

**Added to CNPS Inventory on 17 August 2006**

**Rare Plant Status Review: *Cladium californicum***

Misa Ward (CNPS), Roxanne Bittman (CNDDDB) with assistance  
from Patrick McIntyre (CNPS)  
April 28, 2006

**Background**

*Cladium californicum* (Cyperaceae) is a perennial herb described by Munz (1959, 1974) and the Jepson Manual (1993) as “uncommon”, and known in California from ten occurrences (only seven of which might be presumed extant). This species was brought to the attention of CNPS by Dean Taylor, who noted only three occurrences presumed extant in California. These occurrences, along with additional occurrences determined from an online search of the Consortium of California Herbaria are described in the table below:

Locality	Date Last Seen	Notes
Barka Slough, SBA county	2005	Herbarium record, confirmed in field visits
Black Lake, SLO county	1996	<i>Madrono</i> 43:221(1996), herbarium record
Dos Palmas, RIV county	1994	Herbarium record, presumed extant
Amargosa Creek, near Tecopa, INY county	2001	Herbarium record, presumed extant
Nevaras Spring	2002	Report communicated from Dean Taylor, presumed extant
Hanaupah Canyon, INY county	1979	Herbarium record, presumed extant
Addie Spring, Addie Canyon, INY county	1976	Herbarium record, uncertain locality
Warm Springs, Furnace Creek, INY county	1949	Herbarium record, status uncertain
Santa Ana Canyon, LAX county	1861	Type locality, presumed extirpated
'Red Hill', near city of Upland, SBD? county	1918	Herbarium record, presumed extirpated

*Cladium californicum* can grow up to 2 meters in height, and is the only representative of the genus *Cladium* in California. The California occurrences are located in freshwater or alkaline seeps and marshes. There are no immediate threats known to its survival in California, although its marsh and slough habitat is sensitive because it is potentially subject to disturbance and hydrological alteration, particularly in the desert portion of its range. Although *Cladium californicum* has a widespread distribution outside of California (NV, UT, AR, TX, Mexico), it is tracked as a rare plant species by the state of Utah and occurs on the Nevada Native Plant Society status list as a species of conservation concern which is more common outside of Nevada. The abundance of this species outside of California deserves more attention. Due to the limited number of occurrences likely to be extant in California (less than 10) this species requires review for inclusion in both the CNPS Inventory and the CNDDDB.

Sent to ES/D, CW, SW, Charlie Blair

### Recommended Actions

CNPS: Add to CNPS List 2.2 (due to wetland habitat; information on current threats and status requested)

CNDDDB: Add to CNDDDB as G4 / S2.2

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

***Cladium californicum* (S. Watson) O'Neill**                      Cyperaceae

"California saw-grass"

List 2.2

Inyo, Los Angeles\*, Riverside, San Bernardino\*?, Santa Barbara, Nevada, Utah, Arizona, Texas, Mexico

301B [Hanahupa Canyon/36116B8], 063D/045A [Orocopia Canyaon/33115E7 Durmid/33115D7], 108C/108D\* [Ontario/34117A6 Guasti/34117A5], 195C? [Orcutt/34120G4], 324A? [Furnace Creek/36116D7], 275C [Tecopa/35116G2], 221D [Oceano/35120A5], 110A\* [Mount Wilson/34118B1], 346D [Nevares Peak/36116E7]

Meadows and seeps, marshes and swamps / freshwater or alkaline; elevation 60-600 meters.

Perennial herb, blooms June-September.

Known in California from only seven occurrences likely to be extant, and three occurrences thought be extirpated, or of uncertain status. Santa Barbara occurrence potentially threatened by land use management conflicts at Vandenberg Air Force Base. See *Botany of California* 2:224 (1880) for original description, and *Flora of North America* 23:242(2000) for taxonomic treatment.

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### Additional information from Dean Taylor

Add *Cladium californicum* to List 2 3-2-1

*Cladium californicum* is a GLARING omission from the CNPS Inventory. There are perhaps no more than 5 extant occurrences in CA for this emergent reed-swamp species. It is afforded status in NV, is relatively uncommon in UT. Threatened by hydrologic alteration of wetlands.

#### Taxonomic Background

The basionym *Cladium mariscus* R. Brown var. *californicum* S. Watson was published in *Botany of California* Vol. 2 224: 1880. The protologue reads ""The variety has been collected in a swamp near San Gabriel (Brewer) and in Southern Nevada, Wheeler. Prof. Brewer describes the stems as nearly an inch in diameter at the base, and the hummocks which it forms as 4 or 5 feet high and 1/12 to 2 feet thick"

The combination *Cladium californicum* (S. Watson) O'Neill was made in I. Tidestrom & T. Kittell, *Flora of Arizona & New Mexico*, 773. 1941.

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G.C. Tucker. 2002. *Cladium* pp. 240-242 in *Flora North America* Vol. 23. – *C. californicum* is treated with records from Arizona, California, Nevada, Utah, Texas and Coahuila, Mexico. Tucker describes the habitat preference as "alkaline marshes, swamps and springs; 0-2000 m"

#### Occurrences in California

##### #1 – Santa Ana Canyon LAX presumed extirpated

The Brewer syntype (W.H. Brewer 105, GH27598) has not been seen by me. Brewer's field notebook typescript at UC reads "Cyperus = *Cladium nutans*. Grows in dense tussocks by swamp. Forms large masses with the roots which rise like a column from the bog often 2' in diameter. The effect is pretty". The specimen was collected on 2 January 1861. The syntype locality site is near present day Monrovia at mouth Santa Anita Canyon, Mount Wilson USGS quadrangle, Los Angeles County and is fully developed. Much of the creek watershed has been channelized for flood control.

##### #2 – Hanaupah Canyon INY presumed extant

A second known station for *Cladium californicum* is based on W.L. Jepson 7002, May 9, 1917 from Hanaupah Canyon, Panamint Mountains, Inyo County (JEPS19984). Peterson (1986) in his checklist for the Cottonwood Mountains, Death Valley did not record *Cladium californicum*. (P.M. Peterson. A flora of the Cottonwood Mountains, Death Valley National Monument, California. *Wasmann J. Biol.* 44(1-2):73-126, 1986). The Cottonwood Mountains are an extension of the Panamint Mountains and north by about 20 air miles from the Jepson collection site. Norris (1982) included *Cladium californicum* on his "A Checklist of the Vascular Plants of Death Valley National Monument (Chalfant Press, Bishop CA).

##### #3 – Nevaras Spring, Death Valley National Park, INY – presumed extant

*Cladium californicum* is reported at the spring by a field trip report by Dana York. (Monocots II, 2002 circular)

##### #3 – Black Lake, SLO – presumed extant

*Cladium californicum* was reported from Black Lake, SLO (ca. 35.05/-120.603) by RFHoover (*Vasc. Plants SLO* 1970 p. 79, UC press, based on two collections presumably at OBI, #7341 and 7353). More than two decades later, it was again reported from here (W.R. Ferren et al. *Madrono* 43:221. 1996.) presumptively indicating it remains extant. *Cladium californicum* is treated in: Santa Barbara Botanic Garden. 1988. Some Special Plants of Local Concern: Upland Habitats of the Santa Barbara South Coast Area. List of February 1988. Santa Barbara, California. – although I was unable to find an actual specimen or report of occurrence in that county.

#### Status in Other States

The abundance and number of occurrences within this range is uncertain to me, but at least the following apply in this regard:

B.J. Albee, L.M. Schultz and S. Goodrich. 1988. Atlas of the vascular plants of Utah. Utah Museum Nat. History, Occ. Pub. No. 7 – three stations are mapped in the Colorado River drainage in Glen Canyon, in Kane and San Juan counties. Welsh et al (1987. *A Utah Flora. Great Basin Nat. Memoirs* No. 9) describe their occurrences as: "Hanging gardens along Lake Powell at 1125 to 1150 m in Kane and San Juan Counties 7(0)...most of the sites discovered for this plant have been drowned by the rising waters of Lake Powell. Leaves at the base of an accumulation of marscescent remains of this plant in Driftwood Canyon were dated at 440 years B.P." – the 7(0) means they saw 7 specimens from Utah, 0 from elsewhere.

Arizona Flora (1960, second edition with supplement by J.Th. Howell & E. McClintock, UC Press) lists *C. californicum* from "bottom of Grand Canyon (Cocdonino County), near Columbine (Emory) Falls (Mohave County)"

In Nevada, *C. californicum* is on the Nevada Native Plant Society Status List (26 March 2004) as G4 S2.

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