

**WRITTEN FINDINGS OF THE  
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD  
(NOVEMBER 1997)**

Scientific Name: *Hieracium floribundum*

Common Name: yellow devil hawkweed

Family: Asteraceae (Compositae)

Legal Status: Class A

Description and Variation: Perennial herb with many slender and leafy stolons (horizontal stems) at the base of the plant, and a long rhizome (underground stem). This hawkweed has a well developed cluster of basal leaves at time of flowering, which is in the early summer. The basal leaves are glaucous (covered with a whitish or bluish waxy coating), and as large as or larger than any of the upper leaves. The top of the leaf is smooth, the underside of the leaf has scattered, bristly hairs, particularly along the mid-rib. The leaves range in size from 1½ - 5 inches long, the leaf shape is longer than wide, with the widest part being near the tip. The leaf margins toward the base are also covered with long bristles. The leaves along the stolon are more hairy than the basal leaves. The single flowering stem is 8 - 32 inches tall, sparsely scattered with long bristles that are blackish and tipped with star-like glands. The complete flowers are yellow composites, with 3-50 flower heads in a flat-topped cluster. The bracts under the flower heads have the same stiff hairs (as along the stem) that are blackish and tipped with star-like glands. (Gleason and Cronquist 1991; Muenscher 1995).

Thought to have originated with hybridization of *H. caespitosum* (yellow hawkweed) and *H. lactucella*. (Gleason and Cronquist 1991).

Distinguishing characteristic may be the glaucous leaves, a longer rhizome, and many slender and leafy stolons.

Economic Importance: *Detrimental:* Closely related to *H. pilosella* (mouseear hawkweed), a Class A noxious weed. Can outcompete pasture, range and native plant species.

*Beneficial:* None known

Habitat: Meadows, roadsides and fields.

Geographic Distribution: Native to Europe. *H. floribundum* is one species of this genus that belongs to a large complex without any clear specific boundaries. There are hundreds of species with thousands of names, established in mostly temperate or mountainous tropical regions. This weediness is in part due to the capability to produce seed without fertilization, and to the number of complete sets of chromosomes in each cell. (Gleason and Cronquist 1991).

History: Found in Thurston County, WA and in Whatcom, County, WA. Introduced to North America in 1900 (Reader and Watt 1980). Herbarium samples from the University of Washington

include specimens from New Brunswick, Canada 1929; Vermont 1925; and New Hampshire 1977. Considered a pest in the eastern part of British Columbia. (Allen, pers. communication)

Growth and Development: Perennial that spreads by seed and stolons.

Reproduction: Prolific seed production. Capable of producing seed without fertilization. Also spreads by stolons.

Response to Herbicide: Unknown

Response to Cultural Methods: Adding fertilizer (NPK) to abandoned pastures halted or reversed patch formation by hawkweeds, particularly in areas that had a high proportion of grasses. Grass growth increased after pastures were fertilized. This contributed to shading out the hawkweeds and increasing a pathogen habitat against hawkweeds. *H. floribundum* and *H. pilosella* are negatively impacted by increased shading. Fertilization as a control only worked in the plots that were dominated by established grasses. (Reader and Watt 1980).

Response to Mechanical Methods: Unknown

Biocontrol Potentials: Unknown

References:

\*Allen, G.A. and Costanzo, B. 1997. Identification of introduced *Hieracium* (hawkweed) specimens for Washington State Noxious Weed Control Board. Partial Key to *Hieracium* of Washington State.

\*Bradshaw L. and D. Goldberg. 1989. Resource Levels in Undisturbed Vegetation and Mole Mounds in Oil Fields. *The American Midland Naturalist*. 121(1):176-183.

\*Gleason, H. A. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. Second Edition. The New York Botanical Garden, Bronx, NY. Pp. 621-625.

\*Muenscher, W. C. 1955. *Weeds*. Second Edition. Cornell University Press. Ithaca and London. Pp. 474-477.

\*Reader, R.J. 1990. Competition constrained by low nutrient supply: an example involving *Hieracium floribundum* Wimm & Grab. (Compositae). *Functional Ecology* 1990, 4, 573-577.

\*Reader, R. J. 1978. Structural changes in *Hieracium floribundum* (Compositae) population associated with the process of patch formation. *Canadian Journal of Botany*: Vol.56, (1978), No. 1. Pp 1-9.

\*Reader, R. J. and B. J. Best. 1989. Variation in Competition Along an Environmental Gradient: *Hieracium floribundum* in an Abandoned Pasture. *Journal of Ecology*: Vol. 77, 1989. pp 673-684.

\*Reader, R. J. and J. Buck. 1986. Topographic Variation in the Abundance of *Hieracium floribundum*: Relative Importance of Differential Seed Dispersal, Seedling Establishment, Plant Survival and Reproduction. *Journal of Ecology*: Vol. 74, 1986. pp. 815-822.

\*Reader, R. J. and A. G. Thomas. 1977. Stochastic simulation of patch formation by *Hieracium floribundum* (Compositae) in abandoned pastureland. *Canadian Journal of Botany*: Vol. 55, 1977. pp 3075-3079.

\*Reader, R. J. and W. H. Watt. 1980. Response of hawkweed (*Hieracium floribundum*) patches to NPK fertilizer in an abandoned pasture. *Canadian Journal of Botany*: Vol. 59, 1981. Pp 1944-1949.

\*Thomas, A.G. and H.M. Dale. 1975. The role of seed production in the dynamics of established populations of *Hieracium floribundum* and a comparison with that of vegetative reproduction. *Can. J. Bot.* Vol. 53, 1975. Pp. 3022-3031.

\*Yeung, E. C. and R. L. Peterson. 1971. Studies on the rosette plant *Hieracium floribundum*. I. Observations related to flowering and axillary bud development. *Canadian Journal of Botany*: Vol. 50, 1972. Pp 73-78.

\* *References available from the Washington State Noxious Weed Control Board Office in Kent.*

#### Rationale for Listing:

*Hieracium floribundum* is one species in a complex of hawkweeds that are prolific seed producers, weedy and capable of hybridizing with many exotic and probably native species. *H. floribundum* is closely related to mouseear hawkweed, a Class A noxious weed capable of overtaking native plants and habitat. The limited distribution of *H. floribundum* at this point in time makes it feasible to eradicate and halt the spread of yet another invasive hawkweed.