

Typifications in the genus *Fimbristylis* (Cyperaceae). I

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Seven species of *Fimbristylis* (Cyperaceae) described by Boeckeler based on collections from India are lectotypified: *F. arnottiana*, *F. disticha*, *F. filifolia*, *F. hookeriana*, *F. paupercula*, *F. tenuicula* and *F. thomsonii*.

Based on specimens collected from India, Boeckeler (1871, 1874) described the following species in *Fimbristylis*: *F. arnottiana*, *F. disticha*, *F. filifolia*, *F. hookeriana*, *F. paupercula*, *F. tenuicula* and *F. thomsonii*. In the present paper, lectotypes are designated (Art. 9.11, McNeill *et al.* 2012) for these seven species as the types deposited at B have either been destroyed during the Second World War or are only partly preserved (R. Vogt pers. comm.).

Fimbristylis arnottiana Boeckeler

Linnaea 37: 28. 1871. — LECTOTYPE (designated here) (Fig. 1): India. “*Trichelost. Arnottiana*” Cannanore, Malabar, *s.d.*, Campbell 42 (E00393367, image!).

Boeckeler (1871) cited “*Trichelost. Arnottiana* N. ab E. herb., Malabar” as the type of this species. Three specimens of *F. arnottiana* collected from “Cannanore” (part of erstwhile Malabar) are deposited in Edinburgh (E00393367, E00393368) and Kew (K000974093). The specimen deposited at E (E00393367) is selected as the lectotype of *F. arnottiana* because the label bears the annotation “*Trichelostylis arnottiana*” N ab E, Cannanore (Malabar). Additionally, information about the

collector and collection number (Campbell 42) is provided. “*Folia nulla*” (without leaves), written on the specimen label, is in accordance with the protologue (*Folia basilaria haud suppetunt* i.e. basal leaves not supplied).

Fimbristylis disticha Boeckeler

Linnaea 38: 393. 1874. — LECTOTYPE (designated here) (Fig. 2): India. Tenasserim and Andaman, *s.d.*, Helfer 6143/1 (CAL0000001749!).

Boeckeler (1874) cited *Herb. Helfer 6143/1*, “*Tenasserim et Insulae Andaman*” in the protologue. An incomplete specimen, having only inflorescence was obtained from B, where Boeckeler’s types are deposited. That specimen however lacks root, culm and leaf characters important for differentiating *F. disticha* (annual with fibrous roots, leaves 1–2 mm wide) from the closely allied *F. eragrostis* (perennial with short, woody rhizome, leaves 2–3–5 mm wide) and therefore, it is not a lectotype candidate. Three specimens of *F. disticha* having the collection number (6143/1) are deposited in Kew and CAL (K000974043, K000974044, CAL0000001749). CAL0000001749 bears Helfer’s original label



Fig. 1. Lectotype of *Fimbristylis arnottiana*.

stating *Tenasserim et Insulae Andaman* as its locality. Charles B. Clarke also examined this specimen as is evident from the annotation slip and illustration over it. The specimen along with the illustration goes well with the characters mentioned in the protologue and therefore it is selected as lectotype.

Fimbristylis filifolia Boeckeler

Linnaea 37: 32. 1871. — LECTOTYPE (designated here) (Fig. 3): India. Meghalaya, Mount Khasia, 4000 ft, *s.d.*, *J. D. Hooker & T. Thomson* 14 (CAL0000001764!).

Boeckeler (1871) mentioned "*Hook. et Thoms. herb. Ind. or. sub: no. 14. Trichelostylis*."



Fig. 2. Lectotype of *Fimbristylis disticha*.

India orient., M. Khasia, alt. 4000 ped." in the protologue. The type collections are represented in CAL (CAL0000001764), P (P00045405) and K (K000974091, K000974092). Among them the CAL and P specimens bear the original label with the above mentioned information. CAL0000001764 is selected as lectotype as the

key characters that distinguishes *F. filifolia* from its close ally *F. miliacea* are well visible in the specimen. *Fimbristylis filifolia* is perennial with a short, stout rhizome and fuscous basal sheaths; spikelets are 4.5–6 × 2–2.5 mm and glumes ca. 2.5 × 1.8 mm. *Fimbristylis miliacea* is usually annual without a rhizome and with straw-colored

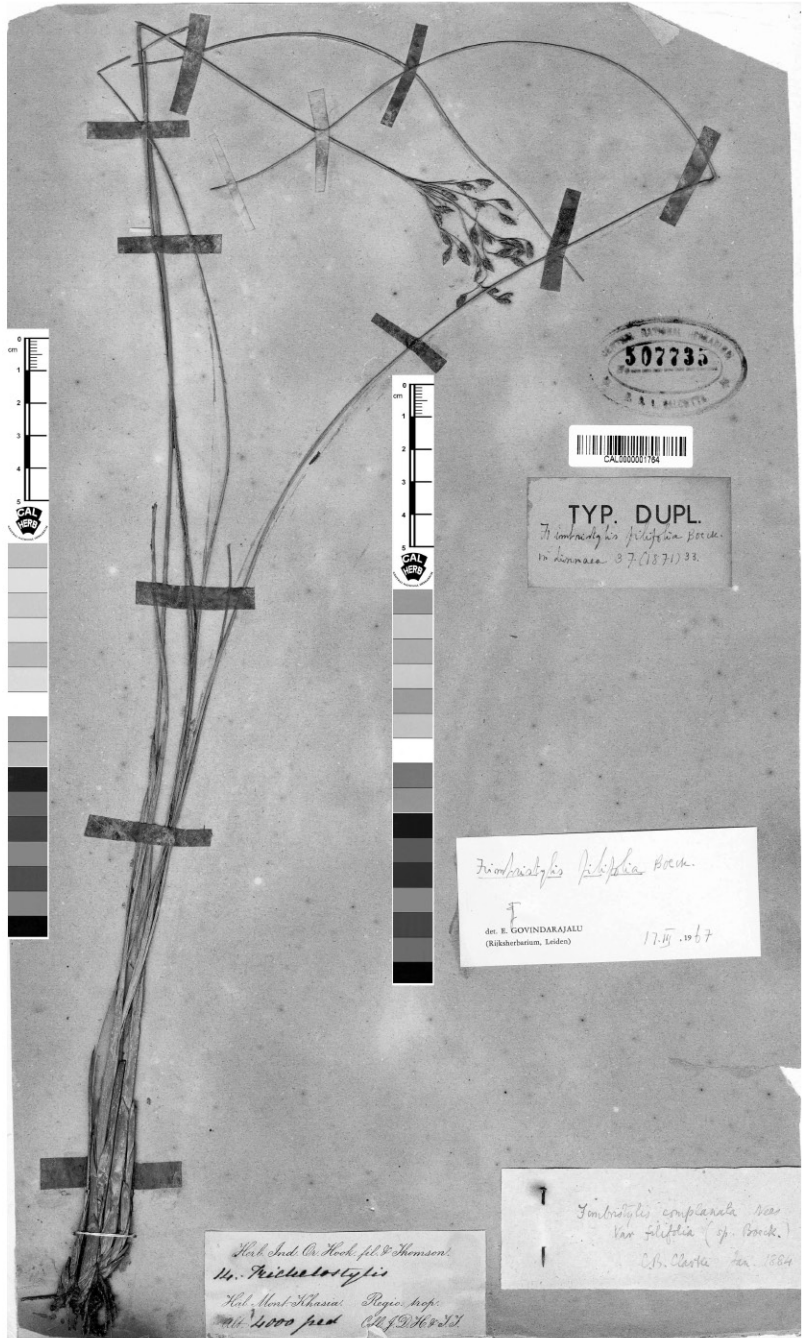


Fig. 3. Lectotype of *Fimbristylis filifolia*.

basal sheaths, spikelets are $3.5\text{--}5.8 \times 1.5\text{--}2$ mm and glumes $1.3\text{--}1.5 \times 1$ mm.

***Fimbristylis hookeriana* Boeckeler**

Linnaea 37: 22. 1871. — LECTOTYPE (designated here)

(Fig. 4): India. Meghalaya, Mount Khasia, s.d., J. D. Hooker and T. Thomson 22 (CAL0000001767!).

Fimbristylis hookeriana is based on “Hook. et Thoms. herb. Indic. No. 22” collected in Khasi Hills, India. A thorough search of various herbaria revealed that J.D. Hooker and



Fig. 4. Lectotype of *Fimbristylis hookeriana*.

T. Thomson's *F. hookeriana* (coll. no. 22) is represented in E (E00393340), P (P00045554, P00045555, P00045556, P00045557), K (K000974078, K000974079, K000974080), BR (BR0000006596279) and CAL (CAL0000001766, CAL0000001767). Among

these specimens CAL0000001767 is selected as lectotype as it is a complete specimen showing the key characters i. e. fibrous roots without rhizome, linear spikelets and a granulated, tuberculate nut.

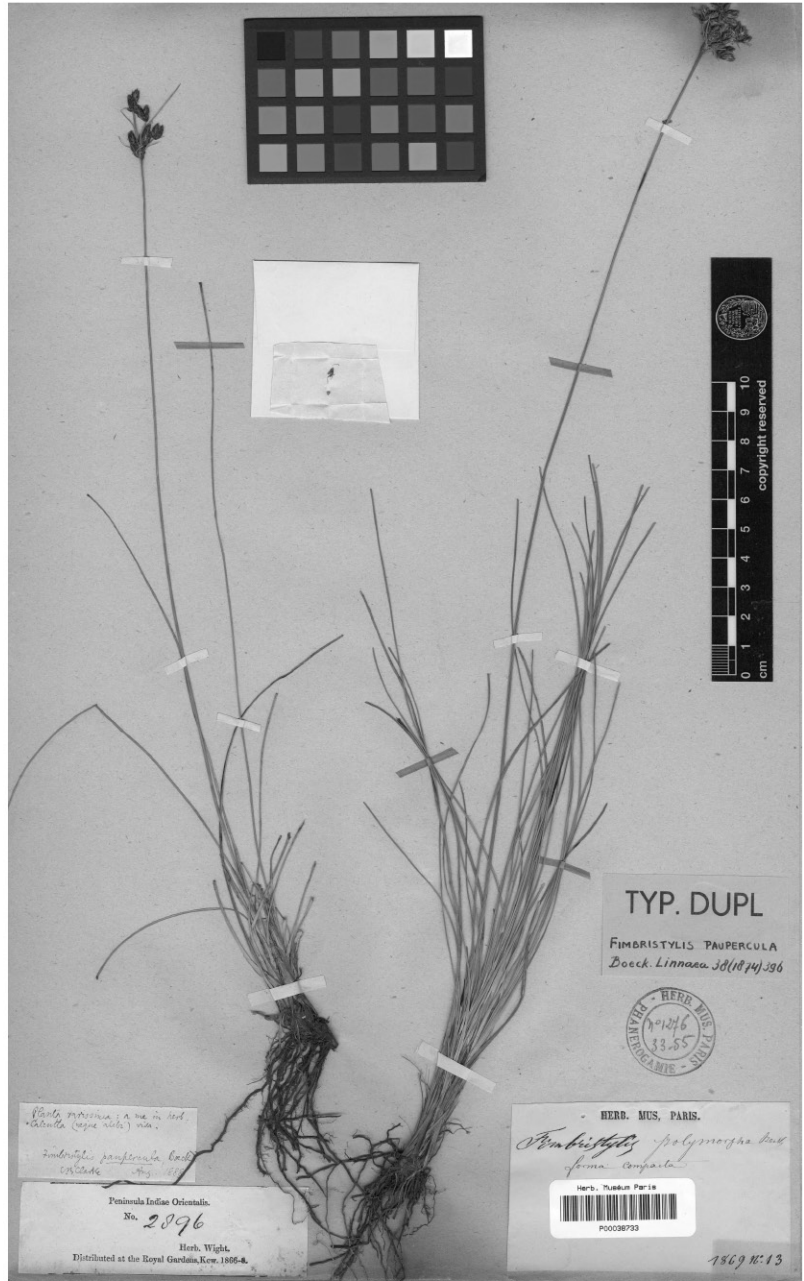


Fig. 5. Lectotype of *Fimbristylis paupercula*.

Fimbristylis paupercula Boeckeler

Linnaea 38: 396. 1874. — LECTOTYPE (designated here) (Fig. 5): India. Peninsulae Indiae Orientalis, Herb. Wight no. 2896 (P00038733, image!).

Fimbristylis paupercula is based on *Ex herb. Wight sub no. 2896* collected from “Penins.

Ind. orient. Wight no. 2896” is deposited at CAL (CAL0000001762) and P (P00038733). Both the specimens are complete, showing characters mentioned in the protologue. Although the CAL specimen is a mixture of two species mounted on the same sheet it bears C.B. Clarke’s drawing showing a trifold stigma and mucronate glumes. However, the P (P00038733) specimen



Fig. 6. Lectotype of *Fimbristylis tenuicula*.

has better preserved leaves and inflorescence and is hence selected as lectotype of *F. paupercula*.

Fimbristylis tenuicula Boeckeler

Linnaea 38: 385. 1874. — LECTOTYPE (designated here) (Fig. 6): Tenasserim and Andamans, Helfer no. 6226/1 (K000974114, image!).

Boeckeler (1874) mentioned two syntypes, i.e. *Herb. Helfer* no. 6226/1 and 6223/1 col-

lected from Tenasserim and Andamans in the protologue. 6226/1 is well preserved having stems with a single spikelet, hairy leaf sheaths and blades and nuts (separately kept in packets) reticulate by transversely oblong epidermal cells, and is hence selected as lectotype of *F. tenuicula*.

Fimbristylis thomsonii Boeckeler

Linnaea 37: 37. 1871. — LECTOTYPE (designated here)

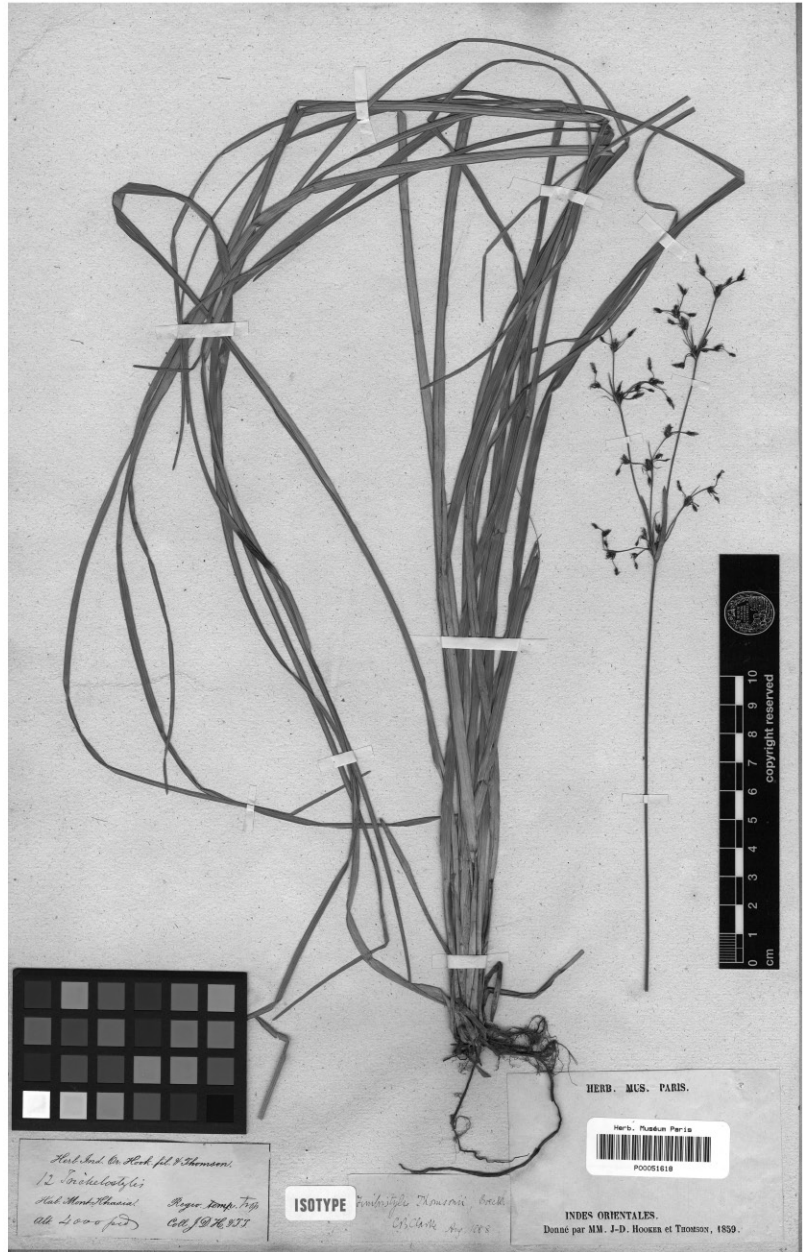


Fig. 7. Lectotype of *Fimbristylis thomsonii*.

(Fig. 7): India. Meghalaya, Mount Khasia, 4000 ft, s.d., J. D. Hooker and T. Thomson 12 (P00051618, image!).

Boeckeler (1871) described *F. thomsonii* on the basis of two syntypes, “*India orient. M. Khasia (Hook. et Thoms.)*” and “*China, Macao (G. H. Vachell mis.)*”. Reverend G.H. Vachell’s specimen collected in Macao, China, could not be located after a thorough search of the herbaria BR, CGE, K, and OXF where his specimens

are said to be deposited. John D. Hooker and T. Thomson’s collection from “Mount Khasia” is represented at K (K000974063, K000974064, and K000974065) and P (P00051618). Among them K000974065 is a complete specimen showing the key characters such as ligulate leaves, (ligule, a fringe of short hairs), 7–9 nerved glumes and a persistent, large, triangular style base with a black crown.

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