

REDISCOVERY OF *ERYTHRANTHE PERCAULIS* (PHRYMACEAE) IN THE FEATHER RIVER CANYON

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ABSTRACT

The probable type locality of *Erythranthe percaulis* has been relocated in the Feather River Canyon (Serpentine Canyon, East Branch of North Fork of Feather River) in Plumas Co., California, confirming the existence of this distinctive species. The species was recently described from a single collection made in 1980 and until now has been known only from the type. Plants are abundant at the locality documented here, which is on the serpentine slopes on the north side of Highway 70 passing through Serpentine Canyon. Color photos illustrate the habitat and habit of the plants.

An attempt to relocate the type locality of the recently described *Erythranthe percaulis* Nesom (2013) was successful. It was originally collected in May 1980 in Serpentine Canyon (East Branch of North Fork of Feather River, Plumas County) by J.T. Howell. David Popp and I found it still there in abundance on 24 May 2016. The population is large but the species remains known only from the general locality.

The plants occur along about 1.0 mile between 40° 01'18.62"N / 121° 09'50.45"W and 40° 01'33.94"N / 121° 08'27.16"W. From the town of Belden the plants begin at 6.2 miles east on Hwy 70 and end at 7.2 miles. Corresponding mileage from county road signs are marked 21.80 to 20.74 to from west to east. In this area, the plants grow between 780-855 meters elevation in crevices, among boulders, and in soil pockets on wet serpentine cliffs and slopes and at the base of the westbound roadcut. These steep cliffs on the north side of the road are serpentine and the species apparently is restricted to that substrate. The extended population contains many thousands of individuals. Climbing above the manufactured steep roadcut onto the natural slope was not feasible, so it is unclear if the population extends to higher elevations.

A voucher was not collected but the habitat and population are documented by many photos. Representative morphology of *Erythranthe percaulis* is shown in Figures 1–14.

In our observations, *Erythranthe percaulis* is relatively uniform in morphology. There was no indication of gene exchange with other *Erythranthe* species in the immediate area. Clusters of *E. microphylla* (Figs. 15, 16) are scattered through the larger *E. percaulis* population. A variant of *E. moschata* (under study by Nesom) occurs at this site as well as others in the Serpentine Canyon area.

LITERATURE CITED

Nesom, G.L. 2013. A new species of *Erythranthe* sect. *Simiola* (Phrymaceae) from California serpentine. Phytoneuron 2013-70: 1–6.

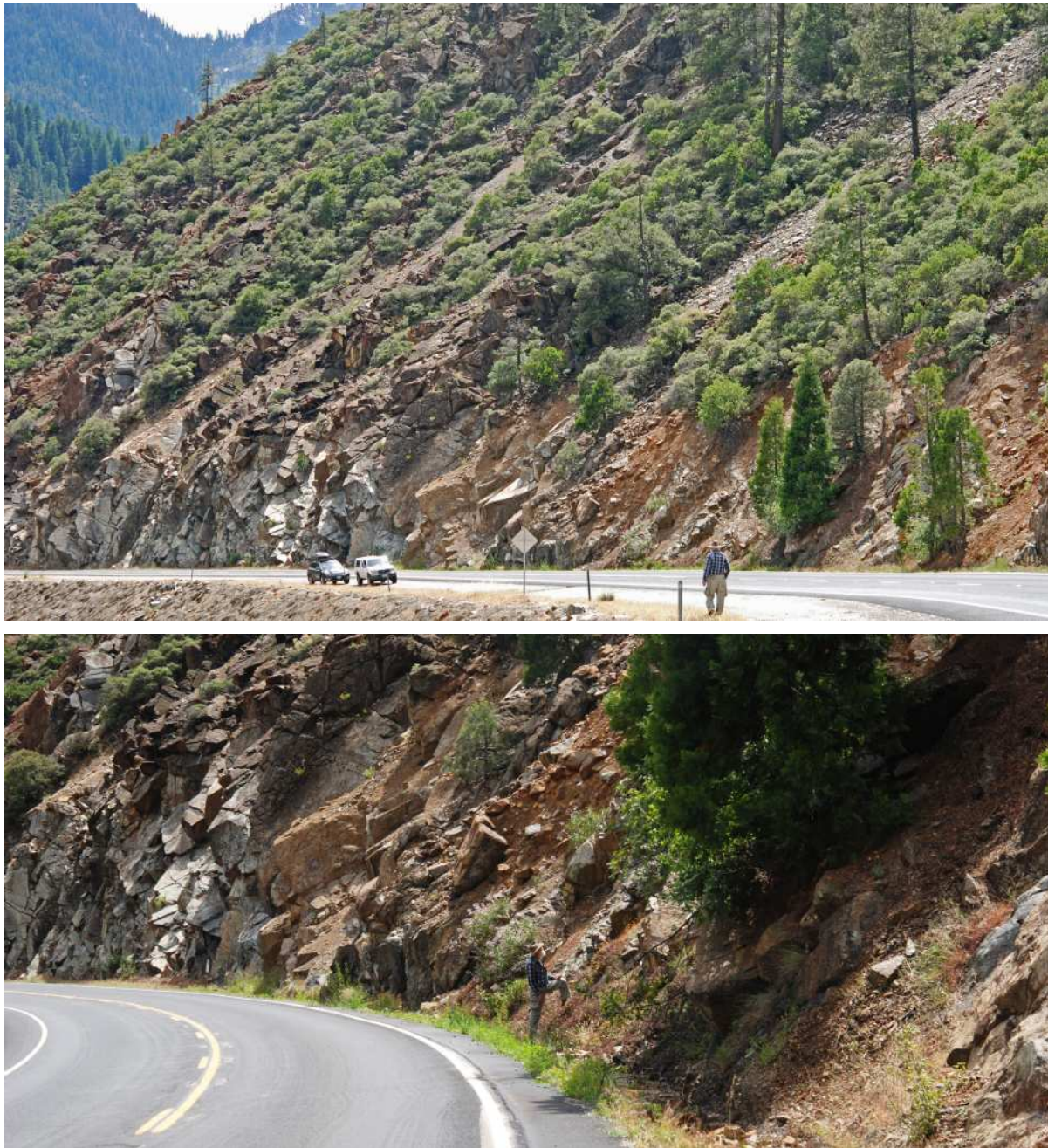


Figure 1. Habitat of *Erythranthe percaulis* at the probable type locality — Serpentine Canyon, East Branch of North Fork of Feather River. Top: Main population segment. Bottom: Plants occurred on the steep road cut and in the drainage channel next to the road. Botanist David Popp is shown in both photos.



Figure 2. *Erythranthe percaulis*. Shallow soil pockets on wet serpentine faces.



Figure 3 (top and bottom). *Erythranthe percaulis*. In accumulated soil near base of slope.



Figure 4. *Erythranthe percaulis*. Habit, showing characteristically long internodes, reduced leaves and long, ascendant pedicels.



Figure 5. *Erythranthe percaulis*. Top. Plants of typical stature, in gravelly soil. Bottom. Relatively short plants in soil pocket.



Figure 6. *Erythranthe percaulis*. Dense cluster of plants mostly in mature fruit or nearly so.



Figure 7. *Erythranthe percaulis*. Mass of plants in soil pocket.

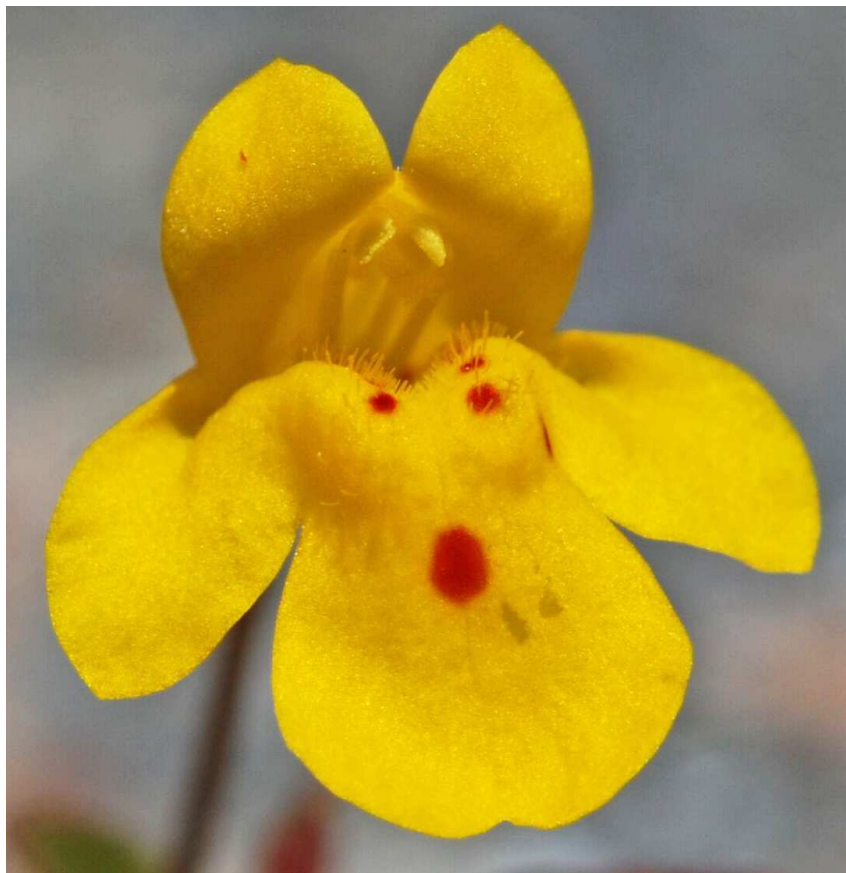


Figure 8. *Erythranthe percaulis*. Corolla — the prominent red splotch or dot on the lower lip is characteristic, although this was not apparent in the pressed flowers of the type collection. The stigma usually protrudes slightly beyond the level of the anthers, supporting the earlier surmise by Nesom that the flowers are herkogamous.



Figure 9. *Erythranthe percaulis*. Side view of corollas.



Figure 10. *Erythranthe percaulis*. Front view of corolla.

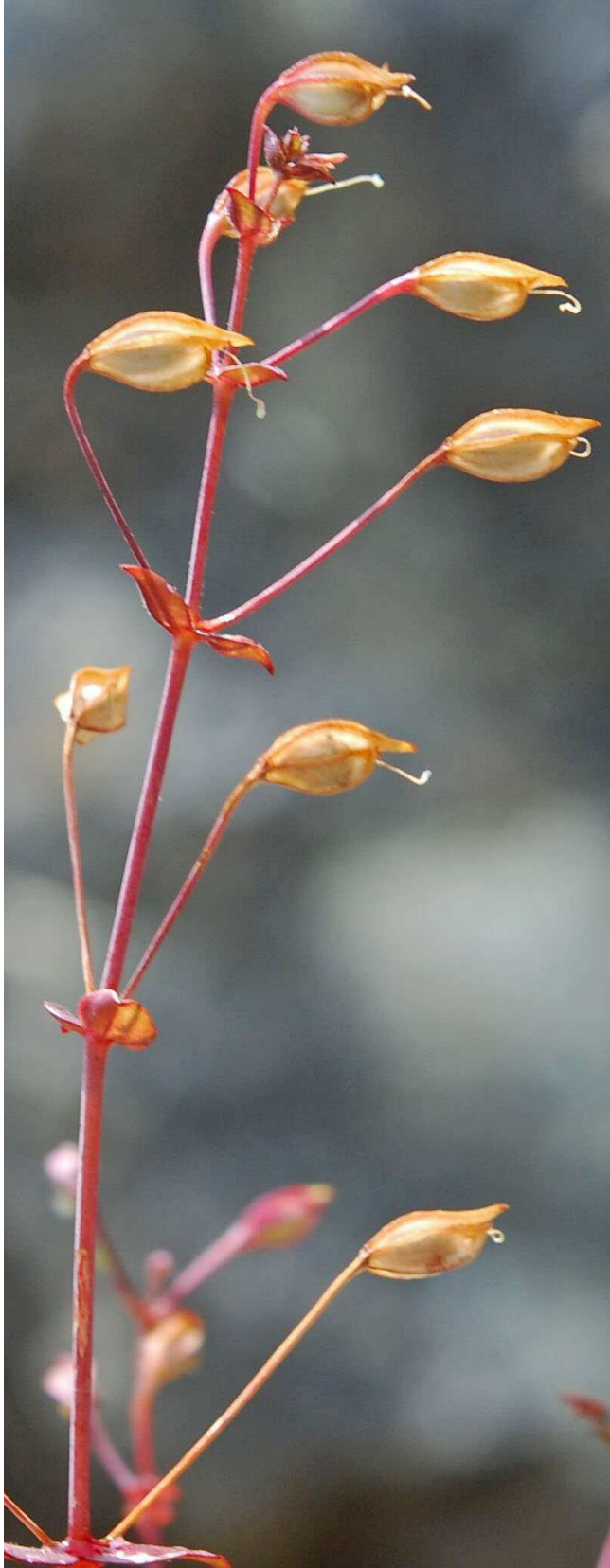


Figure 11. *Erythranthe percaulis*. Mature calyces, styles exserted.



Figure 12. *Erythranthe percaulis*. Small basal leaves and proximal cauline leaves.



Figure 13. *Erythranthe percaulis*. Mid-cauline leaves.



Figure 14. *Erythranthe percaulis*. Plants with mostly basal leaves.



Figure 15. *Erythranthe microphylla* at the *E. percaulis* site. Mass of flowering plants.



Figure 16. *Erythranthe microphylla* at the *E. percaulis* site. Maturing calyces, with styles exserted.