

A NEW COMBINATION IN PSOROTHAMNUS ARBORESCENS (FABACEAE)

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ABSTRACT

The new combination **Psorothamnus arborescens** (Torr. ex A. Gray) Barneby var. **californicus** (S. Watson) Sutherl., Gandhi, & Vincent is made here to accommodate *Dalea californica* S. Watson and *Parosela californica* (S. Watson) Vail var. *simplicifolia* Parish at varietal rank in *Psorothamnus arborescens*, necessitated by the priority of the varietal autonym *Parosela californica* var. *californica* created in 1913.

RESUMEN

Se hace aquí la combinación nueva **Psorothamnus arborescens** (Torr. ex A. Gray) Barneby var. **californicus** (S. Watson) Sutherl., Gandhi, & Vincent para acomodar *Dalea californica* S. Watson and *Parosela californica* (S. Watson) Vail var. *simplicifolia* Parish en el rango varietal en *Psorothamnus arborescens*, que se necesitaba por la prioridad del autónimo varietal *Parosela californica* var. *californica* creado en 1913.

Psorothamnus Rydb. is a small genus of shrubs and subshrubs consisting of nine species and six varieties chiefly occurring in sw United States and nw Mexico (Barneby 1977: 21). The taxa have been known by several common names, such as dyebush, indigobush, King's dalea, Nevada dalea, and smoketree. According to Barneby (1977: 22), “*Psorothamnus* ... is related on the one hand to *Errazurizia* Phil. [in having petals inserted directly on the hypanthium] and on the other hand to *Marina* Liebm. [in having normal papilionaceous keel petals folded around androecium and concealing it at anthesis] and only through the latter, therefore more remotely, to *Dalea* L.” In *Dalea* and *Marina*, the wing and keel petals are adnate to the stamen tube appearing epistemonous, a character separating *Psorothamnus* from *Dalea* and *Marina*.

For *Psorothamnus arborescens*, Barneby (1977: 32–39) recognized four varieties, viz., var. *arborescens*, var. *minutifolius* (Parish) Barneby, var. *pubescens* (Parish) Barneby, and var. *simplicifolius* (Parish) Barneby

According to the Shenzhen Code (International Code of Nomenclature for Algae, Fungi, and Plants (ICNAP)) Articles 11.6, 22.3, and 26.3, an autonym has priority over the name at the same rank that established it (Turland & al. 2018). However, in 1977 the concept of autonym was different. As per the Seattle Code Articles 19, 22, and 26, autonyms were not to be taken into consideration for purpose or priority (Stafleu & al. 1972). This concept was reversed in the Sydney Code making an autonym to have priority over the name at the same rank that established it (vide Articles 19.4, 22.2, 26.2, 32.6, 57.3; Voss & al. 1983).

In the light of the above situation, for the forthcoming volume on legumes of the *Flora of North America* (north of Mexico), the nomenclature of var. *simplicifolius* is discussed below.

Vail (1897: 17) transferred *Dalea californica* S. Watson to the genus *Parosela* as *P. californica* (S. Watson) Vail. Subsequently, Parish (1913: 309) published *P. californica* var. *simplicifolia* Parish and also created the autonym *P. californica* var. *californica*.

Barneby (1977: 36) recognized the above elements at the rank of variety in *Psorothamnus arborescens*, and he, perhaps following the Seattle Code operating at that time, published *Psorothamnus arborescens* var. *simplificolius* (Parish) Barneby

However, the application of Code Articles is retroactive (vide Shenzhen Code Principle VI), and presently the Shenzhen Code autonym rule determines the correct name when *Dalea californica* and *Parosela californica* var. *simplicifolia* are treated together as one taxon at the rank of variety in *Psorothamnus arborescens*.

Since the varietal autonym *Parosela californica* var. *californica* has priority over *P. californica* var. *simplicifolia*, the correct varietal name in *Psorothamnus arborescens* must be *P. arborescens* var. *californicus*, not *P. arborescens* var. *simplicifolius* (Parish) Barneby. Accordingly, a new combination is proposed here.

Psorothamnus arborescens (Torr. ex A. Gray) Barneby var. **californicus** (S. Watson) Sutherl., Gandhi, & Vincent, **comb. & stat. nov.** *Dalea californica* S. Watson, Proc. Amer. Acad. Arts 11:132. 1876; *Parosela californica* (S. Watson) Vail, Bull. Torrey Bot. Club 24(1):17. 1897. TYPE: U.S.A. CALIFORNIA: E slope of the San Bernardino Mountains, 1876, C.C. Parry s.n. (HOLOTYPE: GH).

Parosela californica (S. Watson) Vail var. *simplicifolia* Parish, Bot. Gaz. 55:309. 1913 (as *simplifolia*); *Psorothamnus arborescens* (Torr. ex A. Gray) Barneby var. *simplicifolius* (Parish) Barneby, Mem. New York Bot. Gard. 27:36. 1977 (as *simplifolius*). TYPE: U.S.A. CALIFORNIA: "Western part of the Colorado Desert, 1904, M.F. Gilman 51 (HOLOTYPE: UC).

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REFERENCES

- BARNEBY, R.C. 1977. *Psorothamnus*. Mem. New York Bot. Gard. 27:21–54.
- PARISH, S.B. 1913. The California Paroselas (with five figures). Bot. Gaz. 55:300–313.
- STAFLEU, F.A., C.E.B. BONNER, R. McVAUGH, R.D. MEIKLE, R.C. ROLLINS, R. ROSS, J.M. SCHOPF, G.M. SCHULZE, R. DE VILMORIN, & E.G. VOSS (EDS.). 1972. International code of botanical nomenclature: Adopted by the Eleventh International Botanical Congress, Seattle, August 1969. Regnum Veg. vol. 82. Utrecht, Oosthoek, Netherlands.
- TURLAND, N.J., J.H. WIERSEMA, F.R. BARRIE, W. GREUTER, D.L. HAWKSWORTH, P.S. HERENDEE, S. KNAPP, W.H. KÜSER, D.Z. LI, K. MARHOLD, T.W. MAY, J. MCNEILL, A.M. MONRO, J. PRADO, M.J. PRICE, & G.F. SMITH (EDS.). 2018. International code of nomenclature for algae, fungi and plants (Shenzhen Code). Regnum Veg. vol. 159. Koeltz Scientific Books, Königstein, Germany.
- VAIL, A.M. 1897. Studies in the Leguminosae—II. Bull. Torrey Bot. Club 24(1):14–18. 1897.
- VOSS, E.G., H.M. BURDET, W.G. CHALONER, V. DEMOULIN, P. HIEPKO, J. MCNEILL, R.D. MEIKLE, D.H. NICHOLSON, R.C. ROLLINS, P.C. SILVA, & W. GREUTER (EDS.). 1983. International code of botanical nomenclature: Adopted by the Thirteenth International Botanical Congress, Sydney, August 1981. Regnum Veg. vol. 111. Bohn, Scheltema, & Holkema, Utrecht, The Netherlands.