scores or even hundreds of culms, a character it shares with *F. spadicea*, but one not seen in *F. puberula*.

These three species have been intertangled, both in nomenclature and taxonomy, almost since their discovery, and among recent authors only Fernald (1940, 1945) seems to have had a satisfactory understanding of their characteristics. Rather consistently, other authors have recognized fewer than three species; Svenson (1957), influenced by the nearly identical achenes, acknowledged only one. But at least for Florida material, the large majority of specimens seen both in the herbarium and in the field may be assigned without hesitation to one or another of three morphologically and ecologically distinct groups, which would appear to merit specific rank.

**FIMBRISTYLIS DIPHYLLA** (Retz.) Vahl

*Scirpus diphyllus* Retz.

*Fimbristylis annua* var. *diphylla* Kük.

Moist soil of disturbed areas, ditches and river bottoms. Georgia and Florida; New World tropics; widespread in the Old World. July to October. Maps Da and Db.

This Old World species encompasses a wide array of infraspecific variations, abundantly and confusingly represented in any general collection of African or Asian Cyperaceae. Two of the more common and readily recognizable of these variants occur in Florida, with about equal frequency. Occasionally they are found sympatrically, and intermediates seemingly are absent. Because of the readiness with which these two variants are distinguished, they are given subspecific status.

Spikelets aggregated into loose clusters of 4 to 10, either at ends of inflorescence branches, or with the entire inflorescence forming a loose head; culms usually 1.5 to 2 times the length of the leaves; achenes moderately obovoid, “round-shouldered.”

subsp. *diphylla*

Spikelets solitary or in pairs at ends of inflorescence branches; culms much exceeding leaves (2-3 times); achenes usually strongly obovoid, “broad-shouldered.”

subsp. *diffusa*²

Retzius (1789) does not make clear which of the many forms of this species was intended by him to be typical. Fortunately the specimens upon which he based his work are still extant at the Universitetets Botaniska Museum, Lund, Sweden, and could be borrowed for the purpose of this study.

Two specimens bear the name “Scirpus diphyllus,” presumably in Retzius’ hand. One, numbered “468,” is of a *Fimbristylis* with numerous spikelets of largely distichous, sharply keeled scales, and warty achenes;

![Figure 2](image-url)

**Fig. 2**

- Db. *Fimbristylis diphylla* (Retz.) Vahl ssp. *diffusa* Ward
- E. *Fimbristylis miliacea* (L.) Vahl
- F. *Fimbristylis monostachya* (L.) Hassk.
- G. *Fimbristylis pilosa* Vahl
in 1930 it was annotated correctly by C. A. Backer as *F. nigrobrunnea* Thw., a tropical Asiatic species allied to *F. monostachya*. The other Retzius specimen, also numbered “468,” was annotated as *Fimbristylis annua* var. *diphylla* by Backer, with the further notation: “Type of *Scirpus diphyllus* Retz. Obs. V. 15.” It consists of two plants, one with one mature culm and the other with three. The spikelets of each culm are clustered into several loose heads, with (1-) 3-5 spikelets together. The achenes are obovoid, but not strongly so. In all respects these two plants are fully representative of the widespread variant here treated as the typical subspecies.

Two other Retzius specimens were similarly annotated by Backer as *Fimbristylis annua* var. *diphylla*, and one of them (numbered “998”) shows the open inflorescence and elongate culms of what is here treated as ssp. *diffusa*; these sheets, however, appear to have been labeled “*Scirpus dichotomus*” by Retzius and are thus weak candidates for typifying his *Scirpus diphyllus*.

Since only the second of these Retzius specimens seems appropriate for selection as the type of *Scirpus diphyllus*, it is here chosen as the lectotype of the basionym for *F. diphylla*, in conformity with the unpublished judgment of Backer.

**Fimbristylis miliacea** (L.) Vahl

*Fimbristylis littoralis* Gaud. in Freyc.

An infrequent annual of moist to wet soil on streambanks and pond margins, and in low woods. Florida, spreading north and west to North Carolina, Tennessee and Louisiana; West Indies; Central and South America; Old World tropics. June to September. Map E.

Specimens from Apalachicola establish that this Asian native was present in Florida at least as early as 1867, but it has been very slow to spread into the majority of locations for which it would seem adapted. The vertically flattened leaf blades and the lack of a sharp zone of separation between the sheath and the blade give the foliage diagnostic characteristics distinctly unlike those of any other Florida representative of the genus. The species is normally stiffly erect, not “prostrate” as described by Small (1933).

Controversy over the correct name for this species has been categorically resolved by Kern (1954).

**Fimbristylis monostachya** (L.) Hassk.

*Abildgaardia monostachya* (L.) Vahl

Moist, calcareous soils over limerock; locally frequent. South Florida, with a single station near Inverness, Dixie County (R. Kral...