

Added to CNPS Inventory on December 20, 2010

**Rare Plant Status Review: *Potentilla uliginosa*
Proposed New Add to List 1A**

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Background

Potentilla uliginosa is a newly described, presumed extinct, taxon that is locally endemic to Sonoma County, California. It was first identified in 1946 and 1947 by Milo S. Baker and John Thomas Howell as a disjunct northern population of *Potentilla hickmanii* and subsequently treated as such in state and regional floras, including *The Jepson Manual* (1993), though with the note “may warrant recognition” (Johnston and Ertter 2010). *Potentilla uliginosa* will be included in a note under *P. hickmanii* in *The Jepson Manual*, 2nd Edition (available online at: http://ucjeps.berkeley.edu/tjm2/review/treatments/rosaceae_all.html#39735), as it has been described and named too late to be fully incorporated into the treatment. *Potentilla uliginosa* was first described by Johnston (1980), who annotated specimens as a new variety of *P. hickmanii*. This was picked up by the CNPS *Inventory* and the Natural Diversity Database, however a formal publication was postponed and its taxonomic validity therefore remained unresolved until its recent formal publication earlier this year (Ertter 1993; Johnston and Ertter 2010). *Potentilla uliginosa* is distinguished from *P. hickmanii* by having longer stems and leaves, and leaflets that are irregularly pinnately divided. It flowers from May to August.

Potentilla uliginosa is known from permanent oligotrophic wetlands from approximately 30 to 40 meters in elevation. Its type locality is “ca. 1 mi (airline) SW of Cunningham Station in Cunningham Marsh” of southern Sonoma County, California (M.S. Baker UC963929). A collection by Joseph W. Congdon (GH, MIN) in 1880 from “Sebastopol to Stony Point Road” may represent this same population (Ertter 1993; Johnston and Ertter 2010).

Potentilla uliginosa is known only from two (possibly one) populations in southern Sonoma County (see above). Surveys for *P. uliginosa* (then identified as *P. hickmanii*) in the Cunningham Marsh have occurred on numerous occasions in the past, with one 1990 survey resulting in a non-vouchered account of *P. hickmanii*. Subsequent surveys since this time, however, resulted in no discovery of *P. uliginosa*, and it is therefore presumed extinct (Ertter 1993; Best et al. 1996; Baye 2005; Johnston and Ertter 2010).

Although presumed extinct, a conservation plan proposed by Baye (2005) notes the possibility of *P. hickmanii* (now known to be *P. uliginosa*) remaining dormant in a viable seed bank. Furthermore, Johnston and Ertter (2010) note “It is also possible that additional populations remain to be discovered in the mountains of northwestern California”, due in part to a 1929 collection identified as *P. millefolia*

from Josephine County, Oregon, which shows similar characteristics to *P. uliginosa* (Ertter 1993; Barbara Ertter pers. comm. 2010). If *Potentilla uliginosa* is indeed extirpated from the Sebastopol area, the cause was likely agricultural and urban development. These threats also pertain to other areas of potential habitat (Johnston and Ertter 2010).

Based on the available information, CNPS and CNDDDB recommend that *Potentilla uliginosa* be added to List 1A.

Recommended Actions

CNPS: Add to CNPS List 1A

CNDDDB: Add to CNDDDB as GH / SH

Please review the draft CNPS Inventory record below, respond Yes or No on the proposal to add this species to the Inventory and CNDDDB, and provide any edits/comments. If responding No, please provide supporting information.

Draft CNPS Inventory Record

Potentilla uliginosa B.C. Johnst. & Ertter
Cunningham Marsh cinquefoil
Rosaceae
List 1A
Sonoma*
Two Rock (502D) 3812237*
Marshes and swamps (MshSw)/freshwater, permanent oligotrophic wetlands. 30-40 meters.
Perennial herb. Blooms May-August.
Known only from Cunningham Marsh of southern SON Co. Potentially extinct due to agriculture and development. Previously identified as *P. hickmanii*. See *J. Bot. Res. Inst. Texas* 4(1):13-18 (2010) for original description.