

## Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

# Eastern Ratsnake Pantherophis alleghaniensis

State Status: Endangered Federal Status: None

**DESCRIPTION:** The Eastern Ratsnake is a wideranging eastern snake that is represented by five currently recognized subspecies: the Black Ratsnake, Gray Ratsnake, Yellow Ratsnake, Texas Ratsnake, and Everglades Ratsnake. The Black Ratsnake is the most widespread of the subspecies and is found from central Georgia north to Vermont and southern Ontario, and west to Illinois and Louisiana. All of the Eastern Ratsnakes found in the Northeast are Black Ratsnakes (*Pantherophis alleghaniensis*), and all of the descriptions in this fact sheet refer to this northern subspecies.

Adult Eastern Ratsnakes are large, plain, shiny black snakes in the family Colubridae. Other names for this species are Black Rat Snake, Pilot Snake, or Pilot Black Snake. Some adults show traces of white patterning; actually this is pigmented skin that is exposed between the scale rows. The chin and throat are whitish and unpatterned. The undersides are mottled, with



Jackson, S., and P. Mirick. 1993. Massachusetts Snakes: A Guide. University of Massachusetts Cooperative Extension System and Massachusetts Division of Fisheries and Wildlife, Amherst, Massachusetts.

typically surrounded by a distinctly white margin, but while this characteristic is particularly prominent in all



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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.

# Showy Lady's-slipper Cypripedium reginae

State Status: Endangered Federal Status: None



Photo by Jennifer Garrett, NHESP



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DESCRIPTION: Ram's Head Lady's-slipper is a small but striking purplish orchid (family Orchidaceae) that is quite rare throughout its range (i.e., globally rare). Plants grow singly or in loose clusters from short rhizomes with long fibrous roots. This slender lady's-slipper varies in height from 5 to 30 cm. Plants bear 3 to 5 bluish green, elliptic-lance shaped leaves growing along the stem in a spiral arrangement. A small solitary flower is borne at the tip of the stem; plants very rarely bear two flowers. The sac-like lip petal of the flower is white above and streaked below with a net-like pattern of purple, crimson, and sometimes green. The lip petal resembles a miniature charging ram's head due to its downward-pointing conical shape. The opening of the lip petal is densely covered with long silky hairs. The flower has three distinct brownish purple and green streaked sepals. The dorsal sepal forms an arching hood above the inflated lip. The two lateral petals and sepals twist and spiral downward and away from the inflated

Ram's Head Lady's-slipper often reproduces vegetatively by offshoots from parent plants. Sexual reproduction is less common. Plants are obligate outbreeders and require pollination by small bees to accomplish cross-pollination. Although this plant is not a nectar producer, bees are attracted by the sweet-smelling vanilla-like odor and the venation pattern on the flower. Upon successful pollination, many microscopic seeds are produced and contained within a linear-ellipsoid shaped fruiting capsule.

## Ram's Head Lady's-slipper Cypripedium arietinum

State Status: Endangered Federal Status: None



Rum's Head Lady's-slipper showing stem leaves and flower at end of stem with hairs on the lip around the opening. Photo: Jennifer Garrett, NHESP.

is 1.3 to 2.5 cm long and 1 to 2 cm wide. Sepals are distinctly free to their base. The dorsal sepal is 1.5 to 2.5 cm long and 1 to 2 cm wide and forms a hood over the lip; upon pollination, it will droop, covering the opening to the lip petal. Sepals and petals are linear-lanceolate and similar in appearance. The two lateral sepals are 1.5 to 2 cm long and 0.2 to 0.5 cm wide. The lateral petals are the same length but 0.1 to 0.2 cm wide.

SIMILAR SPECIES: Ram's Head Lady's-slipper is

RANGE: Ram's Head Lady's-slipper is native to east central North America. Its range extends from Nova Scotia, Southern Quebec, Maine west to Saskatchewan, and south to New England, New York, Michigan, Wisconsin, and Minnesota.

#### POPULATION STATUS IN MASSACHUSETTS:

Ram's Head Lady's-slipper is listed under the Massachusetts Endangered Species Act as Endangered. All species listed are protected from killing collecting, possessing or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. This species is currently reported as extant from Berkshire and Franklin Counties and historic from Hampden and Hampshire Counties.