

**Added to California Rare Plant Rank 2B.1 of the CNPS Inventory on July 28, 2014**

**Rare Plant Status Review: *Pleuridium mexicanum*  
Addition to California Rare Plant Rank 2B.1, G5 / S1**

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**Background**

*Pleuridium mexicanum* is one of 29 bryophytes that are being added to the CNPS Inventory and CNDDDB based on decisions made at one to three California Bryophyte Working Group (CBWG) meetings held on January 18, 2010, January 28, 2013, and January 30, 2014. The CBWG is a committee of bryology experts that are familiar with the taxonomic, rarity, and/or conservation status of bryophytes in California. If you are interested in joining and/or learning more about this group, please contact the first author at [asims@cnps.org](mailto:asims@cnps.org) or (916) 324-3816.

*Pleuridium mexicanum* Cardot is a moss in the Ditrichaceae that is common to central and southern Mexico, Baja California, and the Dominican Republic (Yin et al. 2007; CNABH 2014), with a single occurrence in California, from the Santa Ynez Mountains, Santa Barbara County (Yin et al. 2007; CBWG 2010, 2013, 2014; Bryolab 2014). It was first discovered in California in February 2006 by Paul Wilson, Tarja Sagar, and Amanda Heinrich on a scouting trip for a SoBeFree bryological foray. The plants were sterile at the time, and therefore subsequently collected during the foray in late March and sent to K. L. Yip for identification. *Pleuridium mexicanum* is similar to *P. sullivantii* in being paroicous (having antheridia near to the archegonia, but not mixed (Malcolm and Malcolm 2006)), and in having the basal portion of the leaf wrapped around the shoot (which is characteristic of taxa in section *Sclerastomum*). However, *P. mexicanum* is distinguished from *P. sullivantii* in having lanceolate, gradually and narrowly acuminate perichaetial leaves with entire margins (versus obovate, abruptly apiculate perichaetial leaves with serrulate margins), percurrent costae with narrow acumen more than  $\frac{1}{4}$  of the leaf length (versus excurrent costae that are less than  $\frac{1}{4}$  of the leaf length), a sharply apiculate capsule with larger apical cells that measure 25.0-32.5  $\mu\text{m}$  (versus a minutely apiculate capsule with smaller apical cells that measure 17.5-27.5  $\mu\text{m}$ ), and smaller, roughly ornamented, vermiculose spores that are 20.0-25.0  $\mu\text{m}$  in diameter (versus larger, short-papillose to spinose spores that are 27.5-35  $\mu\text{m}$  in diameter in *P. sullivantii*) (Yip et al. 2007).

In California, *P. mexicanum* occurs on a decomposed sandstone bench in chaparral, at an approximate elevation of 440 meters. It was found next to *Pleuridium subulatum* (Hedw.) Rabenh., a species that is common throughout coastal California and taxonomically very different from *P. mexicanum*. This is fairly different from its typical habitat in Mexico and the Dominican Republic, where it is known from open sites that are usually altered by logging, fire, or shepherding, and at much higher elevations (2,400 to 3,640 meters) (Yip et al. 2007).

*Pleuridium mexicanum* is currently only known from a single occurrence in California, "off Stage Coach Road north of Cold Springs Arch Bridge" (*P. Wilson 4308*; SFV20541) (Bryolab 2014). The occurrence is in Los Padres National Forest and was last documented in late March, 2006.

Threats to *P. mexicanum* in California are currently unknown. However, given it is known from only a single occurrence, we are giving it a threat rank of .1 due to the potential threat of stochastic events.

**Actions:**

CNPS: Added to CRPR 2B.1

CNDDDB: Added to G5 / S1

**CNPS Inventory Record**

*Pleuridium mexicanum* Cardot

Mexican earthmoss

Ditrichaceae

CRPR 2B.1

Baja California

Santa Barbara

San Marcos Pass (168D) 3411957

Chaparral / sandstone; elevation 440 meters

moss

See *Revue Bryologique* 37:118 (1910) for original description, and *The Bryologist* 110(3): 510-513 (2007) for information on discovery in CA.

**Literature Cited**

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Bryolab. 2014. Bryophytes in UC. Data provided by the University Herbarium, University of California, Berkeley. Website [http://ucjeps.berkeley.edu/bryolab/UC\\_bryophytes.html](http://ucjeps.berkeley.edu/bryolab/UC_bryophytes.html) [accessed 28 January 2014].

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