



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Wild Senna *Senna hebecarpa* (Fern.) Irwin & Barneby

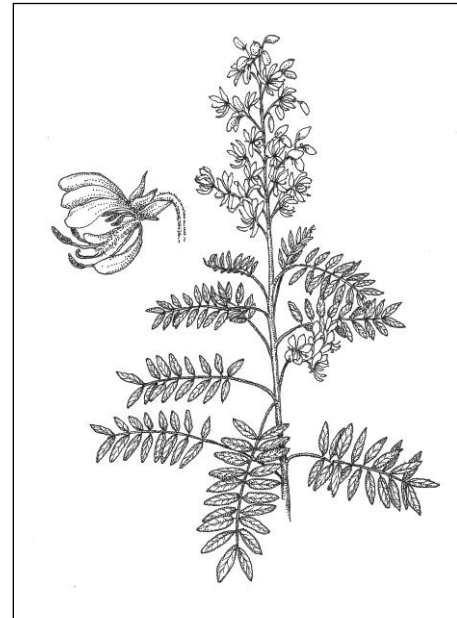
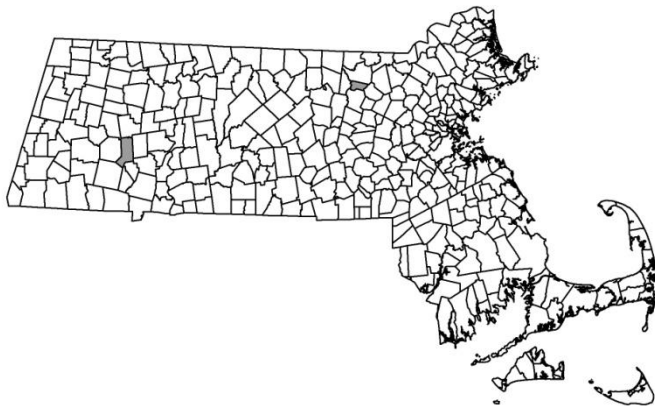
State Status: **Endangered**

Federal Status: **None**

DESCRIPTION: Wild Senna is a robust, herbaceous perennial in the Pea family (Fabaceae), growing 0.9 to 2 m (3–6.5 ft.) tall. The compound leaves have 6 to 10 pairs of simple (*i.e.*, without lobes or teeth) leaflets. Racemes of showy, five-petaled, yellow flowers about 2 cm across are present from late July through August and occasionally into mid-September. The fruits are flattened, pea-like pods, 7 to 12 cm long, each containing up to 12 flat, roundish seeds with a depressed center. Fruits are produced from mid August through late September, and may persist into October. Plants spread vegetatively by rhizomes and may form dense clonal patches.

AIDS TO IDENTIFICATION: Wild Senna has compound leaves and pods similar to those of other species in the Pea family. It is distinguished by:

- Club-shaped or obovoid petiole glands
- Joints of pods are about as long as wide
- Yellow flowers have five distinct petals that are not fused



Wild Senna has compound leaves with distinct petiolar glands, flowers with petals that are not fused, and seed pods with nearly square joints. Illustration by Elizabeth Farnsworth.

SIMILAR SPECIES: Wild Senna is the only native *Senna* species known from Massachusetts. Partridge Pea (*Chamaecrista fasciculata*) might be mistaken for Wild Senna but it is smaller, rarely reaching 80 cm (30 inches) in height, and has larger flowers (> 2.5 cm).

POPULATION STATUS IN MASSACHUSETTS: Wild Senna is listed under the Massachusetts Endangered Species Act as Endangered. All listed species 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. Wild Senna is currently known from Hampshire and Middlesex Counties and was documented historically from Berkshire, Franklin, Hampden, Worcester, Essex, Suffolk, Norfolk, and

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

Massachusetts Division of Fisheries & Wildlife

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Plymouth Counties. Wild Senna was never common in Massachusetts and population declines during the 20th century have left it in a precarious position. A total of 25 populations were documented in Massachusetts during the 19th and 20th centuries; as of 2000, only two extant populations were known. Succession following agricultural abandonment and development are probably the primary causes for this decline.

RANGE: Wild Senna is found from Maine to Ontario south to Georgia.

HABITAT: Wild Senna often occurs in areas with a history of disturbance, such as roadsides, fields, agricultural lands, utility rights-of-way, and the scour zone along stream edges. It may occur in both wetland and moist upland contexts; areas with rich alluvial soil are especially favorable. It is not typically found in areas with a forest canopy, but it does well in thickets in association with coarse herbs and shrubs.

THREATS AND MANAGEMENT

RECOMMENDATIONS:

Extant populations of Wild Senna are on land owned or managed by the Massachusetts Division of Fisheries and Wildlife, affording good potential for protection and management. One population on a power line right-of-way is potentially threatened by infrastructure maintenance, and vegetation management is needed to maintain early successional habitats in and around remaining populations. All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

Flowering in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Fruiting in Massachusetts

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

REFERENCES:

Clark, F. H. 2001. *Senna hebecarpa* (Northern Wild Senna) Conservation and Research Plan for New England. New England Plant Conservation Program, Framingham, MA.

Gleason, H. A., and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, 2nd edition. The New York Botanical Garden, Bronx, NY.

Irwin, H. S., and R. C. Barneby. 1982. The American Cassiinae: A synoptical revision of Leguminosae tribe Cassieae subtribe Cassiinae in the New World. *Memoirs of the New York Botanical Garden* 35: 1444-1447.

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