm long leaves are a bright yellow-green and form four rows of overlapping scales that are tightly appressed to the branches. Only the tips of the scales are free. These leaves give off a spicy fragrance when crushed. Arborvitae is a monoecious tree: It has unisexual flowers, and each plant has both male and female flowers. The pinkish female flowers arise from the tips of the terminal branchlets while the yellowish male flowers appear near the bases of branchlets. Arborvitae's pale-brown, eggshaped cones are 7 to 13 mm long and are compose of pointless, overlapping scales. Cones appear in April or May, and female cones ripen during their first autumn.





USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the Northern United States, Canada and the British Possessions. 3 vols. Charles Scribner's Sons, New York. Vol. 1: 65.

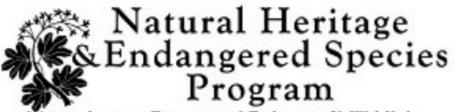
The wood of Arborvitae is soft, light, and extremely resistant to both decay and termite damage. As a result, it is frequently used for poles, fences, and railroad crossties. It is also a popular ornamental tree. The trees supply shelter for white-tailed deer, and their leaves and bark provide forage for deer, rabbits, porcupines and squirrels.

SIMILAR SPECIES: Atlantic White Cedar (Chamaecyparis thyoides) could easily be confused with Arborvitae. However, the scale-like leaves of Atlantic White Cedar are a dark blue-green. Furthermore, the cones do not have overlapping scales but, rather, have peltate scales. (Peltate scales are attached to a supporting stalk that connects inside the margin, somewhat like the stalk of a mushroom). Finally, the terminal branchlets of

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

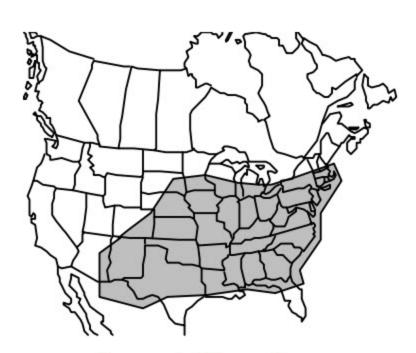


assachusetts Division of Fisheries & Wildlife I Rabbit Hill Road, Westborough, MA 01581 tel: (508) 389-6360, fax: (508) 389-7891 www. nhesp.org

Description: Butterfly-weed is a tall--3-7 dm (about 1 to 2 1/3 ft.)--pubescent (hairy), perennial in the Milkweed family (Asclepiadaceae). It has large, linear-to-oblong, alternate leaves. Unlike most milkweeds, it does not have milky juice. Butterfly-weed has bright orange flowers arranged in terminal umbels. In August, these flowers are conspicuous in the plant's grassland habitats. This species is most often found in small, localized populations.

Similar Species: Butterfly-weed is very distinct when flowering; however, in spring and fall it can be distinguished from other milkweeds because it is pubescent and largely alternate-leaved. In a vegetative state, it is somewhat reminiscent of members of the Borage family.

Range: The documented range of butterflyweed extends from southern New Hampshire south to Florida and west to Minnesota, South Dakota, Arizona and Mexico.



Documented Range of Butterfly-weed

MASSCHUSETTS WATCH LIST PLANTS Butterfly-weed

Asclepias tuberosa

State Status: Delisted Federal Status: None



Butterfly-weed (also called Orange Milkweed) with pollinator. Photo: Jennifer Garrett, NHESP

Habitat: In Massachusetts, Butterfly-weed is found in open, dry sandy areas (including sandplains, clearings and old fields), often in association with Little Bluestem (Schizachyrium scoparium), Pennsylvania Sedge (Carex pensylvanica), Poverty Grass (Danthonia spicata), Stiff Aster (Ionactis linariifolius), Yellow Wild Indigo (Baptisia tinctoria), Goat's Rue (Tephrosia virginiana), and Lowbush Blueberry (Vaccinium angustifolium).

Population Status: Butterfly-weed is NHESP's Plant Watch List in Massachusetts. (Watch List species are conferred no special protection under state or federal law; however, they are believed to be uncommon in the state, and the Natural Heritage Program is interested



www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Wild Lupine Lupinus perennis

State Status: None Federal Status: None

SPECIES DESCRIPTION: Wild Lupine is a short-lived perennial legume growing up to two feet high. It has palmate leaves with seven to eleven leaflets, unlike the very similar non-native Garden Lupine (*Lupinus polyphyllus*), which has ten to eighteen leaflets per leaf and is planted or often escapes from gardens to roadsides in New England. Wild Lupine has a showy raceme of blue-violet flowers (occasionally white or pink) in late spring and early summer.

DISTRIBUTION AND ABUNDANCE: In

Massachusetts, Wild Lupine was found historically in Berkshire County at one site, but the rest of the current and historic records are from the Connecticut River valley eastward. There are current reports from Franklin, Hampshire, Hampden, Worcester, Middlesex, Plymouth, and Bristol Counties. There are historic records from Essex and Nantucket counties, but no current records, and no records either current or historic from Suffolk or Dukes counties. Of the 148 documented sites, fifty are considered current, meaning they have been observed in the past 25 years.

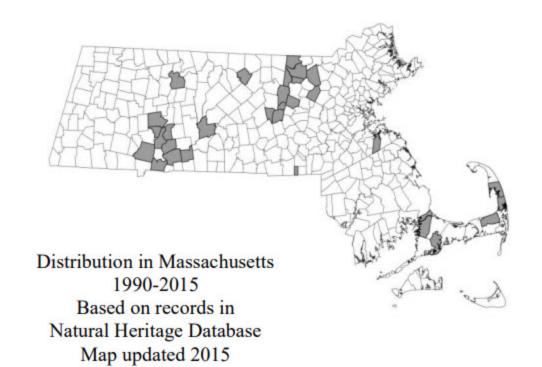




Photo by Paul Somers, NHESP

HABITAT DESCRIPTION: Wild Lupine grows in dry, sandy, open fields and woodlands, including Pitch Pine/Scrub Oak barrens. This habitat may include roadsides, gravel and sand pits, waste areas, and railroad lines, among other disturbed areas. Associated species include Little Bluestem (Schizachyrium scoparium), Scrub Oak (Quercus ilicifolia), Stiff Aster (Ionactis linariifolia), bush clovers (Lespedeza spp.), and goldenrods (Solidago spp.), among other plants common in open areas.

THREATS: The primary threats to Wild Lupine are direct destruction of habitat by all forms of development and succession of open habitats to forests, often because of fire exclusion. Once wide-spread in central and eastern Massachusetts, Wild Lupine is now much reduced in locations and population sizes. Often, open areas are kept open by mowing, which may not kill the lupine plants outright, but may prevent flowering or seed ripening.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



www.mass.gov/nhesp

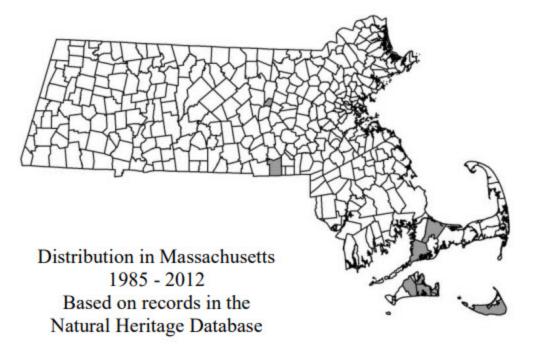
Massachusetts Division of Fisheries & Wildlife

Papillose Nut-sedge Scleria pauciflora

Muhl. ex Willd.

State Status: Endangered Federal Status: None

DESCRIPTION: Papillose Nut-sedge is a slender, perennial species in the Sedge family (Cyperaceae). Stems arise from short, branched, knotty rhizomes with fibrous roots. Plants are 10 to 50 cm tall, forming small clumps with numerous bluish-green leaves (1-2.5 mm wide) and 3 to 10 flowering culms. A larger number of flowering culms may develop after fire. Flowering culms often have a solitary terminal inflorescence that is sessile and subtended by a leafy bract, and a second shortstalked inflorescence lower on the stem. The scales are ovate. Achenes (dry, one-seeded fruits) are 1 to 2.5 mm long (up to 5 mm), white, and subglobose, with a short stiff tip. Achenes are covered with horizontally arranged warty projections. A disk called the hypogynium, found at the base of the achene, has six rounded tubercles or knobby projections, a diagnostic characteristic for this species. Flowering stems often produce only 1 to 4 fruits. Seeds may require the heat of a fire, physical abrasion, or long periods of saturation to break dormancy and germinate. Studies throughout the range suggest that seeds of Papillose Nut-sedge may remain viable in the soil seed bank for many decades until conditions are favorable for germination.







Papillose Nut-sedge fruiting culm, with white achene covered with warty projections (left), and characteristic cespitose (clumped) growth form (right). Photos by Jennifer Garrett.

AIDS TO IDENTIFICATION: Technical manuals should be consulted to distinguish nut-sedge species. Papillose Nut-sedge is characterized by:

- Cespitose growth form
- · White achenes with warty projections
- Hypogynium with six rounded tubercles

Papillose Nut-sedge varieties are separated by the degree of plant hairiness. *Scleria pauciflora* var. *caroliniana* has spreading, weak hairs, 0.5 to 1 mm long. *Scleria pauciflora* var. *pauciflora* is glabrous or sparsely hairy, with hairs less than 0.4 mm long.

SIMILAR SPECIES: Papillose Nut-sedge may occur with another rare *Scleria* species, Tall Nut-sedge (*S. triglomerata*), which is also listed as Endangered in Massachusetts. Tall Nut-sedge is a much larger plant with sparse, bright yellow-green leaves, long culms (40–100 cm) and large, shiny white achenes that have no surface detailing. Pondshore Nut-sedge (*S. reticularis*) is an uncommon annual species found on pond shores that is easily distinguished from Papillose Nut-sedge by the wavy reticulations on the surface of the achene and the fact that this annual does not have a cespitose growth form.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw



www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Showy Lady's-slipper Cypripedium reginae

State Status: Endangered Federal Status: None

GENERAL DESCRIPTION: Showy Lady's-slipper, a member of the Orchid family, is a striking, two- or three-flowered, hairy perennial, usually 15-40" (.35-lm) tall. The stem bears three to seven, coarse, elliptic to oval leaves, usually 4-9" (10-23 cm.) long and 2-5" (5-12 cm.) wide. The flowers have white sepals and white lateral petals. The lip petal or "slipper" is white and heavily suffused with magenta. Flowering occurs from mid-June through early July.

SIMILAR SPECIES: Pink Lady's-slipper (*C. acaule*) is similar to Showy Lady's-slipper but is smaller (6-15"; 15-37 cm. in height), produces leaves only at the base of the plant, and flowers only at the top of a leafless stem. The sepals and lateral petals of the Pink Lady's-slipper are brownish green and the lip is uniformly dark pink and veined with red.

HABITAT: Showy Lady's-slipper inhabits coniferous forested fens (wet, calcareous swamps) and naturally open peatlands influenced by calcareous (or alkaline) groundwater seepage. These communities tend to be dominated by Larix laricina (Larch), Fraxinus nigra (Black Ash), Acer rubrum (Red Maple), Alnus rugosa (Speckled Alder), Cornus stolonifera (Red-osier Dogwood), and Geum rivale (Water Avens).

RANGE: Showy Lady's-slipper ranges from Newfoundland to Manitoba, south to New Jersey, western Pennsylvania, Georgia, Tennessee, northern Indiana, Missouri, and North Dakota.

POPULATION STATUS IN MASSACHUSETTS:

Showy Lady's-slipper is listed as an Endangered species under the Massachusetts Endangered Species Act. Currently (1984 to the present), 14 occurrences are documented in the state. The rarity of this plant is attributable to a scarcity of alkaline habitats, destruction of suitable habitats, and deer browsing.



Photo by Jennifer Garrett, NHESP

Updated 2015

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw