

Orange Hawkweed and other hawkweeds



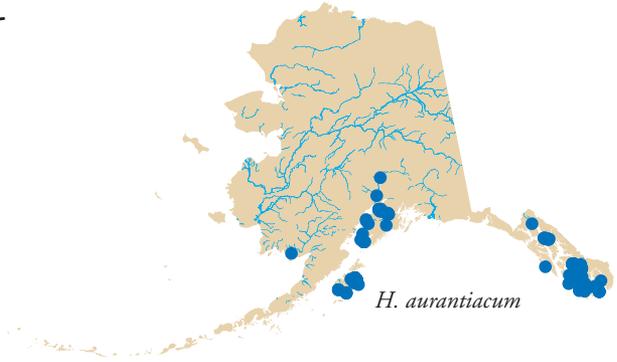
Hieracium aurantiacum L.

Alternate Names

Devil's paintbrush,
king-devil

Related Species

Hieracium pilosella L.
Mouseear hawkweed

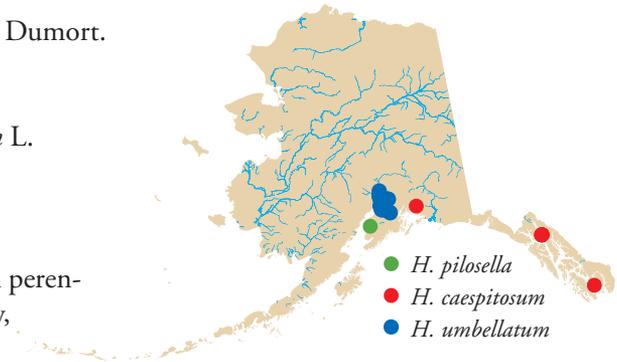


Hieracium caespitosum Dumort.
Meadow hawkweed

Hieracium umbellatum L.
Narrowleaf hawkweed

Description

Orange hawkweed is a perennial plant with shallow, fibrous roots, stolons, and well-developed basal rosettes. Leaves are oblanceolate to narrowly elliptic, up to 5 inches long, almost exclusively basal, and darker on the upper surface than on the lower surface. Leaves are covered with soft white hairs and stems are covered with shorter



National Park Service photo by Jeff Heys

Orange hawkweed.



UAF Cooperative Extension Service photo by Jamie Snyder

Roadside infestation of orange hawkweed.

dark-colored hairs. Stems and leaves exude milky latex when cut or broken. Stems reach a height of 12 inches and bear up to 30 flowerheads greater than $\frac{1}{2}$ of an inch wide near the top. Flowerheads are dark red on the edges and orange in the center and consist of ray florets with notched upper margins. Each floret produces a single-seeded fruit. In Alaska, orange hawkweed produces flowers from mid-July through October. When flowers are absent, look for clumps of serrated leaves covered with downy white hairs. Seeds are oblong, purplish black, and $\frac{1}{16}$ – $\frac{1}{8}$ of an inch long.



X1D Services photo
by Dan Tenaglia

Mouseear hawkweed.

Similar Species

Seven *Hieracium* species are found in Alaska, including three native species and four exotic species. All have yellow flowers except for orange hawkweed and white hawkweed (*H. albiflorum* Hook.), and no other composite species in Alaska has dark orange to red flowerheads. The native hawkweeds can be distinguished from the other exotic species by their smaller flowerheads, less than $\frac{3}{8}$ of an inch wide.

Several characteristics can be used to differentiate the other exotic hawkweeds. Meadow hawkweed (*H. caespitosum* Dumort.) forms short, stout rhizomes and long, leafy stolons. Stems are erect and solitary with glandular, starlike hairs. Basal leaves are oblanceolate to spoon-shaped and toothed. Stems bear up to 30 flowerheads greater than $\frac{1}{2}$ inch wide near the top. Ray florets are yellow. Mouseear hawkweed (*H. pilosella* L.) has a basal rosette and stolons and produces only one yellow flowerhead on a single stem. The stem and leaves are covered with dense woolly hair. Narrowleaf hawkweed (*H. umbellatum* L.) has a stem with leaves but does not form a basal rosette and has no stolons. Most published literature suggests that the exotic hawkweeds are similar in biology and management, and so the following information will generally apply to all four species.

Ecological Impact

Orange hawkweed forms a dense mat of plants in which no other species can grow, thereby lowering species diversity and reducing the forage value of grasslands for grazing animals. It is a successful allelopathic competitor that crowds out native, pasture, and range species. It hybridizes freely with native and exotic hawkweeds. It likely reduces soil moisture and nutrient availability (J. Snyder, pers. comm. 2004). Orange hawkweed can invade undisturbed sites and is considered one of the worst nuisance species in agricultural and natural areas.

Biology and Invasive Potential

Orange hawkweed typically produces 12–30 seeds per flower, for about 50–600 per plant, and sends out 4–8 stolons each season. It can resprout from any fragments left in the soil. Seeds are viable for up to seven years, and infested areas can have extensive seed banks. Orange hawkweed readily grows in cleared areas in forests. Mowing promotes flowering and the spreading of stolons. Fruits are adapted to wind dispersal. Seeds are carried by vehicles, animals, and clothing. It is common in urban areas due to its use as an ornamental. Orange hawkweed is listed as noxious in Colorado, Idaho, Minnesota, Montana, and Washington.

Distribution and Abundance

Orange hawkweed was introduced to North America for use as an herbal remedy and ornamental before 1818. It is native to the alpine and hillside meadows of Europe and has now established across Eurasia, as well as from coast to coast in North America as far south as Indiana and West Virginia. It prefers well-drained soils, growing in permanent meadows, grasslands, rangelands, and pastures, and thrives in nutrient-poor, uncultivated, or disturbed soils. In Alaska, the first documented occurrence was from the Juneau area in 1961



Meadow hawkweed.

USDA Forest Service photo
by Tom Heutte

(ALA 2004). Orange hawkweed is abundant in communities throughout southeast and southcentral Alaska and has been found in the remote community of Dillingham. It has also been found in undisturbed meadows of the Kodiak National Wildlife Refuge, where control measures are underway.

Management

Mechanical methods such as mowing, cutting, and digging will not eliminate hawkweed. Treatment with selective herbicides is most effective. Hand-pulling can be effective for small infestations if care is taken to remove as much of the root as possible. Mowing is ineffective because rosettes are so close to the ground. Effective hawkweed management will depend on a program that integrates control methods with restoration techniques to increase the competitive ability of desired species. Hawkweed can be controlled with herbicides. However, proper use of surfactants is necessary to increase the adherence of herbicides to the hairy leaves and stems. Plants should generally be treated when they are in the rosette stage. There are no biological controls currently available.

Notes

There are over 700 species in the taxonomically complex *Hieracium* genus, mostly native to Europe and South America, although there are a few native North American species. The genus name *Hieracium* was derived from the Greek *hierax*, “a hawk.” Orange and yellow hawkweeds are considered the worst invasive plant species in New England. Mouseear hawkweed is one of the smallest of all the hawkweeds.



USDA Forest Service photo by Michael Shephard

Narrowleaf hawkweed.



USDA Forest Service photo by Michael Shephard

Narrowleaf hawkweed.