



## Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife  
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## Low Bindweed *Calystegia spithamea* (L.)

State Status: Endangered  
Federal Status: None

**Description:** Low Bindweed (*Calystegia spithamea*) is a low-growing perennial herb in the morning glory family (Convolvulaceae), known in Massachusetts from dry, open habitats. Unlike several species in this family, Low Bindweed is erect, rather than twining. This species produces a showy, white or pinkish flower in late spring or early summer.

**Aids to identification:** Like other morning glories, Low Bindweed has funnel-shaped flowers with five fused petals. The corolla is 3.5 to 7 cm (1.4–2.8 in.) long, and leafy bracts more or less conceal the calyx. The stems are erect, at least up to and including the flowering portion, standing up to 50 cm (20 in.) high. Low Bindweed leaves are oblong, 3 to 8 cm (1.2–3.1 in.), and hairy, with the petiole usually much shorter than the blade.

**Similar species:** *Calystegia* is one of three morning glory genera occurring in Massachusetts. The several introduced *Ipomoea* species have a single stigma instead of two as in Low Bindweed, and those that have white flowers all have heart-shaped leaves. The common, introduced Field Bindweed (*Convolvulus arvensis*), which forms extensive, tangled mats, has a pair of small bracts well below the flower, not concealing the calyx. Other *Calystegia* species known from Massachusetts, like Low Bindweed, have leafy bracts that conceal the calyx, but all have trailing or twining stems and the leaves immediately below the flowers have petioles more than half as long as the midveins.

**Habitat in Massachusetts:** Throughout its range, Low Bindweed grows in dry, open, sandy to rocky habitats. Current and historic sites in Massachusetts have included a sandy hillside; sandy fields; a steep, loose talus slope; a gravel pit; a power line corridor; a railroad embankment; an opening on the edge of a path; and a patchwork of field, thicket,



*Low Bindweed, with the bract showing in the lower picture. Photos: upper, Jennifer Garrett and lower, Bruce Sorrie, both NHESP.*

and young forest. Due to this variety of known habitats, associated species vary widely. Where there is a canopy, associates include cottonwoods (*Populus* spp.), Black Cherry (*Prunus serotina*), White Pine (*Pinus strobus*), hickories (*Carya* spp.), and maples (*Acer* spp.). Lower growing associates include woodland sunflower (*Helianthus divaricatus*), Rough-stemmed Goldenrod (*Solidago rugosa*), Allegheny Blackberry (*Rubus allegheniensis*), Dwarf Cinquefoil (*Potentilla canadensis*), and various cultivated grasses.

**Flowering time in Massachusetts**

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

**Range:** Low Bindweed occurs in eastern North America from Quebec to Minnesota, south to Georgia and Missouri.

**Population status in Massachusetts:** Low Bindweed 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. It is currently known from Berkshire, Franklin, Middlesex, and Worcester Counties. Low Bindweed is historically known from Hampshire and Hampden Counties.

**Threats and management recommendations:**

Because it requires open habitats, Low Bindweed may be threatened by shading or competition from aggressive native or exotic plants, in the absence of disturbance. Sites should be monitored for these threats; selective cutting of trees or removal of competing exotic or aggressive native plants may be appropriate. Populations in anthropogenic openings like power line corridors may be threatened by the management activities (e.g., herbicide use), and by recreational vehicles. Land managers should be familiar with the locations of the plants so that these threats can be minimized. 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.

**For more information:**

Corrigan, E. 2004. *Calystegia spithamea* ssp. *spithamea* (L.) Pursh (Low Bindweed) Conservation and Research plan for New England. New England Wild Flower Society, Framingham, MA, USA.

Haines, A. *Flora Novae Angliae*. In prep.

Sorrie, B.A. 1987. Notes on the rare flora of Massachusetts. *Rhodora* 89:113–196.

