

Brooms *Cytisus* spp., *Genista* spp., *Spartium* spp.

Scotch broom *Cytisus scoparius*

French broom *Genista monspessulana*

Spanish broom *Spartium junceum*

Portuguese broom *Cytisus striatus*

Scotch, French, Spanish, and Portuguese brooms were introduced into the western United States from Europe and the Mediterranean region in the mid-1800s to stabilize mine tailings and other erosion and for landscaping. They now grow from western British Columbia to California (Figures 4a–d, following pages). The flowers had medicinal uses, and stems were used to make brooms, thus the name.

The brooms can tolerate a wide range of soil conditions, fix nitrogen, grow for much of the year, and produce large quantities of long-lived seeds—all of which make them aggressive and difficult to control. These invaders can quickly grow to dense stands that choke out other plants (Figure 1), create a significant fire hazard, and are unpalatable and even toxic to wildlife, domestic animals, and humans. All grow best in dry, sandy soils in full sunlight. Root systems are also aggressive and deep.



Figure 1.—A large Scotch broom infestation. Photo: Eric Coombs, Oregon Department of Agriculture.

Description

Scotch broom is an attractive perennial evergreen shrub with bright yellow, pealike flowers (Figure 2). It can grow to 12 feet high but usually is 3 to 6 feet high; branches are stiff, dark green, and broomlike. Leaves are single or in clusters with bright green groups of three leaflets.



Figure 2.—Scotch broom flower.

Photo: Eric Coombs, Oregon Department of Agriculture.

French broom is probably the most aggressive broom. Flowers are in clusters (Figure 3a, next page). Stems are leafy, have eight to ten ridges, and are covered with silky, silvery hairs. Leaves are compound, with three leaflets, and are oblong. Leaflets appear waxy above and slightly hairy below.

Portuguese broom strongly resembles Scotch broom in its leaf patterns and often is mistaken for it (Figure 3b, next page). Longer lived and larger than Scotch broom, it can reach 20 feet across.

Spanish broom is often leafless or nearly so, particularly in late season (Figure 3c, next page). The stems are finely ribbed and round in cross section.

Broom plants can produce 15,000 seeds per year. Plants use a variety of germination tactics to facilitate their spread, including immediate and delayed germination. Some seeds require scarification to germinate, which is facilitated by human activities that disturb the soil.

Management options

Biological, chemical, and mechanical methods are available for managing the broom species. For this reason, an integrated weed management plan, including tactics to prevent their spread outside infested areas, is recommended. Brooms are moderately intolerant of shade, so providing heavy shade is an effective long-term treatment. Also, once brooms are removed, establishing desirable competing plants such as grasses may prevent broom seedlings from reinvading.



Figures 3a–c.—From left: French, Portuguese, and Spanish brooms. Photos: (a, c) Ken French, and (b) Glenn Miller, both of Oregon Department of Agriculture.

Biological control

Several insects will damage brooms by feeding on seeds, spines and leaves; however, none is an effective control. These include the twig-mining moth, *Leucoptera spartifoliella*; the seed weevil, *Apian fuscirostre*; and the shoot tip leaf moth, *Agonopterix nervosa*.

Chemical control

Note: Before you apply herbicide on forest land, you must file a “notification of operations” with the Oregon Department of Forestry at least 15 days in advance.

The following information about herbicides is only a brief summary; consult your local Extension agent or Oregon Department of Agriculture representative for specific recommendations for your situation. Read and follow the herbicide label carefully. Before spraying over or around seedlings, ensure the chemicals pose no hazard.

Many herbicides are effective against brooms. Of the most commonly available chemicals, glyphosate at a concentration of 5 percent mixed in water works well, especially with a surfactant. Spray until the plant is thoroughly wet and apply just as flowers are blooming. Milestone VM Plus (aminopyralid + triclopyr amine) provides excellent control.

Use pesticides safely!

- Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.
- Read the pesticide label—even if you’ve used the pesticide before. Follow closely the instructions on the label (and any other directions you have).
- Be cautious when you apply pesticides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

If conifer seedlings are present, use directed rather than broadcast spray, as herbicides may damage seedlings.

Cutting plants and painting the stumps within a few minutes of cutting with a glyphosate or triclopyr solution, at 50 percent in water, can also be effective.

For details on chemical control, refer to the current edition of the *PNW Weed Management Handbook* and to *Herbicide-resistant Weeds and Their Management*, PNW 437. Both are available from OSU Extension <http://extension.oregonstate.edu/catalog/>

Mechanical control

Avoid soil disturbance as much as practical. Disturbance brings seeds close to the surface where they will germinate. Lop plants to within 3 inches of the soil during the driest period only (late July through early October). Lopping during moist periods will stimulate vigorous sprouting. Mowing is effective when the plants are under drought stress. Hand-pulling or hoeing can be effective on small populations of young plants.

Grazing

Brooms are generally unpalatable and may be toxic as well, so grazing is limited. However, goats have been reported to browse brooms without ill effects.

Fire

Mixed results have been obtained using fire to control brooms. There is some suggestion that frequent prescribed fires will encourage seed germination, kill young plants, and eventually deplete the seed bank.

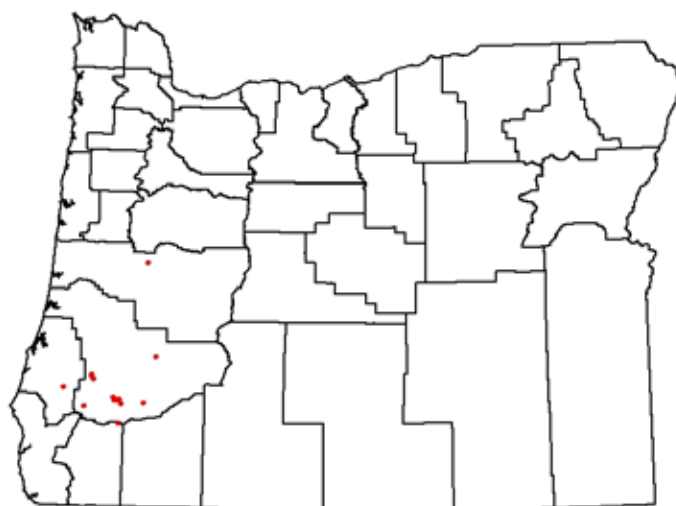


Figure 4a.—French broom distribution in Oregon. Map: Weedmapper.

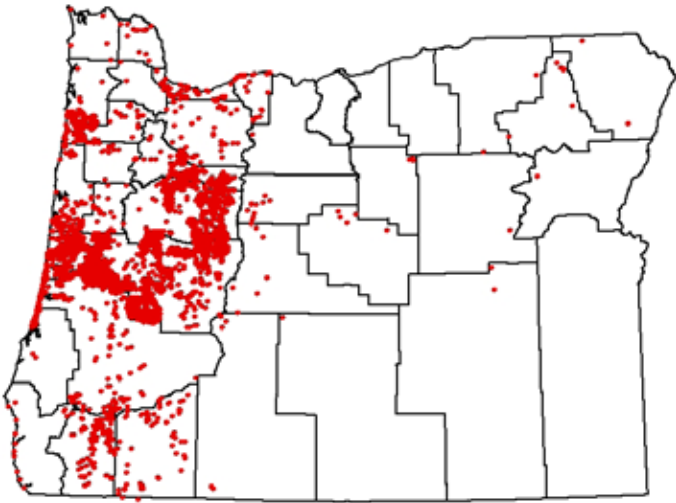


Figure 4b.—Scotch broom distribution in Oregon.
Map: Weedmapper.

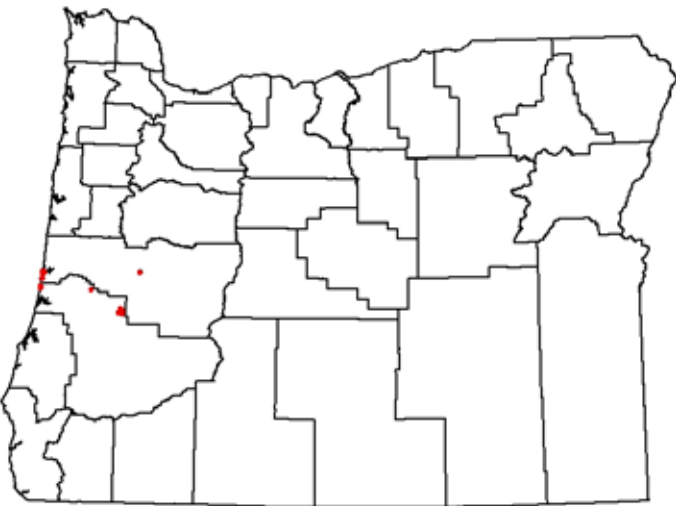


Figure 4c.—Portuguese broom distribution in Oregon.
Map: Weedmapper.

For more information

Weed Research and Information Center, University of California Cooperative Extension.
<http://ucce.ucdavis.edu/files/filelibrary/616/9833.pdf>

California Department of Food and Agriculture, Encycloweedia.

http://www.cdfa.ca.gov/phpps/ipc/weedinfo/winfo_table-commname.htm

Center for Invasive Plant Management, Montana State University.

<http://www.weedcenter.org>

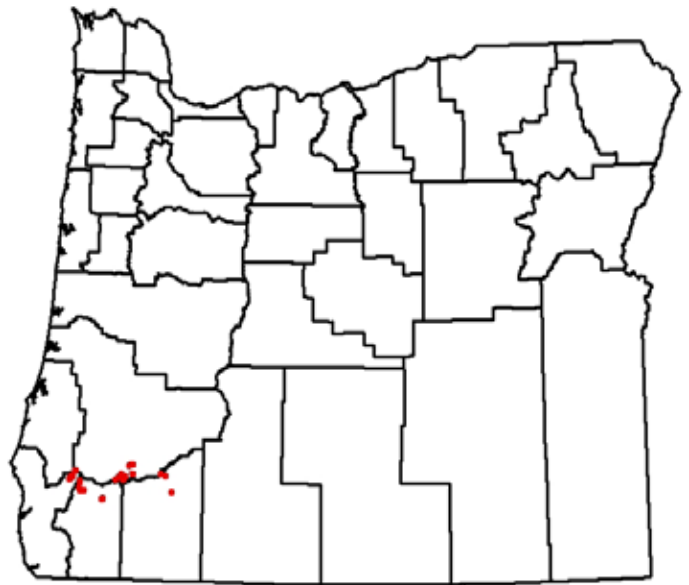


Figure 4d.—Spanish broom distribution in Oregon.
Map: Weedmapper.

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