

Added to List 2.1 on 1/5/09**Rare Plant Status Review: *Cicuta maculata* var. *bolanderi***

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Changes made since the original status review appear in blue.

Background

Cicuta maculata var. *bolanderi* is a perennial herb in the Apiaceae. *C. maculata* var. *bolanderi* (previously treated as *C. bolanderi*) has long been recognized as a taxon native to California. It is included in *The Jepson Manual* (1993), and will be included in *The Jepson Manual* (2nd edition). *C. maculata* var. *douglasii* is distinguished from other *Cicuta* taxa based on fruit characters (including shape) and vegetative characters. *C. maculata* var. *bolanderi* flowers from July to September.

C. maculata var. *bolanderi* is known from approximately 18 occurrences in 7 counties along the California coast, and in the Delta in the Central Valley. Occurrences range from Marin County in the north to Los Angeles County in the south. The largest concentrations of *C. maculata* var. *bolanderi* occur in the Suisun Marsh, and in Point Reyes National Seashore. In California, occurrences are known from 0 to 200 meters in elevation. Since herbarium specimens are the main source for most of the known locations, many of the sites are vague. More detailed location information for most occurrences is needed to correctly map *C. maculata* var. *bolanderi*. *C. maculata* var. *bolanderi* also occurs in Arizona, Washington, Montana, New Mexico, and 16 other states in the Midwest and Southeast US. It is ranked by NatureServe as T3T4 with a rounded global status of T3 (Vulnerable-often with fewer than 80 occurrences). NatureServe indicates that it is, "rare and scattered throughout its range (and that it is) wide ranging, occurring in wetland habitats but not reported abundant in any state or locality."

C. maculata var. *bolanderi* is known from freshwater and brackish marsh habitats. Baye et al. (1999) state that in Suisun Marsh *C. maculata* var. *bolanderi* is an infrequent to rare species of the "middle brackish marsh zone." This habitat is dominated by *Distichlis spicata* with co-dominant to common species including *Salicornia virgata*, *Juncus* sp., *Atriplex triangularis*, *Frankenia salina*, and *Cuscuta salina*. At sites in Point Reyes National Seashore habitat is dominated by *Typha* spp. or *Schoenoplectus* spp. (D. Smith, pers. comm. 2008).

None of the southern California occurrences (San Luis Obispo, Santa Barbara, and Los Angeles counties) of *C. maculata* var. *bolanderi* have been documented for over 30 years. The historical occurrence from "Los Angeles" is known from a single herbarium specimen collected at an unknown date. The occurrence from Atascadero (San Luis Obispo County) is also from a single herbarium specimen from 1969. The occurrence from the Santa Ynez Valley is known from 6 herbarium specimens, but the location of these collections is not well defined

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(CNDDDB indicates that the exact location of *Cladium californicum* collected at the same location by the same collector, C.F. Smith, is unknown, and is, "mapped as a best guess near pond/marsh area on Price Rd."). [Current information indicates that *C. maculata* var. *bolanderi* is likely extirpated from Los Angeles County and Santa Barbara Counties, and is possibly extirpated from San Luis Obispo County.](#) In northern California, six occurrences are also only known from historical herbarium collections (with no collections within the last 50 years). As a result, all occurrences in southern California, and many occurrences in northern California need field work to verify whether they are still extant. No information about the population sizes/demographics at any of the known occurrences is currently available. D. Smith (pers. comm. 2008) indicates that, "plants may put on a show one year and be apparently absent for several years afterwards."

C. maculata var. *bolanderi* is severely threatened by development, exotic plants, and hydrological alterations. Suitable habitats within and beyond the known range of *C. maculata* var. *bolanderi* should be searched for additional occurrences. Several of the northern California occurrences of *C. maculata* var. *bolanderi* occur on lands managed for conservation purposes by the National Park Service, the California Department of Fish and Game, local land trusts, and others. The ownership of the southern California occurrences is unknown.

C. bolanderi was included the 1974 CNPS Rare Plant Inventory (1st edition) on the "Very Rare and Rare and Endangered Plants" list (R-E-V-D code 2-2-2-1). In the 1980 CNPS Inventory (2nd edition) *C. maculata* var. *bolanderi* was included on List 4: Plants Rare in California, Common Elsewhere (R-E-V-D code 2-2-2-1). In the 1984 CNPS Inventory, it was included on the Considered but Rejected (CBR) list (as a taxon too common to be included in the inventory), where it has remained since.

Based on the current information regarding the rarity of and threats to *C. maculata* var. *bolanderi* in California, CNPS and CNDDDB recommend that it be added to List 2.1.

Recommended Actions

CNPS: Add to CNPS List 2.1

CNDDDB: Add to CNDDDB as G5T3T4 / S2.1

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Cicuta maculata L. var. *bolanderi* (S. Watson) G.A. Mulligan
Apiaceae

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List 2.1

Marin, Sacramento, Solano, Contra Costa, Santa Barbara*, San Luis Obispo*?, Los Angeles*; Arizona, Washington, Montana, New Mexico, and others
Bruceville (496C) 3812134, Drake's Bay (485C) 3812218, Inverness (485D) 3812217, Tomales (485B) 3812228, Fairfield South (482A) 3812221, Antioch North (481D) 3812117, Courtland (497D) 3812135, Vine Hill (482D) 3812211, Dozier (498D) 3812137, Benicia (482C) 3812212, Sisquoc (195D) 3412073*, Los Alamos (170A) 3412063*
Marsh or Swamp / coastal, fresh or brackish water; elevation 0-200 meters.
Perennial herb, blooms July-September
Threatened by development, non-native plants, and hydrological alterations.