

**Added to California Rare Plant Rank 2.1 on April 10, 2012**

**Rare Plant Status Review: *Cardamine angulata***

**Proposed New Add to Rank 2.1, G5 / S1**

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**Background**

*Cardamine angulata* is a perennial herb in the Brassicaceae family that is distributed along the coastal states and provinces from Alaska south to California. It is included in *The Jepson Manual* (1993), *The Jepson Manual, Second Edition (TJM 2)*; available online at [http://ucjeps.berkeley.edu/cgi-bin/get\\_IJM.pl?tid=17120](http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=17120)), and the *Flora of North America (FNA)*; available online at [http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=250094653](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250094653)). *Cardamine angulata* was first described by W.J. Hooker in 1829, and is distinguished from other *Cardamine* spp. by its cylindric non-fleshy rhizome, pinnately- to palmately-compound leaves, and the presence of rhizome leaves (*TJM 2*). It blooms from March to July.

*Cardamine angulata* grows in lower montane and north coast coniferous forests, where it tends to occur in wet places and along streams. It grows between 65 and 915 meters.

Until recently, there were only two known occurrences of *C. angulata* in California, both from Humboldt County, but recent herbarium annotations by I. Al-Shehbaz have led to a few more finds, making a total of five occurrences. The new occurrences extend the range east to Siskiyou County and south to Marin County. None of the occurrences have been documented in the last 20 years, and only one occurrence has been documented in the last 50 years (occurrences older than 20 years are considered historical by the CNDDDB). Many of the locations are somewhat vague, so land ownership cannot be definitively determined. One occurrence is in Prairie Creek Redwoods State Park, and the other four may be on private land. Land managers at Prairie Creek Redwoods State Park were not aware of the presence of this *C. angulata* in the park, but they may conduct surveys for it in the spring (J. Harris pers. comm. 2012). Review of additional herbarium records as well as surveys of streambanks in north coast coniferous forests could potentially lead to the discovery of new occurrences in California, in addition to updating known records.

*Cardamine angulata* is ranked Vulnerable (S3; generally 21-80 occurrences) in Alaska, Imperiled (S2; generally 6-20 occurrences) in British Columbia, Canada, and is not ranked in Oregon or Washington (NatureServe 2012).

Threats to *Cardamine angulata* are not currently known, but given the low number of historical occurrences and the fact that many of the California occurrences may be on private land, it should be considered very threatened. Based on the available information, CNPS and CNDDDB recommend that *Cardamine angulata* be added to Rank 2.1 of the CNPS Inventory.

**Recommended Actions:**

CNPS: Add to CNPS 2.1

CNDDDB: Add to CNDDDB G5 / S1

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.

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**Draft CNPS Inventory Record**

*Cardamine angulata* Hook.

seaside bittercress

Brassicaceae

Rank 2.1

Del Norte, Humboldt, Marin, Siskiyou

Arcata South (672D) 4012471, Dunsmuir (682A) 4112223, Fern Canyon (706A)

4112441, Requa (723D) 4112451, San Geronimo (484C) 3812216

North coast coniferous forest, lower montane coniferous forest / wet areas, streambanks; 65 to 915 meters.

Perennial herb. Blooms March to July

All occurrences historical; need field surveys. See *Flora Boreali-Americana* 1(1):44-45 (1829) for original description.