Giant Hogweed

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Scientific classification

	mantegazzianum
Species:	Н.
Genus:	<u>Heracleum</u>
Family:	<u>Apiaceae</u>
Order:	<u>Apiales</u>
(unranked):	<u>Asterids</u>
(unranked):	Eudicots
(unranked):	Angiosperms
Kingdom:	<u>Plantae</u>

Binomial name

Heracleum mantegazzianum Sommier & Levier

Giant Hogweed (*Heracleum mantegazzianum*, also **giant cow parsley**) is a plant in the family <u>Apiaceae</u>, native to the <u>Caucasus</u> Region and Central Asia. It may reach 2-5 metres (rarely to 7 m) tall. Except for size, it closely resembles <u>Common Hogweed</u> (*Heracleum sphondylium*), *Heracleum sosnowskyi* or <u>Garden Angelica</u> (*Angelica archangelica*).

It is further distinguished by a stout, dark reddish-purple stem and spotted <u>leaf</u> stalks that are hollow and produce sturdy bristles. Stems vary from 3-8 cm in diameter, occasionally up to 10 cm. The <u>stem</u> shows a purplish-red pigmentation with raised nodules. Each purple spot on the stem surrounds a hair, and there are large, coarse white hairs at the base of the leaf stalk. The plant has deeply incised compound leaves which grow up to 1-1.7 m in width.

Giant Hogweed is a perennial with tuberous rootstalks that form perennating buds each year. It <u>flowers</u> from late spring to mid summer, with numerous white flowers clustered in an umbrella-shaped head that is up to 80 cm (2.5 ft) in diameter across its flat top. The plant produces 1,500 to 100,000 flattened, 1 cm long, oval dry <u>seeds</u> that have a broadly rounded base and broad marginal ridges. Shoots die down in the fall. Tall stems mark its locations during winter.

Many foreign plants were introduced to Britain in the 19th century, mainly for ornamental reasons. A few have become aggressively dominant, creating serious problems in some areas.^[11] It is now widespread throughout the British Isles especially along riverbanks. By forming dense stands they can displace native plants and reduce wildlife interests.^[11] It has also spread in the northeastern and northwestern United States and central Canada. It is equally a pernicious <u>invasive species</u> in Germany, France and Belgium, overtaking the local species.^[11] It was introduced in France in the 19th century by botanists, much appreciated by beekeepers.

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Phototoxicity

Giant Hogweed is a <u>phototoxic</u> plant. Its sap can cause <u>phytophotodermatitis</u> (severe skin inflammations) when the skin is exposed to sunlight or to UV-rays. Initially the skin colours red and starts itching. Then blisters form as in burns within 48 hours. They form black or purplish scars that can last several years. Hospitalisation may be necessary.^[1] Presence of minute amounts of sap in the eyes can lead to temporary or even permanent blindness. These reactions are caused by the presence of linear derivatives of <u>furocoumarin</u> in its leaves, roots, stems, flowers and seeds. These chemicals can get into the nucleus of the epithelial cells, forming a bond with the <u>DNA</u>, causing the cells to die. The brown colour is caused by the production of <u>melanin</u> by furocoumarins. In <u>Germany</u>, where this plant has become a real nuisance, there were about 16,000 victims in 2003 [reference needed].



Giant Hogweed (close-up)

Children should be kept away from Giant Hogweed. Protective clothing, including eye protection, should be worn when handling or digging it. If skin is exposed, the affected area should be washed thoroughly with soap and water and the exposed skin protected from the sun for several days.^[1]

Countermeasures

Because of its <u>phototoxicity</u> and its invasive nature, Giant Hogweed is often actively removed. In the UK the <u>Wildlife and Countryside Act 1981</u> makes it an offence to plant or cause Giant Hogweed to grow in the wild.^{[1] [2]}

For effective control, the plant should not be mowed down, but rather sprayed with a <u>herbicide</u> at intervals until it is gone. Even after the parent plant is completely removed, the numerous seeds left behind can germinate 7 to 15 years later, and ongoing monitoring is required. If the physical method of control uses effective bodily protection such as head-to-toe covering, plus eye protection, removing the green growth helps to exhaust the root and will weaken the plant, so digging it out (as far as 60 cm deep) and chopping it is feasible.

Herbicides such as 2,4-D, TBA, MCPA and dicamba will kill above-ground parts but are reportedly not particularly effective on persistent rootstalks. <u>Glyphosate (Roundup)</u> is considered the most-effective herbicide and should be used cautiously around desirable species since it is nonselective. Application during bud stage and while the plant is actively growing is recommended by New York Cooperative Extension.

External links

- Identifying and removing Giant hogweed on NetRegs.gov.uk
- InvadingSpecies.com advice from Ontario, Canada
- <u>Contact-Poisonous Plants of the World</u>
- Photos of Giant Hogweed
- Manual for eradication of Giant Hogweed available for download as pdf
- Environment Agency of Finland: Photo of the blisters caused by the plant (Graphic)
- it:Panace di Mantegazzi

[edit] References

- 1. ^ <u>a b c d e f</u> see <u>http://www.netregs.gov.uk/netregs/processes/367839/?lang=_e</u>
- 2. <u>^</u> Wildlife & Countryside Act 1981 Section 14 and Schedule 9, Part II.