



Natural Heritage & Endangered Species Program

www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Downy Agrimony *Agrimonia pubescens* Wallr.

State Status: **Threatened**

Federal Status: **None**

DESCRIPTION: Downy Agrimony is a perennial herb of woodlands, especially in openings, on ledges, and along trails. A member of the rose family (Rosaceae), it has small, yellow flowers, opposite, divided leaves, and dense hair throughout.

AIDS TO IDENTIFICATION: Downy Agrimony grows 30–80 cm (1 to 2.5 feet) in height. The leaves are pinnately divided and slightly hairy (pubescent) above, densely so below, and velvety to the touch. The stem is densely hairy. There are 5 to 9 toothed, oblong leaflets on each stem. Interspersed between the larger leaflets are smaller ones of different sizes. The flowers, which bloom from July through September, are small (0.25 inch; 6 cm wide), yellow, five-lobed, and arranged along a narrow unbranched stalk (raceme). To aid seed dispersal, the cap-like fruits have hooked bristles that adhere to clothing and fur. When crushed, the flower gives off a lemony odor.

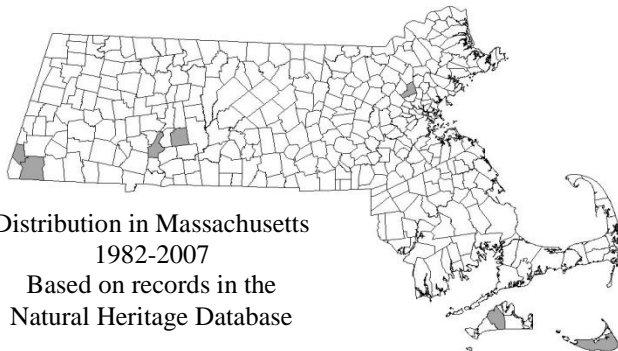
SIMILAR SPECIES: Downy Agrimony closely resembles the other four species of Agrimony native to Massachusetts. Downy Agrimony can be separated from most other species of Agrimony by the absence of tiny, stalked glands on the axis (rachis) of the racemes. Coarse Agrimony, a common species which also has eglandular rachises, can be distinguished from Downy Agrimony by its larger fruits and the presence of



Gleason, H.A. 1952. *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*. Published for the NY Botanical Garden by Hafner Press. New York.

copious glandular dots on the undersurface of the leaves (dots few or absent in Downy Agrimony).

HABITAT IN MASSACHUSETTS: Downy Agrimony inhabits edges and openings within rich, rocky woodlands on steep slopes or ledges, often over circumneutral or calcareous bedrock. Interestingly, populations are present not only in the marble and traprock regions of the state, but also on Martha's Vineyard and Nantucket, indicating that this plant is not a strict calciphile. Its affinity for openings suggests that habitat conditions are most favorable with periodic disturbance. Downy Agrimony is often associated with a canopy of White Ash (*Fraxinus americana*), Sugar Maple (*Acer saccharum*), Hop Hornbeam (*Ostrya virginiana*), and hickories (*Carya* spp.). Associated herbs may include Wild Strawberry (*Fragaria virginiana*), White Wood-aster (*Eurybia divaricata*), White Avens (*Geum canadense*), and Hog-peanut (*Amphicarpaea bracteata*).



Distribution in Massachusetts
1982-2007
Based on records in the
Natural Heritage Database

led 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

FRUITING TIME IN MASSACHUSETTS:

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

THREATS: Downy Agrimony requires partial sun exposure. Therefore, forest maturation and canopy closure, resulting from a lack of natural or anthropogenic disturbance, often casts too much shade. Invasive exotic plant species may over-shade or out-compete Downy Agrimony at some sites. Though much suitable habitat is apparently available for this species in Massachusetts, it is still quite rare, indicating that there are additional unknown factors influencing its distribution.

RANGE: The range of Downy Agrimony extends from Quebec, Maine, and Massachusetts, west to Ontario and South Dakota, and south to Oklahoma, Louisiana, and Georgia. It is also known to be rare in Delaware, South Carolina, and Quebec, and its status is under review in several states. Downy Agrimony was historically known from Rhode Island and Vermont.

POPULATION STATUS IN MASSACHUSETTS:

Downy Agrimony is listed under the Massachusetts Endangered Species Act as Threatened. 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. Downy Agrimony is currently known from Berkshire, Dukes, Hampden, Hampshire, Middlesex, and Nantucket counties. It is historically known from Suffolk County.

MANAGEMENT RECOMMENDATIONS: As with many rare species, the exact management needs of Downy Agrimony are not known. Sites should be monitored for over-shading caused by forest succession, and for invasive plant species. Habitat sites that do not receive enough light can be managed with canopy thinning or prescribed burning. To avoid inadvertent harm to rare plants, all active management of rare plant populations (including invasive species removal) should be planned in consultation with the Massachusetts Natural Heritage & Endangered Species Program.

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.