

NOMENCLATURAL COMBINATIONS IN *CYPERUS* (CYPERACEAE)

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ABSTRACT

The following nomenclatural changes in Cyperaceae are proposed: *Cyperus macrocephalus* F. Liebmann var. *eggersii* (J. Böckeler) *comb. nov.*; *Cyperus odoratus* C. Linnaeus var. *engelmannii* (E. von Steudel) *comb. et stat. nov.*; and *Cyperus odoratus* C. Linnaeus var. *squarrosus* (J. Böckeler) *comb. nov.*

KEY WORDS: Cyperaceae, *Cyperus*, nomenclature, *Cyperus eggersii*, *Cyperus macrocephalus*, *Cyperus odoratus* var. *engelmannii*, *Cyperus odoratus* var. *squarrosus*, subgenus *Diclidium*

Tucker (1994) treated *Cyperus eggersii* J. Böckeler as a synonym of *C. odoratus* C. Linnaeus, subgenus *Diclidium* (Nees von Esenbeck) C.B. Clarke [Sy = subgenus *Torulinium* (N. Desvaux) G. Kükenhal]. Adams (1991, 1994) recognized subgenus *Torulinium* at the rank of genus and placed *Cyperus eggersii* as a variety of *Torulinium macrocephalum* (F. Liebmann) C.B. Clarke. We agree with Tucker's placement of subgenus *Diclidium* (Sy = *Torulinium*) but agree with Adams that *Cyperus eggersii* should be recognized as a variety of *C. macrocephalus* F. Liebmann. However, since Adams recognized subgenus *Torulinium* as a distinct genus, a new combination in *Cyperus* becomes necessary. We have examined herbarium specimens and field populations of all three taxa from Texas south to Belize. We have found but a single population appearing as a putative hybrid between *C. eggersii* and *C. ferruginescens* J. Böckeler and have had no problems differentiating one taxon from another. This is not to say that somewhere, mixed populations and intermediates may exist. However, we have done extensive field and herbarium work and do not see the justification for treating these three taxa as a single entity.

Cyperus macrocephalus F. Liebmann var. *eggersii* (J. Böckeler) S.D. Jones, J. Wipff, & R. Carter, *comb. nov.* BASIONYM: *Cyperus eggersii* J. Böckeler, Beiträge zur Kenntniss der Cyperaceen 1:53. 1888. *Torulinium eggersii* (J. Böckeler) C.B. Clarke in I. Urban (Editor), *Symbolae Antillanae Seu Fundamenta Florae Indiae Occidentalis* 2:56. 1900-1901. *Torulinium macrocephalum* (F. Liebmann) T. Koyama var. *eggersii* (J. Böckeler) C.D. Adams, Annals of the Missouri Botanical Garden 78:254. 1991. TYPUS: REPUBLICA DOMINICANA. Santo Domingo: near Batey on Río Yasica, 23 Jun 1887, Eggers 2627 (HOLOTYPE: B).

Many North American authors since Fernald (1950) have treated *Cyperus engelmannii* E. von Steudel and *C. ferruginescens* J. Böckeler as synonyms of *C. odoratus*, usually without explanation. Two notable exceptions are Braun 1967 and Voss 1972. Most authors refer to *C. odoratus* as a polymorphic species commenting that *C. odoratus* is the most variable *Cyperus* in their area. We find these three taxa closely related and mostly sympatric, but discrete. Although some intermediates exist, they are relatively few. Considering their distinct morphologies, we believe that varietal rank under *C. odoratus* is warranted for *C. engelmannii* and *C. ferruginescens*. The following combinations are made:

Cyperus odoratus C. Linnaeus var. *engelmannii* (E. von Steudel) R. Carter, S.D. Jones, & J. Wipff, *comb. et stat. nov.* BASIONYM: *Cyperus engelmannii* E. von Steudel, *Synopsis Plantarum Cyperacearum* 2:47. 1854. *Cyperus ferax* L.C. Richard subsp. *engelmannii* (E. von Steudel) G. Küenthel, Pflanzenreich 4(20):620. 1936. TYPUS: UNITED STATES. Illinois: Cahokia, Sep 1845, G. Engelmann s.n. (HOLOTYPE: P?; Isotype: GH).

Cyperus odoratus C. Linnaeus var. *squarrosus* (N. Britton) S.D. Jones, J. Wipff, & R. Carter, *comb. nov.* BASIONYM: *Cyperus speciosus* M.H. Vahl var. *squarrosus* N. Britton, Memoirs of the Torrey Botanical Club 13:214. 1886. *Cyperus ferruginescens* J. Böckeler, Linnaea. 36:396-397. 1869-70. *Cyperus speciosus* M.H. Vahl var. *ferruginescens* (J. Böckeler) N. Britton, Memoirs of the Torrey Botanical Club 5:61. 1894. TYPUS: UNITED STATES. Missouri: St. Louis. No specimen cited in protologue.

The following key is modified from O'Neill (1940) and will differentiate the species of *Cyperus* subgenus *Diclidium* in Texas.

KEY TO CYPERUS SUBGENUS *DICLIDIUM* IN TEXAS

1. Inflorescence consisting of a single aggregated subglobose head, the spikes sessile; in Texas, restricted to the Lower Rio Grande Valley and sparingly upward along the coast to the Coastal Bend..... *C. macrocephalus* var. *macrocephalus*
1. Inflorescence consisting of several peduncled spikes.

2. Spikelets appressed to ascending, densely crowded; in Texas, restricted to the Lower Rio Grande Valley. *C. macrocephalus* var. *eggersii*
2. Spikelets divaricate, scattered along the rachis of the spike; in Texas, widely distributed.
3. Scales near the middle of the spikelet (2.7-)2.8-3.2 mm long; rachilla wings reaching or covering the shoulders of the achene; achenes (1.2-)1.3-1.5 mm long, (0.5-)0.6-0.7 mm wide; spikelets brownish. *C. odoratus* var. *odoratus*
3. Scales near the middle of the spikelet (2.0-)2.3-2.5(-2.6) mm long, rachilla wings rarely reaching and never covering the shoulders of the achene; achenes 0.8-1.0(-1.1) mm long, (0.3-)0.4-0.5 mm wide; spikelets reddish.
4. Tip of scale reaching only to base of the scale next above and on the same side of the rachis. *C. odoratus* var. *engelmannii*
4. Tip of scale conspicuously reaching over the base of the scale next above on the same side of the rachis. *C. odoratus* var. *squarrosus*

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