



Natural Heritage & Endangered Species Program

www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Barren Strawberry *Geum fragarioides* (Michx.) Smedmark

State Status: **Special Concern**
Federal Status: **None**

DESCRIPTION: Barren Strawberry (*Geum fragarioides*) is a low-growing, yellow woodland wildflower of the rose family (Rosaceae), known in Massachusetts from a variety of rich mesic habitats. A rhizomatous perennial herb, this species employs both sexual and asexual reproduction, and can form extensive colonies.

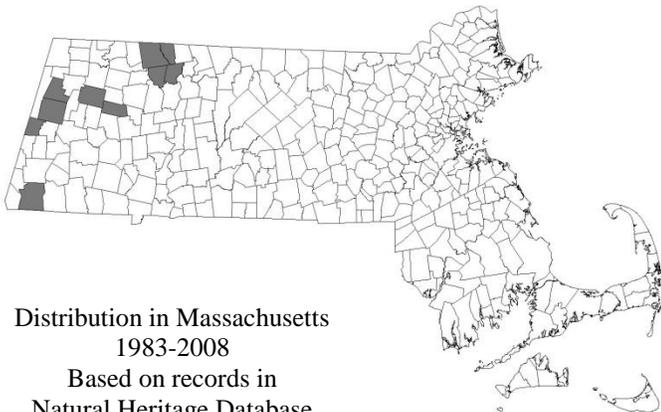
AIDS TO IDENTIFICATION: Barren Strawberry has a cluster of trifoliolate compound basal leaves, 10 to 20 cm (4–8 in.) in height, which arise from tough, fibrous woody rhizomes. The leaves are evergreen and long-petioled, with three wedge-shaped, shallowly lobed leaflets; the lateral leaflets are asymmetrical. The flowers are five-lobed, with triangular sepals, yellow petals, and numerous stamens. The inflorescence is a cyme of few to many flowers on a long scape, approximately equal in height to the leaves. Typically 2 to 6 achenes (dry, single-seeded fruits) are produced from each flower.



Photo by Arieh Tal

SIMILAR SPECIES: Barren Strawberry somewhat resembles Wild Strawberry (*Fragaria virginiana*) and Woodland Strawberry (*F. vesca* ssp. *americana*). Both of these *Fragaria* species, however, have white flowers and fleshy edible fruits, and leaflets that are narrower than those of Barren Strawberry.

HABITAT: Barren Strawberry inhabits a variety of habitat types in Massachusetts, yet it has few enough populations to be of conservation concern; this indicates that there are factors besides available habitat that limit the distribution of the species. Barren Strawberry is most typically found in rich, alluvial woodland terraces and seeps, but also in rich mesic forests, forested uplands bordering calcareous wetland communities, and old fields. Associated species vary greatly according to the habitat type, but often include Sugar Maple (*Acer saccharum*), White Ash (*Fraxinus americana*), Musclemwood (*Carpinus caroliniana*), baneberries (*Actaea* spp.), False Solomon's Seal (*Maianthemum racemosum*), Cinnamon Fern (*Osmunda cinnamomea*), and Ostrich Fern (*Matteuccia struthiopteris*).



Distribution in Massachusetts
1983-2008
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

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

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.

www.mass.gov/nhesp

THREATS: Some populations of Barren Strawberry are threatened by invasion of exotic plant species such as Garlic Mustard (*Alliaria petiolata*), Japanese Barberry (*Berberis thunbergii*), Morrow’s Honeysuckle (*Lonicera morrowii*), and Common Buckthorn (*Rhamnus cathartica*). These species can dominate the vegetation cover and effectively out-compete Barren Strawberry. Heavy recreational uses, such as hiking, mountain biking, and ORV use, in Barren Strawberry habitat can cause physical damage to plants, and compaction or erosion of the soil.

RANGE: The documented range of Barren Strawberry encompasses most of eastern North America, from Quebec and New Brunswick, south to Georgia and Alabama, Minnesota, Missouri, and Arkansas.

POPULATION IN MASSACHUSETTS: Barren Strawberry is listed under the Massachusetts Endangered Species Act as a species of Special Concern. All listed species are legally protected from killing, collection, possession, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Barren Strawberry is currently known from Berkshire, Franklin, and Hampshire Counties, and is historically known from Worcester County.

MANAGEMENT RECOMMENDATIONS: As with many rare species, the exact management needs of Barren Strawberry are not known. Sites should be monitored for invasions of exotic plants, particularly Garlic Mustard, Japanese Barberry, Morrow’s Honeysuckle, and Common Buckthorn. If exotic plants are crowding and out-competing Barren Strawberry, a plan should be developed, in consultation with the Massachusetts Natural Heritage & Endangered Species Program, to remove the invaders. Barren Strawberry locations that receive heavy recreational use (e.g., hiking, ORV, rock climbing) should be carefully monitored for plant damage or soil disturbance; trails can sometimes be re-routed to protect the rare plant population. 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 time in Massachusetts

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

Updated 2015

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

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.