

***Trifolium albopurpureum* var. *columbinum* (Fabaceae),
a New Combination for a California Clover**

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ABSTRACT

Trifolium columbinum Greene is the correct name at the species level for the taxon that has been incorrectly called *T. olivaceum* Greene in various California floras. ***Trifolium albopurpureum* Torr. & A.Gray var. *columbinum* (Greene) D.J.Keil (Fabaceae), comb. nov.** is proposed to replace the illegitimate *Trifolium albopurpureum* var. *olivaceum* (Greene) Isely. *Phytologia* 101(2): 131-133 (June 21, 2019). ISSN 030319430.

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Greene (1887) proposed nine new species of *Trifolium* L. (Fabaceae). Jepson (1901) treated two of these, *Trifolium columbinum* Greene and *T. olivaceum* Greene as conspecific, creating the combination *T. columbinum* var. *olivaceum* (Greene) Jeps. for the latter. McDermott (1910) also treated *T. columbinum* and *T. olivaceum* as conspecific, but combined them under the latter name as *T. olivaceum*, creating the combination *T. olivaceum* f. *columbinum*. Jepson (1911) followed McDermott's classification. In a subsequent publication, Jepson (1925), while again treating these taxa as conspecific, published the combination *T. olivaceum* var. *columbinum* and used this combination again in a later publication (Jepson 1936). Munz (1959), following Jepson (1925, 1936), accepted *T. olivaceum* for the combined species. Hoover (1970) pointed out this error: "Jepson in 1901 first included *T. columbinum* and *T. olivaceum* Greene in one species under the former name. The subsequent use of the name *T. olivaceum* for the inclusive species is therefore incorrect." However, the incorrect use of *T. olivaceum* persisted, with Vincent and Isely (2012a) recognizing *T. olivaceum* at the species level for the taxon including *T. olivaceum* and *T. columbinum*.

According to Article 11.5 of the *International Code of Nomenclature for algae, fungi, and plants* (Turland et al. 2018): "When, for any taxon at the rank of family or below, a choice is possible between legitimate names of equal priority at the corresponding rank, or between available final epithets of names of equal priority at the corresponding rank, the first such choice to be effectively published (Art. 29–31) establishes the priority of the chosen name, and of any legitimate combination with the same type and final epithet at that rank, over the other competing name(s)." As was pointed out by Hoover (1970), the correct name at the species level for a taxon that merges *T. columbinum* and *T. olivaceum* is *T. columbinum*, and in January 2019 this correction was incorporated into the Jepson eFlora (Vincent and Isely 2012b; T. Rosatti, pers. comm.), and it will be used in the upcoming treatment of *Trifolium* for *The Flora of North America North of Mexico* (M. Vincent, pers. comm.).

I am nearing completion of the second edition of *Vascular Plants of San Luis Obispo County, California* (Keil and Hoover, in prep.). Hoover (1970) pointed out in the first edition that "Many of our plants have corollas intermediate in size between typical *T. columbinum* and *T. albopurpureum*. This form has been called *T. olivaceum* var. *griseum* Jepson." I have examined many specimens of this complex, and I concur. Isely (1980) recognized this intermediacy and published the combination *Trifolium albopurpureum* Torr. & A.Gray var. *olivaceum* (Greene) Isely, and used this combination in subsequent publications (Isely 1993, 1998). However, Isely was apparently unaware that the autonym

columbinum has priority at the varietal level (ICN Article 11.6—Turland et al. 2018), and therefore the combination *T. albopurpureum* var. *olivaceum* is illegitimate.

Zohary and Heller (1984) went a step further and wholly merged these taxa, recognizing *Trifolium albopurpureum* sensu lato, including as synonyms various entities that previous workers had recognized as species, varieties, and formae. Although these authors had a broad perspective of the genus *Trifolium*, they disregarded patterns of variation among members of the *T. albopurpureum* complex that most California botanists have recognized. In my opinion merging all the variants under a single species name without recognition of infraspecific variants masks important patterns of ecogeographical variation, at least some of which may be evolutionarily important.

I agree with Isely that *T. columbinum* is better treated as a variety of *Trifolium albopurpureum* than as a separate species, and I plan to so treat these plants in *Vascular Plants of San Luis Obispo County, California*. However, because a legitimate combination in *T. albopurpureum* is unavailable, I propose the following new combination:

***Trifolium albopurpureum* Torr. & A.Gray var. *columbinum* (Greene) D.J.Keil, *comb. nov.* —*Trifolium columbinum* Greene, *Pittonia* 1: 4. 1887; *Trifolium olivaceum* Greene f. *columbinum* McDermott, III. *Key Amer. Trifolium* 213, pl. 86. 1910, *nom. illeg.*; *Trifolium olivaceum* Greene var. *columbinum* (Greene) Jeps., *Man. Fl. Pl. Calif.* [Jepson] 546. 1925, *nom. illeg.* Type: USA. California. [Solano Co.]: Vacaville, 2 May 1886, *E. L. Greene s.n.* (holotype: ND-G 37926 [barcode NDG67001], image!; isotypes: CAS (2), images!; NY, image; PH, image!**

Trifolium olivaceum Greene, *Pittonia* 1: 4. 1887; *Trifolium columbinum* Greene var. *olivaceum* (Greene) Jeps., *Fl. W. Calif.* [Jepson] 307. 1901; *Trifolium albopurpureum* Torr. & A.Gray var. *olivaceum* (Greene) Isely, *Brittonia* 32: 55. 1980, *nom. illeg.* Type: USA. California. [Solano Co.]: Vacaville, 3 May 1886, *E. L. Greene s.n.* (holotype: ND-G 37925 [barcode NDG67266], image!; isotype: CAS, image!).

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