

NOTES

NOTES ON THE STATUS OF *PSILOCARPHUS BERTERI* (ASTERACEAE: INULEAE).—James D. Morefield, Rancho Santa Ana Botanic Garden, 1500 N. College Ave., Claremont, CA 91711-3101 (present address: Nevada Natural Heritage Program, 123 W. Nye Lane, Carson City, NV 89710).

Psilocarphus Nuttall consists of 3–5 ill-defined species most widely distributed in temperate western North America, with smaller, disjunct populations of two taxa in temperate South America. The genus is currently in need of detailed systematic investigation. No such study is contemplated here, but detailed examination of over 1000 sheets and types of *Psilocarphus* (mostly at BM, CAS, DS, JEPS, POM, RSA and UC) in conjunction with the Jepson Manual Project, along with field collections and observations during 1988–1990, have revealed a geographic range extension for one taxon and suggest a nomenclatural change.

Cronquist (1950; see synonymy below for literature citations) recognized *Psilocarphus berterii* I. M. Johnston as a species endemic to central Chile. Three herbarium collections from California (*Jepson 8310* [JEPS!], *Howell 28323* [RSA! UC!], both from the Point Reyes area, Marin Co., and *Mason and Lee 9104* [UC!] from Point Lobos State Park, Monterey Co.) all contain plants that I cannot distinguish from specimens of *P. berterii*. The *Howell* specimen, furthermore, includes a complete set of intergrades to typical *P. tenellus* Nuttall var. *tenuis* (Eastwood) Cronquist. The *Mason and Lee* collection was cited by Cronquist (1950) as *P. tenellus* var. *tenuis*.

The condensed habit and increased pubescence of Californian *P. berterii* over *P. tenellus* var. *tenuis* is typical of ecotypes of other taxa inhabiting seashore and other relatively severe habitats. This is my interpretation of the *P. berterii* collections in California.

I agree with Cronquist (1950) that the two *Psilocarphus* taxa with disjunct populations in temperate South America likely originated in North America as *P. brevissimus* Nuttall var. *brevissimus* and *P. tenellus*. My own field observations show that *P. brevissimus* var. *brevissimus* and (contrary to Cronquist 1950) *P. tenellus* var. *tenuis* inhabit the wettest areas of any taxa in the genus (generally vernal pools). Accidental transport of their small, woolly-bracted achene-complexes between the two continents by migratory waterfowl is plausible and perhaps frequent.

Unlike Cronquist (1950), however, I am unable to separate South American and Californian *P. berterii* from the variation now observable in *P. tenellus* var. *tenuis*. The character he used to distinguish *P. berterii* from *P. tenellus* var. *tenuis*, “Leaves . . . closely enfolding and often hiding the heads” versus “Leaves not closely enfolding the heads” appears inconstant within both taxa.

My own observations of about 120 additional characters in preparation for detailed cladistic analyses reveal no other differential characters. Some specimens of *P. berterii* tend to have a dense grayish pubescence, spreading or very short branches, and leaves longer than the internodes, whereas *P. tenellus* var. *tenuis* tends to have thinner greenish pubescence, more erect and elongate branches, and leaves shorter than the internodes. Unfortunately, these tendencies are also inconstant in both North America and South America. I therefore propose that the two taxa be united.

With the inclusion of *P. berterii* in *P. tenellus* var. *tenuis*, an older varietal epithet becomes available, and must be used. I propose the following treatment for *Psilocarphus tenellus* in anticipation of the Jepson Manual Project:

PSILOCARPHUS TENELLUS Nutt., Trans. Amer. Philos. Soc. (ser. 2) 7:341. 1840.—*Micropus tenellus* (Nutt.) Walp., Repert. Bot. Syst. 2, part 4:600. 1843.—TYPE: USA, California, Santa Barbara, probably Apr 1836, *Nuttall s.n.* (holotype, BM-herb. Nuttall!; isotype, K-herb. Hooker 1867!).

KEY TO THE VARIETIES OF *PSILOCARPHUS TENELLUS*

- a. Uppermost leaves oblanceolate to obovate, mostly 2 times as long as wide or longer, spreading; corollas of central, functionally staminate flowers 5-lobed. var. *tenellus*
- a'. Uppermost leaves ovate to broadly elliptic, less than 2 times as long as wide, more or less appressed to the heads, corollas of central, functionally staminate flowers 4-lobed. var. *globiferus*

PSILOCARPHUS TENELLUS var. *TENELLUS*.

Common on usually dry slopes and flats, often along paths, on burns, or where otherwise disturbed, from near sea level to 2000 m elevation. W California, NW Baja California, and SW Oregon, widely scattered to SW British Columbia and NW Idaho. Tending to merge with *P. oregonus* Nuttall, especially in the Sierra Nevada southward to Baja California.

Psilocarphus tenellus* var. *globiferus (Bertero ex DC.) Morefield, comb. nov.—*Micropus globiferus* Bertero, Mercurio Chileno 15:700. 1829 (nom. nud.); Bertero ex DC., Amer. J. Sci. Arts 23:254. 1833 (nom. nud.); Bertero ex DC., Prodr. 5: 460. 1836.—*Bezanilla chilensis* E. J. Remy in C. Gay, Fl. Chil. 4, part 1:110. 1849. (nom. illegit!).—*Psilocarphus chilensis* (E. J. Remy) A. Gray, Syn. Fl. N. Amer., 2nd ed., vol. 1, part 2:448. 1886.—*Psilocarphus globiferus* (Bertero ex DC.) Speg., Anales Soc. Ci. Argent. 48:330. 1899.—non *Psilocarphus globiferus* Nutt., 1840 (= *P. brevissimus* Nutt. var. *brevissimus*).—*Psilocarphus berteri* I. M. Johnston, J. Arnold Arbor. 19:261. 1938.—TYPE. Chile, Rancagua, 1833, Bertero 433 (holotype, G-DC, fiche RSA!).

Because Remy (1849) cited "*Micropus globiferus* Bertero, Herb.!—DC., Prodr." as an unequivocal synonym of *Bezanilla chilensis*, the latter becomes an illegitimate nomenclatural synonym of the former (ICBN Art. 63). It thus cannot be a taxonomic synonym of *P. brevissimus* Nutt. sensu Johnston (1938) and Cronquist (1950).

Psilocarphus tenuis Eastw., Bot. Gaz. (Crawfordsville) 41:292. 1906.—*Psilocarphus tenellus* Nutt. var. *tenuis* (Eastw.) Cronq., Res. Stud. State Coll. Wash. 18:88. 1950.—TYPE: USA, California, Monterey, Jul 1905, Mrs. Joseph Clemens s.n. (holotype, CAS [lost?]; fragments, UC! US).

?*Psilocarphus globiferus* (Bertero ex DC.) Speg. var. *minimus* Cabrera, Revista Chilena Hist. Nat. 40:231. 1937. Type not seen.

According to the ICBN Arts. 32.6 and 57.3 Note 1, the autonym var. *globiferus* has a legitimate basionym and takes priority over both var. *minimus* and var. *tenuis*, even though *P. globiferus* (Bertero ex DC.) Speg. is illegitimate.

Infrequent (or rarely collected), low moist places, mostly in vernal pools or among coastal dunes, sea level to 700 m elevation. W-central California, W-central Chile. Depauperate, broad-leaved, often glabrate forms of *P. brevissimus* var. *brevissimus* (Parish s.n., 16–20 June 1895 [UC]; Thorne et al. 53496 [RSA, UC]; Thorne 53233 [RSA, UC], etc.) occur at higher elevations in the San Bernardino Mountains of S California, and might be confused with *P. tenellus* var. *globiferus*.

The characters separating var. *globiferus* from var. *tenellus* appear relatively constant. Only a very few intermediate specimens have been seen, and these may merely be aberrant forms of var. *tenellus*. Further systematic study may show the two taxa to be separate species.

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NOTEWORTHY COLLECTIONS

CALIFORNIA

NERIUM OLEANDER L. (APOCYNACEAE).—Shasta Co., well established in riparian corridor along the Sacramento River, between Redding and Keswick Dam, elevation 180 m, T32N R5W, 6 Nov 1991, *J. Keeley 14145* (LOC).

Previous knowledge. Not previously reported in the California flora (Munz, A California flora and supplement, 1968; Hickman (ed.), The Jepson manual, in press).

Significance. Although extensively planted throughout the state, this is the first report of oleander being naturalized in the wild. This species is native to the Mediterranean Basin where it is largely restricted to riparian communities similar to the site described above.

—JON E. KEELEY, Biology Department, Occidental College, Los Angeles, CA 90041.

AMBROSIA PUMILA (Nutt.) A. Gray. (ASTERACEAE).—Riverside Co., ca. 1 km S of Tualota Creek and 0.8 km E of San Diego Aqueduct in Skunk Hollow, 40 m W of N end of large vernal pool. Population of ca. 500 individuals in clearing of annual grassland dominated by *Avena fatua*; associated with *Erodium* sp. and *Bromus rubens*; 30 May 1991, *D. B. Zippin 138* with C. C. Patterson. Confirmed by S. Boyd and G. H. Levin. Specimens at SD, RSA.

Previous knowledge. Floodplains, valley grasslands and dry lake bed fringes from the San Luis Rey River, San Diego Co. to vicinity of Calmalli and El Arco, Baja California, Mexico (Wiggins, Flora of Baja California, 1980; California natural diversity data base, 1991).

Significance. First record for Riverside Co. and a northward range extension of ca. 20 km. This species is a Category 2 candidate for federal listing and is considered rare and endangered throughout its range by the California Native Plant Society. This species is very close to several other rare species at Skunk Hollow including *Orcuttia californica* (state-listed endangered) and *Navarettia fossalis*. *Eryngium aristulatum* subsp. *parishii* (state-listed endangered) is also reported from the Skunk Hollow vernal pool (S. Boyd personal communication), but has not been relocated in 1991 (P. Zedler personal communication). This site is currently privately held and will soon be surrounded by a housing development. This discovery lends additional support for permanent protection and management of this significant area.

—DAVID B. ZIPPIN, Department of Botany, University of Texas, Austin, TX 78713-7640.



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