

**TAXONOMIC ADJUSTMENT IN *TRIDENTOPSIS*
(POACEAE: CHLORIDOIDEAE: CYNODONTEAE)**

JOSEPH K. WIPFF
3512 25th Court SE
Albany, Oregon 97322
jkwipff@gmail.com

ALAN S. WEAKLEY
UNC Herbarium (NCU), North Carolina Botanical Garden
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27599-3280

ABSTRACT

Tridentopsis muticus var. *elongatus* is elevated to the rank of species: ***Tridentopsis elongata*** (Buckley) Wipff & Weakley, **comb. nov.**

Peterson et al. (2014) conducted a phylogenetic analysis on twenty poorly understood genera in the Cynodonteae tribe. Within these 20 genera they found strong support for six lineages that were treated as subtribes: Cteniinae, Farragininae, Gouiniinae, Gymnopogoninae, Perotidinae, and Trichoneurinae. They found that *Tridens flavus* L., the type for the genus, was clearly aligned with the Pappophorinae and *Tridens muticus* was clearly aligned with the Gouiniinae. Peterson et al. (2014) placed *Tridens muticus* (Torrey) Nash into the new genus, *Tridentopsis*; based on having paleas that are not widened or bowed-out below, and caryopses that are dorsally flattened, deeply concave to folded on the dorsal or hilar surface, and thickened towards the margins below. Peterson et al. (2016) expanded their phylogenetic analysis of the Cynodonteae and included *Tridens muticus* var. *elongatus* (Buckley) Shinnars for the first time. The three accessions of *Tridens muticus* var. *elongatus* clearly aligned with the *Tridentopsis* clade and *Tridens muticus* var. *elongatus* was transferred into *Tridentopsis*.

Tridens elongatus (Buckley) Nash has long been recognized as a distinct species from *T. muticus* (e.g., Nash 1898, 1903; Heller 1900; Lamson-Scribner 1901; Bush 1902; Silveus 1933; Hitchcock 1951). Shinnars (1954) treated *T. elongatus* as a variety of *T. muticus*, but the only discussion included for why he made for the transfer was “The two are sometimes very difficult to distinguish.” Since 1954, we can find no additional analysis, assessment, rationale, or even comment about the best taxonomic rank for the ‘*elongata*’ entity. Although Shinnars’ taxonomy has since been followed by most authors, we find that the reduction in rank is unwarranted — the two taxa are morphologically and ecologically distinct (see Table 1) and maintain their biological distinctiveness across a broad and largely sympatric distribution in the south-central and southwestern USA and adjacent Mexico. In order to recognize the two taxa at appropriate rank and in the genus *Tridentopsis*, we propose the following new combination.

Tridentopsis elongata (Buckley) Wipff & Weakley, **comb. nov.** *Uralepis elongata* Buckley, Proc. Acad. Nat. Sci. Philadelphia 14: 89. 1862[1863]. *Sieglingia elongata* (Buckley) Nash, in Britton & Brown, Ill. Fl. N. U.S. 3: 504. 1898. *Tricuspis elongata* (Buckley) A. Heller, Cat. N. Amer. Pl., ed. 2: 28. 1900. *Triodia elongata* (Buckley) Lamson-Scribner, Bull. Div. Agrostol. U.S.D.A. 17 (ed. 2): 210, fig. 506. 1901. *Triodia elongata* (Buckley) Bush, Trans. Acad. Sci. St. Louis 12: 76. 1902. *Tridens elongatus* (Buckley) Nash in Small, Fl. S.E. U.S.: 143. 1903. *Tridens muticus* var. *elongatus* (Buckley) Shinnars, Rhodora 56: 28. 1954. *Tridentopsis mutica* (Torrey) P.M. Peterson var. *elongata* (Buckley) Peterson & Romaschenko, Taxon 65: 1278. 2016. **LECTOTYPE:**

(designated by Peterson et al., *Taxon* 65: 1278. 2016): USA. Texas. Northern Texas, May 1861, S.B. Buckley s.n. (PH-00028567, image!).

TABLE 1. Summary of principal characters that distinguish *Tridentopsis mutica* from *T. elongata*.

Character	<i>T. mutica</i>	<i>T. elongata</i>
Culm height	20-50 cm	40-80 cm
Leaf blades	mostly folded or involute	mostly flat
Leaf blades	1-2 mm wide	widest (2-)3-4 mm wide
Inflorescence	6-15 cm long	12-25 cm long
Upper glumes	4-5(-6) mm long	5.5-10 mm long
Upper glumes	1-veined	3-7-veined
Upper glumes	shorter to as long as lower floret	longer than lower floret
Upper glumes	relatively thin	relatively firm
Lemma hairs	(1-)1.5-2 mm long	ca. 1 mm long
Palea	ca. 1/2 as long as lemma	ca. 3/4 as long as lemma
Palea	long ciliate on keels	pubescent on keels
Habitat	most frequent on dry, open, rocky, calcareous slopes and glades	most frequent in prairies, on well-drained (but seasonally moist) sandy or gravelly-clay soils

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