

Rare Plant Status Review: *Carex lenticularis* var. *limnophila*

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November 22, 2004

Background

Carex lenticularis var. *limnophila* is a sedge that grows in the North Coast region of California. Its overall distribution ranges from Alaska south along the coast of British Columbia to Mendocino County. This taxon has been found in wetlands within North Coast coniferous forest, and on gravelly beaches and lake shores. Lawrence Janeway noticed that there are very few collections of *Carex lenticularis* var. *limnophila* in UC/JEPS and HSC. The most recent of these is from 1938. He searched the shoreline around Big Lagoon in Humboldt County, where it had been collected by Joseph Tracy in 1923 and David Keck in 1938. Neither this occurrence nor the one from Crescent City were relocated during this field work (Janeway, pers. comm. 2003). The only other cited locations include "along North Road to Glen Blair" (Eastwood and Howell 6209), "Stone Lagoon" (Jepson 9332), and "Northern CA Coast Range Preserve, 39°39'N, 123°22'W, 650m" (Calflora 2004-Hrusa checklists). More information is needed regarding the final occurrence, which is located in what is now called Angelo Coast Range Reserve. The latitude and longitude reported may not be consistent with a general map of the Reserve area, and the elevation appears more consistent with *C. lenticularis* var. *lipocarpa*. The Reserve Manager has been contacted in attempt to obtain more detailed locality information from the specimen label. Based on our review of the available data, approximately 6 occurrences have been documented in the state at this time, and List 2 appears appropriate for this species. In 2003, Gordon Leppig agreed, stating "it appears pretty rare in CA and worthy of List 2 status." Please let us know if you have additional information on this taxon.

Recommended Actions

CNPS: Add to CNPS List 2 / RED 3-2-1

CNDDDB: Add to CNDDDB as G5T5 / S1.2

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 or additional data. The CNPS List and RED Code criteria are attached for your reference.

Draft CNPS *Inventory* record:

Carex lenticularis Michx. **var. *limnophila*** (T. Holm) Cronquist

"lakeshore sedge"

Cyperaceae

List 2 / RED 3-2-1

Del Norte, Humboldt, Mendocino, Oregon, Washington and elsewhere

568B, 583A?, 689A, 689C, 706D, 740C

Bogs and fens, marshes and swamps, North Coast coniferous forest / lake shores, beaches; elevation 0-6 meters.

Perennial herb, blooms June-August.

Location and identity of occurrence in Northern California Coast Range Preserve (583A) needs confirmation. Known in California from fewer than 10 occurrences, all historical. See *American Journal of Science* (Ser. 4) 17:307 (1904) for original description, and *Vascular Plants of the Pacific Northwest* 1:279 (1969) for revised nomenclature.

Expanded Quad List:

Noyo Hill (568B) 3912346

Dos Rios (583A) 3912363

Rodgers Peak (689A) 4112421

Trinidad (689C) 4112412

Orick (706D) 4112431

Crescent City (740C) 4112472

CNPS List and R-E-D Code Assignment

David Tibor

January 5, 2004

In general, when quantifying rarity for these plant taxa, it is important to apply a "bird's eye view" (or aerial) perspective to the distribution information. This is particularly important in the case of fragmented populations / stands which were once connected. Other considerations used when ranking a species or natural community include the pattern of distribution of the taxon on the landscape, and historical extent as compared to its modern range.

The CNPS criteria for **List** and **RED Code** assignment (below) are similar to, but different from, the Global and State ranks used by DFG. In general, CNPS List placement is *based on rarity and not endangerment*, although endangerment is factored in as discussed below (*i.e.*, viability and "survivability").

CNPS List

- If the plant is presumed extinct *in California*, it is assigned to **List 1A**.
 - If the plant has *significant* taxonomic or distributional uncertainty, it is typically assigned to **List 3**.
 - Other list placement is based on rarity – *i.e.* number of extant occurrences. However, we also must consider occurrence size, number of plants present, viability (which includes the short and medium term "survivability" of occurrences), life strategy, and the taxon's inherent "ecological fragility" when reviewing total number of occurrences¹.
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- < 25-50 occurrences, usually assigned to **List 1B** (or **List 2** if widespread outside CA)
- > 50 occurrences, usually assigned to **List 4**

For example, a taxon known from 15 occurrences is typically placed on List 1B. However, a more widespread taxon like *Lilaeopsis masonii* is also on List 1B, for even though it has >150 occurrences in CNDDb, it is an annual plant found in small, linear, relatively ephemeral occurrences in the Delta. Thus the guidelines must be flexible to account for all the different cases and situations for rare plants in California.

CNPS R-E-D Code

- **R (rarity)** is roughly based on number of extant occurrences (**x**). Also, *must* consider occurrence size, number of plants present, viability (which includes the short and medium term “survivability” of the occurrences), life strategy, and the taxon’s inherent “ecological fragility” when reviewing total number of occurrences.

x < 10 (-15)	R = 3
11 < x < 50 (-100)	R = 2
x > 51	R = 1

R > 1 is usually assigned to List 1B (or 2)

R = 1 almost always assigned to List 4

- **E (endangerment)** refers to level of endangerment facing the plant, and only applies to the distribution *within* California. It can be thought of as “serious, some, or few” threats to the taxon, or of it in terms of what percentage of California occurrences of the taxon have significant threats.

Serious threats	E = 3	(80-100% of occurrences have significant threats)
Some threats	E = 2	(20-80% of occurrences have significant threats)
Few threats	E = 1	(0-20% of occurrences have significant threats)

- **D (distribution)** is based on distribution *outside* of California.

Endemic to California	D = 3
Rare outside of California	D = 2
More or less widespread outside of California	D = 1

D = 1 *cannot* be assigned to List 1B taxa

1 NDDB defines a rare plant occurrence (an “Element Occurrence”, or “EO”) as a population (or group of populations) of plants separated by at least 1/4 mile from another population(s). NDDB will map separate populations in detail, but will consider them all one EO if they occur within 1/4 mile of each other.