# Added to California Rare Plant Rank 4.3 in the CNPS Inventory on 20 December 2019

Rare Plant Status Review: *Gilia ochroleuca* subsp. *lanosa* Proposed Addition to California Rare Plant Rank 4.3, G3 / S3

Aaron E. Sims (CNPS), Kaitlyn Green (CNPS), and Roxanne Bittman (CNDDB) 29 August 2019

### **Background and Taxonomy**

Gilia ochroleuca M.E. Jones subsp. lanosa Hrusa is an endemic annual herb in the Polemoniaceae known only from Santa Barbara and Ventura counties, California. Having been described recently in 2014 by Hrusa, it is pending inclusion in the Jepson eFlora (Porter 2012); the Polemoniaceae treatment in the Flora of North America has not been published. Gilia ochroleuca subsp. lanosa "...is a long-styled, rosette forming annual, distinguished within the Gilia ochroleuca complex by its combination of lanate stem vestiture, monocaulic habit, and slender elongated cauline leaves with 1–2 short lobes generally at the base." (Hrusa 2014). The specific epithet, lanosa, is in reference to the dense lanose indumentum on the stems up to the first inflorescence branches (Hrusa 2014). Prior to description, G. subsp. lanosa specimens went either unnamed or were considered to be G. ochroleuca subsp. bizonata. Subspecies lanosa is distinguished from subsp. bizonata by its dense lanate tomentum and glandular inflorescence (vs. mostly glabrous), broad basal leaf rachis and divisions (vs. narrow leaf divisions), and single flowering stem (vs. almost always several or many stems originating at the rosette in subsp. bizonata). See Hrusa (2014) for additional unique characters of G. ochroleuca subsp. lanosa and a dichotomous key that differentiates it from other taxa in the G. ochroleuca complex.

## **Ecology**

Gilia ochroleuca subsp. lanosa occurs in sandy soils (rarely gravel) within in chaparral, oak woodlands, and openings in pinyon pine (Pinus monophylla) forest (Hrusa 2014). It is found at an approximate elevation of 450 to 1,480 meters and is known to bloom from (April) May to June (CCH 2019). Potential associates include Chorizanthe obovata, Pseudotsuga macrocarpa, Quercus lobata, Q. agrifolia, Q. chrysolepis, Platanus racemosa, Pinus monophylla, Juniperus californica, and Arctostaphylos glauca (CCH 2019: SBBG109707, SBBG96505, CDA20629, RSA0078541).

### **Distribution and Abundance**

Gilia ochroleuca subsp. lanosa is currently known from 32 occurrences in the San Rafael, Sierra Madre, and Topa Topa mountains in Santa Barbara and Ventura cos. Of the 32 occurrences, 22 (~69%) are considered historical (occurrences not seen in over 20 years are considered historical by CNDDB), but that could be an artifact of the fact that it is difficult to identify. 30 occurrences are located on the Los Padres National Forest, one is located along the Gibraltar Reservoir (City of Santa Barbara), and one is located on land of unknown ownership. The earliest collections were previously identified as an unknown Gilia and later collections were identified as G. ochroleuca subsp. bizonata. Hrusa was able to annotate specimens from California Academy of Sciences, Rancho Santa Ana Botanic Garden, Santa Barbara Botanic Garden, and UC Davis, but was unable to annotate the specimens from UC Berkeley. There are currently 30 to 40 specimens of undetermined Gilia sp. or G. ochroleuca subsp. bizonata at UC/Jeps, with some appearing in the same geographic area as G. ochroleuca subsp. lanosa (CCH 2019). These specimens should be looked at and annotated as potential records of subsp. lanosa.

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#### **Status and Threats**

Occurrences located within the Los Padres National Forest will hopefully be afforded protection and management by the USDA Forest Service. "From a conservation standpoint, in spite its limited distribution *Gilia ochroleuca* subsp. *lanosa* is quite secure. Its range is mostly within an established National Wilderness area. Some of the populations are large and there are no threats to any of those in the part of the Sierra Madre Mts. that does not have wilderness status. Those in the Topa Topa Mts. may not be as secure but at present, aside from their existence on and near a State Highway roadside, there appear not to be any immediate threats." (Hrusa 2014).

Gilia ochroleuca subsp. lanosa occurs within proximity to the following other rare plants: Astragalus didymocarpus var. milesianus, Calochortus palmeri var. palmeri, Layia heterotricha, Allium howellii var. clokeyi, Streptanthus campestris, Delphinium umbraculorum, and Monardella sinuata subsp. sinuata. These proximal occurrences of other rare plants have the following documented threats in the CNDDB (2019): development, grazing, non-native plants, recreational activities, vehicles, agricultural conversion, mining, road maintenance, and foot traffic. Such threats may also apply to nearby occurrences of G. ochroleuca subsp. lanosa, and additional research and field surveys are needed to make this determination.

## Summary

Based on the available information, CNPS and CNDDB recommend adding *Gilia ochroleuca* subsp. *lanosa* to California Rare Plant Rank 4.3 of the CNPS Inventory. If knowledge on the distribution, threats, and rarity status of *Gilia ochroleuca* subsp. *lanosa* changes in the future, we will re-evaluate its status at that time.

## **Recommended Actions**

CNPS: Add *Gilia ochroleuca* subsp. *lanosa* to CRPR 4.3 CNDDB: Add *Gilia ochroleuca* subsp. *lanosa* to G3 / S3

## **Draft CNPS Inventory Record**

Gilia ochroleuca M.E. Jones subsp. lanosa Hrusa Sisquoc gilia Polemoniaceae CRPR 4.3

Santa Barbara, Ventura

Lion Canyon (165C) 3411952, Wheeler Springs (166D) 3411953, Madulce Peak (167A) 3411965, Big Pine Mtn. (167B) 3411966, Little Pine Mtn. (167C) 3411956, Salisbury Potrero (192C) 3411976, Fox Mountain (192D) 3411975, Bates Canyon (193B) 3411988, Bald Mountain (193C) 3411978, Hurricane Deck (193D) 3411977, Sisquoc (195D) 3412073 Chaparral, cismontane woodland, pinyon and juniper woodland (openings) / sandy, rarely gravelly, sometimes streambanks; elevation 450-1,480 meters.

Annual herb. Blooms (April) May to June.

Previously identified as *G. ochroleuca* ssp. *bizonata*; differentiated from this and other *G. ochroleuca* sspp. by its dense lanate tomentum on stems. See *Phytoneuron* 2014-90:1-16 (2014) for original description.

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#### Literature Cited

[CNDDB] California Natural Diversity Database. 2019. RareFind 5 [Internet]. California Department of Fish and Wildlife [Government Version, July 2019].

[CCH] Consortium of California Herbaria. 2019. 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 2 July 2019].

Hrusa, G. F. 2014. Two new subspecies of *Gilia ochroleuca* (*Gilia* sect. *arachnion*: Polemoniaceae) from southwest-central California. *Phytoneuron* 2014-90: 1-16. (Original description.)

Porter, J. M. 2012. *Gilia. In*: Jepson Flora Project (eds.), *Jepson eFlora*. Website http://ucjeps.berkeley.edu/IJM.html [accessed 2 July 2019].

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