



## Northern Blazing Star

*Liatris borealis* Nutt. **Synonyms:** *Liatris scariosa* (L.) Willd. var. *novae-angliae* Lunell, *Liatris novae-angliae* (Lunell) Shinnery; gay feather

**Aster family (Asteraceae, formerly Compositae)**

### What Does It Look Like?

A showy perennial with a tall spike-like stem of blazing purple-pink flower heads. Stems arise from the over-wintering corm in May or June, are sparsely hairy, bear many narrow leaves and reach 0.25-1.0 m (0.8-3 ft.) in height.

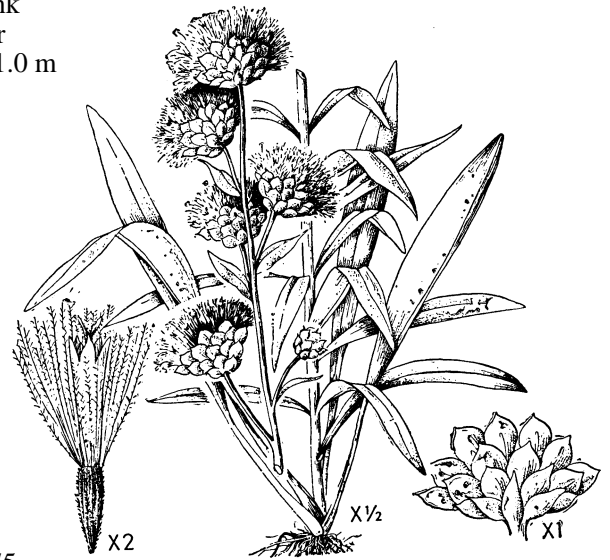
**Leaves:** The numerous stem leaves are narrow to lance-shaped, 1-2.5 cm (0.4-1 in.) wide, and taper in size as they go up the stem. Vegetative rosettes have wider leaves.

**Flowers:** Each spike-like flowering stem can have 3-60 thistle-like flower heads that are each about 2-2.5 cm (0.75-1 in.) wide. Each flower head may have up to 100 tiny individual, purple-pink, tubular, five-petaled flowers. The feathery look to the flower heads is created by the mass of delicate, protruding, long, slender, forked flower styles. Flowering is in August or September.

**Fruit:** The achene is a single-seeded fruit, 6-7 mm (about 0.75-0.33 in.) with a short plume of barbed bristles on top.

**Key features:** Northern blazing star is the only species of *Liatris* found in New Hampshire. The dry, open habitat and the stalked and distinctive showy flower heads make this plant easy to distinguish in flower.

**Similar species:** The two most closely related species are very similar in appearance but are not found north of Delaware and Connecticut. They are *Liatris scariosa* var. *scariosa* and *L. scariosa* var. *nieuwlandii*. Both species, also called northern blazing star, have wider lower leaves. Two other species found as far north as Massachusetts have sessile, or stalkless, flower heads. They are spiked blazing star (*L. spicata*) and thick-spike blazing star (*L. pycnostachya*).



### Where Is It Found?

Northern blazing star grows in dry, open grassy habitat. In New Hampshire it is found primarily on sandplains in clearings or in dry open pitch pine and oak barrens. It also occurs on dry riverbluffs, on gravelly slopes, and near railroad tracks in association with these areas. These are generally early-successional habitats, characterized by nutrient-poor, sandy soils that only support relatively sparse vegetation.

Fire has historically played a role in maintaining these open habitats and seems to have a positive effect on this species as well. The plants are not tolerant of shade and decline in undisturbed areas where later-successional species such as shrubs and trees move in. Mechanical removal of encroaching vegetation can help northern blazing star to persist. However, seedling establishment appears to be more successful in areas that have been burned.

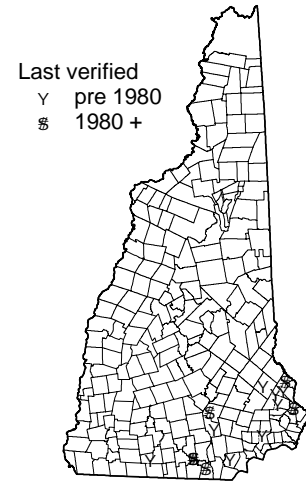


# RARE PLANTS OF NEW HAMPSHIRE

---

**Conservation status:** Northern blazing star is endangered in New Hampshire. Of 15 known locations in the state, only six have been recently verified. Two have been extirpated and seven are historic. Populations range from a few plants to almost 500.

**Range:** Maine south to Pennsylvania and New Jersey.



## Why Is It Rare?

Loss of open, early-successional habitat, due to development and human suppression of natural disturbances such as fire.

## Conservation Considerations:

Efforts to maintain populations of northern blazing star by simulating natural disturbance have met with some success. These include carefully timed controlled burns, mowing, and removal of encroaching vegetation. Fire seems to have a more positive effect than mechanical removal of vegetation which may be due to the elimination of insects that destroy the seeds. The timing and extent of disturbance is crucial. If plants are overly disturbed or if flower and seed production is disrupted, populations can be damaged.

Other threats include excessive human trampling or damage from off-road vehicular traffic. Populations also appear to be vulnerable to deer grazing. Invasive non-native species may be an additional and increasing threat since they often have an advantage in getting established in disturbed habitats and are extremely difficult to eradicate once there.

---

The information in this fact sheet is current as of December 2002. It is based on a database maintained by the NH Natural Heritage Program, a bureau in the Division of Forests & Lands in the Department of Resources and Economic Development. NH Natural Heritage is a member of NatureServe, which represents an international network of Heritage programs. Illustration by Anne Rogelberg. Reprinted with permission from The New York Botanical Garden Press. Originally published in H. A. Gleason, *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*, Vol. III, p. 496, copyright 1952, The New York Botanical Garden.

To report a location for this species, or for more information, please visit our web page at [www.nhdf.org/formgt/nhiweb](http://www.nhdf.org/formgt/nhiweb) or call (603) 271-3623.



NH Natural Heritage Program  
PO Box 1856  
Concord, NH 03302-1856

**Funded by the Conservation License Plate Trust Fund (the "Mooseplate").**  
Mooseplate funds received by NH Natural Heritage are vital to developing information that leads to the protection of native plant species and natural communities.