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CYPERACEAE OF THAILAND (EXCL. CAREX)

by

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SUMMARY

This is an enumeration of 174 examined species and of 11 not examined ones, in 16 genera, collected in or recorded from Thailand. The treatment is largely in the same way as in the 'Florae Siamensis Enumeratio'. Synonyms and references are given. All examined specimens are listed for each of the 7 provinces of Thailand indicated on a map, and their field notes are recorded. Distribution outside Thailand is given in some detail, and occasionally nomenclatural or other notes are added.

In *Lepironia* 1 species is recognized, in *Mapania* 5, in *Hypolytrum* 1, in *Fuirena* 2, in *Lipocarpha* 2, in *Hemicarpha* 1, in *Scirpus* 10, in *Eleocharis* 8, in *Fimbristylis* 51, in *Bulbostylis* 3, in *Cyperus* 53, in *Rhynchospora* 7, in *Trioostularia* 1, in *Schoenus* 2, in *Gahnia* 1, in *Scleria* 23.

Novelties are *Fimbristylis gracilenta* var. *psilopoda*, *Scleria biflora* ssp. *ferruginea* (Ohwi), and *Scleria reticulata* (Holtt.).

An index to collectors' numbers is given at the end.

During my studies on the *Cyperaceae* of Malaysia for the Flora Malesiana I have also identified all materials from Thailand which came into my hands, with the exception of the species of the genus *Carex*, the elaboration of which it was agreed should be performed by Dr. M. Raymond. As most members of the sedge family are widely distributed these identifications were necessary for plant geographical reasons.

It appeared during this work that numerous species had never properly been recorded for the Thailand flora. This induced me to borrow all the cyperaceous sheets which are contained in the Herbaria of the Department of Agriculture (Curator Mr. Kasin Suvatabandhu) and of the Royal Forest Department (Curator Mr. Tem Smitinand) at Bangkok. The former herbarium consists mostly of a very large set of Kerr's collections, the latter incorporates many collections newly made by Mr. Smitinand and other members of his department. In addition sheets of Thailand *Cyperaceae* preserved in the Leyden, Kew, and Copenhagen Herbaria have been investigated.

* Rijksherbarium, Leyden.

Though I have not ventured on tracing at Paris and in other herbaria all other specimens collected in Thailand, I assume that the present enumeration represents a substantial precursor towards a future comprehensive account of the *Cyperaceae* in the "Florae Siamensis Enumeratio".

In it I have evaluated former publications on Thailand *Cyperaceae* in a similar way as has been done in the "Enumeratio".

The specimens cited have been enumerated under the 7 floristic regions or provinces of Thailand as adopted by Mr. Smitinand in his study on the genus *Dipterocarpus* in Thailand (cf. Thai Forest Bull., Bot., no. 4, 1958): — Northern (N.), North-Eastern (N.E.), Eastern (E.), Central (C.), South-Easteren (S.E.), South-Western (S.W.), and Peninsular (PEN.).

I express my sincere thanks to Messrs Smitinand and Suvatabandhu for their interest and cordial co-operation in entrusting me their material and verifying the exact spelling of names of persons and localities which were sometimes difficult to copy from the herbarium labels.

Eleven names of *Cyperaceae* have been cited in literature of which I have not seen the specimens on which the records were based. These names are listed at the end of the enumeration. Some of them are probably based on erroneous identifications or are in my opinion doubtful. It falls beyond the scope of my work to try to verify them.

Finally, for reasons of facility, I have added an index to collectors' numbers.

The following abbreviations have been used for literature references:

F.B.I. — Hooker, J. D., Flora of British India 6. 1893-1894. Cyperaceae by C. B. Clarke.

F.I.C. — Lecomte, H., Flore Générale de l'Indo-Chine 7. 1912-1922. Cypercées par E. G. Camus.

F.K.C. — Schmidt, J., Flora of Koh Chang. Contributions to the knowledge of the vegetation in the Gulf of Siam. — Cyperaceae by C. B. Clarke. Bot. Tidsskr. 24: 79-94. 1901.

F.M.P. — Ridley, H. N., Flora of the Malay Peninsula 5. 1925.

Hoss. 1910 — Hosseus, C. C., Beiträge zur Flora Siams. Bot. Centralbl. Beih. 27, 2: 455-507. 1910.

Hoss. 1911a — Hosseus, C. C., Beiträge zur Flora von Wang Djao am Mi Ping in Mittel-Siam. Bot. Jahrb. 45: 366-374. 1911.

Hoss. 1911b — Hosseus, C. C., Die botanischen Ergebnisse meiner Expedition nach Siam. Bot. Centralbl., Beih. 28, 2: 357-457. 1911.

Kern — Kern, J. H., Florae Malesianae Precursores XXV. — Notes on Malaysian and some S. E. Asian Cyperaceae VIII. Blumea 10: 635-651. 1960

Kill. — Killip, E. P., List of sedges (Cyperaceae) collected in Siam by Dr. Hugh M. Smith. Journ. Siam Soc. Nat. Hist. Suppl. 7: 55-57. 1927.

Koy. 1955 — Koyama, T., An Enumeration of Hayata's Indo-Chinese collection of Cyperaceae: Carex and Cyperus. Naturaliste canad. 82: 194-216. 1955.

Koy. 1957 — Koyama, T., An Enumeration of Hayata's Indo-Chinese collection of Cyperaceae. Contrib. Inst. Bot. Univ. Montréal 70: 5-64. 1957.

Mat. F. M. P. — Ridley, H. N., Materials for a Flora of the Malayan Peninsula 3. 1907.

Ost. — Ostenfeld, C. H., A list of plants collected in the Raheng district, Upper Siam, by Mr. E. Lindhard. Bull. Herb. Boiss., sér. 2, 5: 709-724. 1905.

Raym. — Raymond, M., Additional notes on some S. E. Asiatic Scirpus. Naturaliste canad. 86: 225-242. 1959.

Ridl. 1911 — Ridley, H. N., An account of a botanical expedition to Lower Siam. Journ. Str. Br. Roy. As. Soc. no 59: 27-234. 1911.

Ridl. 1912 — Ridley, H. N., A botanical excursion to Pulau Adang. Journ. Str. Br. Roy. As. Soc. no 61: 45-65. 1912.

Ridl. 1915 — Ridley, H. N., The plants of Koh Samui and Koh Pennan. Journ. F. M. S. Mus. 5: 158-168. 1915.

Ridl. 1920 — Ridley, H. N., On a collection of plants from Peninsular Siam. Journ. F. M. S. Mus. 10: 65-126. 1920.

Turr. — Turrill, W. B., in Craib, Contributions to the Flora of Siam. Kew Bull. (1912): 421-427. 1912.

Will. — Williams, F. N., Liste des plantes connues du Siam. Bull. Herb. Boiss., sér. 2, 4: 217-232. 1905.


97°
100°
103°
106°
18°
15°
12°
9°
6°
N.
N.E.
E.
C.
S.W.
S.E.
PEN.
SUBDIVISION OF THAILAND
after Smitinand (see text)

I. LEPIRONIA L. C. Rich.

1. L. ARTICULATA (Retz.) Domin, Bibl. Bot., Heft 85: 486. 1915. — *Restio articulatus* Retz., Obs. 4: 14. 1786. — *L. mucronata* L. C. Rich. in Pers., Syn. 1: 70. 1805; F.B.I.: 684; Mat. F.M.P.: 107; F.I.C.: 179, f. 25; F.M.P.: 175.

C. — Bangkok, cultivated: *Savatabandhu s.n.* (BK).
S.W. — Chumphawn, Bang Son: *Put 1587* (BK); Ban Tung Maha, in marsh, near sealevel: *Kerr 11397* (BK).
Puket, Takuapa, in large clumps in stagnant water, 10 m: *Kerr 17108* (BK).
Trang, Huay Yawt, Thale Sawng Hawn, common on sandy bank of freshwater lake, under 100 m, local name *chut*: *Smitinand 3024* (*RFD 16194*) (L).

DISTR. Madagascar, Ceylon, Indo-China, S. China, Malaysia, N. and E. Australia, Caroline Islands, New Caledonia, Fiji.

The stems are used for matting.

II. MAPANIA Aubl.

2. M. CUSPIDATA (Miq.) Uitt., Journ. Arn. Arb. 20: 213. 1939. — *Lepironia cuspidata* Miq., Fl. Ind. Bat., Suppl.: 603. 1861. — *M. humilis* (*non* F.-Vill.) F.B.I.: 683; Mat. F.M.P.: 105; F.M.P.: 174, *non Pandanophyllum humile Steud.* — *M. triquetra* Ridl., Journ. Str. Br. Roy. As. Soc. no 41: 51. 1904; Mat. F.M.P.: 106; F.M.P.: 174.

VAR. CUSPIDATA
PEN. — Trang, Chum Het, in evergreen forest, 100 m: *Kerr 15315* (BK).
Satul, Klawng Ton, very common in evergreen forest, 100—300 m: *Kerr 14432* (BK).

var. PETIOLATA (Clarke) Uitt., Journ. Arn. Arb. 20: 213. 1939. — *M. petiolata* Clarke, Kew Bull. add. ser. 8: 54. 1908. — *M. humilis* var. *petiolata* (Clarke) Ridl., Fl. Mal. Pen. 5: 174. 1925.
PEN. — Langsuan, Ban Kragi, in evergreen forest, 200 m: *Kerr 12005* (BK).
Pang Nga, Kao Kathakwam, in evergreen forest, 100 m: *Kerr 18399* (BK).
Nakawn Srithamarat, Khao Luang, common on slope and near stream in evergreen jungle, 600 m: *Smitinand 1026* (BKF).
Trang, Kao Soi Dao, in evergreen forest, 500 m: *Kerr 19151* (BK).
Pattani, Betong, in evergreen forest, 200 m: *Kerr 7505* (BK).
Satul, Adang, marshy ground in evergreen forest, 20 m: *Kerr 14029* (BK).
DISTR. Malaysia, Solomon Islands.

The varieties are based on the shape of the leaf-blades and connected by many intermediates. Probably they are merely ecological forms.

3. M. PALUSTRIS (Hassk. *ex* Steud.) F.-Vill., Nov. App.: 309. 1882; F.B.I.: 681; Mat. F.M.P.: 103; F.M.P.: 172. — *Pandanophyllum palustre*

Hassk. *ex* Steud., Syn. 2: 134. 1855. — *M. andamanica* Clarke, Fl. Br. Ind. 681. 1894; Ridl. 1920: 124. — *M. albescens* Clarke, Kew Bull. add. ser. 54. 1908; F.M.P.: 172.

PEN. — Takuapa, Bangwan, common in light evergreen forest, 10 m: *Kerr 17089* (BK); Pattani, Kao Kalakiri, common in evergreen forest, 800 m: *Kerr 14993* (BK).

DISTR. From Assam to S. China and Malaysia.

Mapania andamanica is more slender and has smaller spikelets and flowers than typical *M. palustris*. *Mapania albescens* differs from *M. andamanica* only by the pale colour of the dried specimens. In my opinion they are not specifically distinct from *M. palustris*.

4. M. KURZII Clarke, Fl. Br. Ind. 6: 681. 1894; Mat. F.M.P.: 104; F.M.P. 172. — *M. longispica* Ridl., Journ. Str. Br. Roy. As. Soc. no 44: 205. 1905; Mat. F.M.P.: 104; F.M.P.: 172. — *M. valida* Ridl., Journ. Str. Br. Roy. As. Soc. no 44: 205. 1905; Mat. F.M.P.: 104; F.M.P.: 172.

PEN. — Phang-Nga, Kao Katakwam, in evergreen forest, 200 m: *Kerr 18404* (BK); Krabi, Lanta, in evergreen forest, 400 m: *Kerr 19407* (BK).

DISTR. Malay Peninsula, Central Sumatra.

5. M. ENODIS (Miq.) Clarke, Kew Bull. add. ser. 8: 53. 1908. — *Leptoronia enodis* Miq., Fl. Ind. Bat., Suppl.: 603. 1861. — *M. longa* Ridl. *ex* Clarke, Fl. Br. Ind. 6: 683. 1894, *p.p.*; Mat. F.M.P.: 105; F.M.P.: 173. — *M. tumida* Uitt., Gard. Bull. S.S. 10: 182. 1939.

S.E. — Trat, Dan Chumpon, on gravel bank in stream, under 50 m: *Kerr 17603* (BK).

PEN. — Ranawng, Klang Kampuan, on bank of stream in evergreen forest, 100 m: *Kerr 17004* (BK); same locality, 50 m: *Smitinand 4164* (L).

DISTR. Malay Peninsula, Sumatra, W. Borneo.

6. M. TENUISCAPA Clarke, Fl. Br. Ind. 6: 683. 1894; Mat. F.M.P.: 105, *p.p.*; Ridl. 1911: 224; 1912: 63; F.M.P.: 173, *p.p.*

S.E. — Chantabun, Kao Sabap, in evergreen forest, 200 m: *Kerr 18035* (BK).

Trat, Kaw Chang, Khlawng Nonsi, by streams in evergreen jungle, 5 m: *Smitinand 5662* (L).

PEN. — Ranawng, Kaw Chang, in evergreen forest, 5 m: *Kerr 18595* (BK).

Takuapa, Bangwan, common in tight evergreen forest, 10 m: *Kerr 17088* (BK, K).

Phang-Nga, Kao Katakwam, in dry evergreen forest, 100 m: *Kerr 18500* (BK).

Trang, Chawng, very common on slope in evergreen jungle, 150 m: *Smitinand 4116 (RFD 16869)* (L).

Satul, Klawng Ton, common in evergreen forest, 100 m: *Kerr 14628* (BK, BO, K); Rawei Island: *Ridley 15718* (BM, K, SING).

DISTR. Indo-China, Malaysia.

III. HYPOLYTRUM L. C. Rich.

7. H. NEMORUM (Vahl) Spreng., Syst. 1: 233. 1825. — *Schoenus nemorum* Vahl, Symb. Bot. 3: 8. 1794. — *H. latifolium* L. C. Rich. in Pers., Syn. 1: 70. 1805; F.B.I.: 678; F. KC.: 92; Will.: 223; Mat. F.M.P.: 100; Hoss. 1910: 457; F.I.C.: 171, f. 22, 2—8; Ridl. 1920: 124; F.M.P.: 170.

E. — Korat, Katok, by stream in evergreen forest, 400 m: *Kerr 8158* (BK); 500 m: *Kerr 8177* (BK).

S.E. — Nawng Plu: *Mrs Collins 845* (BK).
Trat, Kao Kuap, in light evergreen forest, 700—800 m: *Kerr 17787* (BK); Kao Saming: *Put 516* (BK); Kaw Chang, Khlawng Mayom, common by stream on sandy bank in evergreen forest, 5 m: *Smitinand 2172* (*RFD 11554*) (BKF); Kaw Chang, Khlawng Mayom, common in evergreen forest, 100 m: *Kerr 6800* (BK); Kaw Chang, Khlawng Nonsi, scattered along stream bank in evergreen jungle, 50 m: *Bunnak 338* (*RFD 12217*) (BKF).

S.W. — Chumphawn, Kuring, in evergreen forest, 50 m: *Kerr 11606* (BK); Kao Tong, in evergreen forest, 500 m: *Kerr 12894* (BK).

PEN. — Ranawng, La-un, in evergreen forest, 20 m: *Kerr 16494* (BK).
Langsuan, Tako: *Put 1682* (BK); same locality, in evergreen forest, under 50 m, local name *tao saeu*: *Kerr 11891* (BK); Kao Nom Sao, in evergreen forest, 900 m: *Kerr 12038* (BK). Satul, Adang, in evergreen forest, 50 m: *Kerr 14025* (BK).

DISTR. From India to Formosa, N. E. Queensland, and Polynesia.

IV. FUIRENA Rottb.

8. F. UMBELLATA Rottb., Progr.: 27. 1772; F.B.I.: 666; Mat. F.M.P.: 80; F.I.C.: 141, f. 18, 6; Turr.: 425; F.M.P.: 162. — *F. uncinata* (*non* Kunth) F.I.C.: 141.

C. — Chaibadan, Dong Pya Yen, in marshy savannah, 100 m: *Kerr 8008* (BK).

S.E. — Chanburi, Makham, Ban Saengthwang, common in wet localities, 140 m: *Bunnak 165* (L).
Prachinburi, Aran Prathet: *Put 3093* (BK); Watana: *Put 1962* (BK).

S.W. — Chumphawn, Bang Son: *Put 1593* (BK).

PEN. — Ranawng, Kaw Chang, at edge of ditch in *Melaleuca* forest, 5 m: *Kerr 16594* (BK).
Satul, Kuan Po, on edge of stream, 20 m: *Kerr 13788* (BK).

DISTR. Tropical and subtropical regions of the whole world.

9. F. CILIARIS (L.) Roxb., Fl. Ind. 1: 184. 1820. — *Scirpus ciliaris* L., Mant. 2: 182. 1771. — *F. glomerata* Lamk, Tabl. Enc. Méth. Bot. 1: 150. 1791; F.B.I.: 666; F. KC.: 90; Will.: 224; Mat. F.M.P.: 81; Hoss. 1910: 460; Ridl. 1911: 224; F.I.C.: 140; F.M.P.: 163. — *F. wallichiana* (*non* Kunth) F.I.C.: 141.

S.E. — Prachinburi, Nah Kali, 30 ft: *Mrs Collins 1902* (BK).
C. — Bangkok, along railway trail, under 5 m: *Kerr 6730* (BK); Bangkok, Bangkhen, RFD Compound, near water, 5 m: *Smitinand 5419* (*RFD 19728*) (L); Bangkok, Klong side: *Eryl Smith 225* (BK).
Dhonburee: *Thaenee Boonkong 2* (BK).
PEN. — Koh Samui, Ban Bua Put, in scrub, under 5 m: *Kerr 15711* (BK).
DISTR. Tropical Africa, S.E. and E. Asia, Malaysia, tropical Australia.

V. LIPOCARPHA R. Br.

10. L. CHINENSIS (Osb.) Kern, Blumea, Suppl. 4: 167. 1958. — *Scirpus chinensis* Osb., Dagb. Ostind. Resa: 220. 1757. — *Scirpus senegalensis* Lamk, Tabl. Enc. Méth. Bot. 1: 140. 1791. — *Hypaelyptum argenteum* Vahl, En. 2: 283. 1806. — *L. argentea* (Vahl) R. Br. *ex* Nees, Linnaea 9: 287. 1835; F.B.I.: 667; Mat. F.M.P.: 81; Hoss. 1910: 457; 1911b: 370; F.I.C.: 143, t. 1, f. A, 1—2; Turr.: 425; F.M.P.: 163. — *L. senegalensis* (Lamk) Th. & Hél. Durand, Syll. Fl. Congol.: 619. 1909; Koy. 1957: 53. — *L. triceps* (*non* Nees) F.I.C.: 144.
N. — Chiengmai, Doi Suthep, common by stream in swampy ground, 1100 m: *Smitinand 121* (*RFD 6179*) (L); 700 m, *Hosseus 581* (L).
N.E. — Loei, Phu Krading, in open pine forest, 1300 m: *Dee 37* (*RFD 4906*) (L).
PEN. — Trang, Sikao, on low-lying open ground, near sealevel: *Kerr 19003* (BK).
DISTR. Tropical and South Africa, Madagascar, Mascarene Is., S. and S.E. Asia, Malaysia, tropical Australia.

11. L. SPHACELATA (Vahl) Kunth, En. 2: 267. 1837; F.B.I.: 667. — *Hypaelyptum sphacelatum* Vahl, En. 2: 283. 1806.
E. — Korat, Bua Yai: *Put 5284* (BK).
S.W. — Kanburi, scattered in wet locality, 50 m: *Smitinand 3858* (*RFD 18091*) (BKF).
DISTR. From Nepal to Ceylon and Thailand, also recorded from tropical Africa and America.

12. L. MICROCEPHALA (R. Br.) Kunth, En. 2: 268. 1837; F.B.I.: 668; Mat. F.M.P.: 82, p.p.; F.I.C.: 144; F.M.P.: 163, p.p. — *Hypaelyptum microcephalum* R. Br., Prodr.: 220. 1810.
S.E. — Prachinburi, Aran Prathet, in open low-lying grassy ground, 50 m: *Kerr 19568* (BK).
DISTR. S.E. and E. Asia, Malaysia, Australia.

VI. HEMICARPHA Nees

13. H. ISOLEPIS Nees, Edinb. New Phil. Journ. 17: 263. 1834; in Wight, Contr. Bot. Ind.: 92. 1834. — *Scirpus isolepis* (Nees) Boeck., Linnaea 36: 498. 1870; F.B.I.: 663.
E. — Korat, Chan Tuk, among low herbage on open ground, 300 m: *Kerr 8064* (BK).
DISTR. Tropical Africa, India.

VII. SCIRPUS L.

14. S. GROSSUS L. f., Suppl.: 104. 1781; F.B.I.: 659; Ridl. 1911: 222; F.I.C.: 136; Turr.: 425; F.M.P.: 162; Koy. 1957: 60; Raym.: 227.

C. — Dhonburi, Bang Plat (Bangkok noi), common in wet and inundated area, under 10 m, local name *kok*: *Smitinand 2797* (BKF).

Bangkok, along ditch, local name *kok ta krap*: *Kerr 10714* (BK).

S.E. — Lemchabang-swamp near Sriracha, c. 20 ft: *Mrs Collins 1896* (BK).

DISTR. From India to S. China and tropical Australia.

"Chantabun mats are said to be made from the stems of this species" (*Collins*).

15. S. AFFINIS Roth in R. & S., Syst. Veg. 2: 140. 1817; F.I.C.: 137. — *S. maritimus* L. var. *affinis* (Roth) Clarke, Fl. Br. Ind. 6: 659. 1893.

N.E. — Nakawn Panom, Tat Panom, in damp ground at edge of river, 200 m: *Kerr 21409* (BK).

DISTR. Widely distributed in Central and S.E. Asia.

Very near to *S. maritimus* L. and possibly a subspecies of this widespread, polymorphic species.

16. S. WICHURAI Boeck., Linnaea 36: 729. 1870; Raym.: 226. — *S. eriophorum* (*non* Michx) F.B.I.: 661.

N.E. — Loei, Phu Krading, not common by stream in evergreen jungle, 1300 m: *Smitinand 1974* (*RFD 9459*) (BKF).

DISTR. From India to S. China, Korea, Japan, and Central Sumatra.

17. S. LITORALIS Schrad., Fl. Germ. 1: 142, t. 5, f. 7. 1806; F.B.I.: 659.

PEN. — Patalung, Kaw Si Kaw Ha, in water about 1 m deep, in inland sea (water nearly fresh), very common along shore of limestone islets: *Kerr 15143* (BK).

DISTR. From the Mediterranean region through S. Asia (here very local) to Australia.

18. S. MUCRONATUS L., Sp. Pl. 1: 50. 1753; F.B.I.: 657; Mat. F.M.P.: 79; F.I.C.: 134; Turr: 425; F.M.P.: 161; Koy. 1957: 59; Raym.: 232.

N. — Chiengrai, in swamp, 450 m: *Winit 777* (BKF).

S.W. — Chumphawn, Ban Tung Maha, in marshy ground, near sealevel: *Kerr 11403* (BK).

Pattani, Yala, in open marshy ground, under 50 m: *Kerr 7261* (BK).

PEN. — Nakawn Srithamarat, Tung Song, in rice-field, local name *ehut nu*: *Rabil 149* (BK).

DISTR. From S. Europe through S. Asia to Japan and Australia.

19. S. JUNCOIDES Roxb., Fl. Ind. 1: 218. 1820; Raym.: 236. — *S. erectus* (non Poir.) F.B.I.: 656; Mat. F.M.P.: 79; Ridl. 1911: 222; F.I.C.: 136; F.M.P.: 161.

S.E. — Chanburi, Makham, Thung Mala, common in wet localities, 130 m: *Bunnak* 19 (*RFD 9609*) (L).
Trat, Huay Raeng, Dong Maduae, common in rice-field, under 50 m, local nam *phrong klom yai*: *Smitinand 1402* (*RFD 8777*) (BKF); Kaw Chang, Khlawr Nonsi, in flooded ricefields, under 10 m: *Kerr 9198* (BK).
S.W. — Near Neeckey, near Wangka, along pools, 150 m: *den Hoed 220* (*Kew Ne R. basin exp. 1948*) (BK, L).
PEN. — Ranawng, Kraburi, on edge of rice-field, 10 m: *Kerr 16340* (BK); Lam Lien in stagnant water, 10 m: *Kerr 16382* (BK); Nam Chut, in marshy ground, nea sealevel, local name *chuk nu*: *Kerr 11700* (BK).
DISTR. Madagascar; from India, China, and Japan to tropical Australia

20. S. ARTICULATUS L., Sp. Pl. 1: 47. 1753; F.B.I.: 656; F.I.C.: 133 Raym.: 233.
C. — Bangkok, in rice-fields, under 5 m: *Kerr 6740, 11100* (BK); Bangkok, Bangkhen RFD Compound, near water, under 10 m: *Smitinand 5420* (*RFD 19729*) (L).
S.W. — Rajaburi, Potaram, in paddy fields: *Kerr 3877* (BK).
DISTR. From the Mediterranean region through Africa and S. Asia t tropical Australia.

21. S. LATERIFLORUS Gmel., Syst. Veg. 1: 127. 1791; Raym.: 234. — *S. lateralis* Retz., Obs. 4: 12. 1786, *non* Forsk. 1775. — *S. supinus* L. var. *uninodis* Clarke, Fl. Br. Ind. 6: 656. 1893, quoad specim. cit., *non Isolepis uni nodis* Delile. — *S. supinus* (*non* L.) Mat. F.M.P.: 79; F.I.C.: 135; F.M.P.: 16
N. — Chiengmai, Mae Taeng, in rice-field, 300 m: *Smitinand 3928* (L).
C. — Bangkok, in flooded rice-fields: *Kerr 3860* (BK); along railway line: *Kerr 67* (BK); Bangkhen, Bangkok, RFD Compound, near water, under 10 m: *Smitinan 5418* (*RFD 19737*) (L).
DISTR. From India to S. China, Formosa, and Australia.

22. S. ANNAMICUS Raymond, Naturaliste canad. 84: 137. 1957; Raym. 239.
PEN. — Kukan, Hui Nua, open ground by roadside, 100 m: *Kerr 8328* (BK, K).
DISTR. Annam (type locality).

23. S. SQUARROSUS L., Mant.: 181. 1771; F.B.I.: 663; F.I.C.: 134; Turr. 425; Raym.: 228.
S.W. — Kanburi, common in wet ground, 50 m: *Smitinand 3861* (*RFD 16092*) (L).
DISTR. S. Asia, extending to Singapore Island.

24. S. SIAMENSIS (Clarke) Kern, Blumea 9: 219. 1958; Raym.: 230. — *S. squarrosus* L. var. *siamensis* Clarke in Hosseus, Beitr. Fl. Siams, Beih. Bot. Centralbl. 27: 460. 1910; Hoss. 1911a: 372; 1911b: 371; F.I.C. 134. — *Lipocarpha tenera* (*non* Boeck.) F.I.C.: 143. — *Ascolepis sp. n.*, Turr.: 425

— *Scirpus chinensis* Osb. var. *siamensis* (Clarke) Raym., Naturaliste canad. 84: 124. 1957.

N — Nakawn Sawan, Wang Djao, savannah forest, common, 100 m: *Hosseus 101* (P, *type*).

DISTR. Laos, Tonkin, Cochinchina.

VIII. ELEOCHARIS R. Br.

25. E. CONGESTA D. Don, Prodr. Fl. Nepal.: 41. 1825; F.B.I.: 630; F.I.C.: 88; Koy. 1957: 37. — *E. pellucida* Presl, Rel. Haenk. 1: 196. 1828; Koy. 1957: 37. — *E. afflata* Steud., Syn. 2: 76. 1855; F.B.I.: 629; F.I.C.: 87, f. 13, 5 — *E. subvivipara* Boeck., Linnaea 36: 424. 1870; F.B.I.: 629.

N.E. — Loei, Phu Krading, Tham Saw, common in swampy ground, under water, 1300 m: *Smitinand 1123* (*RFD 7665*).

E. — Chaiyaphum, Po Kio, edge of pool, 1000 m: *Kerr 20219* (BK).

DISTR. S.E. Asia, from India to China, Japan, and Malaysia.

Eleocharis congesta and *E. pellucida* are treated as specifically distinct by Svenson, the monographer of the genus. He distinguishes between them only by the thicker rigid stems of the former. I think it is impossible to trace a dividing line between the two.

26. E. RETROFLEXA (Poir.) Urb., Symb. Ant. 2: 165. 1900. — *Scirpus retroflexus* Poir. in Lamk, Enc. 6: 753. 1804. — *E. chaetaria* R. & S., Syst. Veg. 2: 154. 1817; F.B.I.: 629; F. KC.: 84; Will.: 224; Mat. F.M.P.: 77; Hoss 1910: 460; F.I.C.: 87, f. 12, 7—8; F.M.P.: 151.

S.E. — Chantabun: *Vesterdal 463* (SING).

PEN. — Ranawng, Nam Chut, on mud at edge of marshy ground, near sealevel: *Kerr 11707* (BK).

Pattani, Kok Po, on damp sandy soil by stream, near sealevel: *Kerr 7086* (BK).

DISTR. Pantropic.

To me the differences between *E. retrofleza* (the New World 'species') and *E. chaetaria* (the Old World one) are too trifling to justify specific separation.

27. E. ACUTANGULA (Roxb.) Schult. in R. & S., Mant. 2: 91. 1824. — *Scirpus fistulosus* Poir., Enc. 6: 749. 1804, *non* Forsk. 1775. — *Scirpus acutangulus* Roxb., Fl. Ind. 1: 216. 1820. — *E. fistulosa* Schult. in R. & S., Mant. 2: 89. 1824; F.B.I.: 626; Mat. F.M.P.: 76; Ridl. 1911: 222; F.I.C.: 84, f. 13, 3—4; F.M.P.: 151.

S.E. — Trat, Huay Raeng, Dong Maduae, common in rice-field, under 50 m: *Smitinand 1401* (*RFD 6776*) (L).

PEN. — Songkhla, Chana, in open fields, under 20 m: *Kerr 15798* (BK).

Pattani, Saiburi, paddy fields, 25 m: *Kerr 7231* (BK).

DISTR. Widely distributed but uncommon species in the tropics of the whole world.

28. E. SPIRALIS (Rottb.) R. & S., Syst. Veg. 2: 155. 1817; F.B.I.: 627; F.I.C.: 85, f. 11, 6—7. — *Scirpus spiralis* Rottb., Descr. & Ic.: 45, t. 15, f. 1. 1773.

PEN. — Satul, in marshy ground: *Kerr 13740* (BK).

DISTR. Tropical Africa, Madagascar, Mauritius, Ceylon, S. India, S. China, Malaysia, tropical Australia, New Caledonia.

29. E. PHILIPPINENSIS Svens., Rhodora 31: 155, f. 9. 1929; Kern, Reinw. 4: 94. 1956.

C. — Bangkok, open, low lying, marshy ground: *Kerr 11105* (BK, BO, K, L).

DISTR. Tropical Australia, New Caledonia, Malaysia, Hainan.

30. E. OCHROSTACHYS Steud., Syn. 2: 80. 1855; F.B.I.: 626; Mat. F.M.P.: 76; F.M.P.: 151. — *Scirpus laxiflorus* Thwaites, En. Pl. Zeyl.: 435. 1864. — *E. variegata* (Poir.) Presl var. *laxiflora* (Thwaites) Clarke, Fl. Br. Ind. 6: 626. 1893; Turr.: 423.

S.E. — Chanburi, Makham, common in wet localities in scrub forest, 100 m: *Smitinand 4056* (L).

Trat, Kao Kuap, in damp ground by stream, 600 m: *Kerr 17753* (BK).

PEN. — Phang-Nga, Kaw Yao Yai, in open marshy ground, 5 m: *Kerr 17354* (BK).

Nakawn Srithamarat, Tha Sanet, under 50 m: *Kerr 14309* (BK).

Trang, Kantang, common in swamp, under 50 m: *Smitinand 2952* (*RFD 12043*) (L); Huay Yawt, Thale Sawng Hawng, sandy bank of fresh water lake, 100 m: *Smitinand 3026* (*RFD 17248*) (L).

DISTR. From India and Ceylon to Formosa, the Riu Kiu Islands, Malaysia, Micronesia, and Melanesia.

31. E. DULCIS (Burm. f.) Henschel, Vita Rumph.: 186. 1833. — *Andropogon dulce* Burm. f., Fl. Ind.: 219. 1768. — *Scirpus plantagineus* Retz., Obs. 5: 14. 1789. — *E. plantaginea* (Retz.) R. & S., Syst. 2: 150. 1817; F.B.I.: 625; Mat. F.M.P.: 75; F.I.C.: 82; F.M.P.: 150. — *E. equisetina* Presl, Rel. Haenk. 1: 195. 1828; F.B.I.: 626; F. KC.: 85; Will.: 224; Mat. F.M.P.: 75; Hoss. 1910: 460; Ridl. 1911: 222; F.I.C.: 83; Turr.: 423; F.M.P.: 150.

C. — Bangkok, in marsh, local name *ya-cheug-katiam*: *Boonbrahm 8* (BK); in shallow ditch: *Kerr 7063* (BK); edge of flooded rice-fields: *Kerr 13526* (BK); rice-fields, 40 m: *Eryl Smith 931* (BK).

S.E. — Near Sriracha, 30 ft: *Mrs Collins 1893* (BK).

PEN. — Surat, in shallow pool, under 10 m: *Kerr 11289* (BK).

Satul, B. Rayak: *Ridley 14809* (BM, SING).

DISTR. Tropical West Africa, Madagascar; from India to S. China, Formosa, Riu Kiu Islands, and Japan, Malaysia, Micronesia, Melanesia, tropical Australia.

32. E. GENICULATA (L.) R. & S., Syst. Veg. 2: 150. 1817. — *Scirpus geniculatus* L., Sp. Pl. 1: 48. 1753. — *Scirpus caribaeus* Rottb., Progr.: 24. 1772. — *E. capitata* R. Br., Prodr.: 225. 1810; F.B.I.: 627; F. KC.: 84; Will.: 224; Mat. F.M.P.: 77; Hoss. 1910: 460; F.I.C.: 85; F.M.P.: 151. — *E. caribaea* (Rottb.) S. F. Blake, Rhodora 20: 24. 1918; Koy. 1957: 37.

S.E. — Trat, Kaw Chang, Lem Dan Kao, in marshy ground by sea, 5 m: *Kerr 9236* (BK); Kaw Chang, Khlawng Mayom, common in damp localities in waste ground, 5 m: *Smitinand 2227* (*RFD 11540*) (L); Kaw Kut, Khlawng Nonsi, by paths in sandy soil, 5 m: *Smitinand 5648* (L).

S.W. — Chumphawn, Bang Son: *Put 1544* (BK).

DISTR. Warmer parts of the whole world.

In a letter to Svenson, published in Rhodora 41: 50. 1939, Dandy pointed out that the correct name for this species under *Eleocharis* is *E. geniculata* (L.) R. & S. In a later publication (N. Am. Fl. 18, 9: 520. 1957) Svenson reverts to the binomial *E. caribaea*, as (l.c. p. 533) "the name *Scirpus geniculatus* included *E. caribaea* and the plant known as *Juncus aquaticus geniculatus, capitulis equiseti, major* Sloane" and "in the second edition of Species plantarum (1762) Linnaeus restricted the name *Scirpus geniculatus* to the latter." I cannot agree with him. The references in Sp. Pl. ed. 2 are literally the same as in the first edition. The fact that in his diagnosis Linné changed "spica subglobosa" into "spica oblonga" does not affect the choice of the specimen in the Hortus Siccus Cliffortianus as the lectotype of *Scirpus geniculatus*.

IX. FIMBRISTYLIS Vahl

33. F. THOMSONII Boeck., Linnaea 37: 37. 1871; F.B.I.: 646; F.I.C.: 117; Kern, Blumea 8: 110. 1955. — *F. asperrima* (non Boeck.) Ridl. 1911: 222; 1912: 63; F.M.P.: 158, p.p. (quoad specim. P. Rawei).

N. — Chiengmai, Doi Suthep, in the shade in oak forest, 1100 m: *Smitinand 123* (*RFD 6100*) (BKF).

Lampang, Khun Tan, scattered in evergreen forest, 1500 m, local name *yak haew mu*: *Put 153* (BKF).

Phetchabun, Lomkao, Phu Hee, common in oak forest, 860 m: *Smitinand 2591* (L).

N.E. — Loei, Phu Krading, Sam Khae, common in open ground, 1100 m: *Smitinand 1187* (*RFD 7664*) (BKF); Sithan, common in open deciduous forest, 300 m: *Phloenchit 1293* (*RFD 17006*) (L).

E. — Chaiyaphum, Pu Kio, in open grassy ground, 700 m: *Kerr 20200* (BK).

S.W. — Kanburi, Pu Keng, in deciduous forest, 100 m: *Kerr 20658* (BK, K).

Bangtaphan: *Keith 388* (SING).

Chumphawn, common in the plain: *Khunthachai 1687* (L).

PEN. — Nakawn Srithamarat, in savannah, 100 m: *Kerr 13624* (BK, K).

Rawvi Island: *Ridley 15729* (BM, K, SING).

DISTR. S. and S. E. Asia, extending to Central Sumatra and the Philippines.

Rhizome locally used against kidney's trouble (*Put*).

34. F. COMPLANATA (Retz.) Link, Hort. Berol. 1: 292. 1827; F.B.I. 646; Mat. F.M.P.: 96; F.I.C.: 116; F.M.P.: 158. — *Scirpus complanatus* Retz. Obs. 5: 14. 1789.

E. — Korat, Bua Yai: *Put 4291* (BK).

C. — Chaibadan, Dong Pya, in marshy savannah, 100 m: *Kerr 8004* (BK).

S.W. — 10 km S.E. of Kin Sayok, grassy plain, gravel, lateritic soil, 100—150 m: *Kostermans 1132* (*Kwae Noi R. basin exp. 1946*) (L).

Chumphawn, Kao Tong, in open scrub, 700 m: *Kerr 11539* (BK, K).

DISTR. Pantropic.

35. F. DURA (Zoll. & Mor.) Merr., Philip. Journ. Sc. 11: Bot. 53. 1916 — *Isolepis dura* Zoll. & Mor. in Mor., Syst. Verz.: 97. 1846. — *F. aspe rima* Boeck., Linnaea 37: 40. 1871; F.B.I.: 643; Mat. F.M.P.: 96; F.I.C.: 11 F.M.P.: 158, excl. specim. P. Rawei.

E. — Korat, Katok, by stream in evergreen forest, 400 m: *Kerr 8180* (BK).

S.E. — Krabin, Sakeo, in evergreen forest, 50 m: *Kerr 9767* (BK).

Chanburi, Makham, Thung Khui, common in wet localities, 130 m: *Bunnak 2* (*RFD 9623*) (L).

Trat, Kaw Chang, Khlawng Mayom, in rock crevices in stream bed, 50 m: *Ke 6815* (BK); Kaw Kut, by the sea in coconut plantations, 5 m: *Smitinand 5705* (L)

S.W. — Bangtaphan: *Keith 482* (SING).

PEN. — Surat, Kanchanadit, in evergreen forest, 5 m: *Kerr 13961* (BK, K); Bangba common in evergreen jungle, under 50 m: *Phloenchit 852* (*RFD 12833*).

Trang, Chawng, in rocky ground by stream, 100 m: *Kerr 15158* (BK), *Smitinan 4083* (*RFD 16866*) (L).

Pattani, Banang Sta, in open scrub, 50 m: *Kerr 7310* (BK).

Pulau Rawei: *Ridley 15719* (BM, K, SING).

DISTR. From India to Indo-China and W. Malaysia.

36. F. INSIGNIS Thwaites, En. Pl. Zeyl.: 349. 1864; F.B.I.: 645; F.I.C. 118; Kern, Blumea 8: 112. 1955. — *F. longispica* (*non* Steud.) F.M.P. 156, p.p.

N.E. — Loei, Phu Krading, Rest House, in savannah, 1300 m: *Smitinand 5889* (L).

E. — Surin, in open deciduous forest, 100 m: *Kerr 8231* (BK).

C. — Nakhawn Nayok, Khao Lon, on rock's debris: *Sucatabandhu s.n.* (BK).

S.E. — Krabin, Aranya, in savannah, under 50 m: *Kerr 19336* (BK).

PEN. — Trang, Bangsak, in open sandy ground near sea: *Kerr 19050* (BK).

Songkhla, Kampangpet, in savannah, under 50 m: *Kerr 15977* (BK).

Pattani, on open sandy ground, near sealevel: *Kerr 7751* (BK, SING).

Satul, heaths: *Ridley 14820* (BM, K, SING); in open grassy ground, 5 m: *Ke 13710* (BK); Adang, in rock crevices, open rocky ground, 300 m: *Kerr 14107* (BK)

DISTR. Ceylon, Tonkin, Cochinchina, Laos, S. China, Malaysia, tropical Australia (Queensland).

37. F. FALCATA (Vahl) Kunth, En. 2: 239. 1837; Kern: 645. — *Scirpus falcatus* Vahl, En. 2: 275. 1806. — *F. junciformis* Kunth, En. 2: 239. 1837; F.B.I.: 647; F.I.C.: 119.

S.W. — Kanburi, Ta Salao, in open scrub, 50 m: *Kerr 19525* (BK, K).

DISTR. Madagascar, S. Asia, Malaysia.

38. F. CYMOSA R. Br., Prodr.: 228. 1810; F. KC.: 89; Will.: 224; Hoss. 1910: 460; F.I.C.: 119. — *F. spathacea* Roth, Nov. Pl. Sp.: 24. 1821; F.B.I.: 640; F. KC.: 87; Will.: 225; Mat. F.M.P.: 93; Hoss. 1910: 462; Ridl. 1911: 222; F.I.C.: 109; F.M.P.: 156; Kill.: 56.

S.E. — Chantaburi, Lem Sing, *Nai Noe 137* (BK, K).

Trat, Kaw Chang, Khlawng Nonsi, common in sandy soil, 5 m: *Smitinand 5652* (L); Koh Kahdat, on sandy sea-shores: *Joh. Schmidt 572* (C).

S.W. — Prachuap, Sam Roi Yawt, open grassy ground near sea, under 50 m: *Kerr 10972* (BK).

PEN. — Surat, Kaw Tao, on rocky ground near sea: *Kerr 13010* (BK); Kaw Samui, on sandy ground in cocoanut plantation, near sealevel: *Kerr 12622* (BK, K); Kaw Samui, Ban Bua Put, in sandy ground near sea: *Kerr 15699* (BK, K); same locality, in open scrub, under 5 m: *Kerr 15706* (BK, K).

Krabi, Koh Lanta, on sandy ground in open *Casuarina* grove, by sea: *Kerr 18872* (BK).

DISTR. Pantropic.

39. F. SERICEA R. Br., Prodr.: 228. 1810; F.B.I.: 641; F. KC.: 86; Mat. F.M.P.: 94; Hoss. 1910: 462; F.I.C.: 111; Turr.: 425; F.M.P.: 157; Kill.: 56. — *F. junciformis* var. *latifolia* (*non* Clarke) F.I.C.: 120.

C. — Bangkok, strand: *Marcan 2432* (SING).

S.W. — Prachuap, on sandy sea shore: *Kerr 10729* (BK).

Songkhla, in open sandy ground near sea: *Kerr 15081* (BK); Songkhla, Tepa, in sand of beach: *Kerr 14681* (BK).

DISTR. S. and S. E. Asia, through Malaysia to Australia.

40. F. OBTUSATA (Clarke) Ridl., Fl. Mal. Pen. 5: 157. 1925; Kern, Blumea 8: 116. 1955. — *F. tenera* R. & S. var. *?obtusata* Clarke, Fl. Br. Ind. 6: 642. 1893; Mat. F.M.P.: 94. — *F. nigrobrunnea* Thwaites var. *thorelii* Camus, Not. Syst. 1: 248. 1910; F.I.C.: 121, *p.p.*

PEN. — Surat, Kantuli: *Put 4207* (BK).

DISTR. Lower Bengal, Lower Birma, N. W. Malaysia.

41. F. GLOBULOSA (Retz.) Kunth, En. 2: 231. 1837; F.B.I.: 644; Mat. F.M.P.: 95; F.I.C.: 424; Turr.: 424; F.M.P.: 158; Kill.: 56; Koy. 1957: 45. — *Scirpus globulosus* Retz., Obs. 6: 19. 1791.

N. — Phetchabun, Lomkao, Phu Hee, common in moist localities in deciduous fore
860 m: *Smitinand 2609* (L).
S.W. — Chumphawn, Bang Son: *Put 1509* (BK).
PEN. — Surat, Kantuli: *Put 4128* (BK); Praseng, abundant in open marshy grou
50 m: *Kerr 12490* (BK).
Trang, Kantang, common in swamp, under 50 m: *Smitinand 2951* (*RFD 12*
(L).
Songkhla, Tepa, in wet ground, under 50 m: *Kerr 14715* (BK).
Pattani, Bukit, in open marshy ground, under 50 m: *Kerr 7134* (BK); Bana
Sta, on dried mud in open ground, 50 m: *Kerr 7308* (BK).
Narathiwat, Sungai Padi, Taloh Bukeh, common in swampy ground, 12
Williams 17237 (*RFD 11912*) (BKF), *17227* (*RFD 11913*) (BKF).
DISTR. S. and S. E. Asia, Malaysia, Micronesia, Polynesia.

42. F. MILIACEA (L.) Vahl, En. 2: 287. 1806; F.B.I.: 644; F. KC.: 8
Will.: 225; Mat. F.M.P.: 95; Hoss. 1910: 462; Ridl. 1911: 222; F.I.C.: 1
Turr.: 424; F.M.P.: 158. — *Scirpus miliaceus* L., Syst. Veg., ed. 10: 8
1759.
N — Chainat, Manorom, common in rice-fields, under 50 m: *Kerr 19074* (BK).
E. — Korat, Ban Chumsaeng, paddy field: *Noi Noe 196* (BK).
C — Bangkok, along railway line, under 5 m: *Kerr 6721* (BK); at edge of di
local name *ya waat pladuk*: *Kerr 10712* (BK).
S.E. — Chanburi, Makham, Ban Ang, common in wet localities, 120 m: *Bunnak 212*
S.W. — Near Neeckey, near Wangka, very common near pools, 150 m: *den Hoed*
(*Kwae Noi R. basin exp. 1946*) (BK, L); marshy plain near Ku Jae, c. 150
NW of Kanburi, 100—150 m: *Kostermans 1221* (*Kwae Noi R. basin exp. 1946*)
PEN. — Surat, Bangbao, common by path, 50 m: *Phloenchit 838* (*RFD 14435*)
Smitinand 2830 (*RFD 12864*) (BKF).
Trang, Chawng, common by stream, 100 m: *Smitinand 4082* (*RFD 16867*)
Pattani, Saiburi, in paddy fields, under 25 m: *Kerr 7230* (BK).
Satul, heaths: *Ridley 14821* (BM, SING).
DISTR. Pantropic.

43. F. SALBUNDIA (Nees) Kunth, En. 2: 230. 1837; F.B.I.: 646.
N.E. — Loei, Phu Krading, source of Nam Phawng, partly submerged: *Smitin*
5854 (*RFD 21490*) (L).
DISTR. India, Burma.

44. F. ANISOCLADA Ohwi, Blumea 8: 97. f. 2. 1955; Kern, Blumea
120. 1955; Koy. 1957: 47.
S.E. — Trat, Dan Chumpon, in open, muddy ground, under 50 m: *Kerr 17652* (B
DISTR. Indo-China, Java, Celebes.

45. F. PAUCIFLORA R. Br., Prodr.: 225. 1810; F.B.I.: 633; Mat. F.M.
90; F.I.C.: 98; F.M.P.: 154.

E.E. — Chanburi, Makham, Ban Ang, common in wet localities in savannah, 120 m, local name *yah praeng ma*: *Bunnak 135* (L).
Trat, Kaw Chang, Khlawng Nonsi, common by paths in sandy soil, 5 m: *Smitinand 5647* (L).
PEN. — Pattani, open sandy ground, near sealevel: *Kerr 7759* (BK).
DISTR. S. Asia, Malaysia, tropical Australia.

46. F. LEPTOCLADA Benth., Fl. Hongk.: 393. 1861; F.B.I.: 647; Mat. F.M.P.: 96; Ridl. 1911: 222; F.I.C.: 118; F.M.P.: 159. — *F. disticha* (*non* Boeck.) F.I.C.: 125.
PEN. — Nakawn Srithamarat, Padang Besar, in light evergreen forest, 50 m: *Kerr 13594* (BK).
Satul, heaths: *Ridley 14819* (BM, K, SING).
DISTR. Ceylon, Indo-China, S. China, Malaysia.

47. F. MONOSTACHYOS (L.) Hassk., Pl. Jav. Rar.: 61. 1848; F.B.I.: 649; Ridl. 1911: 224; F.I.C.: 122; Turr.: 424; F.M.P.: 159. — *Cyperus monostachyos* L., Mant. 2: 180. 1771.
N — Chiengmai, Muang Payao: *Put 3987* (BK).
N.E. — Loei, Sithan, common in deciduous forest, 300 m: *Smitinand 4793* (L).
Nakawn Panom, Dawn Tan, in open deciduous forest, 100 m: *Kerr 21528* (BK).
E. — Korat, Bua Yai: *Put 4270* (BK).
C. — Saraburi, Menam Sak, mixed deciduous forest, 40 m: *Kerr 7022* (BK).
S.W. — Kanburi, Ta Salao, in bamboo forest, 50 m: *Kerr 19478* (BK).
Prachuap: *Put 289* (BK); Prachuap, Hui Yang: *Put 3170* (BK); Sam Roi Yawt, common in open scrub on sandy ground, under 50 m: *Kerr 10959* (BK).
PEN. — Surat, Kanchanadit, in wet ground by stream, evergreen forest, 5 m: *Kerr 13125* (BK); Kaw Samui, on sandy ground in cocoanut plantation, near sealevel: *Kerr 12584* (BK).
DISTR. Pantropic.

48. F. ERAGROSTIS (Nees) Hance, Journ. Linn. Soc., Bot. 13: 132. 1873; Turr.: 424; Koy. 1957: 38. — *Abildgaardia eragrostis* Nees & Mey. *ex* Nees in Wight, Contr. Bot. Ind.: 95. 1834. — *F. tortispica* Turr., Kew Bull. (1911): 348. 1911; Turr.: 425; F.I.C.: 125.
N.E. — Loei, Phu Krading, common in savannah on rocks, 1300 m: *Smitinand 1943* (L); Wang Saphung, Sithan, common along edge of paddy field, 300 m: *Dee 3 (RFD 5653)* (BKF); Kao Krading, open grassy ground, 1200 m: *Kerr 8684* (BK).
Sukon, Wa Nawn, in open grassy ground, 200 m: *Kerr 8477* (BK).
S.E. — Trat, Kao Kuap, in light evergreen forest, 600 m: *Kerr 17756* (BK).
S.W. — Kanburi, Kao Tawng, in open, grassy, deciduous forest, 100 m: *Kerr 19776* (BK, K).
Ratburi, common in open deciduous forest, under 50 m: *Kerr 9037* (BK, K).
Langsuan, Tako: *Put 1668* (BK).
Surat, open spaces in scrub, under 10 m: *Kerr 11251* (BK, K); Kantuli: *Put 3170* (BK).

Songkhla, Ban Prakawp, on sandy soil in light evergreen forest, 50 m: *15828* (BK, K).

DISTR. S. Asia, extending northwards to S. China and Formosa, so wards to Queensland.

49. F. CINNAMOMETORUM (Vahl) Kunth, En. 2: 229. 1837; Kern: — *Scirpus cinnamometorum* Vahl, En. 2: 278. 1806. — *F. cyperoides* R. Prodr.: 228. 1810; F.B.I.: 650. — *F. cyperoides* R. Br. var. *cinnamometo* (Vahl) Clarke, Fl. Br. Ind. 6: 650. 1893; Turr.: 423.

N. — Phetchabun, Lamkao, Phu Hee, common in oak forest, 860 m: *Smitinand 2595*

N.E. — Loei, Phu Krading, Rest House, in savannahs, 1300 m: *Smitinand 5946* Nakawn Panom, Muk Dahan, in open deciduous forest, 200 m: *Kerr 21451* (

E. — Srisaket, Kanthrarom, in open scrub jungle near village, 200 m: *Smitinand (RFD 4934)* (L).

S.E. — Chanburi, Makham, along edge of thickets, 20 m: *Smitinand 5757* (L). Trat, Huay Raeng, Dong Maduae, common among grasses in rice-field, 50 m: *Smitinand 1331 (RFD 6772)* (BKF).

S.W. — Petchaburi, Tung Luang, in open sandy ground, under 50 m: *Kerr 20642* (

PEN. — Surat, Kanchanadit, common in savannah, 5 m: *Kerr 13067* (BK, K). Satul, in savannah, 5 m: *Kerr 13690* (BK).

DISTR. From S. E. Asia to tropical Australia.

50. F. ADENOLEPIS Kern, Blumea 8: 123, f. 3. 1955; Kern: 645.

S.E. — Prachinburi, Aran Prathet, in open low-lying, grassy ground, 50 m: *19568* (BK, K).

PEN. — Surat, Kun Tale Lake: *Seidenfaden 3326* (SING).

DISTR. Also known from Indo-China and Malaysia (Kangean Islan

51. F. SAVANNICOLA Kern, Blumea 10: 635. 1960.

N.E. — Loei, Pu Tong, in savannah, 1100 m, local name *ya nuat mee* [illegible] *Kerr 8862* *type*: BK).

DISTR. Only known from the type collection.

52. F. FUSCOIDES Clarke in Ostenf., Bull. Herb. Boiss., sér. 2, 5: 1905; Hoss. 1910: 462; F.I.C.: 124 (specim. Siam); Turr.: 424; F.M.P.: Kern, Blumea 8: 125. 1955; Kern: 647. — *F. angustifolia* Ridl., Journ. Br. Roy. As. Soc. no 59: 223. 1911. — *F. erythradenia* Camus, Not. S 1: 247. 1910; F.I.C.: 113.

N.E. — Loei, Kao Krading, on open sandy ground, 1200 m: *Kerr 5672* (BK); Krading, common on rocks in savannah, 1300 m: *Smitinand 1957* (L).

C. — Nakawn Nayok, Khao Lon, wet place: *Savatabandhu s.n.* (BK).

S.E. — Chanburi, Makham, common in the plain, 20 m: *Smitinand 5741 (RFD 21* (L).

PEN. — Pattani, on open sandy ground, near sealevel: *Kerr 7738* (BK, SING).

Satul, sandy places on heaths: *Ridley 14822* (type collection of *Fimbristylis angustifolia* Ridl.) (BM, K, SING).

DISTR. Also in Cochinchina and W. Malaysia (Malay Peninsula, Billiton, Labuan Island).

53. F. FUSCA (Nees) Clarke, Fl. Br. Ind. 6: 649. 1893; Will.: 225; Mat. F.M.P.: 97, p.p.; Hoss. 1910: 461; 1911a: 372; 1911b: 370; F.I.C.: 123; F.M.P.: 160, p.p.; Kern: 647. — *Abildgaardia fusca* Nees in Wight, Contr. Bot. Ind.: 95. 1834. — *F. subfusca* Camus, Not. Syst. 1: 248. 1910; F.I.C.: 123. — *F. rigidifolia* Ridl., Journ. Str. Br. Roy. As. Soc. no 59: 223. 1911; F.M.P.: 159.

N. — Lampang, Ngao, Mae Huat, common in deciduous forest, 360 m: *Amnat 37* (*RFD 11275*) (L).

N.E. — Loei, Phu Krading, common in open pine forest, local name *yak bai bit*: *Dee 827* (*RFD 4908*) (L); same locality, in savannahs, 1300 m: *Smitinand 5851* (*RFD 21491*) (L), *5849* (L).

S.E. — Krabin, Aranya, in deciduous forest, under 50 m: *Kerr 19304* (BK).
Chanburi, Makham, common in thickets, 20 m: *Smitinand 5755* (L).

S.W. — Kanburi, Pa-Chan-dai, in mixed forest: *Bunnak 844* (L).

PEN. — Trang, Sikao, on sandy soil in light evergreen forest, under 50 m: *Kerr 19028* (BK).
Patalung, Sak, in savannah, under 50 m: *Kerr 19259* (BK).
Songkhla, Tepa, in savannah, under 50 m: *Kerr 14710* (BK).
Satul, in savannah: *Kerr 13689* (BK); Satul, heaths: *Ridley 14877* (type collection of *Fimbristylis rigidifolia* Ridl.) (K, SING).

DISTR. From India to S. China, Japan, and Malaysia.

54. F. FIMBRISTYLOIDES (F. v. M.) Druce, Rep. Bot. Exch. Cl. Br. Isl. 1916: 623. 1917. — *Abildgaardia fimbristyloides* F. v. M., Fragm. Phyt. Austr. 8: 273. 1874. — *F. lacei* Turr., Kew Bull. (1911): 348. 1911.

E. — Korat, Ban Chumsaeng: *Nai Noe 195* (BK, K).

DISTR. Burma, Riu Kiu Islands, S. Korea, Malaysia, tropical Australia.

55. F. STRAMINEA Turr., Kew Bull. (1911): 192. 1911; Turr.: 425; F.I.C.: 124. — *F. nigrobrunnea* Thwaites var. *thorelii* Camus, Not. Syst. 1: 248. 1910, p.p.; F.I.C.: 121, p.p.

N. — Chiengmai, Doi Suthep, 550—600 m: *Kerr 832* (*type*) (K); same locality, common in dry gravelly soil in dry deciduous forest, 700 m: *Smitinand 3999* (*RFD 16098*) (BKF, L).

DISTR. Tonkin, Cochinchina.

56. F. DISTICHA Boeck., Linnaea 38: 393. 1874; F.B.I.: 651; Kern: 645. — *F. fuscoides* (*non* Clarke) F.I.C.: 124 (specim. Cochinch.).

C. — Nakhawn Nayok, on the way to Nang Nawng, in rocky ground, 100 m: *Smitinand 6083* (L).

PEN. — Satul, in open sandy ground, 5 m: *Kerr 18734* (BK).

DISTR. Burma, Cochinchina, Tenasserim and Andamans, S. China, Sumatra.

57. F. THOUARSII (Kunth) Merr., En. Philip. Fl. Pl. 1: 127. 1923. *Arthrostylis thouarsii* Kunth, En. 2: 284. 1837. — *Arthrostylis filifor* Thwaites, En. Pl. Zeyl.: 352. 1864. — *Actinoschoenus filiformis* (Thwait Benth. in Hook., Ic. Pl. 14: 33, t. 1346. 1881; Mat. F.M.P.: 84; F.M.P.: 165. *F. actinoschoenus* Clarke, Fl. Br. Ind. 6: 650. 1893.

N. — Chiengmai, Doi Nang Ka: *Put 3240* (BK).

N.E. — Loei, Phu Krading, Tham Saw, on loose sandy soil in dry evergreen for 1300 m: *Smitinand 393* (*RFD 8866*) (BKF); Kao Krading, in open ground, e of evergreen forest, 1200 m: *Kerr 8704* (BK).

S.E. — Trat, Kao Kuap, in open grassy ground, 700 m: *Kerr 17788* (BK).

PEN. — Ranawng, Kao Pawta Luang Keo, in open ground on ridge, 1300 m: *K 16948* (BK, L).

Phang-nga, Kao Katakwam, on open ground, 1000 m: *Kerr 18464* (BK).

Songkhla, Kao Keo, in rock crevices on open rocky slopes, 300 m: *Kerr 1* (BK, L).

Satul, Adang, in open rocky ground, 500 m: *Kerr 14130* (BK).

DISTR. Madagascar, Mauritius, Ceylon, Indo-China, S. China, Malay

58. F. YUNNANENSIS Clarke, Journ. Linn. Soc., Bot. 36: 247. 1903; Tu 425; Kern: 648.

N. — Mae Hawng Sawn, common in rocky ground in dry *Dipterocarpus* forest, 500 *Smitinand 4642* (L).

Chiengmai, Doi Suthep, common in gravelly soil in dry deciduous forest, 60 700 m: *Smitinand 3987* (*RFD 16097*) (BKF, L); Me Tun, open grassy pine for 1100 m: *Kerr 6248* (BK).

DISTR. Yunnan.

59. F. HOOKERIANA Boeck., Linnaea 37: 22. 1871; F.B.I.: 641; F. K 87; Will.: 225; Hoss. 1910: 462; F.I.C.: 111, f. 16, 10—11; Kern, Blum Suppl. 4: 165. 1958.

N.E. — Loei, Phu Krading, Rest House, common by paths, 1300 m: *Smitinand 5* (L); in savannah on rocks, 1300 m: *Smitinand 1949* (BKF, L); in open forest, local name *yah kua baw*: *Dee 148* (*RFD 4903*) (BKF, L); Phu Krad Pha Mak Duk, common in open pine forest, 1300 m: *Din 10* (*RFD 3582*) (BKF,

E. — Korat, Katok, on rocky ground in open forest, 300 m: *Kerr 8147* (BK).

S.E. — Trat, Kao Kuap, on rocks, 300 m: *Kerr 17686* (BK); grew at Bangkok in brought from Kao Kuap: *Kerr 19723* (BK, K).

Kaw Chang, Khlawng Kloi, on open rocky ground, 50 m: *Kerr 9245* (BK).

PEN. — Songkhla, Kao Keo, in rock crevices in open rocky ground, 100 m: *Kerr 1* (BK, K).

DISTR. Khasia Hills, Chota Nagpore, Indo-China.

60. F. FERRUGINEA (L.) Vahl, En. 2: 291. 1806; F.B.I.: 638; F. KC.: 88; Will.: 224; Mat. F.M.P.: 92; Hoss. 1910: 461; F.I.C.: 108; F.M.P.: 576. — *Scirpus ferrugineus* L., Sp. Pl. 1: 50. 1753. — *F. polytrichoides* (*non* R. Br.) Mat. F.M.P.: 90, p.p.; F.M.P.: 154, p.p. — *F. longispica* (*non* Steud.) F.I.C.: 107.

VAR. FERRUGINEA.

C. — Bangkok, open low-lying ground by canal: *Kerr 6979* (BK); Bangkok, Patanan, open ground flooded at high tide: *Kerr 6787* (BK); Bangkok, Wat-Sing, ground inundated at high tide, under 5 m: *Kerr 6707* (BK); Bangkok, Klong edge, sea-level: *Kryl Smith 307* (BK).

S.E. — Kaw Chang, Khlawng Mayom, sandy ground close to sea: *Kerr 6864* (BK, K).

S.W. — Prachuap, Kao Tao, on open low-lying ground, under 5 m: *Kerr 16182* (BK).
Surat, Kaw Prap, among stones on beach: *Kerr 13030* (BK, K); Kaw Samui, Ban Bua Put, in *Pluchea* scrub, under 5 m: *Kerr 15705* (BK, K).
Satul, open ground at edge of mangrove forest: *Kerr 14243* (BK).

DISTR. Pantropic.

var. SIEBOLDII (Miq. *ex* Franch. & Savat.) Ohwi, Journ. Jap. Bot. 14: 576. 1938. — *F. sieboldii* [Miq., Cat. Mus. Bot. Lugd. Bat.: 118. 1870, *nom. nud.*] *ex* Franch. & Savat., En. Pl. Jap. 2: 118. 1879.

S.E. — Trat, Kaw Chang, Khlawng Nonsi, by paths in sandy soil, 5 m: *Smitinand 3650* (L).

DISTR. Japan, Korea, Riu Kiu Islands.

61. F. TRISTACHYA R. Br., Prodr.: 226. 1810; Kern, Blumea 8: 131. 1955. — *F. annamica* Camus, Not. Syst. 1: 245. 1910; F.I.C.: 95. — *F. alleizettei* Camus, Not. Syst. 1: 291. 1910; F.I.C.: 112. — *F. podocarpa* (*non* Nees) Ridl. 1911: 222; F.M.P.: 155.

S.E. — Chanburi, Makham, common in wet localities in the plain: *Beamah 175* (*RFD 8218*) (L), *Smitinand 5756* (L).
Trat, Huay Raeng, Dong Maduae, in rice-fields, under 50 m, local name *guk haang nu*: *Smitinand 1334* (*RFD 6774*) (BKF). Chumphawn, Ban Tung Maha, in open low-lying ground, near sealevel: *Kerr 11400* (BK, K); Bang Son: *Put 1542* (BK).

PEN. — Surat, Kanchanadit, common in savannah, 5 m: *Kerr 13068* (BK, K).
Patalung, Sak, in savannah, under 50 m: *Kerr 19257* (BK).
Songkhla, Tepa, in savannah, under 50 m: *Kerr 14713* (BK).
Satul, heaths: *Ridley 14878* (BM, K, SING).

DISTR. From India to Micronesia and Australia.

62. F. SCHOENOIDES (Retz.) Vahl, En. 2: 286. 1806; F.B.I.: 634; Mat. F.M.P.: 90; F.I.C.: 99; Turr.: 424; F.M.P.: 154; Koy. 1957: 44. — *Scirpus schoenoides* Retz., Obs. 5: 14. 1789.

S.E. — Makham, common in the plain, 20 m: *Smitinand 5771* (L).
Trat, common in lawn: *Smitinand 5739* (*RFD 21506*) (L).

PEN. — Surat, edge of pool in open grassy ground, under 10 m: *Kerr 11245* (BK)
DISTR. From S. E. Asia to tropical Australia.

63. F. SUBALATA Kern, Blumea 8: 133, f. 2. 1955. — *F. alata* Cam
Not. Syst. 1: 244. 1910, *p.p.*; F.I.C.: 94, *p.p.*
PEN. — Surat, Kanchanadit, in savannah, 5 m: *Kerr 18142* (BK, K, L).
DISTR. Also known from Cochinchina, Cambodia, and New Guinea.

64. F. DICHOTOMA (L.) Vahl, En. 2: 287. 1806. — *Scirpus dichoto*
L., Sp. Pl. 1: 50. 1753. — *Scirpus diphyllus* Retz., Obs. 5: 15. 1789.
F. diphylla (Retz.) Vahl, En. 2: 289. 1806; F.B.I.: 636; F. KC.: 85; W
224; Mat. F.M.P.: 91; Hoss. 1910: 461; 1911b: 370; F.I.C.: 103; Turr.
F.M.P.: 155. — *F. annua* R. & S., Syst. Veg. 2: 95. 1817; Kill.: 56. — *F. lo*
spica (*non* Steud.) Mat. F.M.P.: 93, *p.p.*; F.M.P.: 156, *p.p.* — *F. germa*
Camus, Not. Syst. 1: 246. 1910; F.I.C.: 105.
N. — Chiengmai, Doi Suthep, common in dry deciduous forest, 750 m: *Smitinand*
(L); same locality, in moist ground, 1100 m, local name *yah nin wa*: *Sorade*
(*RFD 4313*) (BKF); Me Awn, along edge of open stream, 450 m: *Kerr 4703* (
N.E. — Loei, Phu Krading, in open pine forest, 1300 m: *Dee 36* (*RFD 3828*)
same locality, in savannah, 1300 m: *Smitinand 1938, 5950* (L).
Nakawn Panom, Dawn Tan, in open deciduous forest, 100 m: *Kerr 21524* (
C. — Nakawn Nayok, on the way to Nang Nawng, in rocky ground and by w
100 m: *Smitinand 6082* (L).
Bangkok, edge of open canal: *Kerr 6983* (BK).
S.E. — Kaw Chang, Khlawng Nonsi, in open, rather marshy ground, under 1
Kerr 9200 (BK).
S.W. — Near Neeckey, near Wangka, in meadow, in half shade, 150 m: *den Hoed*
(*Kwae Noi R. basin exp. 1946*) (BK, L); near Rintin, near Kin Sayok, c. 14
NW of Kanburi, mixed forest in marshy places on limestone rock, 100—15
Kostermans 1238 (*Kwae Noi R. basin exp. 1946*) (L); Ku-Jae, c. 150 km
of Kanburi, hilly, dry country, 100—150 m: *Kostermans 1279, 1320* (*Kwae*
R. basin exp. 1946) (L).
Chumphawn, Bang Son, in savannah, 100 m: *Kerr 11341* (BK, K).
PEN. — Surat, Banghao, common in evergreen forest in sandy soil, 50 m: *Phloe*
867 (*RFD 14519*) (L); Kaw Samui, on open rocks by stream, 50 m: *Kerr 1*
(BK); Kaw Samui, Ban Bua Put, in open grassy scrub: *Kerr 15726* (BK, K).
Phang-nga, Nop Pring, in sandy scrub, 100 m: *Kerr 18517* (BK).
Trang, Chawng, on open rocks by stream, 100 m: *Kerr 15160* (BK); Huay Y
Khao Kaew, common in old clearing, 100 m: *Smitinand 4137* (L); Kantang,
mon in swamp and muddy bank, under 50 m: *Smitinand 2953* (*RFD 12640*)
Songkhla, Khao Noi, in gravelly ground on ridge, 40 m: *Williams RFD*
(BKF).
Satul, Kuan Po, by road-side, 20 m: *Kerr 13765* (BK).
DISTR. All warmer parts of the whole world.

65. F. BISUMBELLATA (Forsk.) Bub., Dodec.: 30. 1850. — *Scirpus bisumbellatus* Forsk., Fl. Aeg.-Arab. 1: 15. 1775. — *F. dichotoma* (non Vahl) P.B.I.: 635; Hoss. 1910: 461; 1911b: 370; F.I.C.: 102, p.p.; Turr.: 424.

N. — Mae Hawng Sawn, Pang Mu, Nam Pai, in stream bed, 400 m: *Smitinand 4805* (L).

N.E. — Nawngkai, Chaiyaburi, on sand-bank, 200 m: *Kerr 20697* (BK).

Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 21365* (BK).

C. — Saraburi, Menam Sak, on muddy river bank, 30 m: *Kerr 7054* (BK).

S.W. — Kanburi, Wang Kanai, on gravel bar at edge of river, under 50 m: *Kerr 13872* (BK).

Near Neeckey, near Wangka, near rivers and pools, sandy soil, 150 m: *den Hood 150 (Kwae Noi R. basin exp. 1946)* (BK, L).

DISTR. From the Mediterranean region through the Old World Tropics to N. S. Wales.

66. F. MERRILLII Kern, Blumea 8: 135. 1955, f. 6; Kern: 648.

S.E. — Prachinburi, Aran Prathet, in open low-lying grassy ground, 50 m: *Kerr 19572* (BK, K).

DISTR. Also known from S. China and Malaysia.

67. F. TRICHOPHYLLA Ridl., Fl. Mal. Pen. 5: 155. 1925; Kern, Blumea 8: 140. 1955; Kern: 648.

In Thailand:

var. ERECTA Holtt. *ex* Kern, Blumea 8: 141. 1955.

PEN. — Langsuan, Tako, in clefts of limestone rocks, 100 m: *Kerr 11878* (BK).

Surat, Ban Kawp Kep, in crevices of limestone rocks, 100 m: *Kerr 13177* (BK).

DISTR. The var. *trichophylla* is only known from Pulu Langkawi, var. *erecta* occurs also on limestone rocks in the Malay Peninsula.

68. F. RIGIDULA Nees in Wight, Contr. Bot. Ind.: 99. 1834; F.B.I.: 640.

N. — Kampeng Pet, Me Lamung, open grassy ground, 800 m: *Kerr 6104* (BK).

S.W. — Burmese border, Tripagodas, c. 40 km N of Wangka, scattered in grassy vegetation on sandy clay, 280 m: *Wiekian 332 (Kwae Noi R. basin exp. 1946)* (BK, L).

DISTR. From India to China and the Philippines.

69. F. SPICIGERA Kern, Blumea 8: 144, f. 8. 1955.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 21366* (K, *type*; BK, L).

DISTR. Only known from the type collection.

70. F. PSAMMOPHILA Kern, Reinw. 4: 96. 1956. — *F. arenicola* Kern, Blumea 8: 146. 1955, *non* Wiggins 1950.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 21361*, *type* collection (BK, K, L).

DISTR. Only known from the type collection.

71. F. NELMESII Kern, Act. Bot. Neerl. 7: 800. 1958. — *Tylocl cylindrostachya* Nelmes, Kew Bull. (1949): 139. 1949, *non F. cylindrostac* Steud. 1855.

S.W. — Brangkasi, on sand-bank in river, rather rare, 150 m: *den Hoed & Kostern 968* (*Kwae Noi R. basin exp. 1946, type* collection) (L).

DISTR. The species is also in Laos: Hat Kam, Wiengchan, on gravel by river, 200 m: *Kerr 21294* (L), and in Tonkin: prov. de Sontay, b de la Rivière-Noire entre Van Yen et Van Bu, sur le sable, commun: *E. Co 4055* (Raymond in litt.).

72. F. JUCUNDA (Clarke) Kern, Blumea 10: 637. 1960. — *Cyp jucundus* Clarke, Kew Bull. add. ser. 8: 3. 1908. — *F. brunnea* Clarke E. G. Camus, Not. Syst. 1: 248. 1910; F.I.C.: 106.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 2* (BK).

DISTR. Tonkin, Laos.

73. F. BRUNNEOIDES Kern, Blumea 8: 146, f. 10. 1955.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 2* (K, *type*; BK, L).

DISTR. Only known from the type collection.

74. F. GRIFFITHII Boeck., Flora 43: 241. 1860; Kern, Blumea 8: 1955. — *F. aestivalis* (non Vahl) Mat. F.M.P.: 92; F.M.P.: 155. — *F. di toma* (non Vahl) F.I.C.: 102, p.p.

E. — Korat, Katok, on sandy bank by river, 200 m: *Kerr 8190* (BK, K).

S.W. — Chumphawn: *Haniff & Nur SF 4383* (K, SING).

DISTR. Bengal, Burma, Tenasserim and Andamans, Indo-China, Ma sia.

75. F. AESTIVALIS (Retz.) Vahl, En. 2: 288.1806; F.B.I.: 637; Hoss. 1 460; 1911b: 370; F.I.C.: 106; Turr.: 423; Kill.: 56. — *Scirpus aestivalis* R Obs. 4: 12. 1786.

E. — Korat, Ban Chumsaeng: *Put 2787* (BK).

PEN. — Surat, Ta Rong Chang, on sand-bank in river, under 50 m: *Kerr 12310* (

DISTR. S. and E. Asia, Malaysia, tropical Australia.

76. F. SQUARROSA Vahl, En. 2: 289. 1806; F.B.I.: 635; F.I.C.: 101, f. 3—6.

In Thailand:

var. ESQUARROSA Makino, Bot. Mag. Tokyo 17: 47. 1903. — *F. ve* R. Br., Prodr.: 227. 1810.

E. — Srisaket, Kanthrarom, common along river bank, 200 : *Smitinand 602* (*5137* (BKF).

S.E. — Chanburi, Makham, near water, 20 m: *Smitinand 5746* (L).

DISTR. *F. squarrosa* is pantropic; var. *esquarrosa* is known from tropical Africa, Indo-China, Japan, Malaysia, Polynesia, and Australia.

Fimbristylis squarrosa is very near to *F. aestivalis* (Retz.) Vahl: Typical *F. squarrosa* is characterized by the long recurved awns of the glumes, in var. *esquarrosa* the glumes are mucronate and the mucros as short as those of *F. aestivalis*. So the long pendent hairs of the style-base (absent or very short in *F. aestivalis*) are the only reliable character to distinguish *F. squarrosa* var. *esquarrosa* from *F. aestivalis*. In *Smitinand 5746* the hairs are shorter than usual.

Koyama (1957: 44) thinks that there is a clear line of demarcation between the areas of *F. squarrosa* and *F. velata*, the former being an Eurasiatic continental species, the latter occurring in Malaysia and Australia. I cannot agree with him.

77. F. GRACILENTA Hance, Journ. Bot., London 6: 89. 1868; F.I.C.: 103; Kern: 647. — *F. thorelii* Camus, Not. Syst. 1: 246. 1910; F.I.C.: 105.

N.E. — Loei, Phu Krading, common on rocks in savannah, 1300 m: *Smitinand 1951, 5888* (L).

C. — Nakhawn Nayok, on the way to Nang-Nawng, in rocky ground: *Smitinand 6084* (L).

S.W. — Chumphawn, Bang Son, in savannah, 50 m: *Kerr 11344* (BK).

DISTR. S. China, Indo-China, Sumatra.

var. **psilopoda** Kern, *var. nov.*

A typo rhachi, pedunculis pedicellisque glabris differt.

N.E. — Nakawn Panom, Dawn Tan, in open deciduous forest, 100 m: *Kerr 21522* (BK; *type*).

The numerous specimens of *Fimbristylis gracilenta* I have seen were all characterized by the puberulous rays and raylets of the inflorescence, a feature of rare occurrence in *Fimbristylis*. In *Kerr 21522*, otherwise perfectly agreeing with typical *F. gracilenta*, the inflorescence is quite glabrous. This collection may therefore be the type of a new variety.

78. F. ARGENTEA (Rottb.) Vahl, En. 2: 294. 1806; F.B.I.: 640; Mat. F.M.P.: 93; F.I.C.: 110; F.M.P.: 157. — *Scirpus argenteus* Rottb., Progr.: 27. 1772.

PEN. — Surat, Ta Rong Chang, on sand-bank in river: *Kerr 12808* (BK).

DISTR. Mauritius?; S. E. Asia; also in the Malay Peninsula.

79. F. POLYTRICHOIDES (Retz.) R. Br., Prodr.: 226. 1810; F.B.I.: 632; F. KC.: 88; Will.: 225; Mat. F.M.P.: 90, p.p.; Hoss. 1910: 462; F.I.C.: 96; F.M.P.: 154, p.p.; Kill.: 56. — *Scirpus polytrichoides* Retz., Obs. 4: 11. 1786.

C. — Tachin, on rather sandy ground by sea: *Kerr 8976* (BK, K); in swampy ground with *Suaeda sp.*, near sealevel: *Kerr 16100* (BK).

DISTR. Tropical Africa, Asia, and Australia.

80. F. ACUMINATA Vahl, En. 2: 285. 1806; F.B.I.: 631. Mat. F.M.P.: 8 Ridl. 1911: 222; F.I.C.: 95; F.M.P.: 153. — *F. setacea* (*non* Benth.) F.B 632, *p.p.*; Mat. F.M.P.: 89; F.M.P.: 153. — *F. nutans* Vahl var. *minor* Cam Fl. Gén. I.-C. 7: 96. 1912.

S.E. — Near Sriracha, rice-fields, 20—30 ft: *Mrs Collins 1859, 1908* (BK).

Trat, Huay Raeng, Dong Maduae, common in rice-field, under 50 m, local na *phrong klom noi*: *Smitinand 1403* (*RFD 6775*) (BKF); Khlawng Yai, comm along edge of thicket, under 10 m: *Smitinand 246* (*RFD 6252*) (L).

S.W. — Chumphawn, Ban Thung Maha, in open, low-lying ground, near sealevel: *Ke 11402* (BK); Bang Son: *Put 1516* (BK).

PEN. — Langsuan, Na Sak, in open grassy ground, under 50 m: *Kerr 11868* (BK Phuket, Khaw Pok-Kasum: *Haniff & Nur SF 3631* (SING).

DISTR. S. E. Asia, extending to the Lesser Sunda Islands, Borneo, a the Philippines.

Clarke and Ridley wrongly referred dwarfish specimens of *F. acuminat* to *F. setacea*, a species restricted to Australia and Eastern Malaysia.

81. F. NUTANS (Retz.) Vahl, En. 2: 285. 1806; F.B.I.: 632; Mat. F.M.P. 89; F.I.C.: 96; Turr.: 424; F.M.P.: 154. — *Scirpus nutans* Retz., Obs. 4: 1 1786.

E. — Surin, Sangka, in open marshy ground, 300 m: *Kerr 8308* (BK).

PEN. — Ranawng, Kaw Chang, on sandy ground in *Melaleuca* forest, 5 m: *Kerr 16* (BK).

Pattani, on sandy ground, under 25 m: *Kerr 7227* (BK).

Satul, in open marshy ground, forming an extensive growth, 5 m: *Kerr 1218 13739* (BK).

DISTR. India, Indo-China, S. China, Formosa, Riu Kiu Islands, Malaysia tropical Australia.

82. F. TETRAGONA R. Br., Prodr.: 226. 1810; F.B.I.: 631; Mat. F.M.P. 88; F.I.C.: 93; Turr.: 425; F.M.P.: 153.

E. — Surin, Sangka, 100 m: *Kerr 8211* (BK).

DISTR. India, Indo-China, S. China, Formosa, Malaysia, tropical Austra lia.

83. F. DIPSACEA (Rottb.) Clarke, Fl. Br. Ind. 6: 635. 1893. — *Scirpu dipsaceus* Rottb., Descr. & Ic.: 56, t. 12, f. 1. 1773. — *Echinolytrum dip saceum* (Rottb.) Desv., Journ. Bot. 1: 21, t. 1. 1808; F.I.C.: 130.

N. — Chiengmai, Me Ping Rapids: *Umpai 73* (BK); Chainat: *Put 2668* (BK).

N.E. — Nakawn Panom, Tat Panom, on sand-bank in river, 200 m: *Kerr 21398* (BK

C.—Dhonburi, Bang Plat, common in alluvial deposit around cultivated areas, under 5 m: *Smitinand 82 (RFD 5278)* (L).
PEN.—Surat, Ta Rong Chang, on sand-bank in river: *Kerr 12309* (BK).
DISTR. Tropical Africa, S. and E. Asia, Malaysia.

X. BULBOSTYLIS Kunth

84. B. DENSA (Wall.) Hand.-Mazz. in Karsten & Schenk, Vegetationsb. 20, 7: 16. 1930. — *Scirpus densus* Wall. in Roxb., Fl. Ind. 1: 231. 1820. — *Isolepis trifida* Nees in Wight, Contr. Bot. Ind.: 108. 1834. — *B. capillaris* var. *trifida* (Nees) Clarke, Fl. Br. Ind. 6: 652. 1893. — *B. capillaris* (*non* Clarke) F.I.C.: 127.
N.E.—Loei, Phu Krading, Rest House, in wet localities, 1300 m: *Smitinand 5954* (L).
DISTR. Tropical Africa, S. and E. Asia to China and Japan, Malaysia, tropical Australia.

85. B. BARBATA (Rottb.) Clarke, Fl. Br. Ind. 6: 651. 1893; Mat. F.M.P.: 77; Hoss. 1910: 462; 1911b: 369; Ridl. 1911: 222; F.I.C.: 126; Turr.: 425; Koy. 1957: 7. — *Scirpus barbatus* Rottb., Progr.: 27. 1772; Ridl. 1915: 168. — *Stenophyllus barbatus* (Rottb.) Cooke, Fl. Bombay 2: 887. 1908; Kjll.: 56.
N.—Mae Hawngsawn, lawn, 400 m: *Smitinand 4576* (L).
Tak, 30 km N of Tak, common in dry deciduous forest, 100 m: *Smitinand 3897* (L).
S.W.—Kanburi, in open deciduous forest: *Kerr 20482* (BK); Kanburi, Ta Taknaw, local name *ya nuat sâa*: *Put 10* (BK).
Ratburi, in deciduous forest, 50 m, local name *ya nuat mêo*: *Kerr 9040* (BK).
Prachuap, Hua Hin, in sand by sea beach: *Kerr 13495* (BK); Hui Yang: *Put 3179* (BK); Sam Roi Yawt, open sandy ground near sea, local name *ya nûat mêo*: *Kerr 10881* (BK); Kan Kradai: *Put 2304* (BK).
P.N.—Surat, Kaw Tao, in rock cleft near sea: *Kerr 13014* (BK).
Satul, open sandy ground, 5 m: *Kerr 18752* (BK).
Pattani, open sandy ground, near sealevel: *Kerr 7248* (BK); Yala, open sand-bank in river: *Kerr 7728* (BK).
DISTR. Warm parts of the Old World; also in the southern U.S.A.

86. B. PUBERULA (Poir.) Clarke, Fl. Br. Ind. 6: 652. 1893; Mat. F.M.P.: 78; F.I.C.: 128, f. 17, 1—2; F.M.P.: 160. — *Scirpus puberulus* Poir. in Lamk, Enc. 6: 767. 1804. — *Scirpus setaceus* (*non* L.) F.I.C.: 132. — *Stenophyllus puberulus* (Poir.) Killip, Journ. Siam Soc. Nat. Hist. Suppl. 7: 57. 1927.
P.N.—Pattani, Ban Sai Kao, open sandy ground, 50 m: *Kerr 15024* (BK).
DISTR. Tropical Africa and Asia.

XI. CYPERUS L.

87. C. DIGITATUS Roxb., Fl. Ind. 1: 209. 1820; F.B.I.: 618; F.I.C.: 74, f. 9, 5—6. — *Mariscus sieberianus* var. *evolutior* (*non* Clarke) Mat. F.M.P.:

73, p.p.; Ridl. 1911: 221; F.M.P.: 149, p.p. — *C. elatus* (*non* L.) F.I.C.: 7
(incl. var. *laxus* Camus).

E. — Korat, Ban Chumsaeng: *Nai Noc 202* (BK).

C. — Bangkok, edge of open ditch in fruit garden: *Kerr 6975*; Bangkok, Bangkhe
RFD Compound, under 10 m: *Smitinand 5412* (*RFD 19742*) (L).

S.W. — Kanburi, Hin Dat: *Put 105* (BK).
Brangkasi, along river-bank, 150 m: *den Hoed & Kostermans 695* (*Kwae Noi
basin exp. 1946*) (L).

PEN. — Surat, Tassateng, Bandon River, along the river, 5 m: *Seidenfaden 2118* (
SING).
Nakawn Srithamarat, Kao Chum Tawng, in shallow ponds, under 50 m: *Ke
14339* (BK).
DISTR. Pantropic.

88. C. ELATUS L., Cent. Pl. 2: 301. 1756; F.B.I.: 618; Mat. F.M.P.: 7
F.M.P.: 148; Kill.: 55. — *C. digitatus* (*non* Roxb.) Mat. F.M.P.: 71; F.M.P
147. — *C. radiatus* (*non* Vahl) F.I.C.: 72, f. 9, 1—4.

C. — Bangkok, Klong, 5 m: *Eryl Smith 109* (BK).
DISTR. S. and S. E. Asia, Malaysia.

89. C. IMBRICATUS Retz., Obs. 5: 12. 1789. — *C. radiatus* Vahl, En.
369. 1806; F.B.I.: 617; Mat. F.M.P.: 70; F.M.P.: 147; Turr.: 422.

N. — Mae Hawngsawn, Pang Mu, Nam Pei, in streambed, 400 m: *Smitinand 4609* (L
N.E. — Nakawn Panom, on sand-bank in river, 200 m: *Kerr 21387* (BK), *21391* (BK
C. — Angthawng, Ayuthia: *Suvatabandhu s.n.* (BK).

S.W. — Kanburi, Brangkasi, river-banks, 150 m: *den Hoed & Kostermans 697* (*Kwa
Noi R. basin exp. 1946*) (L).
DISTR. Pantropic.

90. C. EXALTATUS Retz., Obs. 5: 11. 1789; F.B.I.: 617. — *C. elatus* va
macronux (*non* Clarke) F.I.C.: 72.

S.W. — Petchaburi, the common species in stagnant water of open ditches, 10 m: *Ke
11085* (BK).
DISTR. Tropical Africa, S. and E. Asia, Australia.

91. C. STOLONIFERUS Retz., Obs. 4: 10. 1786; F.B.I.: 615; Mat. F.M.P.
69; Ridl. 1911: 221; F.M.P.: 145. — *C. bulbosus* (*non* Vahl) F.I.C.: 64, incl.
var. *elatus* Camus.

S.E. — Chantabun, Lem Sing, in rock crevices close to sea, near sealevel: *Kerr 13*
(BK).
Trat, Kaw Chang, Khlawng Nonsi, in sand by sea, 5 m: *Smitinand 5651* (L
S.W. — Prachuap, Hua Hin, in sand by sea: *Kerr 13418* (BK).
Kaw Tao, in sandy ground by sea: *Kerr 16187* (BK), *11157* (BK).

PEN. — Kaw Samui, Ban Bua Put, in sandy ground near sea: *Kerr 13700* (BK).
DISTR. From S. E. Asia to Melanesia and tropical Australia.

92. C. ROTUNDUS L., Sp. Pl. 1: 45. 1753; F.B.I.: 614; Mat. F.M.P.: 68; Hass. 1910: 459; 1911a: 372; 1911b: 370; Ridl. 1911: 221; F.I.C.: 65; Turr.: 422; F.M.P.: 145; Kill.: 55.

N. — Phetchabun, Loei Kao, Phu Hi, common in damp localities, in village, 860 m: *Smitinand 2590* (L).
Nakawn Sawan, Wang Djao, savannah forest: *Hosseus 133a* (BM, L).

C. — Bangkok, rice-fields: *Feilberg s.n.* (C); Krungthep, Bangkhen, common in damp localities, under 10 m: *Smitinand 4032* (*RFD 16095*) (L).

S.W. — Kanburi, Wang Pra: *Put 24* (BK).
Srangkasi, c. 100 km S of Wangka, along paths in half shade, 150 m: *den Hoed & Kostermans 985* (*Kwae Noi R. basin exp. 1946*) (BK, L).

PEN. — Pattani, *Gwynne-Vaughan 586* (L).

DISTR. Warmer parts of the whole world.

ssp. TUBEROSUS (Rottb.) Kük., Pflanzenr., Heft 101: 113. 1935.

C. — Bangkok, along ditches, local name *ya takrap*: *Kerr 10713* (BK); Bangkhen, RFD Compound, common in wet ground: *Smitinand 4556* (*RFD 17839*) (L).

S.W. — Petchaburi, edge of open ditch, 10 m: *Kerr 11684* (BK).

DISTR. of the subspecies. Widely spread in Africa and S. Asia.

93. C. TENUICULMIS Boeck., Linnaea 36: 286. 1870; Kern, Reinw. 3: 50. 1954. — *C. zollingeri* (*non* Steud.) F.B.I.: 613; Mat. F.M.P.: 68; F.I.C.: 67, f. 7, 3—5; Turr.: 422; F.M.P.: 144.

N. — Chiengmai, Doi Suthep, common in oak forest, 1100 m, local name *yah dawk daeng*: *Sorodet 113* (*RFD 2857*) (BKF).
Phetchabun, Lomkao, Na Phaw Sawng, common in pine and oak forest, 900 m: *Smitinand 2632* (*RFD 15136*) (L); Lomkao, Phu Hee, scattered in oak forest, 800 m: *Smitinand 2593* (*RFD 15137*).

N.E. — Loei, Phu Krading, Rest House, in open pine forest, 1300 m: *Smitinand 6013* (L); Kao Krading, *Suvatabandhu 211* (PNH).
Nakawn Panom, Muk Dahan, in deciduous forest, 200 m: *Kerr 21418* (BK).

S.E. — Chanburi, Khlung, Map Phae, common in wet localities in the plain, 130 m: *Bunsak 218* (*RFD 9523*) (L).

PEN. — Surat, in scrub, under 10 m: *Kerr 11262* (BK); Surat, Kantuli: *Put 4131* (BK).

DISTR. Tropical Africa, S. E. Asia to Micronesia and Australia.

94. C. DISTANS L.f., Suppl.: 103. 1781; F.B.I.: 607; Mat. F.M.P.: 69; F.I.C.: 60; Turr.: 422; F.M.P.: 145; Kill.: 55.

N. — Chiengmai, Huay Kaew, common in moist localities, 350 m: *Smitinand 4758* (*RFD 17849*) (L).

C. — Bangkok, open waste ground recently cleared: *Kerr 6890* (BK).
Saraburi, Menam Sak, on sand-bank with coarse grass (*Saccharum sp.*), 20 m: *Kerr 7012* (BK, SING).

S.E. — Trat, Kaw Kut, in cocoanut plantation, 5 m: *Smitinand 5709* (*RFD 21567*) (L).

S.W. — Kanburi, Ta Salao, in scrub on river bank, 50 m: *Kerr 19532* (BK); Srangkasi, scattered, open spaces, 150 m: *den Hoed & Kostermans 696* (*Kwae Noi R. basin exp. 1946*) (L).

Near Neeckey, near Wangka, sand and gravel banks along Ran Ti River, 150 m: *den Hoed 122 (Kwae Noi R. basin exp. 1946)* (BK, BO, L, PNH, SING); ibid.: *Bloembergen 604* (L).
Prachuap, Pak Tawan, on sand-bank by river, 20 m: *Kerr 20527* (BK).
DISTR. Warmer parts of the whole world.

95. C. NUTANS Vahl, En. 2: 363. 1806; F.B.I.: 607.

C. — Saraburi, Muak Lek, sand-bank in stream, 200 m: *Marcan 1855* (BK).
Bangkok, in ditch in fruit garden: *Kerr s.n.* (BK).
Chaibadan, Dong Pya Yen, in open marshy savannah, 100 m: *Kerr 8009* (BK).
S.E. — Chanburi, Pong Nam Rawn, Wang Kaphae, common by stream, 160 m: *Sm[i]tinand 3348* (BKF).
S.W. — Near Neeckey, near Wangka, Ran Ti River, sandy river banks, 150 m: *den Hoed 211 (Kwae Noi R. basin exp. 1946)* (L); near Kin Sayok, c. 120 km W of Kanburi, mostly dry limestone rocks in rivulet, 100 m: *Kostermans 11[6]* (*Kwae Noi R. basin exp. 1946*) (L).
Bangtaphan: *Keith 406* (SING).
DISTR. S. and S. E. Asia, Malaysia, ? W. Africa.

96. C. PROCERUS Rottb., Descr. & Ic.: 29. 1773; F.B.I.: 610; Mat. F.M.P. 70; F.I.C.: 62; F.M.P.: 140. — *Pycreus puncticulatus* (*non* Nees) Mat. F.M.P. 61; Ridl. 1911: 220; F.M.P.: 140. — *Pycreus baccha* (*non* Nees) F.I.C.: 3[8]
C. — Bangkok, on bank of open canal: *Kerr 6984* (BK); in flooded rice-fields: *Ke[rr] 11101* (BK); local name *kok takluk*: *Suvatabandhu s.n.* (BK).
DISTR. Madagascar; from India, Cochinchina, E. China, and Formo[sa] southward to Queensland.

97. C. PILOSUS Vahl, En. 2: 354. 1806; F.B.I.: 609; Mat. F.M.P.: 6[7] F.I.C.: 62, f. 6, 12; Turr.: 422; F.M.P.: 144; Koy. 1955: 207; 1957: 25.
S.W. — Near Neeckey, near Wangka, on sandy soil along Ran Ti River, 150 m: *de[n] Hoed 189 (Kwae Noi R. basin exp. 1946)* (BK, L).
PEN. — Trang, Chawng, common by stream, 100 m: *Smitinand 5085* (L).
DISTR. From Central Asia and Japan through tropical Asia to N. Au[s]tralia; tropical W. Africa.

98. C. BABAKAN Steud., Syn. 2: 6. 1855; Kern, Reinw. 2: 105, f. [1] 1952. — *C. babakensis* Steud. *ex* Miq., Fl. Ind. Bat. 3: 257. 1856; F.B.I. 610; F.I.C.: 61; Turr.: 421; F.M.P.: 144.
S.E. — Kaw Chang, Lem Dan Kao, marshy ground by sea, 5 m: *Kerr 9287* (BK).
PEN. — Surat, Kanchanadit, pond in savannah, 5 m: *Kerr 13099* (BK).
Nakawn Srithamarat, Padang Besar, in light evergreen forest, 50 m: *Kerr 12[0]* (BK, BO).
Songkhla, Kampangpet, in edge of marshy ground, under 50 m: *Kerr 15933* (BK)
Pattani, Banang Sta, in rather marshy paddy fields, 50 m: *Kerr 7294* (BK).
DISTR. From Hindustan and Assam to Cochinchina and Malaysia.

99. C. CORYMBOSUS Rottb., Descr. & Ic.: 42, t. 7, f. 4. 1773; F.B.I.: 612; F.I.C.: 66 — *C. longus* (*non* L.) F.I.C.: 68.

S. — Lampang, Mae Paen, in marshy place, 160 m: *Winit 1722* (BK, BKF).

C — Pradhumdhani, common in ditches by roadsides, under 50 m: *Smitinand 4530 (RFD 18590)*.

Bangkok, along open tidal canals: *Kerr 6985* (BK); Bangkhen, local name *kok klom, kok shantaburee*: *Suvatabandhu s.n.* (BK).

S.E. — Chantaburi, cultivated, used for mat-making, under 50 m, local name *kok*: *Kerr 18051* (BK).

DISTR. Tropics and subtropics of the whole world.

Sometimes cultivated for matting purposes.

100. C. MALACCENSIS Lamk, Ill. 1: 146. 1791; F.B.I.: 608; Mat. F.M.P.: 70; Ridl. 1911: 221; F.I.C.: 63; Ridl. 1920: 124; F.M.P.: 147; Kill.: 55.

C — Bangkok, along edge of open canal: *Kerr 6980* (BK, SING); along ditch: *Kerr 10715* (BK).

S.E. — Chantaburi: *Vesterdal 459* (C).

P.E.N. — Surat, Bandon: *Seidenfaden 2039* (SING).

Satul: *Ridley 14829* (SING).

DISTR. Widely spread in the Eastern Hemisphere.

101. C. TONKINENSIS Clarke, Kew Bull. add. ser. 8: 11. 1908; Camus, Not. Syst. 1: 241. 1910; F.I.C.: 70.

N.E. — Nakawn Panom, Tat Panom, on sand-bank in river, 200 m: *Kerr 21397* (BK).

S.W. — Kanburi, Wang Kanai, on gravel bar at edge of river, under 50 m: *Kerr 12871* (BK).

DISTR. Also known from Tonkin (type locality).

Cyperus brevicaulis Clarke, Kew Bull. add. ser. 8: 11. 1908, was based on two *Balansa* collections (*2832* and *2833*). I am pretty certain that the duplicates of *Balansa 2831*, type collection of *C. tonkinensis*, and that of *Balansa 2832*, both in the Leyden Herbarium, represent but one species.

102. C. IRIA L., Sp. Pl. 1: 45. 1753; F.B.I.: 606; Mat. F.M.P.: 66; Ridl. 1911: 221; F.I.C.: 59, f. 6, 4—6; Turr.: 422; F.M.P.: 143; Kill.: 55.

N. — Nakawn Sawan, Chainat, Manorom, rice-field weed, under 50 m: *Kerr 19673* (BK); Tak: *Put 2145* (BK); Muang Sing: *Put 2630* (BK).

N.E. — Loei, Phu Krading, swamp, 1300 m, local name *hangka khaow*: *Dee 158 (RFD 1629)* (L); ibid.: *Smitinand 1954* (L); *Smitinand 5858 (RFD 21492)* (L).

Nakawn Panom, on sand-bank in river, 200 m: *Kerr 21379* (BK), *21385* (BK).

C — Bangkok, road side: *Kerr 11033* (BK), *19727* (BK); Bangkok, open marshy ground: *Kerr s.n.* (BK); Bangkok, Klong side: *Ergl Smith 1017* (BK).

Angthawng, Ayuthia: *Put 2599* (BK).

S.E. — Kaw Chang, Lem Dan Kao, open marshy ground by sea, 5 m: *Kerr 9289* (BK).

S.W. — Ran Ti River, near Neeckey, near Wangka, along river banks, 150 m: *den Hoed 206* (*Kwae Noi R. basin exp. 1946*) (BK, BO, G, L, PNH, SING).

DISTR. Tropical Asia to China and Japan, Malaysia, tropical E. Africa Australia.

103. C. COMPRESSUS L., Sp. Pl. 1: 46. 1753; F.B.I.: 605; Mat. F.M.P. 67; F.I.C.: 57, f. 5, 3—5; F.M.P.: 144.

C. — Paknam, in crevices of cement path, near sealevel: *Kerr 12946* (BK).

S.W. — Prachuap, Hua Hin, in open grassy, sandy ground, near sealevel: *Kerr 1[illegible]* (BK).

DISTR. Pantropic.

104. C. FLABELLIFORMIS Rottb., Progr.: 22. 1772.

C. — Bangkok, in stagnant water, local name *pa kok*: *Marcan 658* (SING), *Marcan 1924* (SING); in a fruit garden ditch, probably planted, under 5 m: *Kerr 1[illegible]* (BK).

DISTR. Tropical Africa, elsewhere sometimes escaping from cultivation.

105. C. DIFFUSUS Vahl, En. 2: 321. 1806; F.B.I.: 603; Mat. F.M.P.: [illegible] Hoss. 1910: 458; 1911a: 374; Ridl. 1911: 221; F.I.C.: 54; Turr.: 421; Ridl. 1920: 124; F.M.P.: 142; Koy. 1955: 209; 1957: 27 (incl. var. *microstachyum*).

N. — Lampang, Huay Luang, along edge of stream in evergreen forest, 340 m: *Wit 1887* (BK, BKF).

Nakawn Sawan, Takli: *Put 2108* (BK).

E. — Korat, Lat Bua Kao: *Put 4315* (BK).

S.E. — Prachinburi, near Sriracha, 30 ft: *Mrs Collins 1881* (BK); Nawng Pla: *Collins 846* (BK).

Trat, Koh Chang: *Einer Nielsen 724* (C).

S.W. — Kanburi, in deciduous forest, under 50 m: *Kerr 20557* (BK); Ta Salao, bamboo (*Bambusa arundinacea*) forest, 50 m: *Kerr 19535* (BK).

Near Kin Sayok, c. 120 km NW of Kanburi, bamboo thicket, mostly dry limestone rocks, 100 m: *Kostermans 1098, 1100* (*Kwae Noi R. basin exp. 1946*) (L); near Neeckoy, near Wangka, open dry place, 150 m, local name *neh gay song* (Karen language): *den Hoed 131* (*Kwae Noi R. basin exp. 1946*) (BK, BO, L, PNH, SING); *ibidem 233* (BK, L); near Ka Tha Lai, in Pan Paung River valley, very common, bamboo grove, 300 m: *den Hoed 923* (*Kwae Noi R. basin exp. 1946*) (L); Brangkasi, along paths, 150 m: *den Hoed & Kostermans 457* (*Kwae Noi R. basin exp. 1946*) (L).

Prachuap, Kao Luang, common in evergreen forest, 300 m: *Kerr 10872* (BK).

Pak Tawan, in bamboo forest: *Kerr 20521* (BK).

PEN. — Surat, Kaw Tao, glade in evergreen forest, 30 m: *Kerr 11176* (BK); *Kerr 12783* (BK, L).

Songkhla, Kaw Maew, shady places, 30 m: *Williams 17281* (*RFD 8853*) (BK).

Satul, Adang, in evergreen glade, under 5 m: *Kerr 14085* (BK).

DISTR. From India to S. China and Malaysia.

VAR. MACROSTACHYUS Boeck., Linnaea 35: 534. 1868. — *C. pubisquama* Steud., Syn. 2: 20. 1855; F.B.I.: 604; F.I.C.: 56, f. 57. — *C. diffusus* var. *pubisquama* (Steud.) Hook. f. in Trimen, Handb. Fl. Ceyl. 5: 28. 1900; Mat. F.M.P.: 65; Ridl. 1920: 124; F.M.P.: 143.

S.E. — Nawngkai, Pon Pisai, in evergreen forest, 200 m: *Kerr 8554* (BK).

S.E. — Rayawng, Ban Phae: *Put 2779* (BK).

DISTR. As the species.

106. C. TRIALATUS (Boeck.) Kern, Reinw. 3: 32. 1954, *f.* 1, 2. — *Scirpus trialatus* Boeck., Flora 42: 445. 1859. — *C. banconus* Miq., Fl. Ind. Bat., Suppl.: 599. 1861; Mat. F.M.P.: 65; Ridl. 1911: 221; F.I.C.: 56, f. 5, 10; F.M.P.: 143; Kill.: 55. — *C. turgidulus* Clarke, Journ. Linn. Soc. 21: 130. 1884; F.B.I.: 604. — *C. helferi* (*non* Boeck.) F.I.C.: 55.

N.E. — Loei, Phu Krading, Dawn Phra Kaew, scattered in evergreen forest, 1300 m: *Smitinand 1964* (*RFD 9446*) (BKF); Loei, Pu Tong, among rocks in open grassy forest, 1000 m: *Kerr 8852* (BK).

Nakawn Panom, Dong Bang-i, in evergreen forest, 200 m: *Kerr 21480* (BK).

C. — Saraburi, Menam Sak, in rocky limestone hill, 100 m: *Kerr 7041* (BK); Saraburi, Phu Khae Arboretum, common in dry evergreen forest, 30 m: *Smitinand 3884* (L).

S.E. — Chantaboon: *Vesterdal 8M* (SING); Chanburi, Khlung, Map Phae, common in wet localities in the plain, 130 m: *Bunnak 217* (*RFD 9324*) (L).

Trat, Kaw Chang, Khlawng Nonsi, in sandy soil, 5 m: *Smitinand 3654* (*RFD 21178*) (L); Kaw Chang, Pak Khlawk, common in paddy fields and scrub forest, under 10 m: *Bunnak 465* (*RFD 12503*) (L).

S.W. — Bangtaphan, jungle: *Keith 432* (SING); same locality, beach: *Keith 494* (SING).

PEN. — Surat, in evergreen scrub, under 10 m: *Kerr 11264* (BK).

Songkhla, Kaw Maew, gregarious in dry shady places, 30 m: *Williams 17275* (*RFD 13021*) (BKF).

Satul: *Ridley 14533* (BM, SING).

Without exact locality: *Mrs Collins 849* (BK); *Kerr 4196* (P).

DISTR. Indo-China, S. China, W. Malaysia.

107. C. HELFERI Boeck., Linnaea 38: 360. 1874; F.B.I.: 604.

PEN. — Ranawng, Lam Lieng, on shingle-bank by stream, 10 m: *Kerr 16384* (BK).

DISTR. Burma, Pegu, Mergui, Tenasserim or Andamans.

108. C. RADIANS Nees & Mey. *ex* Kunth, En. 2: 95. 1837; F.B.I.: 605; Mat. F.M.P.: 66; F.M.P.: 143; Kill.: 55. — *C. sinensis* Debeaux, Act. Soc. Linn. Bord. 31: 14. 1877, t. 12; F.I.C.: 52, f. 6, 1—3.

S.W. — Prachuap, Hua Hin, in sand by sea: *Kerr 18417* (BK), s.n. (BK).

PEN. — Phuket, Lem Ta, in sand by sea: *Kerr 17590* (BK).

Songkhla, open sandy ground near sea: *Kerr 15083* (BK).

DISTR. S. E. Asia to S. and E. China, Formosa, and W. Malaysia.

109. C. DIFFORMIS L., Cent. Pl. 2: 6. 1756; F.B.I.: 599; F.I.C.: 49, f. 1—2; F.M.P.: 142.

N.E. — Nawngkai, Chaiyaburi, on sand bank in Me Kong, 200 m: *Kerr 20700* (B
C. — Bangkok, rice-fields: *Feilberg s.n.* (C); Bangkok, Bangkhen, RFD Compo near water, under 10 m: *Smitinand 5513* (*RFD 19741*) (L); *Smitinand 5553* (K *17833*) (L).
Tachin, in swampy ground with *Suaeda sp.*, near sealevel: *Kerr 16108* (B
Ayuthia, on damp mud at edge of river, 10 m: *Kerr 7007* (BK).
PEN. — Kaw Samui, Ban Boa Put, in low-lying scrub, under 5 m: *Kerr 15725* (B
DISTR. Tropical and warm temperate regions of the Old World a Australia; in C. America presumably introduced.

110. C. PULCHERRIMUS Willd. *ex* Kunth, En. 2: 35. 1837; F.B.I.: 4 Mat. F.M.P.: 64; Hoss. 1910: 459; 1911b: 370; Ridl. 1911: 221; F.I.C.: Turr.: 422; F.M.P.: 142. — *C. silletensis* (*non* Nees) F.I.C.: 47.

N — Phrae: *C. W. Franck 459* (C).
E. — Korat, Ban Chumsaeng, in paddy-field: *Nai Noe 188* (BK).
C. — Chaibadan, Dong Pya Yen, damp mud in mixed forest, 50 m: *Kerr 7995* (BK).
Bangkok, edge of open ditch in fruit garden: *Kerr 6976* (BK); Bangkhen, B kok: *Umpai 112* (BK).
S.E. — Chantabun: *Vesterdal 489* (C, SING).
S.W. — Kanburi, Ta Salao, marshy ground in bamboo (*Bambusa arundinacea*) fo 50 m: *Kerr 19522* (BK).
Near Ku-Jae, c. 150 km NW of Kanburi, marshy plains, 100—150 m: *Koster 1319* (*Kwae Noi R. basin exp. 1946*) (L).
PEN. — Nakawn Srithamarat, Tung Song, local name *kok ki ma*: *Rabil 140* (B
DISTR. S. and S. E. Asia, Malaysia.

111. C. HASPAN L., Sp. Pl. 1: 45. 1753; F.B.I.: 600; F. KC.: 82; W 224; Mat. F.M.P.: 64; Hoss. 1910: 458; 1911b: 370; Ridl. 1911: 221; F.I 50; Turr.: 422; Ridl. 1920: 124; F.M.P.: 142; Koy. 1955: 210; 1947: 29. *C. flavidus* var. *africanus* Camus, Fl. Gén. I.-C. 7: 51. 1912.

N. — Chiengmai, Doi Suthep, swamp, 1100 m: *Smitinand 114* (*RFD 8157*) (BK
Muang Fang, rocky soil, gray mud near hot spring: *Kostermans 64* (L).*
N.E. — Loei, Phu Krading, common by path near Rest House, 1300 m: *Smitinand* (L).
E. — Chaiyaphun, Pu Kio, in open ground, 1000 m: *Kerr 20211* (BK, L).
C. — Bangkok, along open ditches: *Kerr 6977* (BK); on road side: *Kerr 11057* (BK,
Bangkhen, Bangkok, RFD Compound, common near water, under 10 m: *Smit 5414* (*RFD 19740*) (L).
S.E. — Prachinburi, Aran Prathet: *Put 1978* (BK); Lemchabang, swamp, 20 ft: *Collins 1895* (BK, L).
Trat, Kaw Chang, Khlawng Mayom, on rock crevices by stream, 100 m: *Kerr* (BK); Kaw Kut, sandy soil in plantations, 5 m: *Smitinand 5739* (L).
S.W. — Ku-Jae, about 150 km NW of Kanburi, 100—150 m: *Kostermans 1310* (*Kwa Noi R. basin exp. 1946*) (BO).

PEN. — Ranaweng, Nam Chuet, edge of marshy ground, near sealevel: *Kerr 11711* (BK).
Langsuan, Kao Noen Sao, open spaces in evergreen forest, 900 m: *Kerr 12061* (BK).
Surat, in open scrub, under 10 m: *Kerr 11286* (BK, L); Kaw Samui, in rock clefts by stream, 100 m: *Kerr 21516* (BK).
Trang, Ampo Kao Kan, near stream: *Kabl 211* (BK); Kantang, common in swamp, under 50 m: *Smitinand 2919* (*RFD 12646*) (L).
Songkhla, in sandy ground by sea: *Kerr 15113* (BK).
Satul: *Ridley 14491, 14494* (BM, SING).
DISTR. Tropical and subtropical regions of the whole world.

112. C. TENUISPICA Steud., Syn. 2: 11. 1855; Kern, Reinw. 2: 116. 1952; 3: 38. 1954. — *C. filicidus* (non Retz.) F.B.I.: 600; F.I.C.: 51. f. 4, 12, excl. var. *africanus* Camus.
N. — Nakawn Sawan, Takli: *Put 1114* (BK).
S.E. — Chanburi, Makham, Ban Ang, common in wet localities, 330 m: *Hansuk 211* (L).
S.W. — Kanburi, common in wet ground, 50 m: *Smitinand 3958* (*RFD 14094*) (L).
Also in Hainan: Ang Mae, dry paddy fields, 1700 ft: *Eryl Smith 83* (BK).
DISTR. Tropical Africa, Asia (extending to China and Japan), and Australia.

113. C. CUSPIDATUS Kunth in H.B.K., Nov. Gen. & Sp. 1: 204. 1815; F.B.I.: 598. — *C. squarrosus* (non L.) F.I.C.: 58. — *C. uncinatus* (non Poir.) Mat. F.M.P.: 64; F.I.C.: 47. f. 4, 5—6; Turr.: 422; F.M.P.: 141.
N. — Mae Hawngsawn, lawn, 400 m: *Smitinand 4374* (L); Lampang, Hang Chat, common in open dry *Dipterocarpus* forest, 300 m, local name *kok rongkha puk*: *Winit 1950* (BK, BKF).
N.E. — Nakawn Panom, Muk Taban, on gravel in open deciduous forest, 100 m: *Kerr 5393* (BK).
E. — Nakawn Rachasima, Kornat, on sandy soil in open deciduous forest, 200 m: *Kerr 8085* (BK).
S.E. — Chantaburi: *Vesterdal 81* (SING); Lem Sing: *Nai Noe 148* (BK).
Trat, Kaw Chang, Pak Khlawk, common in paddy fields and scrub jungle, under 10 m: *Hansuk 241* (*RFD 12515*) (L).
S.W. — Prachuap, Hua Hin, in open, grassy, sandy ground, near sealevel: *Kerr 13453* (BK).
PEN. — Surat, Kantuli: *Put 1182* (BK); Surat, Bangkaa, common in sandy soil in evergreen jungle, under 50 m: *Phlaevehit 317* (*RFD 12956*) (L).
DISTR. Pantropic.

114. C. CASTANEUS Willd., Sp. Pl. 1: 278. 1797; F.B.I.: 598; Mat. F.M.P.: 63; F.I.C.: 46. f. 4, 8—11; F.M.P.: 141. — *C. amabilis* (non Vahl) F.I.C.: 45.
C. — Nakawn Nayok, on the way to Nang Nawng, rocky ground, 100 m: *Smitinand 6081* (L).
DISTR. Tropical Asia and Australia.

115. C. SQUARROSUS L., Cent. Pl. 2: 6. 1756; Kern: 642. — *C. aristatus* Rottb., Progr.: 22. 1772; F.B.I.: 606.

S.W. — Prachuap, Hua Hin, on sandy ground in scrub, 5 m: *Kerr 13467* (BK); Ban Roi Yawt: *Put 2501* (BK).

DISTR. Tropical Africa, extending to S. Africa; tropical Asia to S. China and Malaysia; Australia; from S. Canada through the U.S.A. and tropical America to Argentina and Chile.

116. C. LEUCOCEPHALUS Retz., Obs. 5: 11. 1789; F.B.I.: 602, p.p.; Turr.: 422; Kern, Reinw. 3: 39. 1954; Kern: 644. — *Kyllinga pierreana* Camus, Not. Syst. 1: 290. 1910; F.I.C.: 27.

N. — Mae Hawngsawn, in dry *Dipterocarpus* forest, 400 m: *Smitinand 4568* (L).

N.E. — Loei, Wang Saphung, Sithan, 300 m, local name *yak faek mai*: *Dee 2* (BK); *4907*).

Nakawn Panom, Muk Dahan, in open deciduous forest, 200 m: *Kerr 21447* (BK); Khawnkaen, Chumpae, common by roadsides in sandy soil, 250 m: *Smitinand 5836* (L).

E. — Srisaket, Kanthrarom, in scrub jungle near village, 200 m: *Smitinand 588* (BK); *5136*) (L).

S.E. — Chanburi, Makham, common in the plain, 130 m: *Bunnak 231* (*RFD* 8[illegible]) (L); along edge of thicket, 20 m: *Smitinand 5743* (*RFD 21509*) (L).

Krabin, Aranya, in deciduous forest, under 50 m: *Kerr 19305* (BK).

S.W. — Kanburi, Pa-pu-thong, on level area of mixed forest, 165 m: *Bunnak 841* (L).

DISTR. S.E. Asia.

117. C. NIVEUS Retz., Obs. 5: 12. 1791; F.B.I.: 601; Kern: 644. — *C. leucocephalus* (*non* Retz.) F.I.C.: 51.

N. — Mae Hawngsawn, in dry *Dipterocarpus* forest, 400 m: *Smitinand 4971* (L).

Nakhawn Sawan, Hua Wai: *Put 4067* (BK).

S.W. — Kanburi, Kao Tawng, in open deciduous forest on limestone hill, 100 m: *Kerr 19715* (BK); Wang Kanai, abundant in open deciduous forest, 50—100 m: *Kerr 12846* (BK).

DISTR. S. Asia.

118. C. CEPHALOTES Vahl, En. 2: 311. 1806; F.B.I.: 597; F.I.C.: 46, f. 4, 1—4; Turr.: 421.

E. — Nakawn Rachasima, Korat, open marshy ground, 200 m: *Kerr 8087* (BK).

C. — Bangkok, in open marsh with *Salvinia sp.*: *Kerr 8978* (BK).

PEN. — Surat, forming, with *Salvinia sp.*, floating islands in the river, under 10 m: *Kerr 11284* (BK), *Kerr 11288* (BK); Bandon: *Seidenfaden 2008* (SING); Khao Tale Lake: *Seidenfaden 2391* (SING), *2360* (SING).

DISTR. S. and S.E. Asia, Malaysia, tropical Australia.

In *Kerr 11288* and *Seidenfaden 2008*, both from Surat, the leaves are much narrower than usual, but the glumes, nuts, etc. are as in typical *Cyperus cephalotes*.

119. C. PYGMAEUS Rottb., Descr. & Ic.: 20, t. 14, f. 4, 5. 1773. — *Juncellus pygmaeus* (Rottb.) Clarke, Fl. Br. Ind. 6: 596. 1893; F.I.C.: 38; Turr.: 421.

N. — Me Ping Rapids, Kaeng Um Luk, on sandy heath: *Suvatabandhu s.n.* (BK).
N.E. — Nakawn Panom, on sand-bank in river, 200 m: *Kerr 21382* (BK).
C. — Bangkok: *Feilberg s.n.* (C); Bangkok, in dried up mud of rice-field: *Kerr 6764* (BK).
S.E. — Chanburi, Makham, near water, 20 m: *Smitinand 5747* (L).
DISTR. N. and E. Africa, S. and E. Asia to Australia.

120. C. UNIOLOIDES R. Br., Prodr.: 216. 1810; Koy. 1955: 213; 1957: 32; Kern: 645. — *C. angulatus* Nees in Wight, Contr. Bot. Ind.: 73. 1834. — *Pycreus angulatus* (Nees) Nees, Linnaea 9: 283. 1834; F.B.I.: 593; F.I.C.: 35. — *Pycreus unioloides* (R. Br.) Urb., Symb. Ant. 2: 164. 1900; Turr.: 421.

N.E. — Loei, Phu Krading, in savannah, 1300 m: *Smitinand 1952, 5845, 5933* (L).
C. — Chaibadan, Dong Pya Yen, in marshy savannah, 100 m: *Kerr 8007* (BK).
DISTR. Pantropic.

121. C. SANGUINOLENTUS Vahl, En. 2: 351. 1806. — *Pycreus sanguinolentus* (Vahl) Nees, Linnaea 9: 283. 1834; F.B.I.: 590; Mat. F.M.P.: 60; F.I.C.: 30; F.M.P.: 139.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 21864* (BK).
DISTR. Warmer parts of the Eastern Hemisphere.

122. C. GLOBOSUS All., Fl. Pedem. Auct.: 49. 1789; Koy. 1955: 213; 1957: 32. — *C. capillaris* Koenig *ex* Roxb., Fl. Ind. 1: 198. 1820. — *Pycreus globosus* (All.) Reichenb., Fl. Germ. Exc. 2: 140. 1830; F.I.C.: 31, f. 3, 10; Turr.: 421. — *Pycreus capillaris* (Roxb.) Nees, Linnaea 9: 283. 1834; F.B.I.: 591.

N.E. — Nakawn Panom, Paknam Songkram, on sand-bank in river, 200 m: *Kerr 21363* (BK).
S.W. — Kin Sayok, about 140 km NW of Kanburi, on limestone rock in marshy place, 100—150 m: *Kostermans 1239* (*Kwae Noi R. basin exp. 1946*) (BO, L).
DISTR. Warmer parts of the Eastern Hemisphere.

123. C. POLYSTACHYOS Rottb., Progr.: 21. 1772; Ridl. 1915: 168. — *Pycreus polystachyos* (Rottb.) Beauv., Pl. Oware & Benin 2: 48, t. 86, f. 2. 1807; F.B.I.: 592; F. KC.: 81; Will.: 223; Mat. F.M.P.: 60; Hoss. 1910: 458; 1911b: 370; Ridl. 1911: 220; F.I.C.: 34; F.M.P.: 139. — *C. odoratus* (*non* L.) Kük.: 55.

C. — Bangkok, waste ground: *Kerr 3864* (BK); on low-lying open ground: *Kerr s.n.* (BK).

S.E. — Mouth of Chantabun River, on edge of road running through salt marsh, under 5 m: *Kerr 17586* (BK).
Koh Chang, Lem Dan: *Joh. Schmidt 748a* (C).
S.W. — Prachuap, Ban Nawng Kang, open ground, under 50 m: *Kerr 10822* (BK).
Kaw Tao, in rock crevices near sea: *Kerr 16022* (BK).
Chumphawn, Bang Son: *Put 1547* (BK, L).
PEN. — Surat, Ban Dawn, in tidal swamp at mouth of Ban Dawn R.: *Kerr 18* (BK, L); Kaw Samui, on open rocks by stream, 200 m: *Kerr 12577* (BK); Ko Samui, Ban Bua Put, in open scrub, under 5 m: *Kerr 15708* (BK).
Trang, Ampo Kao Kao, near stream, local name *kok kima*: *Rabil 240* (BK).
Satul: *Ridley s.n.* (SING); Satul, Butang, in rocky ground by sea: *Kerr* (BK).
DISTR. Warmer parts of the whole world.

124. C. SULCINUX Clarke, Journ. Linn. Soc. 21: 56. 1884. — *Pycreus sulcinux* (Clarke) Clarke, Fl. Br. Ind. 6: 593. 1893; F. KC.: 82; Will. 224; Hoss. 1910: 458.
S.E. — Koh Chang, Lem Dan: *Joh. Schmidt s.n.* (C).
Also in Cambodia: "Mainland opposite Koh Kong": *Joh. Schmidt 360 p.p.* (C).
DISTR. From India to S. China and tropical Australia.

125. C. PUMILUS L., Cent. Pl. 2: 6. 1756. — *C. nitens* Retz., Obs. 13. 1789; Hoss. 1911a: 372. — *Pycreus nitens* (Retz.) Nees, Nov. Act. Nat. Cur. 19, Suppl. 1: 53. 1843; F.B.I.: 591; Mat. F.M.P.: 61; Hoss. 1910: 458; 1911b: 370; F.I.C.: 33; Turr.: 421; F.M.P.: 140.
N. — Chiengmai, 1000 ft: *Kerr 862* (L).
Phrae, Mo Ban: *C. W. Fyuock 1226* (C).
N.E. — Loei, Phu Krading, 1300 m: *Smitinand 1947* (L).
E. — Korat, Pak Tong Chai, open sandy ground, 200 m: *Kerr 8111* (BK).
C. — Nakawn Sawan, Wang Djao, common in savannah-forest: *Hossens 104* (BM).
S.E. — Chantabun, Lem Sing: *Nai Noe 126* (BK); Chantaburi, Makham, Khlawng Pong, common by stream, 50 m: *Smitinand 1538* (*RFD 19723*) (L).
S.W. — Kanburi, common in wet locality, 50 m: *Smitinand 2860* (*RFD 16093*) (L).
PEN. — Surat, Bandon, Aerodrome Road, humid sandy flats: *Seidenfaden 3429* & *24397*) (C, SING).
DISTR. From India to S. China and tropical Australia.

126. C. DIAPHANUS Schrad. *ex* R. & S., Mant. 2: 477. 1824; Kern 644. — *C. latespicatus* Boeck., Flora 42: 441 ("433"). 1859. — *Pycreus latespicatus* (Boeck.) Clarke, Fl. Br. Ind. 6: 590. 1893; F.I.C.: 30.
N.E. — Loei, Phu Krading, Rest House, in savannah, 1500 m: *Smitinand 3843* (L).
S.E. — Prachinburi, Aran Prathet, in open marshy ground, 50 m: *Kerr 19577* (BK, K).
DISTR. From Central Asia to India and Malaysia.

127. C. SUBSTRAMINEUS Kük., Pflanzenr. Heft 101: 398. 1936. — *C. stramineus* Nees in Wight, Contr. Bot. Ind.: 74. 1834, *non* Desf. (1820). — *Pycreus stramineus* (Nees) Clarke, Fl. Br. Ind. 6: 589. 1893; F.I.C.: 29.

PEN. — Phuket, Khan Pok Kasum: *Haniff & Nur SF 3805* (BO, K, SING).

DISTR. From Khasia and Ceylon through India to Farther India and the Malay Peninsula.

128. C. JAVANICUS Houtt., Nat. Hist. 2, 13: Aanw. pl. (1), t. 88, f. 1. 1782. — *C. pennatus* Lamk, Ill. 1: 144. 1791; Will.: 224; Hoss. 1910: 458; Kill.: 56. — *Mariscus albescens* Gaudich. in Freyc., Voyage Bot.: 415. 1826; F.B.I.: 623; F. KC.: 82; Mat. F.M.P.: 74; Ridl. 1911: 222; F.I.C.: 78; F.M.P.: 149.

C. — Bangkok, waste ground: *Kerr 3883* (BK); Bangkok, Wat Sing, shady ground inundated at high tide, under 5 m: *Kerr 6706* (BK); Bangkok, Bangkapi, bank of pond: *Rambrahm 9* (BK).

S.E. — Trat, Kaw Chang, Khlawng Nonsi, sandy soil, 5 m: *Smitinand 5635* (L); Koh Lem W of Koh Chang: *Joh. Schmidt 716a* (C); Lem Ngob, inner margin of mangrove: *Joh. Schmidt 46* (C).

PEN. — Surat, Kaw Tao, in tidal marsh: *Kerr 11227* (BK).

DISTR. From tropical Africa and Madagascar through S. Asia to S. China, the Riu Kiu Islands and Formosa, to the Pacific Islands and through Malaysia to tropical Australia.

129. C. COMPACTUS Retz., Obs. 5: 10. 1789. — *C. dilatus* Vahl, En. 2: 357. 1806; Will.: 224; Hoss. 1910: 458; Kill.: 56. — *Mariscus microcephalus* Presl, Rel. Haenk. 1: 182. 1828; F.B.I.: 624; F. KC.: 83; Mat. F.M.P.: 74; Ridl. 1911: 221; 1920: 124; Turr.: 423; F.M.P.: 149. — *Sphaeromariscus microcephalus* (Presl) Camus in Lecomte, Not. Syst. 1: 239. 1910; F.I.C.: 79.

C. — Chaibadan, Dong Pya Yen, edge of savannah, 100 m: *Kerr 8012* (BK).
Bangkok, waste ground: *Kerr 3865* (BK); by marshy pool: *Kerr s.n.* (BK).
Nontaburi, local name *kok: Varnichgorn 18* (BK).

S.E. — Prachinburi, near Sriracha, 30 ft: *Mrs Collins 1886* (BK); Chanburi, Pong Nam Rawn, Wang Kaphae, 120 m: *Smitinand 8347* (*RFD 15677*) (L).

S.W. — Kanburi, Wang Ka: *Put 22* (BK).
Near Neeckey, near Wangka, rather common in open space among other *Cyperaceae* and *Gramineae*, 150 m: *den Hoed 325* (*Kwae Noi R. basin exp. 1946*) (L); marshy plain near Ku Jae, c. 150 km W of Kanburi: *Kostermans 1322* (*Kwae Noi R. basin exp. 1946*) (L).

PEN. — Satul, Khuan Pho, in savannah, 20 m: *Kerr 13761* (BK).
Dha Luang (Royal Landing): *Hugh M. Smith 158* (SING).

DISTR. From India to S. China, Formosa, and Malaysia.

130. C. STENOPHYLLUS Valck. Sur., Nova Guinea 8: 701, t. 114. 191
S.T. Blake, Journ. Arn. Arb. 28: 221. 1947.

S.E. — Prachinburi, Aran Prathet, marshy ground in open deciduous forest, 1
Kerr 19618 (BK).

DISTR. Solomon Islands, Melanesia, Malaysia.

131. C. CYPEROIDES (L.) O. Kuntze, Rev. Gen. Pl. 3, 2: 333. 1898. —
Scirpus cyperoides L., Mant. 2: 181. 1771. — *Mariscus sieberianus* N
ex Clarke, Fl. Br. Ind. 6: 622. 1893; Mat. F.M.P.: 72; F.M.P.: 148. —
Mariscus umbellatus var. *sieberianus* (Clarke) Camus, Fl. Gen. I.-C. 7: 7
1912.

N. — Chiengrai, Doi Hu Mot, Mae Lao, on ridge, 1450 m: *Smitinand 772* (BKF).
Lampang, Ngao, Mae Huat, common in deciduous forest, 360 m: *Bunnak 5* (RF
11280) (L).
Mae Hawngsawn, in dry *Dipterocarpus* forest, 400 m: *Smitinand 4572* (L).
Phetchabun, Lomkao, Phu Hee, common in oak forest, 860 m: *Smitinand*
(*RFD 15135*) (L).

N.E. — Nakawn Panom, Muk Dahan, in deciduous forest, 200 m: *Kerr 21518* (BK

S.W. — Kin Sayok, c. 120 km NW of Kanburi, mixed forest along river: *Kostermans 1212* (*Kwae Noi R. basin exp. 1946*) (L); Birmese border, Tripagodas, 40
N of Wangka, sandy soil near railroad, 280 m: *Wiehian 337* (*Kwae Noi R. ba
exp. 1946*) (BK, BO, L, PNH, SING); near Neeckey, near Wangka, sandy
near Ran Ti River, 150 m: *Wiehian 192* (*Kwae Noi R. basin exp. 1946* (BK,
PNH, SING); Brangkasi, along paths: *den Hoed & Kostermans 886* (*Kwae N
R. basin exp. 1946*) (L).

PEN. — Surat, Kaw Tao, in evergreen forest near sea, 10 m: *Kerr 11160* (BK); sa
locality, on open sandy ground by sea, near sealevel: *Kerr 12736* (BK).

DISTR. Tropics and subtropics of Africa, Asia, and Australia; in th
West Indies presumably introduced.

132. C. CYPERINUS (Retz.) Valck. Sur., Gesl. Cyp. Mal. Arch.: 15
t. 6, f. 10. 1898. — *Kyllingia cyperina* Retz., Obs. 6: 21. 1791. — *Marisc
cyperinus* (Retz.) Vahl, En. 2: 377. 1806; F.B.I.: 621; Mat. F.M.P.: 7
Ridl. 1911: 221; Turr.: 423; F.M.P.: 149. — *Mariscus umbellatus* va
cyperinus (Retz.) Camus, Fl. Gén. I.-C. 7: 77. 1912.

N. — Mae Hawngsawn, in dry *Dipterocarpus* forest, 400 m: *Smitinand 4572 A* (L).
Nakawn Sawan, Me Wong, damp ground by stream in mixed forest, 300
Kerr 6053 (BK).

N.E. — Loei, Phu Krading, Sain Khae, by path in evergreen forest, 1100 m: *Smitin
5934* (L).
Nakawn Panom, Muk Dahan, Pu Mano, in deciduous forest, 200 m: *Kerr 21*
(BK).

S.E. — Krabin, Aranya, in deciduous forest, under 50 m: *Kerr 19331* (BK).
Trat, Kaw Chang, Khlawng Nonsi, in sandy soil, 5 m: *Smitinand 5653* (L); K
Kut, in cocoanut plantation, 5 m: *Smitinand 5707* (L).

S.W. — Prachuap, Kao Luang, open ground, 1200 m: *Kerr 19843* (BK).
PEN. — Surat, Kaw Samui, sandy ground in cocoanut plantation, near sealevel: *Kerr 12026* (BK).
Nakawn Seithamarat, Sichon, in scrub, under 50 m: *Kerr 13487* (BK).
Satul: *Ridley 14811* (BM, K, SING).
DISTR. From S.E. Asia through Malaysia to Melanesia, Polynesia, and Queensland.

133. C. PANICEUS (Rottb.) Boeck., Linnaea **36**: 381. 1870. — *Kyllinga panicea* Rottb., Descr. & Ic.: 15, t. 4, f. 1. 1773.

In Thailand:
var. ROXBURGHIANUS (Clarke) Kük., Pflanzenr., Heft **101**: 526. 1936. — *Mariscus paniceus* var. *roxburghianus* Clarke, Fl. Br. Ind. 6: 621. 1893; Turr.: 423.
E. — Korat, Ban Chumsaeng, in paddy field: *Nai Noe 197* (BK).
DISTR. of the variety: India, Java, Madura.

134. C. DUBIUS Rottb., Descr. & Ic.: 20. t. 4, f. 5. 1773. — *C. kyllingioides* Vahl, En. 2: 312. 1806; Kill.: 55. — *Mariscus dregeanus* Kunth, En. 2: 120. 1837; F.B.I.: 620; Mat. F.M.P.: 72; Ridl. 1911: 221; Turr.: 423; F.I.C.: 75; F.M.P.: 148. — *Mariscus merrillii* Clarke, Philip. Journ. Sc. 2, Bot.: 87. 1907. — *C. merrillii* (Clarke) Kük., Pflanzenr., Heft **101**: 562. 1936.
N.E. — Nakawn Panom, Muk Dahan, Pu Mano, in deciduous forest, rocky ground, 200 m: *Kerr 21426* (BK).
E. — Korat, Ban Chumsaeng: *Put 2852* (BK).
C. — Saraburi, Menam Sak, mixed deciduous forest, 40 m: *Kerr 7023* (BK, SING).
S.W. — Kanburi, Ta Salao, in open grassy forest, 50 m: *Kerr 18459* (BK), *Put 3056* (BK).
Prachuap, in crevices of limestone rocks by sea: *Kerr 10724* (BK).
Plant brought from Bangtaphan, now (4.3.1928) flowering in Bangkok: *Kerr 14383* (BK).
PEN. — Surat, Kaw Tao, in rock clefts near sea: *Kerr 11241* (BK); Kaw Samui, Ban Bua Put, sandy ground near sea: *Kerr 15696* (BK).
Satul, Adang, in crevices of rock near sea, 5 m: *Kerr 14089* (BK); Satul: *Ridley 14812* (K, SING).
DISTR. In the African steppes; S. Asia to S. China and Malaysia.

In Reinwardtia **3**: 59. 1954 I referred *Kerr 7023* to *Cyperus merrillii* on account of the narrow glumes and nuts. I then already came to the conclusion that the only reliable characters to distinguish between *C. dubius* and *C. merrillii* seem to be found in the shape of the glumes and the nuts. Since I have seen numerous collections from continental Asia perfectly connecting the two, and it appeared that no doubt they are conspecific.

135. C. PEDUNCULATUS (R. Br.) Kern, Act. Bot. Neerl. 7: 798. 19
— *Remirea maritima* Aubl., Hist. Pl. Guian. Franç. 1: 45, t. 16. 17
F.B.I.: 677; F. KC.: 92; Will.: 225; Mat. F.M.P.: 99; Hoss. 1910: 4
Ridl. 1911: 224; 1912: 63; F.I.C.: 155; F.M.P.: 169, *non Cyperus ma*
timus Poir. — *R. pedunculata* R. Br., Prodr.: 236. 1810.

S.E. — Kaw Chang, Khlawng Kloi, on sandy ground close to sea: *Kerr s.n.* (BK).
S.W. — Prachuap, Kao Tao, sandy ground by sea: *Kerr 16188* (BK).
PEN. — Surat, Kaw Samui, in sand on sea-beach: *Kerr 12586* (BK).
Satul, islet off Tenga, in sand of beach: *Kerr 14156* (BK); Pulau Ad
Ridley 15675 (SING).
DISTR. All tropical seacoasts.

136. C. ODORATUS L., Sp. Pl. 1: 46. 1753; Dandy in Exell, Cat. Va
Pl. S. Thomé: 360. 1944. — *Torulinium ferax* Ham., Prodr. Pl. Ind. Or.
15. 1825. — *Mariscus ferax* (Ham.) Clarke, Fl. Br. Ind. 6: 624. 1893. —
Mariscus sieberianus var. *evolutior* (*non* Clarke) Mat. F.M.P.: 73, *p.p.*
F.M.P.: 149, *p.p.*

N.E. — Nakawn Panom, Muk Dahan, on sand-bank in river, 200 m: *Kerr 21416* (BK
DISTR. All warm parts of the Old and New World.

137. C. TRICEPS (Rottb.) Endl.; Cat. Hort. Ac. Vindob. 1: 94. 18
— *Kyllinga triceps* Rottb., Descr. & Ic.: 14. 1773; F.B.I.: 587. — *Ky*
linga cylindrica (*non* Nees) Mat. F.M.P.: 59; F.M.P.: 137.

E. — Srisaket, Kanthrarom, common in scrub jungle near village, 200 m, local na
sam pi baw haeng: *Smitinand 587* (*RFD 5135*) (L).
S.W. — Kanburi, Pa-pu-thong, in mixed forest, 165 m: *Bunnak 840* (L).
DISTR. Tropical Africa, Asia, and Australia.

138. C. SESQUIFLORUS (Torr.) Mattf. & Kük., Pflanzenr., Heft 10
591. 1936.

In Thailand:

var. CYLINDRICUS (Nees) Kük., l.c., p. 593. — *Kyllinga cylindri*
Nees in Wight, Contr. Bot. Ind.: 91. 1834; F.B.I.: 588; F.I.C.: 23.

N. — Chiengmai, Me Ten, in open evergreen forest, 700 m: *Kerr 6472* (BK); D
Suthep, common in hill evergreen forest, 1100 m, local name *yah dawk*: *Sarn*
112 (*RFD 3858*) (BKF).
DISTR. of the variety. Tropical Africa, S.E. Asia to Yunnan an
Formosa, Malaysia.

139. C. BREVIFOLIUS (Rottb.) Hassk., Cat. Hort. Bog.: 24. 1844. —
Kyllinga brevifolia Rottb., Descr. & Ic.: 13, t. 4, f. 3. 1773; F.B.I.: 58
Mat. F.M.P.: 58; F.I.C.: 24, f. 3, 3—6; Turr.: 421; F.M.P.: 138; Kill.: 5

S.—Chiengmai, Doi Suthep, common by stream in damp ground, 1100 m: *Smitinand 118 (RFD 6162)* (BKF); Doi Chiengdao, abandoned clearings, 1400—1500 m: *Kerr 6629* (BK).

S.E.—Chanburi, Thung Mala, common in wet localities, 130 m: *Brunnak 197* (L).

S.W.—Near Neeckey, near Wangka, 150 m: *den Hoed 145 (Kwae Noi R. basin exp. 1946)* (BK, L).

PEN.—Surat, under 10 m: *Kerr 11306* (BK); Bangtao, common by river in old clearings, under 50 m: *Phloenchit 858 (RFD 12932)* (L); Kantuli: *Put 4182* (BK).
Nakawn Srithamarat, Khiriwong, 100 m: *Phloenchit 358 (RFD 11576)* (L).
Songkhla, Saba Yoi, open wet ground, under 50 m: *Kerr 14794* (BK).
DISTR. Pantropic.

140. C. KYLLINGIA Endl., Cat. Hort. Ac. Vindob. 1: 94. 1842. — *Kyllinga monocephala* Rottb., Descr. & Ic.: 13, t. 4, f. 4, 1773; F.B.I.: 588; F. KC.: 80; Mat. F.M.P.: 58; Hoss. 1910: 459; Ridl. 1911: 220; F.I.C.: 25, f. 3, 1—2; Turr. 421; Ridl. 1920: 124; F.M.P.: 138. — *C. monocephalus* (Rottb.) F. v. M., Fragm. 8: 271. 1874; Will.: 224, *non* Roxb. (1832).

N.—Chiengmai: *Kerr s.n.* (BK).

C.—Bangkok, in wet place (collector?); Krungthep, Khao Din, common in waste ground, under 10 m, local name *yak tuwhu*: *Dee RFD 9134* (L).

S.E.—Trat, Koh Chang: *River Nielsen 696* (C).

S.W.—Kanburi, Wang Pra: *Put 28* (BK); Brangkasi, common along paths, 150 m: *den Hoed & Kostermans 588 (Kwae Noi R. basin exp. 1946)* (L); near Neeckey, near Wangka, 150 m: *den Hoed 148 (Kwae Noi R. basin exp. 1946)* (BK, BO, L, SING).
Rangtaphan: *Keith 341* (SING).

PEN.—Surat, Bandon River: *Seidenfaden 2225* (C, SING).
Nakawn Srithamarat, Khao Luang, common in evergreen jungle, 600 m, local name *yak nuai fai*: *Smitt 251 (RFD 13007)* (L); Khiriwong, common on sandy bank of stream, 200 m: *Phloenchit 253 (RFD 8953)* (L).
Tung Song, Ao Wang Kram, in valley, local name *ya nui fai*: *Rabil 210* (BK).
Without exact locality: *Mrs Collins 850* (BK).
DISTR. Pantropic.

XII. RHYNCHOSPORA Vahl

141. R. CORYMBOSA (L.) Britt., Transact. N.Y. Ac. Sc. 11: 84. 1892. — *Scirpus corymbosus* L., Cent. Pl. 2: 7. 1756. — *R. aurea* Vahl, En. 2: 229. 1806; F.B.I.: 670; F. KC.: 91; Will.: 225; Mat. F.M.P.: 83; Hoss. 1910: 463; Ridl. 1911: 224; F.M.P.: 164.

C.—Nontaburi: *Varnichgorn 29* (BK).
Bangkok, on bank of open tidal canal: *Kerr 6956* (BK); Bangkok, Klong side: *Fryl Smith 339* (BK).

PEN.—Trang, Ampo Kao Kao, near stream, local names *ya koubang* or *ya tamhong*: *Rabil 238* (BK); Chawng, common by stream, 100 m: *Smitinand 4681* (L).
DISTR. Pantropic.

142. R. HOOKERI Boeck., Linnaea 37: 621. 1873; F.B.I.: 671; Ke Blumea 9: 230. 1958.

S.E. — Prachinburi, Aran Prathet: *Put 1991* (BK).

S.W. — Marshy plain near Ku-Jae, c. 150 km NW of Kanburi, 100—150 m: *Kostern 1309* (L), *1324* (*Kwae Noi R. basin exp. 1946*) (BO, L, SING).

PEN. — Surat, Kanchanadit, in marshy ground, 5 m: *Kerr 13064* (BK, K, L).

Without exact locality: *Howard 27* (K).

DISTR. India, Burma, Tonkin, Malay Peninsula, W. Java, everywh scattered.

143. R. RUBRA (Lour.) Makino, Bot. Mag. Tokyo 17: 180, t. 7, f. b. 1903. — *Schoenus ruber* Lour., Fl. Cochinch. 1: 41. 1790. — *R. r lichiana* Kunth, En. 2: 289. 1837; F.B.I.: 668; Mat. F.M.P.: 82; Ridl. 1 224; F.I.C.: 145; Turr.: 426; F.M.P.: 164.

N. — Chiengmai, Doi Suthep, in gravelly soil in dry deciduous forest, 700 m: *Smit 3998* (*RFD 16096*) (L).

N.E. — Loei, Phu Kradung, Rest House, in savannah, 1300 m: *Smitinand 5851* (B *11617*) (L).

S.E. — Chanburi, Makham, common in the plain, 20 m: *Smitinand 5764* (L). Trat, Huay Raeng, Dong Maduae, common in rice-field, under 50 m: *Smit 1852* (*RFD 6771*) (L).

S.W. — Ku-Jae, c. 150 km NW of Kanburi, grey loam soil, dry gravel, hilly, 10 150 m: *Kostermans 1268* (*Kwae Noi R. basin exp. 1946*) (L). Chumphawn, Ban Tung Maha, common in savannah, 20 m: *Kerr 11415* (B

PEN. — Surat, Kanchanadit, very common in savannah, 5 m: *Kerr 13103* (BK). Patalung, Sak, very common in savannah, under 50 m: *Kerr 19238* (BK). Pattani, Banang Sta, on dry mud in open ground, 50 m: *Kerr 7309* (BK). Satul, in grassy savannah, 5 m: *Kerr 13658* (BK).

DISTR. From S.E. Asia through Malaysia to tropical Australia a Oceania.

144. R. LONGISETIS R. Br., Prodr.: 230. 1810; F.B.I.: 669; Ost.: Ti Hoss. 1910: 463; 1911a: 372; 1911b: 371; Turr.: 426. — *R. musc* Camus, Not. Syst. 1: 249. 1910; F.I.C.: 147.

N. — Chiengmai: *Kerr 1595 B* (L). Nakawn Sawan, Wang Djao, wet localities in savannah forest, common: *Hos 132* (E, L).

S.W. — Petchaburi, Tung Luang, in open sandy ground, under 50 m: *Kerr 20641* (B Prachuap, Hua Hin, in open grassy sandy ground, 5 m: *Kerr 13498* (BK).

DISTR. Central India, Burma, Cambodia, New Guinea, tropical Au tralia.

145. R. SUBMARGINATA Kük., Bot. Jahrb. 74: 498. 1949; Kern, B mea 9: 231. 1958. — *R. marginata* Clarke, Kew Bull. add. ser. 8: 89. 19 *non* Steud. (1855). — *R. wightiana* (*non* Steud.) F.I.C.: 146; F.M.P.: 16

S.E.—Chanburi, Makham, Noen Tabok, common in the field, 120 m: *Bunnak 195 (RFD 3612)* (L); Chantaboon: *Vesterdal s.n.* (SING).
S.W.—Ratburi, open grassy ground, under 50 m: *Kerr 8988* (BK).
PEN.—Surat, on rice-field bunds, under 10 m: *Kerr 11248* (BK); Kanchanadit, open sandy ground, 5 m: *Kerr 13086* (BK); Bandon, Aerodrome Road: *Seidenfaden 2053* (SING).
Phuket, Khaw Pok Hill: *Haniff & Nur SF 3822* (SING).
Trang Huay Yawt, Thale Sawng Hawng, common on sandy banks of freshwater lake, 100 m: *Smitinand 3027 (RFD 17250)* (L).
Satul, heaths: *Ridley 14814, 14815* (SING).
Kantang: *Haniff & Nur SF 4708* (SING).
DISTR. India, Tonkin, Malay Peninsula, Sumatra, N. Australia.

146. R. RUGOSA (Vahl) Gale, Rhodora 46: 275, t. 835, f. 1A—B. 1944. — *Schoenus rugosus* Vahl, Eclog. Am.: 5. 1798. — *R. glauca* Vahl, En. 2: 233. 1806; F.B.I.: 671. — *R. chinensis* (*vix* Nees) Boeck., Linnaea 37: 586. 1873. — *R. glauca* Vahl var. *chinensis* Clarke, Fl. Br. Ind. 6: 672. 1893; Mat. F.M.P.: 84; Ridl. 1911: 224; F.M.P.: 165.
N.E.—Loei, Phu Krading, common in savannah, 1000—1300 m: *Smitinand 1851, 2109, 3013* (L); Kao Krading, in marshy ground, 1200 m: *Kerr 8724* (BK).
E.—Surin, Sangka, in open marshy ground, 300 m: *Kerr 8309* (BK).
Trat, Kao Kuap, in open grassy ground, 600 m: *Kerr 17729* (BK).
PEN.—Langsuan, by pool in open scrub, under 50 m: *Kerr 11932* (BK).
Krabi, Ao Luk, in marshy ground, 50 m: *Kerr 18566* (BK).
Nakawn Srithamarat, Ta Samet, open grassy ground, under 50 m: *Kerr 14308* (BK).
Songkhla, Saba Yoi, in sandy ground, under 50 m: *Kerr 14779* (BK).
Satul, in open marshy ground, 5 m: *Kerr 13743* (BK).
DISTR. Tropics and subtropics of the whole world.

147. R. GRACILLIMA Thwaites, En. Pl. Zeyl.: 435. 1864; F.B.I.: 671; Kern: 649.
S.E.—Loei, Phu Krading, common in savannah, wet localities, 1300 m: *Smitinand 1939* (L). *5948 (RFD 21537)* (L).
DISTR. Tropical Africa, S.E. Asia, Sumatra, New Guinea, N. Queensland.

XIII. TRICOSTULARIA Nees

148. T. UNDULATA (Thwaites) Kern, Act. Bot. Neerl. 8: 267. 1959. — *Cladium undulatum* Thwaites, En. Pl. Zeyl.: 353. 1864; F.B.I.: 674; Mat. F.M.P.: 86; Ridl. 1911: 224; F.I.C.: 152, f. 19, 2—8; F.M.P.: 167. — *Cladium pulchrum* Ridl., Journ. Fed. Mat. St. Mus. 6: 192. 1915; F.M.P.: 167.

PEN. — Surat, Kanchanadit, in savannah, 5 m: *Kerr 13138* (BK, BO), *13148* (BK)
Nakawn Srithamarat, Ta Samet, under 50 m: *Kerr 14379* (BK).
Pattani, in sandy ground, 25 m: *Kerr 7241* (BK, SING).
Satul, in open grassy ground: *Kerr 18718* (BK); Satul, heath: *Ridley* (SING).

DISTR. From N. Australia to Ceylon and Indo-China.

XIV. SCHOENUS L.

149. S. CALOSTACHYUS (R. Br.) Poir., Enc. Suppl. 2: 251. 1811; F.B.I. 673; Mat. F.M.P.: 85; F.I.C.: 150, t. 1, f. C, 6—9; F.M.P.: 166. — *Chaetospora calostachya* R. Br., Prodr.: 233. 1810.

PEN. — Ranawng, Kaw Chang, on sandy ground in *Melaleuca* forest, 5 m: *Kerr* (BK, BO, K).
Surat, Kantuli, near sea: *Put 1164* (BK); Kanchanadit, in savannah, 5 m: *Kerr 13137* (BK, BO, K).
Nakawn Srithamarat, Ta Samet, common in marsh, under 50 m: *Kerr 14378* (BK).
Pattani, on open grassy sandy ground, in loose tufts, near sealevel: *Kerr* (BK, K).

DISTR. From Australia and Micronesia to Thailand and the Riu Kiu Islands.

150. S. FALCATUS R. Br., Prodr.: 232. 1810; F.I.C.: 150. — *Lophocarpus tonquinensis* Boeck., Allg. Bot. Zeitschr. 2: 111. 1896. — *Neolophocarpus tonquinensis* (Boeck.) Camus, Fl. Gén. I.-C. 7: 149. 1912, quoad syn.

E. — Ubon, Muang Samsip, in tufts on saline sand, 100 m: *Kerr 8355* (BK).
S.W. — Kin Sayok, c. 120 km NW of Kanburi, 100—150 m: *Kostermans 1137* (Kwae Noi R. basin exp. 1946) (BO, L).
PEN. — Surat, Nawng Wai, in savannah, 50 m: *Kerr 12269* (BK, BO, L).
Satul, in savannah, 50 m: *Kerr 14411* (BK).

DISTR. From Northern Australia and the Solomon Islands to Thailand, Formosa, and the Riu Kiu Islands.

In typical *Schoenus falcatus* the nuts are distinctly scrobiculate, i.e. marked by numerous shallow pits. In *Kerr 8355* they are markedly different by the inflated epidermal cells which give a bullate appearance to their surface. The specimen may represent a separate race of *S. falcatus*.

XV. GAHNIA J.R. & G. Forst.

151. G. TRISTIS Nees in Hook. & Arn., Bot. Beech. Voy.: 228. 1837; Mat. F.M.P.: 98; F.M.P.: 168; Raymond, Mém. Jard. Bot. Montréal no. 54: 75. 1959. — *G. boniana* Boeck., Allg. Bot. Zeitschr. 2: 141. 1896; F.I.C.: 154. — *G. stricta* Boeck., l.c. 142; F.I.C.: 155.

N.E. — Loei, Phu Krading, near Rest House, common by stream along edge of evergreen jungle, 1300 m: *Smitinand 1886 (RFD 10935)* (L).

S.E. — Trat, Kao Kuap, rocky ground in light evergreen forest, 700 m: *Kerr 17778* (BK).

Trang, Sikao, in open evergreen forest on sandy soil, under 50 m: *Kerr 19006* (BK).

Songkhla, Kampangpet, in open forest on sandy ground, 50 m: *Kerr 15915* (BK).

DISTR. S. China, Riu Kiu Islands, Indo-China, W. Malaysia. The record "Moluccas" (Benl, Bot. Arch. **40**: 183. 1940; Raymond, l.c.: 76) refers to a specimen of *G. aspera* (R. Br.) Spreng., a closely related eastern species.

XVI. SCLERIA Berg.

152. S. CARICINA (R. Br.) Benth., Fl. Austr. 7: 426. 1878; F.B.I.: 688; Mat. F.M.P.: 111; Ridl. 1911: 225; F.M.P.: 178. — *Diplacrum caricinum* R. Br., Prodr.: 241. 1810; F.I.C.: 157.

N. — Den Jaya, *Franck 982* (C).

C. — Bangkhen, evergreen forest, marsh: *Murata 2559* (BM, K).

S.E. — Near Sriracha, rice-fields, very frequent, 10—20 ft: *Mrs Collins 1888* (BM, K), *1927* (BK, K), *1952* (BK, K), *2251* (BM).

Chantaburi: *Vesterdal 401* (C, SING).

Trat, Hui Rong, in evergreen scrub, 5 m: *Kerr 17593* (BK, BM); Kaw Chang, Salak Kawk, in open scrub, 10 m: *Kerr 9225* (BM, K).

PEN. — Ranawng, La-un, in open grassy ground, 10 m: *Kerr 16549* (BK, BM, K).

Surat, in open scrub: *Kerr 11287* (BM, K); Khun Tale Lake: *Seidenfaden 2325* (C, SING); Kaw Samui, Ban Bua Put, in open scrub, under 5 m: *Kerr 15709* (BK, BM, K).

Phuket, Khaw Pok Hill, in lallang (*Imperata*), 1500 ft: *Haniff & Nur SF 2847* (K, SING).

Satul, heaths: *Ridley 14808* (BM, K, SING); Satul, Khuan Pho, common roadside weed, 20 m: *Kerr 18770* (BK, BM, K).

DISTR. S. and S.E. Asia, Malaysia, tropical Australia.

153. S. **reticulata** (Holtt.) Kern, *comb. nov.* — *Diplacrum reticulatum* Holtt., Gard. Bull. Sing. **11**: 295, f. 6. 1947.

PEN. — Surat, Ban Na: *Yuang 51* (K).

DISTR. Also known from the Malay Peninsula (Pahang, Gua Tipus; type locality), East Bengal, and Lower Burma (Kyaukpyu Isl.).

A very remarkable species, closely similar in habit to *S. caricina*. Holttum distinguishes it by the turbinate, not cylindric, female spikelets with entire glumes, and by the broader reticulate nuts. An additional differentiating character is to be found in the nervation of the glumes of the female spikelets: strongly many-nerved in *S. caricina*, faintly few-nerved

with only the midrib prominent in *S. reticulata*. To me the differences in the nut are inconspicuous if any. The nut in *S. caricina* is very variable and in some specimens I found it hardly distinguishable from that of *S. reticulata*.

154. S. LEVIS Retz., Obs. 4: 13. 1786; S. T. Blake, Journ. Arn. Arb. 35: 226. 1954. — *S. hebecarpa* Nees in Wight, Contr. Bot. Ind.: 117. 1834; F.B.I.: 689; Mat. F.M.P.: 113; Ridl. 1911: 225; F.I.C.: 166.

N. — Chiengmai, Doi Suthep, in dry deciduous forest, 700 m: *Smitinand 3989* (BKF); *Kerr 1269* (BM).
Kamphaeng Phet, common in teak forest, 200 m: *Smitinand 6110* (L).

S.E. — Chanburi, Makham, common in thickets, 50 m: *Smitinand 5745* (L).
Trat, among undergrowth along edge of evergreen forest, 50 m: *Smitinand* [illegible] (BKF).

S.W. — Kanburi, Hin Dat: *Put 62* (BK, BKF, BM, BO, L).
Brangkasi, along forest paths, 150 m: *den Hoed & Kostermans 650* (*Kwae Noi R. basin exp. 1946*) (L).
Near Kin Sayok, c. 120 km NW of Kanburi, mostly dry limestone rocks, bamboo thicket, 100 m: *Kostermans 1099* (*Kwae Noi R. basin exp. 1946*) (BO, L).
Ratburi, in deciduous forest, under 50 m: *Kerr 9036* (BK, BKF, BM).

PEN. — Surat, in evergreen scrub, under 10 m: *Kerr 11259* (BK, BKF, BM, BO, K).
Satul, heaths: *Ridley 14807* (SING).

DISTR. From India through S. Asia to Japan and through Malaysia to Queensland and New Caledonia.

155. S. TERRESTRIS (L.) Fass., Rhodora 26: 159. 1924; S. T. Blake, Proc. Roy. Soc. Queensl. 62: 89. 1952; Journ. Arn. Arb. 35: 228. 1954. — *Zizania terrestris* L., Sp. Pl. 2: 991. 1753. — *S. elata* Thwaites, En. Pl. Zeyl.: 353. 1864; F.B.I.: 690; Mat. F.M.P.: 114; F.I.C.: 167; Turr.: 426; F.M.P.: 179.

N. — Chiengmai, Chiengdao, common in evergreen forests, 1030 m: *Khanthachai Bunchuai 215* (*RFD 18179*) (L).
Tak, on road to Ma-sawt, in old clearings, 600 m: *Smitinand 5988* (L).
Phetchabun, Lomkao, Phubee, in deciduous forest, 860 m: *Smitinand 2610* (det. Raymond).

S.E. — Krabin, Bankeng, evergreen forest, 25 m: *Marcan 2556* (BM).
Chantaburi, Kao Petchakut, 3200 ft: *Nai Noe 75* (BM).
Kaw Chang, common by stream on sandy bank, 100 m: *Smitinand 2173* (L).

S.W. — Near Neeckey, near Wangka, 150 m: *den Hoed 133* (*Kwae Noi R. basin exp. 1946*) (K, L), *Wichian 323* (L).
Prachuap, Kao Luang, in open scrub, 1200 m: *Kerr 10852* (BK, BM).
Chumpawn, Kao Tong, open scrub, 700 m: *Kerr 11536* (BK, BM, K).

PEN. — Ranawng, Kao Pawta Luang Kee, in open evergreen ridge, 1300 m: *Kerr 16965* (BM, K); Kao Pawta Chengdong, in evergreen scrub, 900 m: *Kerr 1[illegible]* (BK, BM, K).

Langsuan, Kao Nom Suo, in evergreen forest, 900 m: *Kerr 12043* (BK, BM).
Pang-nga, Kao Katakwam, in evergreen forest, 900 m: *Kerr 18438* (BK, BM).
Krabi, in open spots, 1200 m: *Kerr 18709* (BK, BM).
Trang, Chawng, by stream in evergreen forest, 100 m: *Smitinand 4079, 4080* (L).
Pattani, Betong, Gunong Ina, in evergreen forest, 1200 m: *Kerr 7558* (BK, BM);
Bachaw, in evergreen forest, 500 m: *Kerr 7188* (BK, BM).

DISTR. From Ceylon and India to China, Formosa, the Riu Kiu Islands, and through Malaysia to Australia.

156. S. KERRII Turr., Kew Bull. (1910) : 384. 1910; F.I.C.: 165; Turr.: 426.

N. — Chiengmai, Doi Suthep, in jungle, 1000—1500 ft: *Kerr 1239* (K; *type*).
Chiengrai (?), lateritic soil, open country, 1000 ft: *Howard 20* (K).
N.E. — Loei, Wang Saphung, Sithan, swamp, 300 m, local name *yah poom khao*: *Dee 82* (*RFD 4913*) (BKF, MTJB).

DISTR. Annam.

157. S. CILIARIS Nees in Wight, Contr. Bot. Ind.: 117. 1834; S.T. Blake, Journ. Arn. Arb. 35: 227. 1954. — *S. chinensis* Kunth, En. 2: 357. 1837; F.B.I.: 690; Mat. F.M.P.: 114; F.I.C.: 167; F.M.P.: 180. — *S. bancana* Miq., Fl. Ind. Bat., Suppl.: 602. 1861; F.B.I.: 693; Mat. F.M.P.: 112; Ridl. 1911: 225; F.I.C.: 168; F.M.P.: 178. — *S. bancana* Miq. var. *nana* Ridl., Journ. Str. Br. Roy. As. Soc. no 59: 225. 1911; F.M.P.: 178.

S.E. — Chanburi, Makham, common in thickets, 50 m: *Smitinand 5748* (L); common in deciduous forest, 100 m: *Smitinand 4050* (L, MTJB); Trat, Kao Kuap, in light evergreen forest, 600 m: *Kerr 17748* (BK, BM).
PEN. — Surat, Kantuli: *Put 4169* (BK, BM).
Trang, Huay Yawt, Thale Sawng, very common in evergreen forest, 100 m: *Smitinand 4137* (L).
Songkhla, Tepa, in open waste ground: *Kerr 14701* (BKF, BM).
Satul, in scrub, 5 m: *Kerr 18726* (BK, BM, K, P); Satul, heaths: *Ridley 14804* (*type* collection of *S. bancana* var. *nana* Ridl.) (K, SING).

DISTR. From Burma through Thailand and Indo-China to S. China; Malaysia, Solomon Islands, tropical Australia.

158. S. OBLATA S. T. Blake, Blumea 11, ined. 1961. — *S. levis* (*non* Retz.) F.B.I.: 694; F.KC.: 93; Will.: 225; Mat. F.M.P.: 111; Hoss. 1910: 463; F.I.C.: 169; Ridl. 1920: 124; F.M.P.: 177.

C. — Bangkok, waste ground in forest garden: *Kerr 8974* (BK, BKF, BM, K, SING); *Marcan 855* (BM).
S.E. — Trat, Koh Chang, edge of water: *Eryl Smith 301* (BK, BKF); Khlawng Nonsi, in open rather marshy ground, under 10 m: *Kerr 9203* (BK, BKF, BM, K); Lem Dan: *Jok. Schmidt 230* (C); Kaw Kut, common in cocoanut plantations, 5 m: *Smitinand 5706* (L).

S.W. — Bangtaphan, in marshes: *Keith 232* (SING).
PEN. — Langsuan, by pond in open scrub, under 50 m: *Kerr 11921* (BK, BKF, BM, K)
Nakawn Srithamarat, Tung Song, Ao Wang Kram, in valley: *Rabil 211* (BKF, BM).
Songkhla, Tepa, in scrub: *Kerr 14664* (BK, BKF, BM); Koh Gah: *Kloss 6603* (K)
Satul, in scrub, 5 m: *Kerr 13726 A* (K).
DISTR. Ceylon, Assam, Burma, Indo-China, Malaysia.

The name *Scleria levis* Retz. has wrongly been applied to this well characterized species, for which the new name *Scleria oblata* will be published by Dr. S. T. Blake, who pointed to the confusion (Journ. Arn. Arb. 35: 227. 1954).

159. S. POAEFORMIS Retz., Obs. 4: 13. 1786. — *S. oryzoides* Presl., Rel. Haenk. 1: 201. 1828; F.B.I.: 691; Mat. F.M.P.: 110; Ridl. 1911: 225; F.I.C.: 164; F.M.P.: 177; Kill.: 57.

E. — Korat, Ban Chumsaeng, in marsh: *Noi Noe 261* (BK, BM, K); Pak Chawng, in stagnant pools, 300 m: *Kerr 20461* (BK, BM).
S.E. — Chanburi, common in wet places, 120 m: *Smitinand 4069* (L).
S.W. — Chumphawn, Ban Tung Maha, in marshy ground, near sealevel: *Kerr 1119* (BK, BM, K, L).
PEN. — Surat, Kanchanadit, marshy ground in savannah, 5 m: *Kerr 13101* (BK, BM, K).
Songkhla, Tepa, in open swampy ground, under 50 m: *Kerr 14704* (BK, BM).
Pattani, Bang Nana, very common in open marshy ground, near sealevel: *Kerr 7148* (BK, BM, K).
Lake Ta Lei Nawn: *Gaysone-Vaughan 254* (K, L).
Klawng Rangsit, Tangaburi, near canals, used for building matting huts: *Ladell s.n.* (BK, K).
DISTR. Tropical E. Africa; from India and Ceylon to S. China and tropical Australia.

160. S. PSILORRHIZA Clarke, Fl. Br. Ind. 6: 691. 1894; F.I.C.: 164.

N. — Nakawn Sawan, Hua Wai: *Put 4091* (BK, BM).
C. — Saraburi, Menam Sak, among grass in savannah: *Kerr 7034* (BK, BM, K, SING).
DISTR. Very local and scattered from India through Thailand and Malaysia to N. Australia.

161. S. SCROBICULATA Nees & Mey. *ex* Nees *in* Wight, Contr. Bot. Ind.: 117. 1834.

E. — Korat, Katok, by stream in evergreen forest, 400 m: *Kerr 8157* (BK, BM).
C. — Bangkok, in waste shady ground, tidal: *Kerr 4069* (BM, K).
DISTR. From S. E. Asia through Malaysia to Queensland and Samoa.

Scleria scrobiculata and *S. purpurascens* are so closely related that I feel inclined to treat them as races of a single species.

162. S. PURPURASCENS Steud., Syn. 2: 169. 1855. — *S. multifoliata* Boeck., Linnaea 38: 510. 1874; F.B.I.: 693; F.KC.: 93; Will.: 225; Mat. F.M.P.: 112; Hoss. 1910: 463; F.I.C.: 169; F.M.P.: 178.

S.E. — Koh Chang, jungle near Klong Munsé, gravel: *Joh. Schmidt 273* (C).

PEN. — Ranawng, Lam Lieng, in evergreen forest, 50 m: *Kerr 16393* (BK, BM, BO, K).

Surat, in evergreen scrub, under 10 m: *Kerr 11256* (BK, BM); Bandon River: *Seidenfaden 2159* (C, SING).

DISTR. Burma, Indo-China, Malaysia.

163. S. SUMATRENSIS Retz., Obs. 5: 19, t. 2. 1789; F.B.I.: 693; Mat. F.M.P.: 113; F.I.C.: 170; F.M.P.: 179.

S.E. — Koh Chang, Lem Dan, plains: *Joh. Schmidt 88* (C).

PEN. — Surat, Khun Talae Lake, swamp: *Seidenfaden 2319* (C); Bandon, along a Klong: *Seidenfaden 2092* (C).

DISTR. From Ceylon and India to Formosa and Queensland.

164. S. CORYMBOSA Roxb., Fl. Ind. ed. 2, 3: 574. 1832; F.B.I.: 686; Mat. F.M.P.: 109, *p.p.*; F.M.P.: 176, *p.p.* — *S. ridleyi* Clarke, Fl. Br. Ind. 6: 686. 1894; Mat. F.M.P.: 109; F.I.C.: 160.

E. — Sangka-Samsawng, by stream in scrub jungle, 300 m: *Kerr 8301* (BK, BM, P).

S.E. — Trat, Talaum, glade in evergreen forest, under 50 m, local name *ya kom bang*: *Kerr 17883* (BK, BM).

PEN. — Ranawng, La-un, marshy ground in evergreen forest, 10 m: *Kerr 16498* (BK, BM, BO, K, L).

Bngop: *Haniff & Nur SF 3634* (K, SING).

DISTR. From India and Ceylon to S. China, W. and N.W. Malaysia.

165. S. PARVULA Steud., Syn. 2: 174. 1855. — *S. tessellata* (*non* Willd.) F.B.I.: 686, *p.p.*; F.I.C.: 162.

N.E. — Loei, common in savannah, 1300 m: *Smitinand 5021* (L).

DISTR. Tropical Africa; from Nepal, India, and Ceylon to S. China, Japan, Korea, and Malaysia.

166. S. BIFLORA Roxb., Fl. Ind. ed. 2, 3: 573. 1832; F.B.I.: 687; Mat. F.M.P.: 114; F.I.C.: 163, f. 21, 7; F.M.P.: 180.

PEN. — Phang-Nga, Pulau Teban: *Haniff & Nur SF 3620* (K, SING).

DISTR. S.E. Asia, from Ceylon and India to S. China, Formosa, the Riu Kiu Islands, eastwards to the Philippines and Celebes, southwards to Java.

ssp. **ferruginea** (Ohwi) Kern, *stat. nov.* — *S. ferruginea* Ohwi, Act. Phytotax. Geob. 7: 37. 1938.

S.E. — Prachinburi, Aran Prathet, in open grassy low-lying ground, 50 m: *Kerr 1846* (BK, BM, K).

DISTR. of the subspecies: Riu Kiu Islands, Formosa, Indo-China, Malay Peninsula.

167. S. MIKAWANA Makino, Bot. Mag. Tokyo 27: 57. 1913. — *S. tessellata* (*non* Willd.) F.B.I. 686, *p.p.*

N.E. — Loei, Phu Krading, common by stream and in damp place, 1300 m: *Smitinand 1045* (herb. Raymond).

DISTR. Tropical Africa; from Ceylon and India to Japan and New Guinea, very scattered.

168. S. RUGOSA R. Br., Prodr.: 240. 1810. — *S. flaccida* Clarke, Fl. Br. Ind. 6: 688. 1894, *non* Steud. 1855. — *S. zeylanica* (*non* Poir.) F.B.I.: 687, *p.p.*; Mat. F.M.P.: 110; F.I.C.: 163; F.M.P.: 177.

S.E. — N. N. Khao, Sriracha forest, 400 m: *Mrs Collins 1900 A* (BK, K).

DISTR. From Ceylon and India to S. China, Formosa, and Japan through Malaysia to N. and N. E. Australia and New Caledonia.

169. S. THWAITESIANA Boeck., Linnaea 38: 454. 1874. — *S. zeylanica* (*non* Poir.) F.B.I.: 687, *p.p.* (quoad specim. ceyl.).

N.E. — Loei, Phu Krading, 1300 m: *Smitinand 1428 B* (BKF).

S.E. — Trat, Kao Saming, in open grassy ground, 20 m: *Kerr 9434* (BK, BM, K).

PEN. — Surat, Kantuli: *Put 4161* (BK, BM).

Between Trang and Krabi, common in wet locality, 100 m: *Smitinand 412* (*RFD 16865*) (BKF, L).

DISTR. Ceylon (type locality).

Clarke and subsequent authors reduced this species to the synonymy of *S. rugosa* R. Br. (*S. zeylanica* sensu Clarke). In my opinion it is readily distinguishable by the following characters: Stems strictly erect, very slender. Leaves rigid, canaliculate, narrow, 1—2 mm wide, glabrous. Terminal panicle not pseudo-lateral, its bract not or only slightly overtopping the inflorescence. Peduncles of the lateral panicles setaceous. Nut obtusely trigonous, smooth, very shining. Disk thin, hardly lobed, not cellular-glandular.

170. S. NEESII Kunth, En. 2: 358. 1837; F.B.I.: 688; F.I.C.: 164, t. 21, 6. — *Hypoporum capitatum* Nees, Edinb. New Phil. Jour. 17, no 34: 267. 1834. — *S. capitata* (Nees) H. Pfeiff. in Fedde, Rep. 26: 262. 1929, in syn., *non* Willd. (1805).

S.E. — Chanburi, common in wet sandy soil in open *Dipterocarpus* forest, under 100 m: *Smitinand 3509* (L); Makham, in open deciduous forest, 100 m: *Smitinand 3041* (*RFD 12618*) (L).

PEN. — Surat, open scrub, under 10 m: *Kerr 11253* (K).
Between Trang and Krabi, in wet localities, 100 m: *Smitinand 4148* (*RFD 16863*) (L).
DISTR. Ceylon, Cochinchina, Annam, Malay Peninsula.

171. S. TONKINENSIS Clarke, Kew Bull. add. ser. 8: 57. 1908.

N.E. — Nakawn Panom, Ta Uten, by road-side in mixed forest, sandy soil, 1200 m: *Kerr 21374* (BK, BM, K).

E. — Korat, Ban Chumsaeng: *Nai Noe 262* (BK, BM, BO, K).
Srisaket, Kanthrarom, common in scrub jungle, under shade, 100 m; used locally for labouring mothers: *Smitinand 594* (*RFD 4932*) (K, L).

S.E. — Prachinburi, Aran Prathet, railway embankment, 50 m: *Kerr 19635* (BK, BO, K).
Chanburi, Makham, Okphok, in dry mixed deciduous forest, 100 m: *Smitinand 3818* (*RFD 22095*) (BKF); Chanburi, Makham, common in the plain, along edge of thickets, 20 m: *Smitinand 5758* (*RFD 21502*) (L).
Trat, Kao Kuap: *Put 2912* (BK, BM).

S.W. — Chumphawn, Bang Son: *Put 1590* (BK, BM, K); same locality, sandy heath near coast: *Haniff & Nur SF 4221* (K, SING).

PEN. — Surat, in evergreen scrub: *Kerr 11249* (BK, BM, K); Kantuli: *Put 4166* (BK, BM); Tha Phet, common along edge of water-hole, 50 m: *Smitinand 5617* (L).
DISTR. Also in Tonkin (type locality), Cambodia, Cochinchina, and Hainan.

172. S. LITHOSPERMA (L.) Sw., Prodr.: 18. 1788; F.B.I.: 685; Mat. F.M.P.: 108; Ridl. 1911: 225; 1912: 63; F.I.C.: 161, f. 21, 5; F.M.P.: 176; Koy. 1957: 62. — *Scirpus lithospermus* L., Sp. Pl. 1: 51. 1753.

E. — Korat, Hui Talong: *Put 2227* (BK, BM).

C. — Chaibadan, Dong Pya Yen, in mixed forest, 50 m: *Kerr 7985* (BK, BM, K).

S.E. — Trat, Kaw Chang, Khlawng Son, along edge of scrub jungle, 10 m: *Smitinand 5675* (L).
Chantaboon: *Vesterdal 578* (C, SING).
Prachinburi, Nawng Plu, Bandan, 200 ft: *Mrs Collins 848* (BK, K); Sriracha: *Put 450* (BK, BM, BO, K); N. N. Khao-Sriracha forest, 400 ft: *Mrs Collins 1900* (BK, K).

S.W. — Prachuap, Ban Nawng Kang, in dry evergreen forest, under 50 m: *Kerr 16919* (BK, BM).

PEN. — Surat, Kantuli: *Put 4158* (BK, BM); Kaw Tao, in dry evergreen forest, 10 m: *Kerr 11162* (BK, BM, BO, K); same locality, in light evergreen forest, 300 m: *Kerr 16039* (BK, BM).
Songkhla, Kampangpet, in evergreen forest, 50 m: *Kerr 15973* (BK, BM, K).
Pattani, Banang Sta, in banana plantation, 50 m: *Kerr 7498* (BK, BM, K).

Satul, Butang, on rocky ground, 50 m: *Kerr 14053* (BK, BM); Adang, in evergreen forest, 5 m: *Kerr 13993* (BK, BM); Bukit Raja Wang: *Ridley 14805* (SING).

DISTR. Pantropic.

var. LINEARIS Benth., Fl. Austr. 7: 430. 1878. — *Hypoporum roxburghianum* Nees *ex* Boeck., Linnaea 38: 452. 1874. — *Hypoporum roxburghii* Nees *ex* Clarke, Fl. Br. Ind. 6: 686. 1894. — *S. lithosperma* (L.) Sw. var. *roxburghii* Clarke, Fl. Br. Ind. 6: 686. 1894; Mat. F.M.P.: 10.

N.E. — Nakawn Panom, Muk Dahan, Pu Mano, in deciduous forest, 300 m: *Kerr 21120* (BK, BO, K).

S.E. — Trat, Kaw Chang, Salak Kawk, in loose damps, open deciduous forested slope near sea: *Kerr 6891* (BK, BM, K, NY, P).

DISTR. of the variety. From India and Ceylon to Indo-China, and through Malaysia to tropical Australia.

173. S. PERGRACILIS (Nees) Kunth, En. 2: 354. 1837; F.B.I.: 685; F.I.C.: 160, f. 21, 1-3; Turr.: 426. — *Hypoporum pergracile* Nees, Edinb. New Phil. Journ. 17, no. 34: 267. 1834; in Wight, Contr. Bot. Ind.: 118. 1834.

N. — Doi Suthep, 1200—1500 ft: *Kerr 1128* (BK, BM, P); in open marsh, 2200 ft: *Kerr 2647* (BM, K).

N.E. — Loei, Phu Krading, common among grasses in savannah, 1300 m: *Smitinand 1905* (herb. Raymond).

S.E. — Krabin, Watana, in open grassy forest, 50 m: *Kerr 9788* (BK, BM, K).

Baw Luang, in open marshy ground: *Kerr 6266* (BK, BM, K, P).

DISTR. Tropical Africa; from India and Ceylon to S. China and Malaysia.

174. S. BENTHAMII Clarke, Kew Bull., add. ser. 8: 58. 1908. — *S. khasiana* Clarke *in* Hook. f., Fl. Br. Ind. 6: 692. 1894; Journ. Linn. Soc., Bot. 34: 102. 1898, *non* Boeck. (1890).

N. — Chiengmai, Doi Suthep, common in open grassy jungle, 900—1000 m: *Kerr 3858* (BM).

N.E. — Loei, Phu Krading, common in savannah, 1300 m: *Smitinand 1842* (herb. Raymond).

DISTR. Khasia, Indo-China, Luzon, Queensland.

Scleria thomsoniana Boeck., Linnaea 38: 479. 1874, and *S. khasiana* Boeck., Cyp. Nov. 2: 29. 1890, were based on the same collection, viz *Scleria sp. 12, Herb. Ind. Or., Hook. f. & Thoms.* As the latter binomial is nomenclaturally superfluous, Clarke used the same combination again for a quite different species. This procedure is contrary to the present-day Code. As *Scleria benthamii* Clarke, thus far only known from a single Australian collection (Queensland, Brisbane R., F. v. Müller 61, K) appears

to be conspecific with the Asiatic plants, this is the earliest legitimate name of the species.

Scleria benthamii is most easily recognizable by the characteristic shape of the hypogynous disk, which reminds one of a tricorn hat. In habit it is extremely similar to *S. levis* Retz., but easily recognizable by the more distinctly reticulated, hardly apiculate nut, and the different shape and texture of the hypogynous disk. In *S. levis* the lobes of the disk are thin, lanceolate, brown, 1—1½ mm long, in *S. benthamii* thick, much shorter, ovate, whitish, with a minute, erect apicula at the top. Probably there is also a difference in the contraligule (i.e. the tongue-shaped prolongation at the top of the leaf-sheath on the anterior side). In *S. levis* this contraligule has (always?) a small, easily overlooked membranous appendage at the top, which is lacking in the few specimens of *S. benthamii* I have seen.

Scleria benthamii is also in Indo-China (Tonkin, route de Laokay à Chapa, savannes herbeuses, 1000 m: *Pételot 8548*, herb. Raymond).

SPECIES RECORDED FOR THAILAND NOT SEEN BY ME:

1. *Cyperus eleusinoides* Kunth; Turr.: 422.
2. *Cyperus exaltatus* Retz. var. *digynus* Williams: 224. — According to Kükenthal, Pflanzenr., Heft 101: 71. 1935 = *C. alopecuroides* Rottb. Kükenthal did not see the collection on which the record was based.
3. *Cyperus kurzii* Clarke; Koy. 1955: 209; 1957: 28.
4. *Cyperus ohwii* Kük.; Koy. 1955: 205; 1957: 24.
5. *Fimbristylis haspaniformis* Koyama, Contr. Inst. Bot. Univ. Montréal no. 70: 45. 1957.
6. *Fimbristylis tenera* R. & S.; Ost.: 719; Hoss. 1910: 462; F.I.C.: 112.
7. *Mariscus clarkei* Turr.: 422. Kükenthal, Pflanzenr., Heft 101: 518. 1936, reduced this to a variety of *Cyperus cyperoides* (L.) O. Kuntze.
8. *Scirpodendron ghaeri* (Gaertn.) Merr. (*S. costatum* Kurz; Ridl. 1911: 225). "Common in tidal swamps, Setul". I have not seen any specimen from Satul in the Singapore Herbarium.
9. *Scirpus fluitans* L.; Koy. 1957: 61.
10. *Scirpus triangulatus* Roxb.; Koy. 1957: 59. I doubt whether this is specifically distinct from the widely distributed and extremely polymorphic *S. mucronatus* L.
11. *Scirpus triqueter* L.; Koy. 1957: 62.

Index to collectors' numbers

The *first number* of each pair is the collector's number, the second refers to the number of the species in the text. See also Addenda.

Amnat 57: 53.
Bloembergen, S. 604: 94 — *Boonag*, see *Bunnak* — *Boonbrahm 8*: 31; *9*: 128 — *Bunnak 5*: 131; *135*: 45; *165*: 8; *174*: 61; *195*: 145; *197*: 139; *198*: 19; *205*: 35; *211*: 112; *212*: 42; *217*: 106; *218*: 93; *231*: 116; *338*: 7; *464*: 113; *465*: 106; *840*: 137; *841*: 116; *844*: 53.
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