

NOMENCLATURAL NOTES ON *CYPERUS RETRORSUS* CHAPM. AND “*CYPERUS RETROVERSUS* CHAPM.” (CYPERACEAE), INCLUDING A LECTOTYPIFICATION

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Abstract. *Cyperus retrorsus* Chapm. is common and widespread in the southeastern United States. Although authors have indicated the existence of types at NY and US, none has ever been specifically designated as such. A lectotype at US and an isolectotype at NY are herein designated, and ambiguity resulting from A.W. Chapman's use of both *C. retrorsus* and “*C. retroversus*” for the same species is discussed.

Keywords: nomenclature, typification, lectotype, *Cyperus retrorsus*, “*Cyperus retroversus*”, A.W. Chapman.

Cyperus retrorsus Chapm. (Cyperaceae) is widespread in the southeastern United States and was first described by A.W. Chapman in 1878. Since no type specimen designated by Chapman has been found and none has been specifically designated as type by subsequent workers, my primary purpose herein is to lectotypify *C. retrorsus* Chapm. Secondly, an ambiguous reference by Chapman (1883) to “*C. retroversus*” is clarified.

Lectotypification of *Cyperus retrorsus* Chapm.

The application of *C. retrorsus*, which has been consistently used (e.g., Small 1903, 1933; Kükenthal 1935–1936; Horvat 1941; Fernald 1950; Gleason 1963; Gleason & Cronquist 1963, 1991; Radford et al. 1968; Long & Lakela 1971; Godfrey & Wooten 1979; Wunderlin 1982, 1998; Clewell 1985; Diggs et al. 1999; Tucker et al. 2002) for a common, widespread species in the southeastern United States, is not in question. Although no material of *C. retrorsus* bearing Chapman's designation as type has been found, original materials consisting of a specimen (US) and a fragment (NY) from the type locality and from Chapman's herbarium are known. Although improbable, there is always the possibility that other duplicates exist.

Fernald and Griscom (1935) referred to a “fragment of [the] type at [the] New York

Bot[anical]. Gard[en]. examined through [the] courtesy of Dr. Gleason.” Horvat (1941:84) cited “Chapman's specimen from 'Robert's Key, Caximbas Bay, South Florida' in the United States National Herbarium” as the type specimen, a photograph of which she indicated was in the Langlois Herbarium of Catholic University. Except for a few sheets at WIS, the Cyperaceae from the Langlois Herbarium (LCU) are now at US (Tucker et al. 1989). The phototype cited by Horvat has not been located at either US (M.T. Strong, personal communication) or WIS (T.S. Cochrane, personal communication). However, the phototype negatives from LCU were composed of cellulose nitrate, and after acquisition by US those found to be distorted beyond recovery were disposed of as a fire hazard (M.T. Strong, personal communication).

The fragment at NY (Columbia College Herbarium), cited by Fernald and Griscom (1935), has been examined. It consists of a single ray “received from Dr. Chapman, May 13, 1885” with the additional note, “Of *Cyperus retrorsus* I found only a single plant on a Key in Caximbas Bay.” Although no specimen with data matching those cited by Horvat (1941) or one annotated as the type has been located at US, a specimen from Chapman's herbarium has been found at US that can be linked with the NY fragment cited by Fer-

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nald and Griscom (1935). This specimen was probably made during October and November 1875 when Chapman went to southern Florida and the Keys to collect wood samples for the 1876 Centennial Exposition in Philadelphia (K.J. Wurdack, personal communication). The sheet at US bears a single plant from which the two longest rays have been removed and mounted in approximate position above the rest of the inflorescence. A close examination of this specimen reveals three empty primary prophylls. Two of the empty prophylls undoubtedly correspond with the disarticulated and re-positioned rays mounted with the specimen. The third empty prophyll suggests yet a third ray is missing from the specimen. The label data with the US specimen are minimal and, unfortunately, Chapman named the plant “*Cyperus retroversus*, Chapm.”

The fragment at NY matches the spikes and spikelets on the aforementioned specimen from Chapman’s herbarium, now at US, and most likely originated from its third empty prophyll. If one assumes the fragment at NY originated from the *Herb. Chapman* specimen at US, then both specimens are clearly tied to the protologue of *C. retrorsus* Chapm. and are parts of a single gathering. In the absence of an unambiguous published reference to a particular type specimen at US or an annotation designating a type by Horvat (1941), it seems prudent to choose a lectotype here. Thus, the US specimen is chosen herein as the lectotype, and the subsidiary fragment at NY an isolectotype.

Cyperus retrorsus Chapm., Bot. Gaz. (Crawfordsville) 3:17. 1878. *Mariscus retrorsus* (Chapm.) C.B. Clarke, Kew Bull. 8:15. 1908.—

TYPE: U.S.A. FLORIDA: South Florida, [Robert's] Key, Caximbas Bay, [Oct.–Nov. 1875], *Herb. Chapman s.n.* (LECTOTYPE: US!, **herein designated**; ISOLECTOTYPE: NY!).

What is “*Cyperus retroversus*”?

Inexplicably, in the second edition of his *Flora of the Southern United States* Chapman (1883) omitted any reference to *C. retrorsus* but, apparently in place of it, did cite (suppl., p. 659) a different name “*C. retroversus* Chapm.” with an expanded description essentially similar to the original one he provided for *C. retrorsus* in 1878. Moreover, Chapman (1883:659) cited “Robert's Key, Caximbas Bay, South Florida” as the locality for “*C. retroversus*”, which is the type locality of *C. retrorsus* (Chapman 1878). In the third edition (1897) Chapman reverted to *C. retrorsus* without citing “*C. retroversus*”; thus, it seems clear that he mistakenly used “*C. retroversus*” instead of *C. retrorsus* in the second edition (1883) of his *Flora*. Fernald and Griscom (1935:152) and Horvat (1941:83) dismissed “*C. retroversus* Chapman” as an erroneous citation (“*lapsus*”) for *C. retrorsus*, and Merrill (1948:67) “suspected that the entry...was due to a *lapsus calami* on the part of Chapman.” Such a mistake is correctable as a confusingly similar name under Article 61 of the ICBN (McNeill et al. 2006), and, since the type locality cited for both names is identical and the descriptions are essentially the same, it can be assumed that both *C. retrorsus* and “*C. retroversus*” are based on the same type. Under Art. 61.5, confusingly similar names based on the same type are treated as orthographical variants. Thus, since *C. retrorsus* is the name originally used by Chapman (1878), it is the valid one for the species (McNeill et al. 2006).

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