



# Rush Skeletonweed

*Chondrilla juncea* (Aka skeletonweed, nakedweed, hogbite)

Provincial Designation:  
Prohibited Noxious



Utah State University Archive, Utah State University, Bugwood.org

www.crwma.co.crook.or.us

## Overview:

Rush skeletonweed is a short-lived perennial of the Aster family, native to the Mediterranean regions of Europe, North Africa, and Asia.<sup>2</sup> It is believed to have been accidentally introduced to North America in the late 1800's via contaminated seed or livestock feed or bedding. Rush skeletonweed can reproduce by seed, from root fragments, and vegetatively by sprouting from the roots. Seed production is extremely variable, determined by plant vigour and site conditions - so reproduction is primarily by vegetative means in local populations. Rush skeletonweed is triploid and produces seed via apomixis - producing viable seed without meiosis or recombination - making all plants genetically identical. Some sexual diploid populations do occur.<sup>1</sup>

Rush skeletonweed seeds have high viability and germination rates, but seedlings require moisture for 3-6 weeks in order to establish a viable root system. The main germination period occurs with autumn precipitation.<sup>1</sup> It develops a slender taproot that can extend over 2 m deep and can fork at depth - lateral roots

develop on the upper root.<sup>1</sup> Buds on the upper root or lateral roots can produce daughter rosettes and multiple daughter rosettes can develop from one root crown.<sup>1</sup> Seedlings may form shoot buds from root fragments as young as 2 weeks old.<sup>1</sup> This extensive root system accesses soil nutrients and moisture deep underground. All parts of the root are brittle and easily broken, and new plants can sprout from the root fragments.<sup>1</sup> It flowers from July to September.<sup>4</sup>

Rush skeletonweed can easily be misidentified, especially in the rosette stage. Any plants with lobed or dentate leaves, such as hawksbeard, dandelion, *Lactuca spp.* and various mustards can be confused with rush skeletonweed. Distinguishing characteristics of rush skeletonweed are: a) glabrous leaves, b) leaf lobes project backwards, c) cut stems exude a milky latex, and d) the long thin taproot - a young rosette may have a root up to 36 cm long.<sup>1</sup>

## Habitat:

In its native habitat rush skeletonweed grows in coarse-textured, well-drained soils which can be calcareous or mildly acidic. It requires a relatively hot, dry summer without an extended summer drought, with precipitation evenly distributed through the year.<sup>1</sup>

## Identification:

**Stems:** One flowering stem is produced 40-150 cm tall with multiple spreading or ascending branches.<sup>1</sup> Stems have coarse, bristly, hairs directed backward on the lower 10-15 cm.<sup>2</sup>

**Leaves:** Basal leaves are 5-13 x 1.5-3 cm, have sharply cleft margins with lobes pointing backwards<sup>4</sup>, and wither at flowering.<sup>2</sup> Stem leaves are lacking or reduced and often deciduous, and upper leaves are scale-like bracts.<sup>1</sup>

**Flowers:** Heads are produced at the ends of stems singly or in groups of 2-5, each with 9-12 flowers. Flowers are 9-12 mm and yellow.<sup>1</sup> Seeds are 3-4 mm with a slender beak 5-6 mm at the tip bearing a pappus 5-6 mm,<sup>2</sup> Seeds are ridged which allow them to attach to fur or clothing.<sup>1</sup>

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# Rush Skeletonweed (Continued)

## Prevention:

Rush skeletonweed needs disturbance to establish as it is a poor competitor with healthy vegetation. Abused rangelands and roadsides are highly susceptible to invasion. Wind, water, vehicles, machinery, and hay can distribute seeds and root fragments. No single control treatment of rush skeletonweed has proven effective - an integrated management has the best chance of long-term control.<sup>1</sup>

## Control:

**Grazing:** Rush skeletonweed is consumed by most domestic livestock and wildlife. Rosettes and flowering plants are palatable and nutritious, while older stems are only consumed by goats and wild herbivores.<sup>1</sup> Grazing during seed formation will facilitate weed spread. Invasive plants should never be considered as forage.

**Mechanical:** Regular mowing can prevent seed formation and deplete root energy reserves. Small infestations can be successfully hand pulled when the soil is moist but will need to be repeated as any severed root will re-sprout. Cutting stems close to the surface produces multiple stemmed plants. Mechanical cultivation would distribute severed pieces of root and increase the infestation.<sup>1</sup>

**Chemical:** Currently no selective herbicides are registered for use on rush skeletonweed. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

**Biological:** A root moth, a gall midge, and a rust have been introduced in the U.S. The rust, *Puccinia chondrillina*, is believed to have entered British Columbia from the U.S. and was first found in the Okanagan in 1992.<sup>3</sup>



Clinton Shock



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## REFERENCES

- 1 Zouhar, Kris. 2003. *Chondrilla juncea*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: <http://www.fs.fed.us/database/feis/> [2013, September 21].
- 2 *Chondrilla juncea*. *Flora of North America*. [www.efloras.org](http://www.efloras.org). [2013, September 21].
- 3 *Puccinia chondrillina*. Invasive Plants with Biocontrol. British Columbia Ministry of Forests, Lands and Natural Resource Operations. <http://www.for.gov.bc.ca/hra/plants/biocontrol/bcmatrix.htm#RS> [2013, September 21].
- 4 *C. juncea*. Hitchcock, C. Leo, and Cronquist, Arthur. *Flora of the Pacific Northwest*. 1973. University of Washington Press. p. 501.