Natural Heritage &
Endangered Species
Program

**Commonwealth of Massachusetts**
**Division of Fisheries & Wildlife**
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## MASSACHUSETTS THREATENED PLANTS

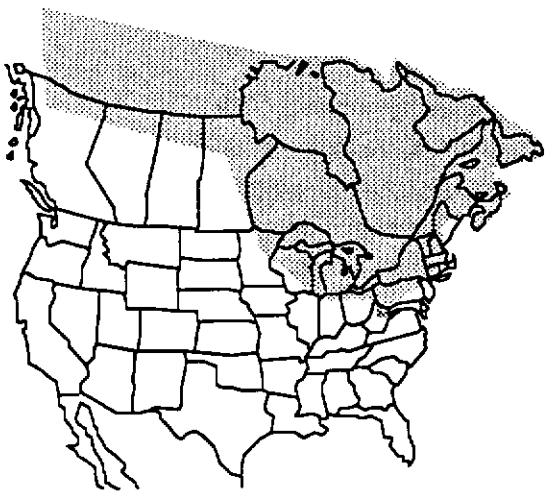
### FEN CUCKOO FLOWER

(*Cardamine pratensis* L. var. *palustris* Wimmer & Grab.)

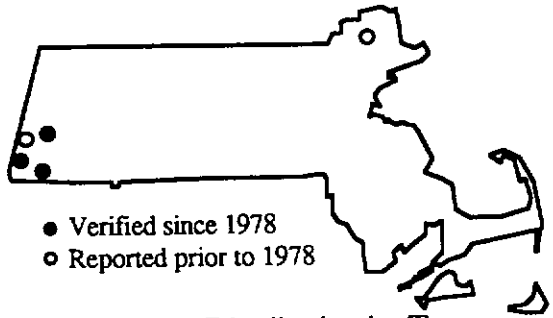
Gleason, H.A. The New Britton and Brown Illustrated Flora of the US & Adjacent Canada. NY Botanical Garden, 1952.

Description

Fen Cuckoo Flower, a member of the Mustard family (Cruciferae or Brassicaceae), is a white-flowered, fibrous-rooted, herbaceous perennial. The 2-5 dm (2/3 - 1 2/3 ft.) long, erect stem rises from a short rhizome (a horizontal, underground stem). Its leaves are pinnately compound (divided into leaflets arranged on both sides of a common axis) and of two types. The basal leaves have long petioles and 3-8 broadly oval leaflets, the terminal leaflet being the largest. In contrast, the cauline leaves (growing out from the stem) have narrow, roughly elliptical leaflets. On the middle and upper cauline leaves, the side-leaflets are contracted into short stalks. The flowers, like all flowers in the Cruciferae family, have four separate petals arranged in the shape of a cross or crucifix. Fen Cuckoo Flower's fruit is a linear,



Documented Range of
Fen Cuckoo Flower




Massachusetts Distribution by Town

2.5-4 cm (1 - 1 1/2 in.) long pod called a silique (one of the two fruits characteristic of the Mustard family and consisting of two seed-bearing compartments or carpels, both of which fall away to leave a persistent internal partition). *C. pratensis* var. *palustris* flowers from mid-May through early June.

Range

The range of Fen Cuckoo Flower has been documented as extending across boreal Canada, and south to northern Minnesota, northeastern Illinois and West Virginia. Fen Cuckoo Flower is a variety of the circumboreal species Cuckoo Flower (*Cardamine pratensis* L.).

Similar Species

Similar species include Pennsylvania Bitter Cress (*Cardamine pensylvanica*) and Small-flowered Bitter Cress (*C. parviflora*). Unlike Fen Cuckoo Flower, however, the leaflets on the cauline leaves of Pennsylvania Bitter Cress are usually decurrent (their bases extend down and fuse with the leaf axis). Both Pennsylvania Bitter Cress and Small-flowered Bitter Cress have smaller petals than Fen Cuckoo Flower--only 2-4 mm (2/25 - 4/25 in.) long, compared to 6-16 mm (6/25 - 16/25 in.) in the Fen Cuckoo Flower. Fen Cuckoo Flower is very similar in appearance to the variety *Cardamine pratensis* var. *pratensis*. An introduced alien from Eurasia, this variety has pink flowers, different habitat requirements, and a much more limited range in the United States; it grows in lawns and meadows with moist soil from Newfoundland to New York and New Jersey.

Habitat in Massachusetts

The Fen Cuckoo Flower's habitats in Massachusetts include open portions of alkaline fens (unforested, peat-forming areas where very cold, nutrient-poor water seeps up to the surface through limey gravel), and calcareous seepage swamps. Among its associated species are Spring Cress (*Cardamine bulbosa*), Speckled Alder (*Alnus rugosa*), Larch (*Larix laricina*), Tussock Sedge (*Carex stricta*), and various willows (*Salix* spp.).

Population Status

There are three current (discovered or relocated since 1978) and four historical (unverified since 1978) stations of Fen Cuckoo Flower. (Two towns have both current *and* historical stations and are represented by a single, solid dot for each town.) Fen Cuckoo Flower is presently listed as "Threatened" in Massachusetts. Fen Cuckoo Flower is also considered rare in Illinois, Indiana, New Hampshire, New Jersey, and Vermont. Potential threats to these plants include logging, land development and damming up of fen streams to create ponds.