

**Rare Plant Status Review: *Carex scoparia* var. *scoparia***  
**Proposed Change from California Rare Plant Rank 2A, G5T5 / SX to 2B.2, G5T5 / S1**  
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**Background and Taxonomy**

*Carex scoparia* Willd. var. *scoparia* is a perennial herb in the Cyperaceae known in California only from Snake and Smith lakes in Plumas County. Outside of California, it is known from Canada and all the lower 48 U.S. states, except Texas, Nevada, Wyoming, and Florida (NRCS 2021). *Carex scoparia* var. *scoparia* has been included in the CNPS Inventory since the 5<sup>th</sup> edition (Skinner and Pavlik 1994). It was first assigned as California Rare Plant Rank (CRPR) 2B.2 in 1994, and after several failed attempts to relocate the plant between 2011 and 2012, the rank was changed in 2015 to CRPR 2A (Slakey et al. 2015). Fortuitously, *Carex scoparia* var. *scoparia* was rediscovered at Snake Lake in 2016 by Jim Belsher-Howe (botanist, Plumas NF), necessitating a change back to CRPR 2B.2.

*Carex scoparia* was first described by Willdenow in 1805 from “America Borealis” (North America) (Willdenow 1805). It was included in *The Jepson Manual, Higher Plants of California* [as *Carex scoparia* Schk.] (Mastrogioseppe 1993), *Flora of North America* [as *Carex scoparia* Schkuhr ex Willdenow var. *scoparia*] (Ball and Reznicek 2002), and the *Jepson eFlora* (Zika et al. 2012). Within *Carex*, it is placed in the speciose section *Ovales* (Hipp 2006) and is distinguished by having a ligule 2.3–4.8 mm long, an inflorescence that is sometimes bent at the lowest node and usually head-like, smooth spikelets with appressed perigynia, gold or brown flower bracts that are shorter than the perigynia, flat perigynia with 0–8 abaxial veins, and a perigynium tip that is cylindric and entire for less than 0.4 mm (Mastrogioseppe 1993, Zika et al. 2012).

*Carex scoparia* var. *scoparia* was first collected in California in 1976 at from Snake Lake in Plumas County (*J.T. Howell 51848*, CAS). Unsuccessful attempts to relocate this population were made between 2011 and 2012 (Slakey et al. 2015). In 2016, *Carex scoparia* var. *scoparia* was rediscovered at Snake Lake and newly discovered at Smith Lake, Plumas County; specimens collected during these surveys have been seen by *Carex* expert Peter Zika at the University of Washington and they have been confirmed to be *Carex scoparia* var. *scoparia* ((Belsher-Howe 2016 pers. comm., USDA 2016); specimens have also been deposited at the California State University, Chico herbarium (CCH2 2021).

**Ecology**

In California, *Carex scoparia* var. *scoparia* is identifiable (with fruits) from July to September. It is found at elevations of 3950–4200 ft (1204–1280 m). It grows in the shallow water of lakes within freshwater marsh with *Brasenia schreberi* (CRPR 2B.3), *Eleocharis bella*, *Bidens cernua*, *B. frondosa*, *Comarum palustre*, *Mentha arvensis*, *Veronica scutellata*, *Persicaria amphibia*, *Juncus balticus* ssp. *ater*, *Melica borealis*, *Deschampsia caespitosa*, *Carex nebrascensis*, *Carex feta*, and *Carex utriculata* (USDA 2016).

**Distribution and Abundance**

In California, *Carex scoparia* var. *scoparia* is known from two estimated occurrences in the Plumas National Forest in Plumas County, one at Snake Lake and one at Smith Lake; the two locations are within 1.5 miles from one another. Both occurrences have been observed within the

past four years. As detailed above, the Snake Lake occurrence was thought to have been extirpated but has been rediscovered. The Smith Lake occurrence is new. Numbers of plants reported for these two locations are one cluster of 33.6 square feet at Snake Lake and one cluster of 103.6 square feet at Smith Lake.

Based on herbarium specimens (CCH2 2021), there is a second California county record for *Carex scoparia* var. *scoparia*: *W.S. Lennon, s.n.*, collected at Anderson in Shasta County in 1982 (housed at CAS). This specimen, however, has been reviewed by *Carex* expert Barbara Wilson and determined to be *Carex longii* (Slakey et al. 2015). Several specimens of a second infra-specific taxon, *Carex scoparia* var. *fulva*, are listed for Calaveras County (CCH2 2021). *Carex scoparia* var. *fulva* is no longer recognized taxonomically (Ball and Reznicek 2002) and is tentatively being treated as a synonym of *Carex specifica*, a common plant (Slakey et al. 2015). Finally, there are still some 19<sup>th</sup> century collections of *Carex scoparia* (no variety) from additional California locations listed in the Consortium of California Herbaria (CCH1 2021). If one searches for additional information on these collections (*Brewer 2079, 1774; Jones 2407*), examining the determinations of duplicates held in multiple herbaria, it can be seen that these collections are no longer determined to *Carex scoparia*.

### Status and Threats

No threats are reported for *Carex scoparia* var. *scoparia* in California, but its restricted distribution and low abundance makes it vulnerable to a random extinction event. *Carex scoparia* var. *scoparia* is not ranked as rare/endangered in most of the areas where it occurs in North America. It is imperiled (S2) in Alberta, Canada and unranked (SNR) in all other Canadian provinces, and it is Critically Imperiled to Imperiled (S1S2) in Arkansas, Imperiled (S2) in Mississippi, Vulnerable (with uncertainty) (S3?) in Kentucky, and is either Secure (S5) or not ranked (SNR) in all other states of occurrence (NatureServe 2021).

### Summary

Based on the available information, CNPS and CNDDDB recommend changing *Carex scoparia* var. *scoparia* from California Rare Plant Rank 2A to California Rare Plant Rank 2B.2 in the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *C. scoparia* var. *scoparia* changes in the future, we will re-evaluate its status at that time.

### Recommended Actions

CNPS: Change *Carex scoparia* var. *scoparia* from CRPR 2A to CRPR 2B.2

CNDDDB: Change *Carex scoparia* var. *scoparia* from G5T5 / SX to G5T5 / S1

### Revised CNPS Inventory Record (changes to the original record are in green text)

*Carex scoparia* Willd. var. *scoparia*

pointed broom sedge

Cyperaceae

Synonym(s)/Other Name(s) in CNPS Inventory: *Carex scoparia* Schk.

CRPR 2B.2 2A

Plumas

Alabama, Arkansas, Arizona, Colorado, Connecticut, Delaware, District of Columbia, ~~Florida~~, Georgia, Idaho, Iowa, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, North Carolina, North Dakota, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma,

Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Virginia, Vermont, Washington, West Virginia, Wisconsin

Meadow Valley (3912181), Quincy (3912088)

Marshes and swamps (freshwater) ~~Great Basin scrub (mesic)~~; elevation ~~1210~~ 1205–1280 meters

Perennial herb. Blooms ~~May~~ July to September

Rediscovered in 2016 by J. Belsher-Howe. SHA Co. specimen was determined to be *C. longii*.

~~Recent surveys for PLU Co. occurrence unsuccessful.~~ See *Species Plantarum, Editio quarta* 4(1):230-231 (1805) for original description.

### Literature Cited

Ball, P. W. and A. A. Reznicek. 2002. *Carex*. Pp. 254-572 in *Flora of North America*, Editorial Committee (eds.), *Flora of North America North of Mexico*, Vol. 23. New York and Oxford. Website [http://www.efloras.org/flora\\_page.aspx?flora\\_id=1](http://www.efloras.org/flora_page.aspx?flora_id=1) [accessed 24 January 2021].

[CCH1] Consortium of California Herbaria Portal 1. 2021. Data provided by the participants of the Consortium of California Herbaria. Regents of the University of California, Berkeley. Website <http://ucjeps.berkeley.edu/consortium/> [accessed January 2021].

[CCH2] Consortium of California Herbaria Portal 2. 2021. Data provided by the participants of the Consortium of California Herbaria and the California Phenology Thematic Collections Network (CAP-TCN). Regents of the University of California, Berkeley and Cal Poly, San Luis Obispo. Website <http://www.cch2.org/portal/index.php> [accessed January 2021].

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*Carex scoparia* var. *scoparia*

Element Code: PMCYP03C91  
Changed to CRPR 2B.2 on 2021-04-28

**Personal Communications**

Belsher-Howe, Jim. 2016. Forest Botanist, Plumas National Forest. Email correspondence with Aaron Sims regarding rediscovery of *Carex scoparia* var. *scoparia*. Personal communication 10 November 2016.