

Added to California Rare Plant Rank 1B.2 on October 5, 2011

Rare Plant Status Review: *Delphinium parryi* ssp. *eastwoodiae*

Proposed New Add to Rank 1B.2, G4T2 / S2

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Background

Delphinium parryi ssp. *eastwoodiae* is a perennial herb in the Ranunculaceae that is endemic to coastal San Luis Obispo County. It is included in the *Flora of North America* (Vol. 3) and *The Jepson Manual* (1993), and will be included in *The Jepson Manual, Second Edition* (available online at: <http://ucjeps.berkeley.edu/tjm2/review/treatments/ranunculaceae.html#50105>).

Delphinium parryi ssp. *eastwoodiae* was a proposed new addition to the *Inventory, 6th Edition* (2001), but was postponed for inclusion due to a lack of information on its frequency and distribution as well as its questionable distinction from *D. variegatum*, which is likely the only species it is easily confused with (*Flora of North America*, Vol. 3). Since that time, however, more information has become available on its distribution through the review of herbarium records (see "Localities" section of attached spreadsheet) as well as field observations from a number of botanists (J. Chesnut, D. Keil, E. Painter, and M. Wetherwax); and it is known to be distinguished from *D. variegatum* by lacking long hairs on its proximal petioles (*Flora of North America*, Vol. 3). *Delphinium parryi* ssp. *eastwoodiae* is separated from other subspecies of *D. parryi* by generally having reflexed sepals and basal leaves present in flower, and by occupying areas at approximately less than 700 meters in elevation (*The Jepson Manual, Second Edition*). *Delphinium parryi* ssp. *eastwoodiae* generally flowers from March to May, but is known to flower as early as February (*The Jepson Manual, Second Edition*; Consortium of California Herbaria 2011).

Delphinium parryi ssp. *eastwoodiae* is a serpentine endemic occurring in valley and foothill grasslands and grassland openings in coastal chaparral. It has been observed in rocky crevices and tumbled talus with deep adobe clays, usually below larger rock outcrops (J. Chesnut pers. comm. 2011), at an approximate elevation of 75 to 500 meters.

Delphinium parryi ssp. *eastwoodiae* is known from approximately 18 occurrences mostly throughout the Santa Lucia Range of central-western San Luis Obispo County. The type specimen was collected by Alice Eastwood on May 2, 1896 (CAS236) from McDonald's Ranch in the Carrizo Plains. This record, especially since it is the type location, is somewhat perplexing as the Carrizo Plains' not only lack serpentine, but are quite disjunct from all other known occurrences of *D. parryi* ssp. *eastwoodiae*. The precise location of the type collection is difficult to determine, however, based on USGS sources, it may have been in the southern part of the Carrizo Plains on Saucito Ranch, which was the first ranch to be established there (Dieter Wilken pers. comm. 2011). Most of the land on

Saucito Ranch was apparently owned by McDonald (Dieter Wilken pers. comm. 2011), and in the 1890's the ranch may have occupied approximately 60,000 acres of land (Rebecca Peters 2011).

Unfortunately, Alice Eastwood's field notes from 1896 were presumably destroyed in the 1906 conflagration, and although some of her letters and memoirs still exist in the archives at the California Academy of Sciences, a reference to the 1896 collecting trip could not be found (Rebecca Peters pers. comm. 2011). However, other collections by Eastwood on the same day were "near the boundary between Santa Barbara and San Luis Obispo Counties - White Hills, Cuyama" (Consortium of California Herbaria 2011), which is in the vicinity of the fault zone in the McDonald Ranch/Carrizo Plain area. Furthermore, David Chipping (pers. comm. 2011) notes that "there are smaller and closer [serpentine] deposits to the Carrizo Plain proper along the line between T 28 S and T 27 S just west of the San Andreas Fault, at the extreme end of the Temblor Range". This area is close to where Eastwood was collecting on May 2nd, 1896, and therefore may be in the vicinity of the type locality of *D. parryi* ssp. *eastwoodiae*.

Of the 18 known occurrences of *D. parryi* ssp. *eastwoodiae*, only five have been documented and/or observed in the past twenty years (occurrences that have not been documented in over twenty years are considered historic by the CNDDDB). *Delphinium parryi* ssp. *eastwoodiae* is abundant in a few localities, but is usually very local (*Flora of North America*, Vol. 3), and is currently known only from serpentine around San Luis Obispo (D. Keil pers. comm. 2011). Nevertheless, while *D. parryi* ssp. *eastwoodiae* is infrequent, it is expected to be well distributed at low elevation in the San Luis Obispo portion of the Santa Lucia serpentine belt; where much more habitat likely exists (J. Chesnut pers. comm. 2011).

Delphinium parryi ssp. *eastwoodiae* is considered to be a relatively minor variant by some, and Hoover (1970) regarded it as essentially the same taxon as common *D. parryi*. However, the most recent floras not only recognize *D. parryi* ssp. *eastwoodiae* as a distinct taxon, but indicate it as uncommon and of conservation concern (*The Jepson Manual*, 1993; *The Jepson Manual, Second Edition*; *Flora of North America*, Vol. 3).

Threats to *D. parryi* ssp. *eastwoodiae* at Camp San Luis Obispo may include trampling by cattle, non-native plants, military training activities, feral pigs, and too frequent fires and/or fires in the wrong season (E. Painter pers. comm. 2011, from CNDDDB report for an associated taxon). In the North Morro Bay region it is potentially threatened by rapid grassland and chaparral conversion to avocado production, and potentially threatened north and south of San Luis Obispo by estate home development (J. Chesnut pers. comm. 2011).

Based on the available information, CNPS and CNDDDB recommend that *Delphinium parryi* ssp. *eastwoodiae* be added to California Rare Plant Rank 1B.2 of the CNPS Inventory.

Recommended Actions

CNPS: Add to CNPS 1B.2

CNDDDB: Add to CNDDDB G4T2 / S2

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

Delphinium parryi A. Gray ssp. *eastwoodiae* Ewan

Eastwood's larkspur

Ranunculaceae

Rank 1B.2

San Luis Obispo

Arroyo Grande NE (221A) 3512025, Lopez Mtn (246D) 3512035, Morro Bay North (247A) 3512047, Morro Bay South (247D) 3512037, Port San Luis (222A) 3512027, San Luis Obispo (246C) 3512036, Tar Spring Ridge (220B) 3512024 Chaparral (openings), Valley and foothill grassland / Serpentinite, coastal; elevation 75-500 meters.

Perennial herb. Blooms (February) March to May.

Many collections old. Possibly threatened at Camp San Luis Obispo by trampling, feral pigs, military activities, alteration of fire regimes, and non-native plants. Potentially threatened in North Morro Bay region by agriculture and habitat alteration, and potentially threatened in San Luis Obispo by housing development. Similar to *D. variegatum*. See *University of Colorado Studies, Ser. D, Phys. Sci.* 2(2):55-244 (1945) for original description.