

## *Yabea microcarpa*

**English names** California hedge-parsley, false hedge-parsley, false carrot

**Scientific name** *Yabea microcarpa*

**Family** Apiaceae or Umbelliferae (Parsley)

**Other scientific names** *Caucalis microcarpa*

### **Risk status**

BC: critically imperilled (S1); red-listed

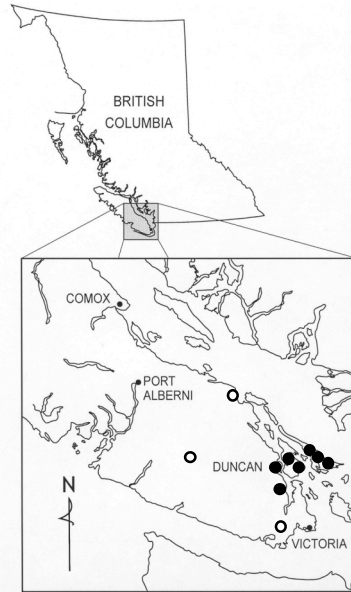
Canada: critically imperilled (N1); COSEWIC: not yet assessed

Global: secure (G5?)

Elsewhere: Utah – critically imperilled (S1); New Mexico – vulnerable (S3?); California, Oregon, Washington, Idaho, Arizona, Nevada – reported (SNR)

### **Range/known distribution**

California hedge-parsley is native to western North America, where it ranges from southwestern British Columbia southward along both sides of the Cascade Mountains in Washington to Arizona and Baja California. In British Columbia, California hedge-parsley is known only from southeastern Vancouver Island and the adjacent Gulf Islands. There are currently 13 known occurrences (comprising about 7 distinct populations) distributed over a small geographic area spanning Malahat Drive north of Victoria, Duncan, Salt Spring Island, Galiano Island and Saturna Island. Historical records exist for another 3 populations (at Victoria, Cowichan Lake, and Nanaimo), but these have not been seen for 40 or more years and are now thought to be extirpated.



**Distribution of *Yabea microcarpa***  
● recently confirmed sites  
○ unconfirmed or extirpated sites

Species at Risk in Garry Oak and Associated Ecosystems in British Columbia



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### Field description

California hedge-parsley is a **slender annual herb** growing from a taproot. It has a single or branched stem and ranges from 10 to 40 cm tall. The **compound leaves** are stalked, with leaf blades that are **finely dissected into narrow threadlike segments**. The leaf blades themselves are 2-6 cm long and egg-shaped or oblong in outline. The **white flowers** are **arranged in compound umbels** (multi-branched clusters) consisting of a whorl of 2-10 cm long peduncles (stalks) each of which terminates in a second whorl of 2 to 9, erect pedicels (flower stems). The entire inflorescence arises from a **whorl of leaf-like bracts at the top of the main stem**. The **flowers are minute and slightly bilateral** (asymmetrical). The petals are obovate (reverse egg-shaped) with narrowed tips. The **fruits are oblong and laterally compressed** (flattened side to side), **with bristly primary ribs alternating with prickly wings**. There is a single oil tube present in the interval between each primary rib. The fruits are **beakless** (not abruptly pointed at the tip).

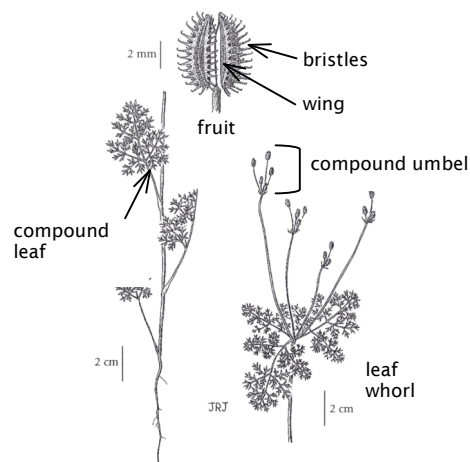
### IDENTIFICATION TIPS

California hedge-parsley is the only species (worldwide) belonging to the genus *Yabea*. Nevertheless, this species could be mistaken for other species found on Vancouver Island such as upright hedge-parsley (*Torilis japonica*), an introduced Japanese species. However, the fruits of the latter have abruptly pointed tips (beaks) and are covered with prickles that are generally distributed rather than restricted to the ribs. American wild carrot (*Daucus pusillus*) has similar foliage and fruits, but in this species the flowering stems are not subtended by a whorl of leafy bracts.



Shyanne Smith

*Yabea microcarpa*



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### **Life history**

California hedge-parsley is an annual plant that flowers in May-June in British Columbia. Beyond this, little is known of its life history. The plant's floral structure suggests that it is self-compatible (capable of self-pollination). The small fruits have numerous small hooks on the ribs that could readily attach to feathers or fur, suggesting that animals (e.g. birds, grazing mammals) are likely the main disperser of seeds. As with many small annuals, California hedge-parsley may have a persistent seed bank that enables it to persist through unfavourable growing years.

### **Habitat**

This plant occurs on a variety of microsite types within Garry oak (*Quercus garryana*) and associated ecosystems, ranging from vernal moist grassy slopes and rock outcrops to closed canopy Garry oak-Douglas-fir (*Pseudotsuga menziesii*) woodlands. Most sites are on hilly terrain and in close proximity to Garry oak forests. For example, the Salt Spring Island population occurs in colluvial material on a steep south-facing slope, near the base of conglomerate cliffs in an open forest of Douglas-fir, big-leaf maple (*Acer macrophyllum*) and Garry oak. Prominent associates on the shallow-soiled open sites include spring beauty (*Claytonia* spp.), mountain sweet-cicely (*Osmorhiza berteroi*), water chickweed (*Montia fontana*) and Pacific sanicle (*Sanicula crassicaulis*). On forested sites, associated species include Oregon grape (*Mahonia nervosa*), oceanspray (*Holodiscus discolor*), honeysuckle (*Lonicera* spp.) and Alaska oniongrass (*Melica subulata*). Numerous alien invasive species including sweet vernalgrass\* (*Anthoxanthum odoratum*), orchard grass\* (*Dactylis glomerata*), barren brome\* (*Bromus sterilis*) and Scotch broom\* (*Cytisus scoparius*) occur at most sites.

### **Why the species is at risk**

There are only 7 populations known in Canada, some of which are quite small, numbering as few as 14 plants and occupying areas as small as 1 m<sup>2</sup>. The total land area occupied by the species in Canada is less than 0.2 km<sup>2</sup>. Five of the seven extant populations occur on private land, some of which are "view" properties and thus desirable sites for development. The primary threat to existing populations is habitat destruction associated with urbanization. Competition from non-native species also threatens to degrade both existing and potential habitat. Heavy grazing by sheep and/or goats at some Gulf Island sites also represents a potential threat, although the impacts of grazing are not clear at this time.

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### **What you can do to help this species**

Management practices should be tailored to the specific circumstances at the site. Potential management tools will depend on the specific circumstances and may require experimentation on artificially established populations prior to implementation. **Before taking any action, expert advice must be obtained and no action taken without it. Please refer to the introductory section of this manual.**

Public and private landowners should be made aware of new populations of this species if they are discovered, and appropriate management practices suggested. Existing populations should be monitored on an ongoing basis to determine their viability, as well as for any negative impacts stemming from private land development, livestock grazing and encroachment of introduced species.

### **References**

British Columbia Conservation Data Centre. Botany Program. 2007. Database containing records of rare plant collections and observations in the province of British Columbia.

Douglas, G.W. and S. Smith. Draft COSEWIC Status Report on California hedge-parsley *Yabea microcarpa*. Draft report prepared for the Committee on the Status of Endangered Wildlife in Canada.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at: [www.goert.ca](http://www.goert.ca).

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\*Refers to non-native species.