Added to California Rare Plant Rank 1B.2 on September 20, 2011

Rare Plant Status Review: Cuscuta pacifica var. papillata
Proposed New Add to California Rare Plant Rank 1B.2, G5TH 1 / SH 1
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Changes made to the original document appear in blue text.

Background
Cuscuta pacifica var. papillata is an annual herbaceous parasitic vine in the
Convolvulaceae (formerly Cuscutaceae) family known only from five historic collections
on the coast of Mendocino County. It is included in The Jepson Manual, Second Edition
available online at:
http://ucjeps.berkeley.edu/tjm2/review/treatments/convolvulaceae_all.html#89285), and
was included in The Jepson Manual (1993) as Cuscuta salina var. papillata. Cuscuta
pacifica var. papillata can be easily confused with two closely related taxa, C. pacifica
var. pacifica and C. salina, but it can be distinguished by the presence of papillae on the
pedicels and its affinity for dry coastal habitats. Cuscuta pacifica var. pacifica and C.
salina have no papillae on the pedicels, and both grow in wetter habitats, such as salt
marshes and inland salt flats (Costea et al. 2005). Both C pacifica var. papillata and var.
pacifica were formerly treated as varieties of C. salina (vars. papillata and major,
respectively), and were recently treated as their own species based on genetic analyses
(Costea et al. 2005). Material from C. pacifica var. papillata specimens was too sparse
and old for DNA extraction, so it was treated based on its morphological similarity to C.
pacifica var. pacifica. Cuscuta pacifica var. papillata blooms from July to October.

The Jepson Manual, Second Edition, lists the plant as occurring in interdune depression
areas on the Mendocino Coast. It has been observed on species of Gnaphalium, Silene,
and Lupinus (Smith and Wheeler 1992), and the single collection from Sonoma County
was found growing on Polycarpus tetraphyllum and Calystegia purpurata ssp. saxicola
with Sanicula arctopoides nearby (P. Conners pers. comm. 2011). No elevation data has
been recorded for C. pacifica var. papillata (P. Conners pers. comm. 2011). The only
maximum elevation to not exceed 50 meters based on habitat and location descriptions.

Cuscuta pacifica var. papillata is known from five occurrences in coastal Mendocino
County, and from one occurrence of three individuals at Bodega Head in Sonoma
County from 1991 (col. by P. Conners, housed in the herbarium at Bodega Marine
Laboratory; annotated by M. Costea in 2011). Cuscuta pacifica var. papillata was also
recently re-discovered at Point Arena in Mendocino County (R. Korhummel pers. comm.
2011). Nevertheless, the majority of these occurrences are more than 20 years old, and the
taxon should be sought out in coastal areas, particularly in areas where it
has occurred historically and where known host plants occur. Although all occurrences
are more than 20 years old, it may be premature to consider this taxon extinct as
members of the genus are infrequently surveyed and collected (M. Costea pers. comm.)

Sent to NW, M. Costea on 8/11/2011
There are fifteen fourteen other records of *C. pacifica var. papillata* from various sources (all as *C. salina var. papillata*, a synonym; see attached spreadsheet). All of these are misidentifications as they are either from habitats that are too wet, or too far inland (M. Costea pers. comm. 2011). Many of these misidentifications are attributable to keys in use prior to *The Jepson Manual, Second Edition* (e.g., *The Jepson Manual* 1993).

Threats to *C. Cuscuta pacifica var. papillata* is possibly threatened at Manchester and Tenmile Dunes by invasive plants such as *Carpobrotus* and *Lupinus arboreus*; and possibly threatened at younger, mobile dunes by shoreline retreat (P. Baye pers. comm. 2011). are unknown, however, with a limited distribution and limited number of historic occurrences, It should be considered for conservation concern.

Based on the available information, CNPS and CNDDB recommend that *Cuscuta pacifica var. papillata* be added to California Rare Plant Rank 1B.2.

**Recommended Actions**
CNPS: Add to CNPS 1B.2  
CNDDB: Add to CNDDB G5TH 1 / SH 1

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 pacifica* Costea & M. Wright var. *papillata* (Yunck.) Costea & M. Wright  
Convolvulaceae  
CA Rare Plant Rank 1B.2  
Mendocino(?) Sonoma  
Fort Bragg (569A)(?) 3912347, Gualala (537D)(?) 3812375, Mendocino (569D)(?) 3912337, Point Arena (537B)(?) 3812386, Bodega Head (503D) 3812331  
Coastal dunes / interdune depressions; elevation 0 – 50 meters.  
Annual parasitic vine. Blooms July-October  