

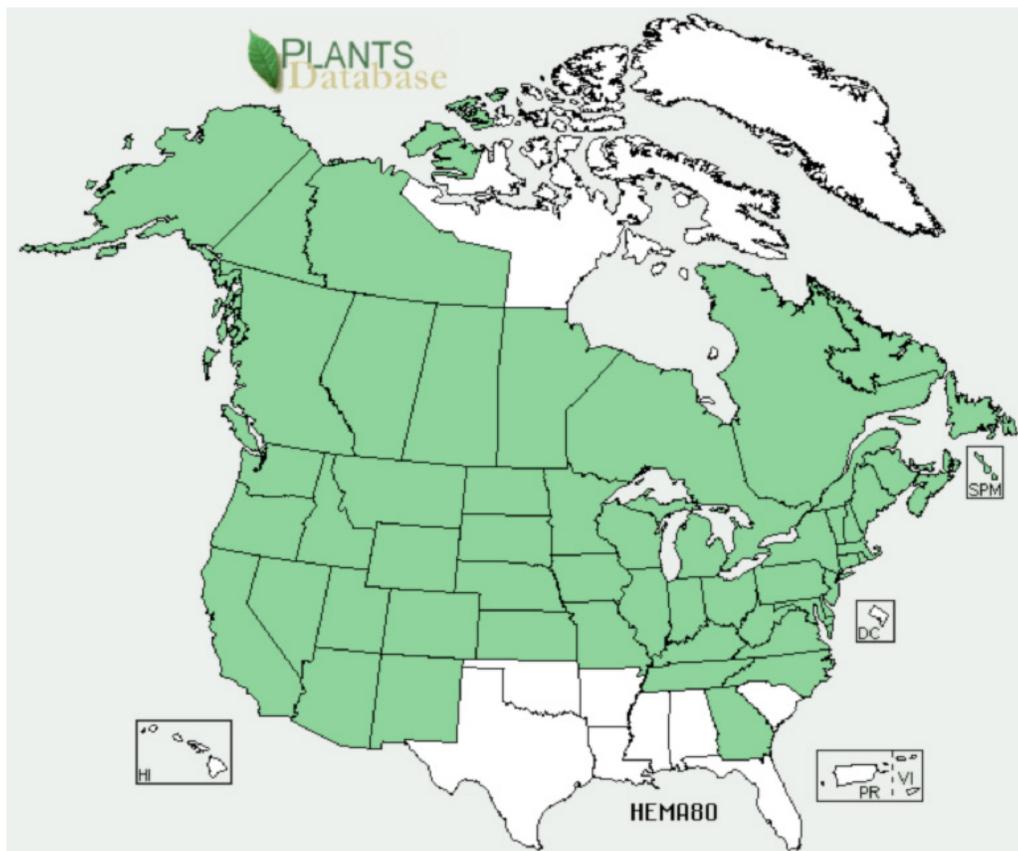
MOTHER NATURE’S CHEMICAL WEAPONS COW PARSNIP



Figure 1

Skin Reaction: Cow parsnip juices contain a phototoxin that acts on contact with skin, triggered by exposure to ultraviolet light. Reaction differs sharply among individuals — from next to nothing to a mild rash to blistering and severe dermatitis, depending on the sensitivity of the individual. Typically, heat intensifies the symptoms. The light-triggered reaction happens quickly.

The Cow Parsnip (*Heracleum maximum* also known as Indian Celery or Pushki) is the only member of the Hogweed genus native to North America. Its classification has caused some difficulty, with recent authoritative sources referring to it variously as *Heracleum maximum* or *Heracleum lanatum*, as *H. linatum*, or as either a subspecies, *H. sphondylium* subsp. *montanum*, or a variety, *H. sphondylium* var. *linatum*, of the Common Hogweed (*H. sphondylium*). The classification given here follows Integrated Taxonomic Information System, ITIS.



Distribution

The Cow Parsnip is distributed throughout most the continental United States except the Gulf Coast and a few neighboring states. It is especially prevalent in Alaska. It is listed as “Endangered” in Kentucky and “Special Concern” in Tennessee. In Canada, it is found in each province and territory, except Nunavut. It may be weedy or invasive in portions of its range.

Figure 2

Characteristics

The Cow Parsnip is a tall herb, reaching to heights of over two meters. It has the characteristic flower umbels of the carrot family (Apiaceae), about 20 cm across; these may be flat-topped, as in the picture below, figure 3, or more rounded, and are always white. The leaves are large, up to 40 cm across, divided into lobes, figure 4. The stems are stout and succulent.



Figure 3



Figure 4

Uses

The juices of all parts contain a phototoxin that can act on contact with skin and exposure to ultraviolet light, causing anything from a mild rash to a blistering, severe dermatitis, depending on the sensitivity of the individual. The plant is a pernicious weed especially in pastures, where it can ruin the milk of cows that eat it.



Figure 5
Cow Parsnip – Mild Exposure & Reaction



Figure 6
Severe Reaction

Various Native American peoples had many different uses for this plant; all parts of it were used by one nation or another. Perhaps the most common use was to make poultices to be applied to bruises or sores. In addition, the young stalks and leaf stems — before the plant reaches maturity — were widely used for food with the outer skin peeled off giving a sweetish flavor. The dried stems were also used as drinking straws for the old or infirm, and to make flutes for children. A yellow dye can be made from the roots, and an infusion of the flowers can be rubbed on the body to repel flies and mosquitoes.

Similar Species

The water parsnip (*Sium suave*), western water hemlock (*Cicuta douglasii*), and spotted water hemlock (*Cicuta maculata*) all have white flowers in large compound umbels and therefore are easily confused with cow parsnip. Water parsnip and water hemlock both have clusters of small white flowers shaped like umbrellas, and both have the same habitat near the shore line of lakes, and rivers. Water parsnip has leaves only once compound, and water hemlock has leaves which are three times compound. Water hemlock has a large swelling at the stem base. All water hemlock is highly poisonous by ingestion. Water parsnip is not poisonous. The water hemlock has bracts at the base of each small flower cluster, not at the base of the main flower head. The Water parsnip has small bracts at the base of flowers and main flower head as well.

The yarrow (*Achillea millefolium*) also has many small white flowers in a cluster. However, the yarrow has feathery looking leaves which are pinnately separated into small narrow segments.

The cow parsnip and hogweed can be confused in this group with similar flower groupings. However, the cow parsnip has large, broad leaves, and an unpleasant odour.



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