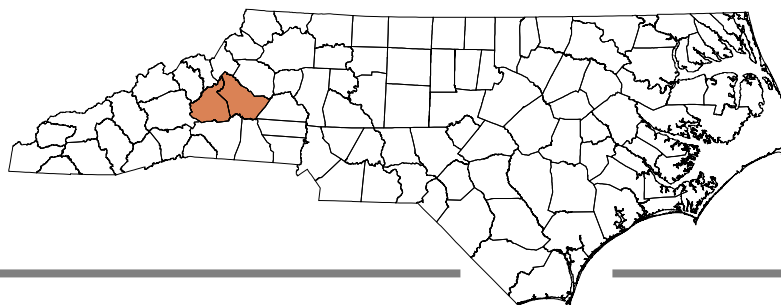


Mountain golden-heather

Hudsonia montana

(Mountain hudsonia)

Threatened (October 20, 1980)



Description: Mountain golden-heather is a low, spreading, freely branching shrub, somewhat like a large moss or low juniper, usually about 6 inches (15 cm) high. The needle-like leaves are alternate, about 0.11-0.27 inches (3-7 mm) long, and point toward the tops of the branches. The plant may be yellow-green, especially when growing in shade. Leaves from previous years, although dead and brown, will persist, scale-like on the older branches. Solitary flowers about 1 inch (2.5 cm) across grow at the ends of branches on a short stalk. Five yellow petals, five hairy sepals, and 20-30 stamens are on each flower. Petals are twice as long as sepals. Each flower lasts only one day, from early morning until late afternoon when the petals wither and shed. All other flower parts persist. Fruit is roundish, hairy, and on a 0.5 inch (1.2 cm) stalk. The opened capsule may persist for a year or more.

Life History: Leaves appear in May, flowering occurs late May through June, and fruiting occurs late June through September. Little is known about the breeding system but it is assumed to involve occasional cross-pollination by bees and bee-like flies, although closing of the flowers in the afternoon may induce self-fertilization. Seed dispersal appears limited and seeds possibly remain in the soil over more than one growing season, suggesting that disturbance of the soil crust may be necessary for seedling establishment. Flowering does not occur until the third year, and vegetative reproduction is slow.

Habitat: Rock cliffs and shrub balds at high elevations, 2800 to 4000 ft (854 to 1,220 m). Prefers exposed quartzite ledges in an ecotone between bare rock and *Leiophyllum*-dominated heath balds that merge into pine/oak forests. May survive for a while in areas

shaded by pines, but is dependent on fire to maintain habitat in suitably open condition.

Distribution: Endemic to the North Carolina mountains. Populations found in Burke and McDowell counties, within the Pisgah National Forest.

Threats: Trampling, soil compaction by campers, rock climbers, and other recreationalists. Reduced size and vigor of populations, a result of competition with other shrubs, increases the species' vulnerability to extinction. Requires periodic fire.

Management Recommendations: Regulations restricting climbing, camping, and off-trail hiking on designated ledges; consideration of plant requirements in trail maintenance operations; realignment of trails at locations where they pose a threat to the plant; implementation of erosion control measures at these locations; monitoring studies to evaluate the maintenance and reproduction of the plant; and prescribed burning of the habitat and/or mechanical removal of competing vegetation.

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

