

Deleted from California Rare Plant Rank 2A of the CNPS Inventory on June 18, 2018**Rare Plant Status Review: *Pyrola chlorantha*
Proposed Deletion from California Rare Plant Rank 2A, G5 / SH**

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Background

Pyrola chlorantha Sw. was first added to List 1A (presumed extinct in California) of the *CNPS Inventory, 6th Edition* (RPSAC and Tibor 2001). It was changed to California Rare Plant Rank 2A (presumed extirpated in California, but common elsewhere) in June of 2013 after the new designation of 2A was implemented. *Pyrola chlorantha* is being proposed for deletion from the *CNPS Inventory* since its presence in California has never been confirmed.

It appears *P. chlorantha* was first considered part of the California flora by Erich Haber (1993), who included it in his treatment of *Pyrola* in the first edition of *The Jepson Manual*. It doesn't appear in Munz and Keck (197) or any other previous works on the California flora that we are aware. *Pyrola chlorantha* is included in *The Jepson Manual* from "near Downieville, Sierra Co." and as being possibly extirpated in California. This is the only source of information for which *P. chlorantha* has been included in the CNPS Inventory and CNDDDB. During preparation for the *CNPS Inventory, 6th Edition* (RPSAC and Tibor 2001), it was concluded to be presumed extirpated from California, though botanists were hopeful to be able to relocate the putative single California occurrence (B. Baker pers. comm. 1998; K. Van Zuuk pers. comm. 1999), and it's likely that it has been surveyed for to some extent since its inclusion in the CNPS Inventory. *Pyrola chlorantha* was included in *The Jepson Manual, Second Edition* (Wallace and Haber 2012), presumably based on Haber's (1993) initial treatment, but was later removed from the *Jepson eFlora* in Revision 5 in 2017 as not occurring in California (Jepson Flora Project 2018) based on a personal communication in late 2017 between B. Baldwin and the first author.

In order to determine whether additional information was available about this species from California (such as date collected, elevation, ecological conditions, etc.), Aaron Sims (first author) attempted to track down a voucher collection for which Haber's (1993) determination was made. At that time, in 2017, a search of "Downieville" was conducted in the Consortium of California Herbaria and brought up 846 results, without a single *Pyrola* taxon being one of them. A current search for *Orthilia* and "Downieville" in the Consortium (2018) brings up a single result, a specimen of *O. secunda* from "ca. 11.9 air-miles north of Downieville" that was collected in 2003 (*Dittes and Ahart 840, CHSC85027*). We initially suspected that perhaps Haber made his determination to include *P. chlorantha* in *The Jepson Manual* (1993) based on a specimen formerly identified as *P. chlorantha* (or that he determined to be *P. chlorantha* but that was since annotated to a different taxon) that was collected from the vicinity of Downieville. However, the lack of any known records of *Pyrola* or *Orthilia* taxa collected from the vicinity of Downieville from 1993 or prior falsifies this suspicion, and we simply do not know how or why Haber made his determination.

While conducting research, a number of other specimens identified as *P. chlorantha* from California were revealed; all of which were later determined to be misidentifications of other, similar taxa. A 1964 collection from El Dorado County (*Smith 2203, JEPS72435*) turned out to

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be *Pyrola dentata* (determined by D. Jolles, pers. comm. 2017); a 2001 collection from Mendocino County (*Roditti 1247*, CHSC92833) was actually *Orthilia secunda* (determined by L. Janeway, pers. comm. 2017); a 1908 collection from Mono County (*Maud Minthorn s.n.*, UC412657) appeared to have both *P. asarifolia* and *P. chlorantha* on the same sheet, but both turned out to be misidentifications of *P. dentata* (D. Jolles pers. comm. 2017); a 1956 collected annotated as *P. chlorantha* from the Sierra Nevada, Fresno County (*Wheeler 7228*, RSA602390) is actually *Orthilia secunda* (determined by D. Jolles in 2014; M. Nazaire pers. comm. 2018) (Consortium of California Herbaria 2018).

The general impression is that since *P. chlorantha* was included in two major floristic works for the state of California (*TJM1* and *TJM2*), specimens of *Pyrola* and *Orthilia* (as outlined above) were falsely determined to be *Pyrola chlorantha* through use of taxonomic keying. It's important to note, however, that *P. dentata* (the actual taxon for which the majority of California specimens were initially determined to be *P. chlorantha*) was not included in *The Jepson Manual* (Haber 1993) or *The Jepson Manual, Second Edition* (Wallace and Haber 2012), but was added to Revision 2 of the *Jepson eFlora* in 2014 (Jepson Flora Project 2018) by Diana Jolles (2018). Illustrating the complex taxonomic history and potential cause for identification issues, *Pyrola dentata* includes taxa that were previously treated as subtaxa of *P. picta* as synonyms; including *P. picta* subsp./var. *dentata*, *P. picta* subsp. *pallida*, and *P. picta* subsp. *integra* (Jolles 2018).

Summary

Based on the available information, CNPS and CNDDDB recommend deleting *Pyrola chlorantha* from California Rare Plant Rank 2A of the CNPS Inventory. If a valid specimen of it from California is ever reported, we will re-evaluate its status at that time.

Recommended Actions

CNPS: Delete *Pyrola chlorantha* from CRPR 2A

CNDDDB: Delete *Pyrola chlorantha* from G5 / SH

Current CNPS Inventory Record

Pyrola chlorantha Sw.

green-flowered wintergreen

Ericaceae

CRPR 2A

Sierra*

Alaska, Arizona, Colorado, Connecticut, DC, Delaware, Idaho, Indiana, Massachusetts, Maryland, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Virginia, Vermont, Washington, Wisconsin, West Virginia, Wyoming

Downieville (573D)* 3912057

Lower montane coniferous forest; elevation unknown

Perennial evergreen shrub. Blooms June – July

Known in CA only from one historical collection near Downieville.

Revised CNPS Inventory Record

Pyrola chlorantha

Considered But Rejected: Does not occur in California.

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