

Common St. Johnswort

Hypericum perforatum L.

Synonyms: None

Other common names: Klamath weed, St. John's wort

Family: Clusiaceae (Hypericaceae)

Description

Common St. Johnswort is a perennial herb and grows from a rhizome. Stems are 1 to 3 feet high, erect, with numerous branches above, glabrous, somewhat 2-ridged, rust-colored, woody at the base. Leaves are opposite, sessile, entire, elliptic to oblong, about 1 inch long, and glabrous with transparent spots throughout and black marginal dots. Flowers are $\frac{3}{4}$ inch in diameter, bright yellow, numerous in flat-topped cymes, with 5 petals with occasional minute black dots around the edges. Stamens are numerous, arranged in 3 groups, styles 3. Seed pods are $\frac{1}{4}$ inch long, rust-brown, 3-celled capsules, each with numerous seeds (Lomer and Douglas 1998, Whitson et al. 2000).



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No native species of St. Johnswort occur in the state (Hultén 1968, Welsh 1974).

Ecological Impact

Impact on community composition, structure, and interactions: In dense stands, common St. Johnswort displaces native plant species and reduces wildlife foraging sites. The plant contains a toxin that causes

severe dermatitis in light-haired livestock when they are exposed to strong sunlight (Powell et al. 1994, Rutledge and McLendon 1996, Whitson et al. 2000). Hybrid of *H. perforatum* and *H. maculatum* is common in Europe where both species occur (Campbell and Delfosse 1984, Lid and Lid 1994). *Impact on ecosystem process:* Common St. Johnswort depletes soil moisture. It is likely to delay establishment of native species in disturbed sites. In late summer, the dry stalks of St. Johnswort may constitute a fire hazard to forests and rangelands (Sampson and Parker 1930 cited in Crompton et al. 1988).

Biology and Invasive Potential

Reproductive potential: Common St. Johnswort reproduces by seed and short runners. Root system spreads horizontally and forms new buds. The plant is capable of producing 15,000 to 30,000 seeds in one season (Rutledge and McLendon 1996, Parsons 1957). Seed may remain viable in the soil for 6 to 10 years (Clark 1953, Tisdale et al. 1959).

Role of disturbance in establishment: Original infestations usually associated with logging, fire, mining, or other disturbance. It spreads further to naturally open forest stands. Vegetative propagation is usually stimulated when St. Johnswort plants are affected by grazing, mowing, or fire (Tisdale et al. 1959).

Potential for long-distance dispersal: Seeds may be dispersed by wind, water, or animals (Rutledge and McLendon 1996). Gelatinous seed coat facilitates long-distance dispersal by sticking to moving objects or beings (Parsons 1957).

Potential to be spread by human activity: Common St. Johnswort was introduced to new areas for ornamental and medicinal purposes (Parsons 1957). It has been cultivated on farms in eastern European countries (Gubanov et al. 2003, Schauenberg 1974 cited in Crompton et al. 1988). Seeds also can be distributed over large areas, adhering to wheels of vehicles, or contaminating hay, or soil (Parsons 1957).

Germination requirements: Seeds require 4-6 months following harvest before they became germinable and 12 months for them to reach maximum germination capacity (Cambell 1985). Seeds germinate best at temperatures of 70 to 78° F, and require bare soil, sunlight and/or heavy rain (Tisdale et al. 1959).

Growth requirements: Common St. Johnswort appears well adapted to a wide variety of habitats and climatic conditions (Tisdale et al. 1959). It occurs in dry, gravelly, or sandy soils and can tolerate pH ranges of 4.3 to 7.6 (Rutledge and McLendon 1996). The most vigorous infestations in Australia occur in areas with an annual rainfall of 760 mm or more (Cambell and Delfosse 1984).

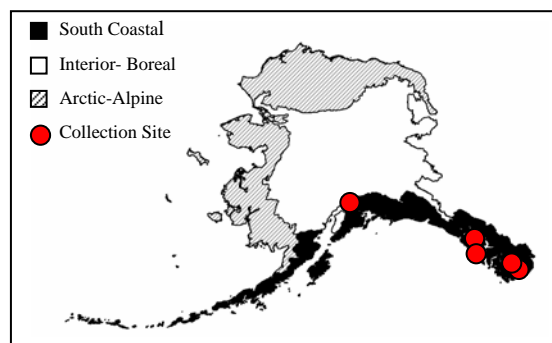
Congeneric weeds: *Hypericum androsaemum* is a very important weed in Australia (Parsons 1957).

Listing: *Hypericum perforatum* declared a noxious weed in California, Colorado, Montana, Nevada, Oregon, Washington, Wyoming, Manitoba, and Quebec (Invaders Database System 2003, USDA 2002).

Distribution and abundance

Native and current distribution: Common St. Johnswort is native to Europe, western Asia, and Northern Africa. It is naturalized in Asia, South Africa, North and South America, and Australia. It is commonly found along roadsides and on other disturbed areas. It also invades rangelands, pastures, and meadows (Guide to weeds in British Columbia 2002, Parsons 1957, Powell et al. 1994). *Hypericum*

perforatum has been recorded from Anchorage, Sitka, Ketchikan, and Baranof Island, Alaska (AK Weed Database 2004).



Management

Common St. Johnswort is difficult to control because of its extensive root system and long-lived seeds. Tillage, hand pulling, mowing, or burning appears to be ineffective because vegetative reproduction may be stimulated by mechanical treatment (Tisdale et al. 1959). Chemicals have been used to control it, but wax on the leaves may inhibit herbicide uptake. Biological control has been relatively successful using several leaf-feeding beetles. However, in Canada and at high elevations these insects do not thrive (Campbell and Delfosse 1984, Rutledge and McLendon 1996, White et al. 1994).

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