

yellow salsify

Tragopogon dubius Scop.

Synonyms: *Tragopogon dubius* Scop. ssp. *major* (Jacq.) Voll., *Tragopogon major* Jacq.

Other common name: common salsify, goat's beard, goatsbeard, meadow goat's beard, salsifis majeur, salsify, western goat's beard, western salsify, wild oysterplant, yellow goat's beard

Family: Asteraceae

Invasiveness Rank: 50 The invasiveness rank is calculated based on a species' ecological impacts, biological attributes, distribution, and response to control measures. The ranks are scaled from 0 to 100, with 0 representing a plant that poses no threat to native ecosystems and 100 representing a plant that poses a major threat to native ecosystems.

Description

Yellow salsify is biennial plant that grows 30 ½ to 91 cm tall from a large taproot. All parts of the plant contain a milky, white juice. Leaves are up to 30 ½ cm long, clasping, alternate, narrow, grass-like, somewhat fleshy, hairless, and light-green to blue-green. Flower heads are 2 ½ to 6 ¼ cm across with yellow ray flowers. Flower heads form at the end of long, hollow peduncles. There are 10 to 14 bracts subtending each head. Bracts are 2 ½ to 5 cm long and extend beyond the ray flowers. Leaves from the previous year are often found at the base of the plant. The fruiting head of yellow salsify is globe-shaped, 6 ¼ to 10 cm in diameter, and composed of pappus-bearing seeds (Royer and Dickinson 1999, Whitson et al. 2000).



Tragopogon dubius Scop. Photo by R. Old.

Similar species: Yellow salsify seedlings can be mistaken for small grass plants. Meadow salsify (*Tragopogon pratensis*) also has yellow flowers and

could be confused with yellow salsify. It grows throughout Canada. Unlike yellow salsify, meadow salsify does not have swollen stems below the flower heads, and each of its flowers has only 8 or 9 floral bracts (Royer and Dickinson 1999). No other tall, yellow-flowered Asteraceae species in Alaska have milky juice and long, narrow bracts.



Flower head on *Tragopogon dubius* Scop. Photo by M. Harte.

Ecological Impact

Impact on community composition, structure, and ecosystem processes: Yellow salsify establishes in sparse, herbaceous communities, where it creates a new layer. High densities of yellow salsify are likely to inhibit the growth and recruitment of native forbs and grasses (M. Shephard – pers. com.). This species is unpalatable to grazing animals. It attracts many types of pollinating insects (M. L. Carlson – pers. obs.).

Impact on ecosystem processes: The impacts of yellow

salsify on ecosystem processes are unknown.

Biology and Invasive Potential

Reproductive potential: Yellow salsify reproduces by seeds only. Each plant is capable of producing up to 500 seeds (Royer and Dickinson 1999).

Role of disturbance in establishment: Yellow salsify grows in disturbed sites. It can establish in intact to moderately grazed prairies in Oregon. Steep slopes are also susceptible to invasion (M.L. Carlson – pers. obs.).

Potential for long-distance dispersal: Seeds are easily and widely dispersed by wind because each seed has a feathery, webbed pappus (Royer and Dickinson 1999).

Potential to be spread by human activity: Yellow salsify is a potential contaminant in commercial seed (USDA, ARS 2004). It is known to contaminate seed mixes used for road construction.

Germination requirements: Seeds do not require cold-stratification to germinate (USDA 2002).

Growth requirements: Yellow salsify is adapted to all soil textures with pH levels from 6.5 to 7.5. It has low nutrient and moisture requirements. This species is shade intolerant, can withstand temperatures as low as -33°C, and requires 160 frost-free days for successful growth and reproduction (USDA 2002).

Congeneric weeds: Meadow salsify (*Tragopogon pratensis*) and common salsify (*T. porrifolius*) are known to occur as non-native weeds in North America (Stebbins 1993).

Legal Listings

- Has not been declared noxious
- Listed noxious in Alaska
- Listed noxious by other states
- Federal noxious weed
- Listed noxious in Canada or other countries

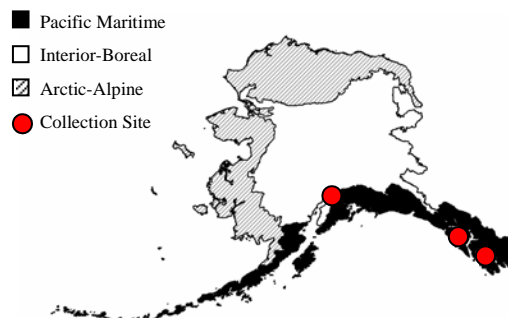
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- Shephard, M., Vegetation Ecologist, USDA, Forest Service, Forest Health Protection, State and Private Forestry, 3301 C Street, Suite 202, Anchorage, Alaska 99503 Division. Tel: (907)

Distribution and Abundance

Yellow salsify is a common weed of cultivated crops, roadsides, and waste areas.

Native and current distribution: Yellow salsify is native to Eurasia. It is now established throughout much of temperate North America. In Alaska, this species has been documented from the Pacific Maritime and Interior-Boreal ecogeographic regions (ALA 2004, AKEPIC 2010).



Distribution of yellow salsify in Alaska

Management

According to Rutledge and McLendon (1996), yellow salsify is not an aggressive weed and control is rarely necessary; however, in southcentral Alaska, multiple years of management efforts (hand pulling) have been unsuccessful (M. Shephard – pers. com., J. Snyder – pers. com.).

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