

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(March 2001)
W-O-R-K-I-N-G C-O-P-Y**

Scientific Name: *Cytisus scoparius* (L.) Link.

Common Name: Scotch broom

Family: Fabaceae

Legal Status: Class B

Description and Variation: A perennial, many-branched, evergreen shrub ranging in height from 3 feet to 10 feet tall. The dark green branches are stiff and angled, with young plants showing five green ridges with hairs along these ridges. Mature plants have glabrous stems and the distinct ridges disappear (Brossard et al.). Many branches are leafless, or have few leaves. When present, the leaves are oblong and pointed at both ends, the lower leaves are often trifoliate (three petaled), but the upper leaves are simple. The leaves are deciduous. The pea-like flowers are bright yellow, five petaled and consist of Flowering is from April to June. ... The mature fruit are dark brown or black pods, and they are hairy only along the seams. Each pod contains 3 to 12 dark, shiny seeds that are round or oval shaped (Brossard et al.).

Economic Importance:

Detrimental: Scotch broom aggressively spreads to form monocultures, replacing desirable forbes, grasses and young trees. It interferes with re-establishment of conifer seedlings (Burrill). In California biomass is reported up to 50,000 kg/hectare in 4 years. Seeds are toxic to ungulates. Mature plants are unpalatable and cause digestive problems in horses (Parsons 1992 as cited in Brossard et al.). Fast growing plants outgrow and outshade tree seedlings in forested areas. Scotch broom fires are carried to tree canopies, changing fire cycles to be more frequent and intense (Parsons 1992 as cited in Brossard et al.). A long lived seed bank makes control difficult (Brossard et al. 2000).

Beneficial:

Habitat:

Geographic Distribution: Native to Europe and North Africa. In it's native European range, Scotch broom colonizes disturbed areas (Bossard 1991).

History: The common name, broom, is attributed to its growth habit - the dense mass of upright stems were cut and made into brooms (McClintock 1979). Introduced to Washington in the 1800's as an ornamental plant, now widespread throughout the western coast from British Columbia to California, west of the ern Washington. Occasional plants now found in eastern Washington. Introduced in CA in 1850's as an ornamental and used to prevent soil erosion and to stabilize coastal dunes by the Soil Conservation Service of the United States Department of Agriculture (USDA) (Schwendiman, 1977; McClintock 1985 as cited in Bossard 1993).

Growth and Development: Root nodules fix nitrogen. The plant uses the available nitrogen, it only becomes available to other plants when the broom plant dies. In CA plant lives for 17 years (Bossard 1993). Reproductive maturity occurs after three years. Prescribed burns under conditions to maximize soil heating could decrease the seed bank - research continues (Bossard 1993). 10% of seeds remain viable for at least three years (Bossard 1990).

Reproduction: Spreads by seed. Seeds remain viable for up to 80 years.

Response to Herbicide:

Response to Cultural Methods:

Response to Mechanical Methods:

Biocontrol Potentials: In England there are a reported 35 species of herbivores on Scotch broom, and in its native range in Italy there are a reported 32 phytophagous species (Bossard 1994). Plant foliage in xeric climates are less palatable (Crawley 1983 as cited in Bossard 1994)

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Rationale for Listing: