



Natural Heritage & Endangered Species Program

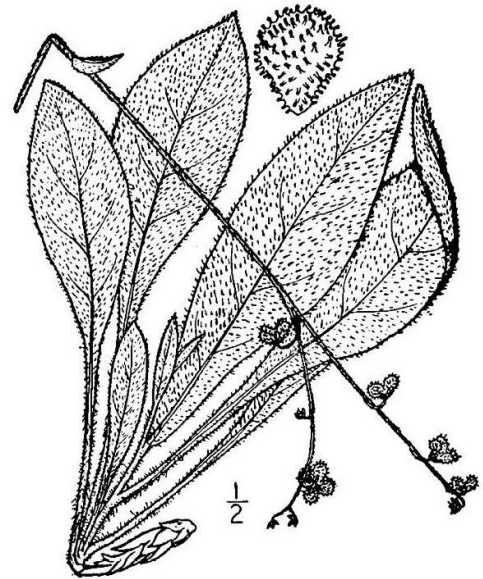
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Massachusetts Division of Fisheries & Wildlife

Northern Wild Comfrey *Cynoglossum virginianum* L. var. *boreale* (Fernald) Cooperrider

State Status: **Endangered**
Federal Status: **None**

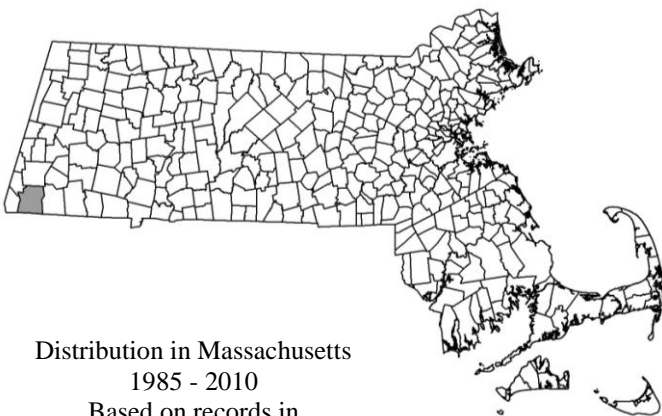
GENERAL DESCRIPTION: Northern Wild Comfrey, a member of the Forget-me-not family (Boraginaceae), is a perennial understory herb of rich woods and thickets. This species is long-lived and non-clonal. Immature and non-flowering (i.e., vegetative) plants live as a tap-rooted basal rosette with one to seven roughly hairy leaves. The basal leaves have long petioles, are oval in shape, and are 10 to 20 cm (4–8 inches) long. Reproductive plants produce a tall stem, up to 75 cm (~2.5 feet) in height, with up to four flowering branches. The stem bears alternate, pubescent, smooth-margined leaves that are most dense at the base of the plant and decrease in size and abundance upward. The upper leaves are sessile and clasp the stem with a heart-shaped base, but the lower leaves have distinct petioles. The flowering portion of the plant is terminal and leafless, and bears branches of five-petaled, lavender or light blue flowers, 5 to 8 mm wide. The petals are oblong and don't overlap. The fruits are bristly nutlets, 3.5 to 5 mm in size. The bristles are capable of attaching to clothing and fur, enabling animal seed dispersal.



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. 3: 77.

AIDS TO IDENTIFICATION: Northern Wild Comfrey must be reproductive in order to confirm the identification. Flowers are present in late spring to early summer, and fruits develop in early to mid-summer. The following characteristics help identify Northern Wild Comfrey:

- Hairy, oval basal leaves with long petioles
- Petioles on lower stem leaves, upper stem leaves clasping
- Terminal inflorescence, with four or fewer branches
- Pale blue or lavender flowers, 5 to 8 mm wide
- Oblong petals that don't overlap
- Nutlet 5 mm or smaller



Distribution in Massachusetts
1985 - 2010
Based on records in
Natural Heritage Database

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

Massachusetts Division of Fisheries & Wildlife

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Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

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SIMILAR SPECIES: The most similar species to Northern Wild Comfrey is Wild Comfrey (*C. virginianum* var. *virginianum*), a species known from Connecticut but not documented from Massachusetts. The two species are similar in habit and inflorescence, but Wild Comfrey is generally a larger plant, with larger flowers (8–12 mm) and nutlets (6–8 mm). Further, all of the leaves of Wild Comfrey are sessile, and the petals are more rounded and overlapping.

Massachusetts does have one common species of *Cynoglossum*, Hound’s-tongue (*Cynoglossum officinale*), which is an exotic species of fields, pastures, and disturbed areas. Unlike the rare species, it produces some inflorescences from the leaf axils and has reddish-purple flowers. Two other similar exotic species, Chinese Hound’s-tongue (*C. amabile*) and Small Bristled Hound’s-tongue (*C. microglochis*) are considered “waifs” in Massachusetts, and are unlikely to be found within intact forested habitats. These two species have pale bluish flowers and also produce some axillary flowering branches.

HABITAT: In Massachusetts, Northern Wild Comfrey inhabits rich mesic forests in areas with some light exposure, such as canopy gaps, edges, and ledges with sparse tree cover. The soils are rich, typically calcareous, and often rocky. Associated species include Thread-leaf Sedge (*Carex eburnea*), Early Meadow-rue (*Thalictrum dioicum*), Wild Columbine (*Aquilegia canadensis*), Blue-stem Goldenrod (*Solidago caesia*), Fly-honeysuckle (*Lonicera canadensis*), and Fringed Polygala (*Polygala paucifolia*).

RANGE: Northern Wild Comfrey is documented from the Maritime Provinces south to New Jersey, Pennsylvania, and Ohio, west to Yukon Territory, British Columbia, the Dakotas and Wyoming. It is rare in or presumed extirpated from several states and provinces across its range.

POPULATION STATUS IN MASSACHUSETTS: Northern Wild Comfrey 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. This species is currently known from Berkshire County and is historically known from Franklin, Hampshire, and Worcester Counties.

THREATS AND MANAGEMENT

RECOMMENDATIONS: As Northern Wild Comfrey requires light exposure, canopy closure resulting from a lack of disturbance (e.g., canopy gap formation, from fire or storm damage) is a primary threat. In addition, herbivory by deer is probably a major threat in areas with dense deer populations. Lastly, invasions of exotic plants, such as Garlic Mustard (*Alliaria petiolata*), which produces chemicals that inhibit the growth of other species, and Japanese Barberry (*Berberis thunbergii*), a common invader of rich forests may be a threat at some locations. In areas where the forest is dense, Northern Wild Comfrey may benefit from canopy thinning or pruning, and removal of competing understory plants. It may be important to control exotic invasive, and certain aggressive native plants at the same time that light is increased, because these competitors will also benefit from the management.

All active management of state-listed 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 TIME IN MASSACHUSETTS:

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

FRUITING TIME IN MASSACHUSETTS:

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

REFERENCES:

Abrams, E. and W.E. Brumback. 2001. *Cynoglossum virginianum* var. *boreale* (Northern Wild Comfrey). Conservation and Research Plan. New England Plant Conservation Program, Framingham, Massachusetts.
 U.S. Forest Service. 2005. Conservation Assessment for Northern Wild Comfrey (*Cynoglossum virginianum* var. *boreale* (Fern.) Cooperrider. Eastern Region of the Forest Service - Threatened and Endangered Species Program, Milwaukee, WI. Online http://www.fs.fed.us/r9/wildlife/tes/caoverview/docs/Plants/Cynoglossum_virginianum_var._boreale.pdf

Updated 2015

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