

Added to Rank 1B.2 of the CNPS Inventory on December 3, 2012**Rare Plant Status Review: *Erysimum concinnum*****Proposed New Add to Rank ~~4.2~~ 1B.2, G3 / S3**

Danny Slakey (CNPS), Aaron Sims (CNPS) and Roxanne Bittman (CNDDDB)

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Changes made to the original document appear in blue text.

Background

Erysimum concinnum is a biennial or short-lived perennial herb in the Brassicaceae family that occurs on the coast from southwestern Oregon to San Francisco, California. It was described by A. Eastwood in 1901, and was treated as *E. menziesii* ssp. *concinnum* in *The Jepson Manual* (1993). However, that name was never validly published, so it is currently treated as *E. concinnum* in *The Jepson Manual, Second Edition* (*TJM 2*; available online at http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=25128) and the *Flora of North America* (*FNA*; available online at http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250095070). At MacKerricher State Park in Humboldt County and in coastal dunes of Del Norte County, *E. concinnum* intergrades with *E. menziesii*, possibly the reason why *E. concinnum* was treated as a subspecies of *E. menziesii* in *TJM 1993* (T. Sholars pers. comm. 2004, R. Price pers. comm. 1995). Although the treatment of *E. concinnum* as a subspecies of *E. menziesii* may better reflect the evolutionary relationships in this group, the combination *E. menziesii* ssp. *concinnum* has never been validly published, so that name cannot be used. *Erysimum concinnum* has shorter pedicels and larger seeds than *E. menziesii*, but there is some overlap in these characters (*TJM 2*). *Erysimum concinnum* flowers from February until July (Consortium of California Herbaria, CCH, 2012; Calflora 2012).

Erysimum concinnum is restricted to coastal habitats, but is to some degree a habitat-generalist. It is found on coastal sand dunes, in coastal bluff scrub, and in coastal prairies, at elevations from 0 to 185 meters (CCH 2012).

There are about 28 known occurrences of *E. concinnum* in California. Of those, only four have been recently documented (occurrences not documented in the past 20 years are considered historical by the CNDDDB). Some occurrences have an unknown landowner, but nine occurrences are found in California State Parks and five occurrences are found in National Parks (see "Localities" section of attached "NewAdd_ErysimumConcinnum" spreadsheet). One very large occurrence at Point Reyes National Seashore extends for about eight miles and has been documented with 49 separate collections and observations. [According to A. Pickart, however, the plants at Point Reyes may likely be of hybrid origin, and not 'true' *E. concinnum* \(D. Imper pers. comm. 2012\).](#) Occurrences at MacKerricher State Park are already assigned to *E. menziesii* in the CNDDDB, but occurrences in Del Norte County are assigned to *E. concinnum* in the attached spreadsheet, although they have a few morphological characters consistent with *E. menziesii* (T. Sholars pers. comm. 2004, R. Price pers.

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comm. 1995). Because most occurrences are known from historical herbarium collections, relatively little is known about the quality of most occurrences. A herbarium collection from Lands End of the San Francisco Bay Area (*Setchell 100*) is actually likely *E. franciscanum*, since there are recent observations there for this plant and none for *E. concinnum* (M. Chasse pers. comm. 2012). The Bureau of Land Management is funding a genetics study by L. Vorobik in attempts to sort out pure populations of *E. concinnum* from those with possible hybrid origin (D. Imper pers. comm. 2012). Until this study is complete, occurrences from Del Norte Tolowa Dunes, Pudding Creek and surroundings on north end of Fort Bragg, and Point Reyes should all be considered possible hybrids (D. Imper pers. comm. 2012), and treated as such in the CNDDDB. If later data shows that these occurrences are true hybrids, they will be deleted from the CNDDDB and *E. concinnum* will be considerably rarer than originally thought at the time of this writing.

In Oregon, *Erysimum concinnum* is ranked S1 by NatureServe (2012) and is included on the Oregon Biodiversity Information Center's (ORBIC 2010) List 2, which is comparable to California Rare Plant Rank 2. There are four known occurrences of *E. concinnum* from southwestern Oregon, three of which are presumed extant, and all of which are very difficult to access (S. Vrilakas pers. comm. 2012).

Much of the habitat occupied by *E. concinnum* has already been lost to development, or severely altered by invasive nonnative plants. Although still locally common at Point Reyes, the *E. concinnum* plants growing there are threatened by invasive, nonnative perennial grasses (such as *Ammophila arenaria*), by invasive *Carpobrotus edulis* and *Raphanus raphanistrum*, and possibly by competition from native plants, such as *Lupinus arboreus*, in the coastal scrub habitat (R. Steers, D. Smith, A. Ryan pers. comms. 2012).

Based on the available information, CNPS and CNDDS recommend adding *E. concinnum* to Rank 4.2 1B.2 of the CNPS Inventory. If current California records are later found to be an under-representation of its actual distribution and frequency, and/or when occurrences with plants of likely hybrid origin are sorted out, it will be re-evaluated by CNPS at that time.

Recommended Actions

CNPS: Add to CNPS 4.2 1B.2

CNDDDB: Add to G3 / S3

Draft CNPS Inventory Record

Erysimum concinnum Eastw.

bluff wallflower

Brassicaceae

Rank 4.2 1B.2

Del Norte, Humboldt, Marin, Mendocino, ~~San Francisco~~, Sonoma

Oregon

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~~San Francisco North (466C) 3712274~~, Tomales (485B) 381222, Drakes Bay (485C) 3812218, Arched Rock (503B) 3812342, Bodega Head (503D) 3812331, Plantation (520D) 3812353, Gualala (537D) 3812375, Elk (552B) 3912326, Fort Bragg (569A) 3912347, Mendocino (569D) 3912337, Westport (585A) 3912367, Petrolia (637D) 4012433, Sister Rocks (723B) 4112462, Smith River (740B) 4112482, Crescent City (740C) 4112472

Coastal dunes, coastal bluff scrub, coastal prairie; elevation 0 – 185 meters.

Biennial herb. Blooms February to July.

Largest occurrence known from Pt. Reyes NS; possibly of hybrid origin. Some occurrences from DNT and MEN cos. are also of possible hybrid origin; further study is ongoing. Threatened by development, habitat loss, competition, and non-native plants. See *E. menziesii* ssp. *concinnum* in *TJM* (1993). See *Zoe* 5(6-8):103 (1901) for original description.