

Marah oregana – Coast Manroot

English name: Coast Manroot

Other English name: Oregon Manroot, Bigroot, Western Wild Cucumber, Old Man in the Ground, Oregon Bigroot

Scientific name: *Marah oregana* (Torrey & A. Gray) Howell

Other scientific name: *Echinocystis oregana* (Torr. & A. Gray) Cogn., *Megarrhiza oregana* (Torr. & A. Gray) S. Watson,

Family: *Cucurbitaceae* (Cucumber Family)

Risk status

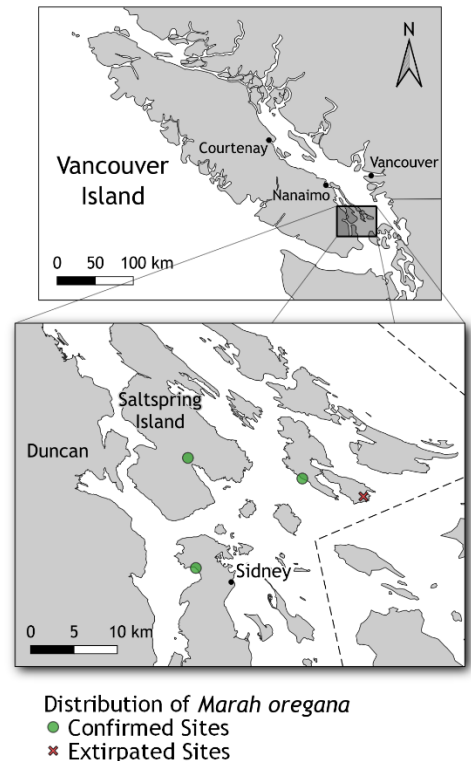
BC: critically imperilled (S1); red-listed

Canada: Endangered

Global: secure (G5)

Elsewhere: Washington, Oregon, California, Idaho, Wyoming no status (SNR)

Range/Known distribution: In Canada, Coast Manroot occurs on the Saanich Peninsula and the southern Gulf Islands, where there are three extant populations and one extirpated population. In the United States it ranges south along the coast and through the Coast and Cascade Ranges south to the San Francisco area. There are outlier populations in the Wallowa Mountains and the hills southwest of Yellowstone National Park, in the central Sierra Nevada, and near Los Angeles.



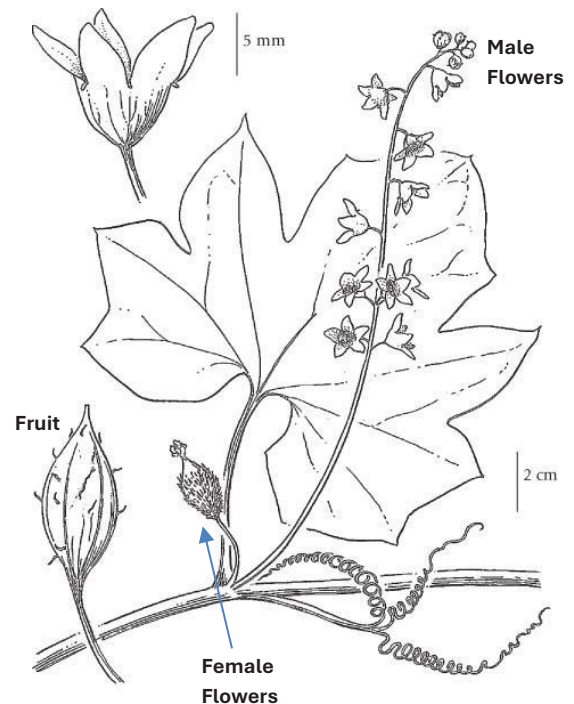
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Field description: Oregon Manroot is a climbing perennial vine that grows from a woody, tuberous root. In mature plants, the scaly, tan-coloured tuber can be over a meter long and weigh up to 100 kg. One to several stems grow from the root, often more than 5 metres long. The stems trail on the ground or climb over other vegetation with branched tendrils. The leaves are large (up to 20 cm long), alternate and shallowly lobed with a heart-shaped base. The whitish flowers are 6-12 mm across, bell-shaped, with 5-8 petals. The male flowers are borne in clusters from the leaf axils and the solitary female flowers occur on short stalks at the base of the male clusters. The fruit are green, spiny gourds, 4-5 cm in diameter with an average of 3-4 large (16-22 mm) seeds inside.

Identification tips: Wild Cucumber (*Echinocystis lobata*), which has been introduced to western Canada from eastern North America, superficially resembles Coast Manroot. The fruits of Wild Cucumber are more globular, and the seeds are rougher than those of Coast Manroot. Wild Cucumber leaves have five lobes, each tapering to a single acute point, so that the leaf resembles a 5-pointed star. Coast Manroot leaves have lobes with multiple points, giving a more rounded appearance.



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Life history: After seeds of Coast Manroot have been exposed to a period of cool and moist conditions in late fall and early winter, an embryonic sprout emerges, enlarges, and begins to grow directly downward into the soil carried by the elongating bases of the cotyledons. As the cotyledons elongate, they fuse to form a hollow tube, carrying the rest of the embryonic plantlet (i.e., the epicotyl, hypocotyl, and radicle) out of the seed and down into the soil.

In British Columbia, most seedlings emerge in late April. The plants may begin flowering in 3-7 years. Plants have a long flowering period; the first flowers may appear in mid to late May and plants may still produce flowers into July. The first flowers may only have male flowering structures, later flowers have both male and female parts, and the last flowers may be purely female. It is pollinated by both small native bees and the introduced Honeybee (*Apis mellifera*). The first flowers may have produced green, full-sized fruit by mid June. Fruit production will continue until the shoots die back in the summer drought, usually in late July or August. Each fruit may contain three or four large seeds. Seeds germinate best when carried into the soil, perhaps by rodents.

Habitat: In Canada, Coast Manroot is found in open woodlands, shrub thickets, and talus slopes.

Why this species is at risk: In its main range, Coast Manroot is sometimes considered a weed because its foliage may crowd, shade, and compete with crops. This is not a problem with the extant Canadian populations, although the South Pender Island population was deliberately eradicated from the farm where it occurred.

What you can do to help this species: Management practices should be tailored to the needs of the site. Potential management tools will depend on the specific circumstances and may require experimentation prior to implementation. Before taking any action, expert advice should be obtained, and no action taken without it. Public and private landowners should be made aware of new populations of this species if they are discovered, and appropriate management practices suggested.

The three remaining Coast Manroot populations in Canada are fairly secure and require little attention. A fourth population could be established to replace the one lost from South Pender Island.

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References

- COSEWIC 2005. COSEWIC assessment and status report on the dense spike-primrose *Epilobium densiflorum* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 26 pp.
(www.sararegistry.gc.ca/status/status_e.cfm)
- Burrill, L. C. 1992. Weeds. Western Wildcucumber *Marah oreganus* (T. & G.) Howell. A Pacific Northwest Extension Publication. PNW 401. Oregon State University, Washington State University, University of Idaho.
- Callahan, F. n.d. *Marah* Mysteries: Confusion over Wild Cucumber.
<https://www.npsoregon.org/kalmiopsis/kalmiopsis24/kalm24marah.pdf>
- Schlising RA. 1966. Reproductive ecology of plants in the genus *Marah* (Cucurbitaceae). PhD Dissert., Univ. Calif., Berkeley, California
- Stocking, K. M. 1955. Some taxonomic and ecological considerations of the genus *Marah* (Cucurbitaceae). *Madrono* 13:113-144.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at:
www.goert.ca

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*Refers to non-native species