Heller’s blazing star

*Liatris helleri*
(Heller’s gayfeather)
Threatened (November 19, 1987)

**Description:** Heller’s blazing star is a perennial herb of the aster family with one or more erect stems up to 16 inches (40 cm) tall, which grow from a tuft of pale green leaves at the base of the plant. Upper leaves are alternate, long and narrow. Flowers are tubular, lavender, and are clustered into heads which are scattered along the stem in a showy spike, 3-8 inches long. Fruits are small nutlets. Note: there are several similar species; the most reliable distinguishing characteristic of Heller’s blazing star is that the outer protective parts of the flower (the pappus) are only half or less the length of the entire tube that makes up the flower. In other species, the protective parts (pappus) are more than half the length of the flower tube.

**Life History:** Very little is known of the autecology of this plant. Flowering occurs from July to September. Seeds are present September to October.

**Habitat:** High-elevation, rock ledges in shallow, acidic soil exposed to full sunlight.

**Distributions:** Endemic to the Blue Ridge mountains of North Carolina. Only eight populations remain in Ashe, Avery, Burke, Caldwell, and Watauga counties. Populations in Mitchell County have apparently been destroyed.

**Threats:** Little is known about why this species is declining and vanishing. Suspected reasons for decline are commercial and heavy recreational development. Soil erosion and compaction from road and building construction degrade the species’ habitat. Trampling by hikers, climbers, and sightseers creates additional stress to plants and habitat. Other potential threats are natural disturbance from rock slides, severe droughts, acid precipitation, fire suppression, as well as possible lack of genetic variability due to small numbers and isolated locations of the populations.

**Management Recommendations:** Habitat and population protection and education of private landowners. Development and activation of management plans to prevent further loss by succession. Prescribed burns have been beneficial to the species on US Forest Service land.

**Note:** Blue Ridge goldenrod, Roan Mountain bluet, and spreading avens, all of which are federally listed species, may be found in association with Heller’s blazing star.

**Sources:** Radford et al. 1964, USFWS 1992a.