Rare Plant Status Review: *Potentilla norrelmukana*
Proposed Addition to California Rare Plant Rank 1B.2, G1 / S1
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Background and Taxonomy

Potentilla norrelmukana DiNicola & Ertter is a perennial herb in the Rosaceae and is endemic to the Trinity Alps of Trinity County, California (DiNicola and Ertter 2024). The name *Potentilla norrelmukana* was recently published (DiNicola and Ertter 2024), and it is not included in *The Jepson Manual* (Ertter 1993) or *Flora of North America* (Ertter et al. 2015). Although not currently in the *Jepson eFlora* (Ertter 2012), it will be included in an upcoming revision (Ertter 2026 pers. comm.). *Potentilla norrelmukana* plants are generally larger, more slender, have longer stems, and larger flowers than similar *Potentilla* species occurring in the Klamath ecoregion (see key in DiNicola and Ertter 2024). The leaves are also conspicuously stipitate-glandular on both petiole and leaflets, especially on emerging leaves which can be so sticky that collections made in dry weather become coated in a fine layer of dust and grit (DiNicola and Ertter 2024).

Prior to the recent work of DiNicola and Ertter (2024), this species was only known from one collection made by Harvey Monroe Hall in 1909 which was named by Jepson as *Potentilla millefolia* Rydb. var. *algida* Jeps. It was difficult to know whether to recognize var. *algida* in taxonomic treatments (DiNicola and Ertter 2024) and authors treated it as a variant of either *Potentilla drummondii* subsp. *breweri*, *P. breweri*, or *P. millefolia* (Munz and Keck 1968; Ertter 1993, 2012). *Potentilla norrelmukana* is based on the same type material as the name *Potentilla millefolia* var. *algida*; the epithet *algida* could not be used at the species level in the genus *Potentilla* and a new epithet needed to be chosen (DiNicola and Ertter 2024). "The epithet "norrelmukana" refers to the Nor Rel Muk Wintu people, since the species' entire range lies on their ancestral land, and honors them as the first stewards of the land and its flora" (DiNicola and Ertter 2024).

Ecology

Plants of this species are typically found in glacial cirque meadows, often growing in the ecotone between the wet meadow and the rocky cirque wall, or on other relatively dry or rocky sites within the meadow (DiNicola and Ertter 2024, CCH2 2026). It occurs on both granitic and ultramafic substrates (DiNicola and Ertter 2024). Associated species include *Pinus balfouriana*, *Trifolium longipes*, *Achillea millefolium*, *Deschampsia cespitosa*, *Perideridia* sp., *Potentilla gracilis*, and *P. breweri* (DiNicola and Ertter 2024, CCH2 2026). It has been found at elevations of 1920–2135 m (6300–7000 ft) (CCH2 2026). It has been found with flowers in July (DiNicola and Ertter 2024, CCH2 2026).

Distribution and Abundance

Potentilla norrelmukana is known from approximately five occurrences in a small area of the high Trinity Alps, where it is restricted to the headwaters of North Fork Swift Creek, Parker Creek, and Union Creek (DiNicola and Ertter 2024, CCH2 2026). All five occurrences are in the Trinity Alps Wilderness of the Shasta Trinity NF. Four of the occurrences are recent (seen within the past 20 years), and one is historical. The populations at occurrence record #s 1 and 2 are estimated to have 100 to 300 plants (DiNicola 2026 pers. comm., Ertter 2026 pers. comm.). The

population sizes at the other occurrences are unknown. The range extent is approximately 3 km^2 and area of occupancy is five 1 km^2 grid squares (NatureServe 2025).

Status and Threats
This species has no conservation status (NatureServe 2026). Since this species appears to be endemic to the Trinity Alps Wilderness, it is not exposed to most direct threats. No evidence of recreational or grazing impacts was noted (DiNicola and Ertter 2024). Its habitat is being altered due to changes in snowpack caused by climate change (Garwood et al. 2026) which is a potential threat. In addition, this species likely has a low total population size, and only five occurrences are known (DiNicola and Ertter 2024, DiNicola 2026 pers. comm.). As with most *Potentilla* species, hybridization with related species is likely; intermediates with *Potentilla breweri* were found in a dry area on the west side of occurrence record #1, but further research is needed to determine if these plants were true hybrids (DiNicola and Ertter 2024).

Summary
Based on the available information, CNPS and CNDDB propose adding *Potentilla norrelmukana* to California Rare Plant Rank 1B.2 of the CNPS Inventory. If knowledge of the distribution, threats, or rarity status of *Potentilla norrelmukana* changes in the future, it may be re-evaluated at that time.

Recommended Actions
CNPS: Add *Potentilla norrelmukana* to CRPR 1B.2
CNDDB: Add *Potentilla norrelmukana* to G1 / S1

Draft CNPS Inventory Record
Potentilla norrelmukana DiNicola & Ertter
Nor Rel Muk cinquefoil
Family: Rosaceae
USDA Plants Symbol: None
Synonym(s)/Other Name(s): None
CRPR 1B.2
Counties: Trinity
States: CA
Quad name (code): Ycatapom Peak (4112217)
General Habitat: Alpine boulder and rock field, meadows and seeps
Microhabitat Details: Found in glacial cirque meadows, often growing in the ecotone between wet meadow and rocky cirque walls or on other relatively dry or rocky sites within meadows.
Microhabitat: rocky (often), serpentine (sometimes), granitic (sometimes)
Elevation: 1920–2135 m (6300–7000 ft)
Life form: Perennial herb
Blooms: July
Threats: Potentially threatened by hybridization and habitat alteration due to climate change
Taxonomy: Prior name used for this plant was *P. millefolia* var. *algida*. The epithet “algida” was not available at the species level in the genus *Potentilla*. Not in the *Jepson eFlora* as of June 2026 but will be added in a future update. See DiNicola and Ertter (2024) for an identification key to similar species of the Trinity Alps region. Like all *Potentilla* species, this species probably hybridizes with related species, such as *Potentilla breweri*, in the Trinity Alps region.

Selected References:
- CNPS Status Review: Proposed addition to CRPR 1B.2, G1 / S1 (2026)
- Original Description: *Madroño* 70: 232–241 (2024)
- Taxonomic Treatment: *Madroño* 70: 232–241 (2024)

Literature Cited

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[CNPS] California Native Plant Society, Rare Plant Program. 2026. Inventory of Rare and Endangered Plants of California (online edition, v9.5.1a). Website https://www.rareplants.cnps.org [accessed January 2026].

[CCH2] Consortium of California Herbaria Portal 2. 2026. Data provided by the participants of the Consortium of California Herbaria and the California Phenology Thematic Collections Network (CAP-TCN). Regents of the University of California, Berkeley and Cal Poly, San Luis Obispo. Website http//:www.cch2.org/portal/index.php [accessed January 2026].

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Personal Communications

Sent to: NW, B. Ertter, and A. DiNicola on 3 June 2026

DiNicola, Alexa. 2026. Curator, Herbarium, Iowa State University and first author of *Potentilla norrelmukana*. Email about population sizes of *Potentilla norrelmukana*. Personal communication 29 January 2026.

Ertter, Barbara. 2026. UC Herbarium Curator of Western North American Botany, retired. Email about specimens and population sizes of *Potentilla norrelmukana* and future *Potentilla eFlora* revision. Personal communication 28 January 2026.

Kierstead, Julie. 2024. US National Forest Service Botanist, retired. Email nominating *Potentilla norrelmukana* for a status review and submission of nomination form. Personal communication 29 July 2024.

Lo, Belinda. 2026. Retired field botanist. Email about population size of *Potentilla norrelmukana*. Personal communication 29 July 2024.