

Giant Hogweed



Heracleum mantegazzianum Sommier & Levier

Alternate Names

Giant cow parsnip

Description

Giant hogweed is an enormous herbaceous biennial or perennial plant that grows 10–15 feet high. Stems are hollow, from 2–4 inches in diameter with dark reddish-purple spots and bristles. Large compound leaves measure 3–5 feet in width. The inflorescence is a broad flat-topped umbel composed of many small white to light pinkish flowers. Inflorescences can reach a diameter of 2½ feet. The plant produces flat, ⅜ of an inch long, oval-shaped, dry fruits. Most plants die after flowering, while others flower for several years.



Norwegian Botanical Association
photo by Rune Aanderaa

Similar Species

Giant hogweed closely resembles cow parsnip (*Heracleum maximum* Bartr.), a plant native to the Pacific Northwest and Alaska that rarely exceeds 6 feet in height, has a flower cluster only 8–12 inches wide, and has palmately lobed rather than dissected leaves.



Norwegian Botanical Association
photo by Norman Hagen

Giant hogweed flowers.

Ecological Impact

Giant hogweed forms a dense canopy, outcompeting and displacing native riparian species. The plant produces a watery sap that contains toxins causing severe dermal injury to humans, birds, and other animals. The flowers of giant hogweed are insect-pollinated (NWCP 2003, Pysek and

Pysek 1995). This plant produces coumarins which have antifungal and antimicrobial properties. Hybrids between giant hogweed and eltrof (*H. sphondylium* L.) occur where the two grow in the same location. There are numerous animals and parasites that feed on giant hogweed. Giant hogweed results in a reduction of native species and an increase in soil erosion along stream banks in winter (NWCP 2003, Tiley and Philp 1992, Wright 1984). Nutrient availability increases in areas infested by giant hogweed due to the large amount of easily decomposed biomass (Pysek and Pysek 1995).

Biology and Invasive Potential

Giant hogweed reproduces by seed with each plant capable of producing up to 50,000 seeds (Tiley et al. 1996, Pysek 1991). Although this species is generally an early colonizer of disturbed communities, it can also invade closed communities such as grasslands (Tiley et al. 1996). The fruits of this species can float in water for up to 3 days and can be transported 6 miles in water courses (Clegg and Grace 1974). It has escaped from gardens and naturalizes readily in Europe and North America. Although its sale is prohibited, giant hogweed is sometimes misidentified and sold by nurseries. Dispersal is also facilitated by the use of seed-heads in flower arrangements, and it is spread in topsoil and along right-of-ways (NWCP 2003, Tiley et al. 1996, Clegg and Grace 1974). Seeds germinate well in the surface organic layer, although sufficient soil depth is necessary to allow taproot development. Seed longevity can be greater than 7 years (NWCP 2003). Giant hogweed occurs most frequently on sandy and silty substrates. It is tolerant of saturation and winter flooding and requires moisture for establishment, but once established it also thrives on drier, well-drained sites. It tolerates pH levels ranging from 3.1 to 8.5 (Clegg and Grace 1974, Tiley et al. 1996). Giant hogweed is federally listed as a noxious weed and is also considered noxious by 12 states, including Oregon and Washington.

Distribution and Abundance

Giant hogweed has not yet been found in Alaska, although it has been reported from British Columbia and Washington. It is native to the Caucasus Mountains and southwestern Asia. It is naturalized throughout central Russia and Europe. It has been introduced to Australia, New Zealand, Canada, and the United States. Giant hogweed establishes along river banks, streams, and damp places as well as along roadsides and waste areas.



KULAK photo by Paul Busselen

Giant hogweed foliage.

Management

It is important to always wear protective clothing, including gloves, coveralls, and goggles, when handling giant hogweed since the sap from the leaves and stem is highly toxic; contact with the skin can lead to severe scarring, especially after subsequent exposure to sunlight. For manual removal, plants must be dug out entirely or the roots cut at least 3–4 inches below ground level. Cutting or mowing will not immediately kill the plant but may be effective if repeated at regular intervals (3–4 times per season) on the resprouting plants to eventually exhaust the nutrient reserves stored in the root system. Selective herbicides kill foliage but will not kill the roots, while systemic herbicides

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can be effective if applied in the spring or early summer. A follow-up spray in mid-summer is recommended.

Notes

Giant hogweed is listed in The Guinness Book of World Records as the world's largest weed. The dried fruits of giant hogweed are used as a spice in Iranian cooking known in Farsi as *golpar*. The song "The Return of the Giant Hogweed" was on the album Nursery Cryme by the rock band Genesis.