

Basil-balm



Monarda clinopodia flowers



Photo credits: John Gwaltney

Scientific Name *Monarda clinopodia*
L.

Family Name Lamiaceae
Mint Family

Did you know?

The first New York specimen of this species was collected way back in 1867 at Niagara Falls by Edwin Hunt (1837-1880), a professor of Natural Sciences at the Utica Academy who had a herbarium of 4000 specimens that was bought by Asa Gray. (New York State Museum records). This is our only species of *Monarda* with white flowers but they sometimes vary to pink.

Summary

Protection Endangered in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 5 or fewer extant sites, or 2) fewer than 1,000 individuals, or 3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or 4) species listed as endangered by U.S. Department of Interior.

Rarity G5, S1

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

A state rarity rank of S1 means: This plant is endangered/critically imperiled in New York because of extreme rarity (typically 5 or fewer populations or very few remaining individuals) or is extremely vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

There are 5 verified occurrences, all with low numbers, and 31 historical occurrences.

Short-term Trends

The short term trend is unknown as only two resurveys with population counts have been conducted since the 1980's. Those surveys documented a reduction in numbers to 1/3 to 1/5 the original population size.

Long-term Trends

The long term trend is apparently negative but few historical populations have been resurveyed.

Conservation and Management

Threats

Mowing and herbicide spraying along railroads threatens some populations. Loss of local ecotypes from crossbreeding with cultivated populations is also a threat.

Habitat

Rich mesophytic forest in moist soils, Rich dry woods, Thicket, base of hill. Island in Niagara river Edge of a road through bottomland woods. Disturbed gully between two railroad line tracks, Bottomland woods. Tioga fine sandy loam. plunge basin in the center of a deep ravine Schrubby thickets, along main road (NYNHP 2015). Moist woods, thickets, ravines, and streambanks (Fernald 1950).

Associated Ecological Communities

Rich Mesophytic Forest

A hardwood or mixed forest that resembles the mixed mesophytic forests of the Allegheny Plateau south of New York but is less diverse. It occurs on rich, fine-textured, well-drained soils that are favorable for the dominance of a wide variety of tree species. A canopy with a relatively large number of codominant trees characterizes this forest. Canopy codominants include five or more of the following species: red oak, red maple, white ash, American beech, sugar maple, black cherry, cucumber tree, and black birch.

Other Probable Associated Communities

Floodplain forest
Maple-basswood rich mesic forest
Shrub swamp
Successional shrubland

Associated Species

Red Maple (*Acer rubrum*)
Silver Maple (*Acer saccharinum*)
Sugar Maple (*Acer saccharum*)
American Hornbeam (*Carpinus caroliniana*)
Shagbark Hickory (*Carya ovata*)
Canada Horse-balm (*Collinsonia canadensis*)
Wild Crane's-bill (*Geranium maculatum*)
Dame's-rocket (*Hesperis matronalis*)
Allegheny Blackberry (*Rubus allegheniensis*)
Bloodroot (*Sanguinaria canadensis*)
Solidago
Large-flower Trillium (*Trillium grandiflorum*)

Slippery Elm (*Ulmus rubra*)

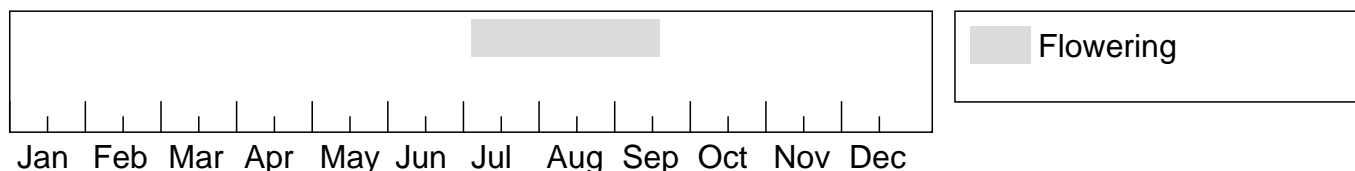
Identification Comments

Best Life Stage for Identifying This Species

A flowering stem is required for positive identification of this species.

The Best Time to See

Flowering typically begins in early July and continues through mid-September.



The time of year you would expect to find Basil-balm in New York.

Similar Species

Monarda media has an unspotted red-purple corolla and bract blades tinged or suffused with purple and a much larger upper corolla lip (13-16mm). In contrast *M. clinopodia* has a white to ochroleucous (rarely pink) corolla with a purple spotted lower lip and small upper lip 5-8 mm. *M. fistulosa* has a light purple (rarely purple to red-purple or white) corolla with its upper lip densely villous near its apex with hairs having pale septa vs. the upper lip abaxial surface not or only sparsely villous with hairs having red-purple septa (GoBotany 2015).

Taxonomy

Kingdom Plantae

└ Phylum Anthophyta

└ Class Dicots (Dicotyledoneae)

└ Order Lamiales

└ Family Lamiaceae (Mint Family)

Synonyms

Monarda fistulosa var. *clinopodia* ((L.) Cooperrider)

Additional Resources

Links

USDA Plants Database

<http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=MONARDA+CLINOPODIA>

Google Images

<http://images.google.com/images?q=MONARDA+CLINOPODIA>

NatureServe Explorer

<http://natureserve.org/explorer/servlet/NatureServe?searchName=MONARDA+CLINOPODIA>

References

- Gleason, Henry A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York. 910 pp.
- Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.
- Keys, Jr., J.; Carpenter, C.; Hooks, S.; Koenig, F.; McNab, W.H.; Russell, W.; Smith, M.L. 1995. Ecological units of the eastern United States - first approximation (cd-rom), Atlanta, GA: U.S. Department of Agriculture, Forest Service. GIS coverage in ARC/INFO format, selected imagery, and map unit tables.
- Mitchell, Richard S. and Gordon C. Tucker. 1997. Revised Checklist of New York State Plants. Contributions to a Flora of New York State. Checklist IV. Bulletin No. 490. New York State Museum. Albany, NY. 400 pp.
- NatureServe. 2005. NatureServe Central Databases. Arlington, Virginia. USA
- Weldy, T. and D. Werier. 2010. New York flora atlas. [S.M. Landry, K.N. Campbell, and L.D. Mabe (original application development), Florida Center for Community Design and Research <http://www.fccdr.usf.edu/>. University of South Florida <http://www.usf.edu/>]. New York Flora Association <http://www.nyflora.org/>, Albany, New York

New York Natural Heritage Program

625 Broadway, 5th Floor,
Albany, NY 12233-4757

Phone: (518) 402-8935

acris@nynhp.org

This project is made possible with funding from:

- New York State Department of Environmental Conservation Hudson River Estuary Program

- Division of Lands & Forests, Department of Environmental Conservation

- New York State Office of Parks, Recreation and Historic Preservation

Information for this guide was last updated on Aug 24, 2017

This guide was authored by