



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Arethusa
Arethusa bulbosa
L.**

State Status: **Threatened**
Federal Status: **None**

DESCRIPTION: Arethusa is a showy perennial orchid usually 10 to 30 cm (4 to 11 inches tall). Out of the bulbous corm (a thick, fleshy root stalk) grows a single erect stem topped by one, or sometimes two, magenta to dark pink flowers. The lowest petal, or lip (about an inch long), arches abruptly downwards, and its whitish convoluted surface is mottled with magenta and yellow. The flower is pollinated by bumblebees of the genus *Bombus*. In Massachusetts, flowering occurs from late May to mid-June. After the flower has wilted, a single sharply pointed leaf grows from the uppermost scale on the stem, becoming about 15 cm (6 in.) long and 1.2 cm (½ in.) wide. Still later in the year, a fruiting capsule is sometimes seen on the dried stalk. The capsule is elliptical, one inch long, and has six pronounced ribs.

SIMILAR SPECIES IN MASSACHUSETTS: Rose Pogonia (*Pogonia ophioglossoides*) is similar but has a number of differences. The flowers of Rose Pogonia are shades of pink, rather than magenta. Two of its outer “petals” (actually pink-colored sepals) point sideways or downward rather than upward, and the lip is deeply fringed along the margin. Additionally, the Rose Pogonia has a leaf-like bract growing from the base of the flower which is not present in Arethusa.

HABITAT IN MASSACHUSETTS: Arethusa is found in open peaty wetlands, bogs, boggy meadows, and inter-dune swales, usually with cranberry, sphagnum moss, sundews, Rose Pogonia, sedges, and shrubs such as Sheep Laurel and Swamp Azalea. Arethusa prefers open, early successional habitats but may persist in the shade of the shrubs.



Photo by Jennifer Garrett, NHESP

RANGE: Arethusa is distributed from Newfoundland west to southern Manitoba, and south to Delaware, northern Indiana, and Minnesota. It is found sporadically further south in the Appalachian Mountains to South Carolina.

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

Massachusetts Division of Fisheries & Wildlife

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POPULATION STATUS: *Arethusa* is classified as a Threatened species in Massachusetts. It is rare throughout its range except locally in Maine, the Great Lakes states, and eastern Canada. It has been extirpated from Delaware and Maryland. Populations of *Arethusa* apparently vary greatly in number of plants from year to year.

Currently (since 1990), there are 11 sites in Massachusetts where this species is known to occur. Historically (prior to 1990), it was known from an additional 87 locations. It is declining in apparently suitable habitat in inland bogs for reasons that are not known. The species does not appear to be declining as rapidly on the coastal boggy areas.

There are a number of known threats to its existence. Destruction of wetland habitat by drainage and conversion for other uses is reducing available habitat. Further loss of habitat is occurring through ecological succession of bogs and meadows to Red Maple swamps and shrub swamps. Coastal storms and hurricanes frequently eliminate habitat in the interdune swales but can create new habitat where dunes are undeveloped. Over-collection has also contributed to the scarcity of this native orchid.

Updated 2015

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