Added to California Rare Plant Rank 2.2 of the CNPS Inventory on August 24, 2011

Rare Plant Status Review: *Cuscuta obtusiflora* var. *glandulosa* Proposed New Add to Rank 2.2, G5T4T5 / SH

Danny Slakey (CNPS), Aaron Sims (CNPS), and Roxanne Bittman (CNDDB) July 18, 2011

Changes made to the original document appear in blue text.

Background

Cuscuta obtusiflora var. *glandulosa* is an annual parasitic herbaceous vine in the Convolvulaceae (formerly Cuscutaceae) family that is presumed to be extirpated in California, but is extant throughout the Southern United States as well as Mexico and the West Indies. It will be included as a taxon extirpated from California in *The Jepson Manual, Second Edition* (available online at:

http://ucjeps.berkeley.edu/tjm2/review/treatments/convolvulaceae_all.html#57201). Some of its key identifying characteristics include obtuse, straight corolla lobes, flower parts in 5's (sometimes 4's), and a fruit that is surrounded by the corolla (Costea et al. 2006; *The Jepson Manual, Second Edition*). *Cuscuta obtusiflora* var. *glandulosa* flowers from July to October.

Costea et al. (2006) noted that the taxon grows on species of *Alternanthera, Dalea, Hygrophila, Lythrum, Polygonum,* and *Xanthium.* Consortium records show the plant growing in wet areas, such as marshes, canals, and creeks. In New York state, *C. obtusiflora* var. *glandulosa* has been found on *Lythrum salicaria*, water willow, and *Cephalanthus* spp. in nontidal calcareous swamps (Matthew D. Rudikoff Associates, Inc. 2008). In California it has been collected between 15 and 280 meters.

Cuscuta obtusiflora var. glandulosa is known from at least four occurrences throughout California. One A collection was made from Warm Creek in San Bernardino County in 1890 (S. B. Parish JEPS47089, UC105062) is presumed extirpated as the creek is now in a barren concrete channel surrounded by shopping centers and parking lots (Andy Sanders pers. comm. 2011). Three other collections were made in the 1940's (in Butte, Merced, and Sonoma counties); and one collection of highly questionable identity (annotated only to the species level by M. Costea in 2007) was made in Sacramento County in 1995 (G. Douglas Barbe 4466 - UC1778597). Munz (1974) notes an occurrence from "El Monte" in Los Angeles County, but provides no further details. According to Dan Cooper (pers. comm. 2011), "This locale includes the Whittier Narrows riverbottom area (confluence of San Gabriel River and Rio Hondo) that was the collection location of many now-rare taxa (plant and animal) and which still supports fairly extensive freshwater marsh...". Furthermore, Cooper notes that "any search for [C. obtusiflora var. glandulosa] should include [both] Ribes [divaricatum var. parishii] as well as things like Calystegia sepium and other "freshwater swamp" species in the area that are now either lost or extremely rare."

This taxon is ranked G5T4T5 by NatureServe and is currently ranked as critically imperiled (S1) in New York and possibly extirpated (SH) in Minnesota. Throughout much of its range, this taxon can be rather weedy (M. Costea pers. comm. 2011); and although native to California, the genus *Cuscuta* is listed as a noxious weed in this state and many others (USDA Plants Database).

Due to the lack of recent occurrences of this taxon, current threats are unknown. Although all records of this plant in California are more than 50 years old (except the questionable Sacramento County specimen), CNPS and CNDDB propose a rank of 2.2, as potential habitat still exists, and *Cuscuta* spp. tend to be very under-collected (M. Costea pers .comm. 2011).

Recommended Actions

CNPS: Add to CNPS 2.2 CNDDB: Add to CNDDB G5T4T5 / SH

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

Draft CNPS Inventory Record

Cuscuta obtusiflora Kunth var. glandulosa Engelm. Peruvian dodder Convolvulaceae Rank 2.2 Butte, Los Angeles, Merced, San Bernardino*, Sacramento?, Sonoma; Alabama, Arkansas, Florida, Georgia, Louisiana, Oklahoma, Minnesota, New York, Texas; Baja California; Sonora, Mexico El Monte (110D) 3411811, Florin (496B)? 3812144, San Bernardino South (107D)* 3411713, Sanborn Slough (561C) 3912138, Sebastopol (502A) 3812247, Snelling (440C) 3712054 Marshes and swamps/freshwater; elevation 15-280 meters. Annual parasitic vine. Blooms July-October. Last seen in 1948 at a marsh near Snelling (MER County); need field surveys. Plants from SAC County need verification. Record from Warm Creek in SBD County presumed extirpated. See Transactions of the Academy of Science of St. Louis 1:492 (1859) for original description and SIDA 22(1):151-175 (2006) for taxonomic treatment.