

TAXONOMIC CHANGE IN THE *ANDROPOGON VIRGINICUS* COMPLEX (POACEAE)

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ABSTRACT

As part of ongoing work on the grasses of Texas, we propose the following taxonomic change — ***Andropogon eremicus* Wipff & Shaw, nom. nov.**, for *Andropogon glomeratus* var. *scabriglumis* C.S. Campb. The epithet *scabriglumis* is unavailable at species rank in *Andropogon* because of the earlier *Andropogon scabriglumis* Swallen.

As part of ongoing work on the *Guide to Texas Grasses* (Shaw & Wipff, in prep.) and on the grasses of Texas in general, it is necessary to discuss aspects of the taxonomy that we are adopting — changes in rank, generic transfers to allow for the use of generic concepts, new or old, reinstatement of genera and species previously lost to synonymy, and clarification of characters used to delineate difficult genera or species complexes.

Based on Campbell's foundational taxonomic work on the *Andropogon virginicus* L. complex (Campbell 1983), botanists have come to recognize a diversity of taxa within this complex (Weakley, 2015; Weakley & al., 2011, 2018). Campbell (1983) recognized three varieties within *A. glomeratus* (Walt.) Britton, Sterns, & Poggenb. One of those varieties, var. *pumilus* (Vasey) L.H. Dewey, was characterized by sessile spikelets with the keels of the lower glume scabrous below and above the middle. Campbell (1983) recognized two variants within var. *pumilus*: the “Robust Variant” and the “Southwestern Variant.” Campbell (1986) treated the two variants of var. *pumilus* (Campbell, 1983) as separate varieties: var. *pumilus* (≡ “Robust Variant”) and var. *scabriglumis* C.S. Campb. (≡ “Southwestern Variant”).

Weakley & al. (2011) reinstated *Andropogon glomeratus* var. *pumilus* (≡ “Robust variant” sensu Campbell) to specific rank (as *Andropogon tenuispatheus* (Nash) Nash), based on morphology, ecology, and distribution.

Andropogon tenuispatheus (Nash) Nash, N. Amer. Fl. 17(2): 113. 1912. *Andropogon glomeratus* (Walt.) Britton, Sterns, & Poggenb. var. *tenuispatheus* Nash, Fl. S.E. U.S., 61. 1903. *Andropogon virginicus* L. var. *tenuispatheus* (Nash) Fernald & Griscom, Rhodora 37(436): 142, t. 338, f. 1. 1935. *Andropogon virginicus* L. var. *hirsutior* (Hack.) Hitchc. fo. *tenuispatheus* (Nash) Fernald, Rhodora 42: 416. 1940. *Anatherum virginicum* subvar. *tenuispatheum* (Nash) Roberty, Boissiera 9: 213. 1960. **LECTOTYPE** (Campbell, J. Arnold Arbor. 64: 244. 1983): **USA. Florida.** Duval Co.: Low ground near river, Jacksonville, Florida, 30 Oct 1894. A.H. Curtiss 5337 (NY-image!; isolectotypes: GA(2 sheets), GH, NY, W-image!).

Andropogon glomeratus (Walt.) Britton, Sterns, & Poggenb. var. *pumilus* (Vasey) L.H. Dewey, Contr. U.S. Natl. Herb. 2: 496. 1894. *Andropogon macrourus* Michx. var. *pumilus* Vasey, Bot. Gaz. 16: 27. 1891 (non *Andropogon pumilus* Roxb., Fl. Ind. 1: 277. 1820). **TYPE: USA. Texas.** Val Verde Co.: Seminole Cave, western Texas, 1890, G.C. Nealley 256 (holotype: US; isotypes: UC, W-image!).

Andropogon tenuispatheus is characterized by sheaths smooth (rarely scabrous), with or with pubescence; raceme sheaths usually less than 2.5 mm wide; ligule membranes less than 1 mm long, ciliate with long hairs; sessile spikelets usually less than 3.8 mm long; found in moist, often disturbed, sites: roadsides, freshwater or brackish swamps, swales, moist woods, and fields. This taxon is common from Virginia west along the coastal plain to Texas, south to northern South America, and the West Indies; but does not occur in the southwestern USA and northwestern Mexico.

Campbell (1986) recognized the “Southwestern variant” of *A. glomeratus* var. *pumilus* as a new variety, *A. glomeratus* var. *scabriglumis*, based on morphology and distribution. Var. *scabriglumis* is distinguished from *A. tenuispatheus* by having scabrous sheaths; raceme sheaths usually more than 2.5 mm wide; ligule membranes 1-2 mm long, ciliate with short hairs; sessile spikelets usually more than 4.2 mm long; restricted to moist soils of seepage slopes and the edges of springs in the southwestern USA and northwestern Mexico. Based on morphology, ecology, and distribution, we recognize var. *scabriglumis* as a distinct species.

We propose here a *nomen novum* at species rank for *Andropogon glomeratus* var. *scabriglumis* C.S. Campb. due to the pre-existence of *A. scabriglumis* Swallen.

Andropogon eremicus Wipff & Shaw, **nom. & stat. nov.** *Andropogon glomeratus* (Walt.) Britton, Sterns, & Poggenb. var. *scabriglumis* C.S. Campb., Syst. Bot. 11: 291. 1986 (non *Andropogon scabriglumis* Swallen, Mem. New York Bot. Gard. 9: 144–145. 1955). **TYPE: USA. New Mexico:** Grant Co.: Mimbres Hot Springs, grass around the hot springs, 2 Nov 1851, C. Wright 2100 (holotype: GH-image!; isotypes: GH-image!, MO, NY, UC).

The epithet *eremicus* (“pertaining to deserts or living in a desert”) refers to the confinement of the species to seepage areas and edges of springs in xeric habitats of the southwestern USA. and northwestern Mexico.

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