

FLORAE MALESIANAE PRECURSORES XXXII
SOME NEW CYPERACEAE

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I. *Mapania maschalina* Kern, sp. nov. — Sect. *Macrolepironia* (Miq.) Kern. — **Fig. 1.**

Herba perennis, rhizomate lignoso, adscendente. *Culmus* erectus, radicibus crassis teretibus 2—3 mm diam. sustensus, dense foliatus, c. 50 cm altus. *Folia* linearia, rigida, opaca, glaucescentia, basin conduplicatam versus straminea, apice sensim in flagellum triquetrum scaberrimum angustata, usque ad 50 cm longa, 5—7 mm lata, marginibus nervoque medio subtus apicem versus dense acuteque serrata, nervo medio subtus prominente, nervis lateralibus vix distinctis. *Scapi* brevissimi, in axillis foliorum caulnorum absconditi, spiculam unicam gerentes. *Spiculae* subsessiles, ovoideae, apice acutae, c. 15 mm longae, 7—10 mm latae. *Glumae* multinerviae, inferiores vacuae, coriaceae, ovatae, acutae, fuscae, membranaceo-marginatae, 8—9 mm longae; glumae florigerae lanceolatae, tenuiores, 9—10 mm longae. *Flores* lineares, 8—10 mm longi, squamellis 6 membranaceis, binis lateralibus ad carinam tenuiter ciliolatis. *Stamina* 3, antheris linearibus 5—6 mm longis. *Stigmata* 3. *Nux* drupacea, subpyriformis, apice in rostrum breve subcurvatum acuminata, rugulosa, cinereo-fusca, 6 mm longa, 3 mm lata, stipite brevi $\frac{1}{2}$ mm longo.

NORTH BORNEO. Dist. Sandakan, Malubok Kinabatangan, in swamp forest, Nov. 18, 1960, *W. Meijer* SAN 23592 (L, *typus*).

This new species is remarkable because of the elongated leafy stem and the very short flowering scapes hidden in the leaf-axils. A similar peculiar habit is found in *Mapania micropandanus* Holtt. from the Malay Peninsula, which species is otherwise very different by its wider, non-caudate leaves with 3 prominent, scabrous nerves, its larger flowers, etc.

In *Mapania sessilis* Merr., known from North Borneo, Sumatra, and Banka, the spikelets are also sessile because of the very short scapes, but the latter are situated on the short caudex, below the rosette of leaves. Besides, in *Mapania sessilis* the leaves are 1—1½ cm broad, castaneous at the base, the spikelets are up to 3 cm long, and the nuts much larger (about 1 cm long, the 3—4 mm long beak included).

The narrowly linear leaves of *Mapania maschalina* are similar to those of *M. graminea* Uitt. from Borneo, but in the latter species they are basal, very shiny, aculeate-asperous on the upper side towards the apex, and arranged in three very prominent ranks, as a result of which the foliage is Y-shaped in cross-section.

The Malaysian *Mapania* species are generally classified in three sections, the nomenclature of which is somewhat confused. The fact has been overlooked that as early as 1870 Miquel used the name *Pandanophyllum* as a sectional one (under *Lepironia*) to cover the species with a capitate inflorescence. The type species of this section is *Pandanophyllum palustre* Hassk. ex Steud. Unfortunately Clarke applied the name *Pandanophyllum* to that section in which the inflorescence normally consists of a single spikelet, and for which Miquel coined the name *Macrolepironia*. According to the Montreal Code 1961, art. 54, this name must be reinstated. This being done, the synonymy runs as follows:

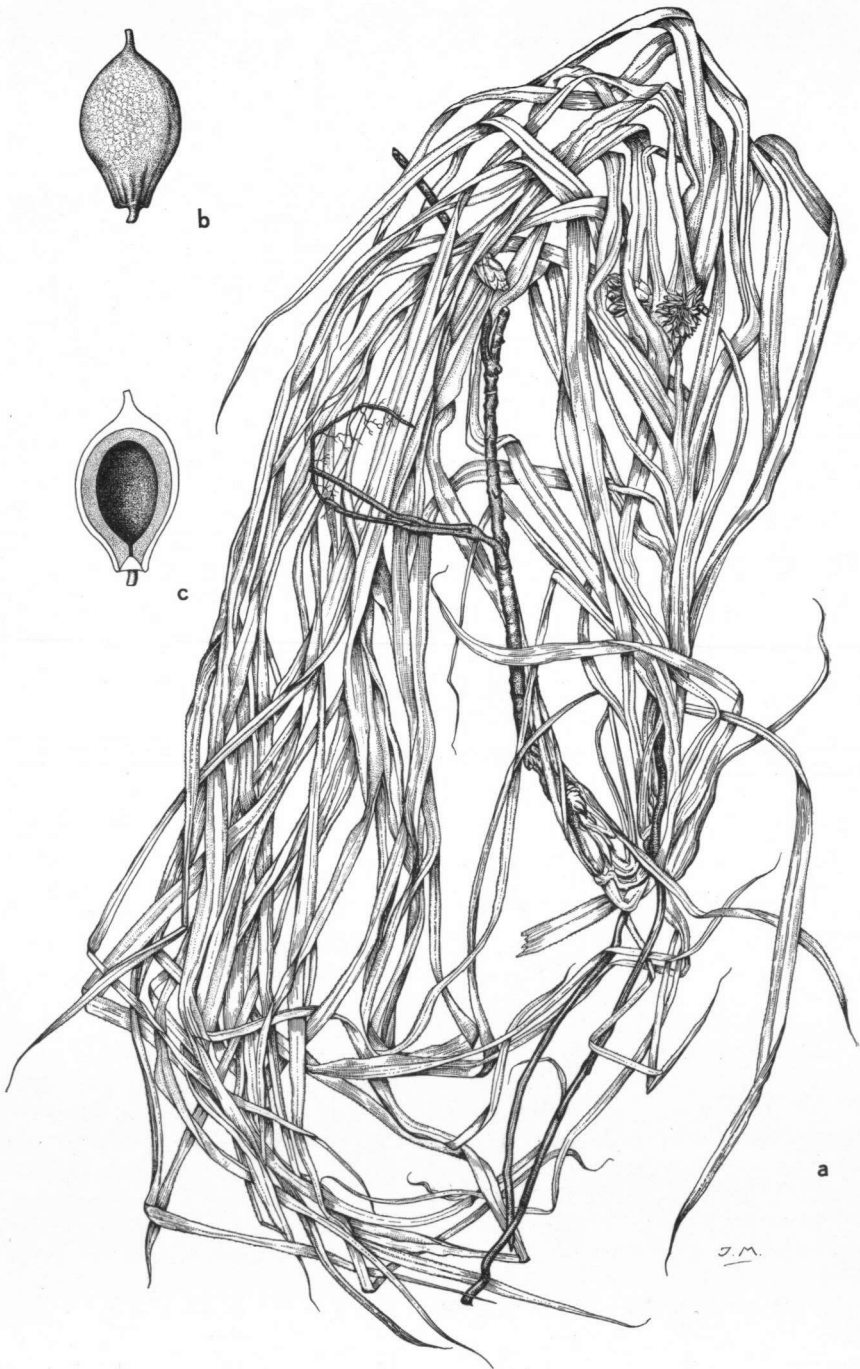


Fig. 1. *Mapania maschalina* Kern — a. Habit, $\times \frac{1}{2}$; b. nut, $\times 4\frac{1}{2}$; c. longitudinal section of nut, $\times 4\frac{1}{2}$. — (W. Meijer SAN 23592)

Mapania sect. **Cephaloscirpus** (Kurz) B. & H., Gen. Plant. 3 (1883) 1056. — *Cephaloscirpus* Kurz, Journ. As. Soc. Beng. 38² (1869) 83, *pro gen.* (type species: *Hypaelyptum macrocephalum* Gaudich.). — *Mapania* subgen. *Cephaloscirpus* (Kurz) C. B. Clarke, Kew Bull., add. ser. 8 (1908) 131; Uitt., Rec. Trav. Bot. Néerl. 32 (1935) 185. — Flowering stems central. Involucral bracts foliaceous. Inflorescence capitate.

Mapania sect. **Pandanophyllum** (Hassk.) B. & H., Gen. Plant. 3 (1883) 1056. — *Pandanophyllum* Hassk., Tijdschr. Nat. Gesch. Phys. 10 (1843) 118, *pro gen.* (type species: *Pandanophyllum palustre* Hassk. ex Steud.). — *Lepironia* sect. *Pandanophyllum* (Hassk.) Miq., Illustr. (1870) 60. — *Mapania* sect. *Halostemma* C. B. Clarke in Hook. f., Fl. Br. Ind. 6 (1894) 681; Uitt., Rec. Trav. Bot. Néerl. 33 (1936) 284 (type species: *Mapania silhetensis* C. B. Clarke). — *Mapania* subgen. *Halostemma* (C. B. Clarke) C. B. Clarke, Kew Bull., add. ser. 8 (1908) 130; Uitt., Rec. Trav. Bot. Néerl. 32 (1935) 185. — Flowering stems (scapes) lateral. Involucral bracts glume-like. Inflorescence capitate.

Mapania sect. **Macrolepironia** (Miq.) Kern, *comb. nov.* — *Lepironia* sect. *Macrolepironia* Miq., Illustr. (1870) 60 (lectotype: *Lepironia enodis* Miq.). — *Mapania* sect. *Pandanophyllum* (*non* B. & H.) C. B. Clarke in Hook. f., Fl. Br. Ind. 6 (1894) 682; Uitt., Rec. Trav. Bot. Néerl. 33 (1936) 145. — *Mapania* subgen. *Pandanophyllum sensu* C. B. Clarke, Kew Bull., add. ser. 8 (1908) 130; Uitt., Rec. Trav. Bot. Néerl. 32 (1935) 185. — *Mapania* subgen. *Pandanoscirpus* Uitt., Rec. Trav. Bot. Néerl. 33 (1936) 278 (type species: *Mapania petiolata* C. B. Clarke). — Flowering stems (scapes) lateral. Inflorescence normally consisting of a single spikelet (sometimes some secondary spikelets branching from the axils of the lower glumes).

2. Fimbristylis blepharolepis Kern, *sp. nov.* — Sect. *Trichelostylis* (Lestib.) Boeck. — **Fig. 2.**

Herba annua, elatior, radicibus firmis fuscis vel stramineis. Culmi rigidi, stricte erecti, acute quinquangulares, sulcati, glabri, angulis costatis sursum antrorse scabridi, 50—130 cm alti, 2—4 mm crassi, basin versus foliati. Folia culmo breviora, acuta, longissime acuminata, rigida, plana vel in sicco marginibus involuta, 2½—3 mm lata, subtus plurinervia nervo medio prominente, supra enervia minute celluloso-reticulata pilisque bulbosis brevissimis albidis asperula, marginibus incrassatis antrorse scabridis, lamina intus ad basin serie pilorum alborum vel ferrugineorum a vagina separata; vaginae antice membranaceae, sursum pubescentes. Inflorescentia anthelata, decomposita, erecta, ovoidea, laxa, multi-spiculata, 8—24 cm longa, 6—20 cm lata. Bractee involucrales c. 5, inferiores foliaceae, erecto-patentes, anthela paullo longiores vel paullo breviores, longe attenuatae, acutae, marginibus scabridae, ad basin dilatam pilosam scarioso-marginatae, 10—25 cm longae, 1½—3 mm latae, superiores gradatim breviores et angustiores; bracteolae setaceae, anthelulis breviores. Anthelae radii 6—9, inaequilongi, oblique patentes, rigidi, quinquangulares, scaberuli, e prophylo tubuloso piloso ore bicuspidato usque ad 1 cm longo orti; radius infimus 5—12 cm longus, radii ceteri gradatim breviores; radioli 2½—5 cm longi; pedunculi spicularum appianati, ½—1 cm longi. Spiculae singulatim dispositae, dense multiflorae, primo ovoideae, demum oblongo-ovoideae, acutiusculae, vix angulatae, 2½—3 mm latae, demum 8—9 mm longae. Rhachilla alata. Glumae spiraliter imbricatae, adpressae, membranaceae, late ovatae, obtusae, viridi-carinatae, muticae vel minute apiculatae, dorso 3-nerviae, marginibus dense sed breviter ciliolatae, ferrugineae, albo-marginatae, c. 2 mm longae, fere aequilatae. Stamina 3, antheris oblongo-linearibus, 1—1½ mm longis, connectivo in appendicem brevem glabram producto. Stylus triqueter,

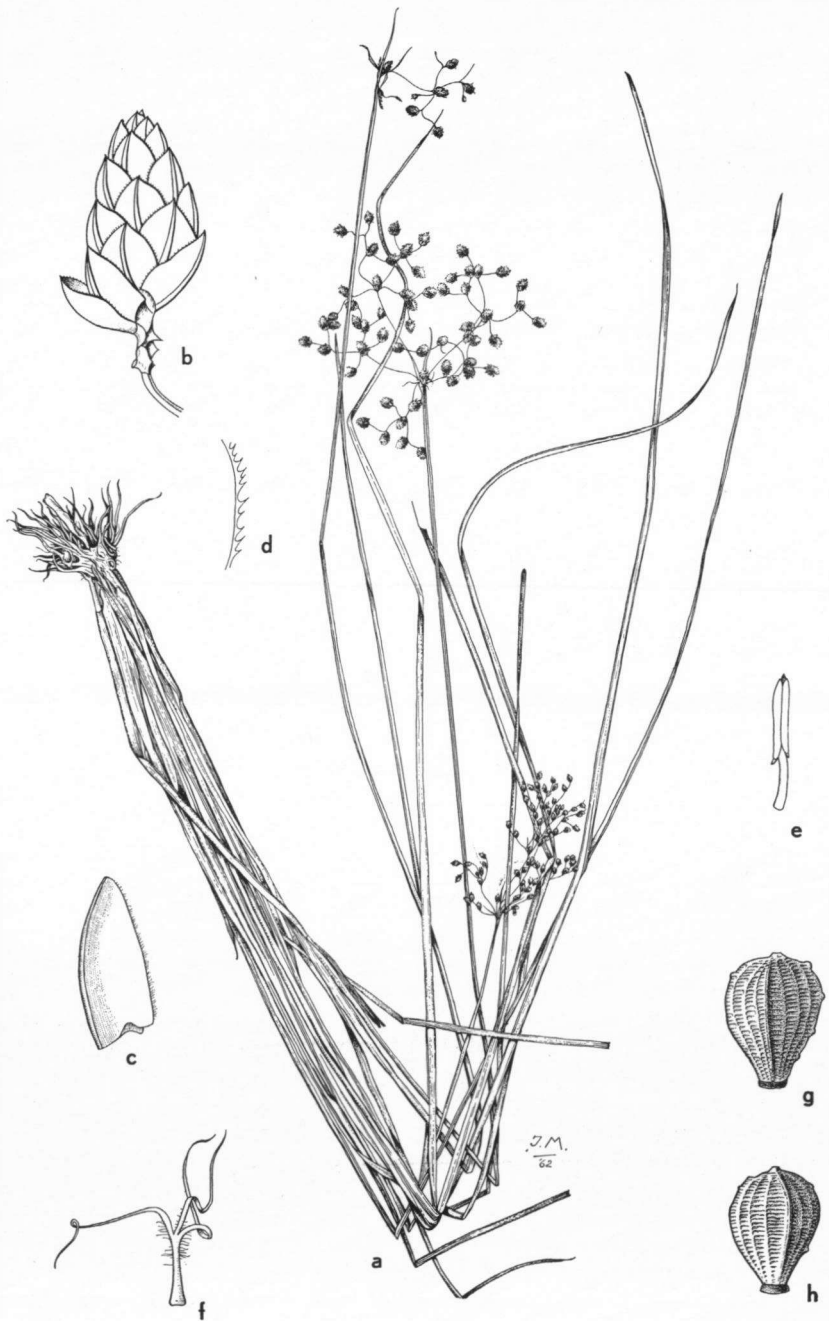


Fig. 2. *Fimbristylis blepharolepis* Kern — a. Habit, $\times \frac{1}{2}$; b. spikelet, $\times 7\frac{1}{2}$; c. glume, $\times 15$; d. margin of glume; e. stamen, $\times 15$; f. style and stigmas, $\times 15$; g-h. nuts, $\times 30$. — (A. Hoogerwerf 279)

ad basin leviter pyramidato-incrassatus, parte superiore ciliatus, $\frac{3}{4}$ —1 mm longus, stigmatibus 3 stylo multo longioribus. *Nux* ovoidea, trigona, angulis obtuse costulata, apice humiliter umbrulata, basin versus cuneata, breviter lateque stipitata, sparse tuberculata, albida, $\frac{3}{8}$ — $\frac{3}{4}$ mm longa, $\frac{2}{5}$ — $\frac{1}{2}$ mm lata, faciebus cellulis extimis transverse linearibus impressis 4—5—serialibus distincte trabeculata.

WEST NEW GUINEA. Koerik, near Merauke, Noord-rawah, June 21, 1962, A. Hoogerwerf 279 (L, *typus*).

“The plants grow both in the midst of predominant *Ischaemum barbatum* and between the border of this association and the *Eucalyptus* forest, always in wet places 5—15 cm submerged from January until May, but now drying up; within a few weeks these places will be set fire to by the Papuans, unless recent, unusually heavy rains should prevent this.” (A. Hoogerwerf in *litt.*, June 24, 1962).

The locality appears to be very rich in *Cyperaceae*. Besides the new *Fimbristylis* Mr Hoogerwerf collected the following *Cyperaceae* (all in L):

Cyperus angustatus R. Br., *aquatilis* R. Br., *babakan* Steud., *compactus* Retz., *haspan* L., *holoschoenus* R. Br., *iria* L., *pilosus* Vahl, *sulcinux* C. B. Clarke.

Fimbristylis acicularis R. Br., *acuminata* Vahl, *dictyocolea* S. T. Blake, *furva* R. Br., *miliacea* (L.) Vahl, *nutans* (Retz.) Vahl, *pauciflora* R. Br., *tetragona* R. Br., *tristachya* R. Br.

Fuirena ciliaris (L.) Roxb., *umbellata* Rottb.

Lipocarpa microcephala (R. Br.) Kunth.

Rhynchospora heterochaeta S. T. Blake, *submarginata* Kük.

Scleria laxa R. Br., *novae-hollandiae* Boeck., *rugosa* R. Br.

The new species is related to the Australian *Fimbristylis phaeoleuca* S. T. Blake, Univ. Queensl. Papers, Dept. Biol. 1, no 13 (1940) 4, from which it differs by the following characters:

Stems stouter; spikelets larger, hardly angular; glumes obtuse, paler, less conspicuously hyaline-margined, and with much shorter cilia; anthers twice as long; style shorter, ciliate in the upper part; stigmas much longer than the style; nuts slightly smaller, hardly verrucose, trabeculate, with 4—5 vertical rows of transversely linear epidermal cells on each face. In *Fimbristylis phaeoleuca* the nuts are but indistinctly tessellate, their epidermal cells isodiametric to more or less transversely oblong, and arranged in 8—10 vertical rows on each face.

The upper side of the leaves in *Fimbristylis blepharolepis* is asperulous by short, white, bulbous-based hairs, which are also found in *F. phaeoleuca* and *F. trachycarya* F. v. M.; the stomatiferous under side is glabrous and smooth.

In *Blumea* 8 (1955) 158—161 I gave a survey of the sections of *Fimbristylis* as far as Malaysia is concerned. The arrangement accepted there in outline agrees with that of Ohwi in *Journ. Jap. Bot.* 14 (1938) 571—573. I then already pointed out that the system, being based on the E. and SE. Asian species only, must show shortcomings in many respects, and that especially the circumscription of sect. *Leptocladae* Ohwi, to which I referred the Malaysian species with long-ciliate glumes, is disputable.

Both *Fimbristylis phaeoleuca* and *F. blepharolepis* have distinctly ciliate glumes, but they are not closely allied to *F. leptoclada* Benth., the type species of sect. *Leptocladae*. Their place is rather in sect. *Trichelostylis* (Lestib.) Boeck. The fact of the glumes being long-ciliate cannot be upheld as the main character of sect. *Leptocladae*.

3. *Fimbristylis aestivalis* (Retz.) Vahl var. *trichopoda* Kern, var. *nov.*

A varietate *aestivalis* radii radiolisque inflorescentiae pilosis differt.

INDIA. Malabar, Concan *etc.*: Stocks, Law *etc.* in Herb. Ind. Or. Hook. fil. & Thomson, *sub nomine Fimbristylis dichotoma* Vahl (Herb. Lugd. Bat. 902. 77—252, *typus*).

NEW GUINEA. Territory of New Guinea: Sepik District, Wewak-Angoram Area, Sepik River near Nemchan village, water edge, river-bank, 17 Sept. 1959, R. G. Robbins 2481 (CANB).

Fimbristylis gracilentia Hance, which is closely related to *F. aestivalis*, can be distinguished by the much larger glumes, the longer style, the slightly larger nuts, the distinctly winged rhachilla, *etc.*, and, as a rule, most easily by the densely hairy rays and raylets of the inflorescence. Only once I have seen a collection of it in which the inflorescence is quite glabrous (*F. gracilentia* var. *psilopoda* Kern, Reinwardtia 6, 1961, 49, based on Kerr 21522 from NE. Thailand). On the other hand the two collections of *F. aestivalis* cited above differ from the numerous other specimens of this species I examined by the densely hairy rays and raylets.

4. *Schoenus microcephalus* Kern, *sp. nov.* — Sect. *Subaphylli* Kük. — Fig. 3.

Herba perennis, rhizomate abbreviato, radicibus fibrosis purpureis. Culmi numerosi, dense caespitosi, inaequilongi, rigidi, graciles, teretes, laeves, inferne foliati, 10—35 cm alti, $\frac{1}{2}$ —1 mm crassi, basin versus vaginis stramineis opacis vestiti. Folia pauca, erecta, culmo multo breviora, rigida, setacea, supra plana, subtus convexa, acuta, subpungentia, apice nigra, marginibus minute scabrida, usque ad 15 cm longa, $\frac{1}{2}$ — $\frac{3}{4}$ mm lata, vaginis ore imberbis; vaginae inferiores elaminatae vel in laminam brevissimam excurrentes. Bractee 2—3; bractea ima erecta, plerumque parum (rarius usque ad 3 cm) ab inflorescentia remota, culmum quasi continuans, usque ad 5 cm longa; vagina tubulosa, brunneo-purpurea, ore oblique secta imberbis; bractee superiores multo breviores. Spiculae plures in capitulum terminalem parvum hemisphaericum 4—5 mm diam. congestae, oblongo-lanceolatae, leviter compressae, rectae, 3—4 mm longae, 1—2-florae, flore superiore autem, si adest, saepe imperfecto. Glumae 6, distichae, ovatae, acutae, muticae, carinatae, albo-membranaceae, dorso purpureae, marginibus subtiliter ciliatae, inferiores vacuae, gradatim breviores. Setae nullae. Stamina 6, antheris oblongis, flavidis, 1 mm longis, connectivo vix producto. Stylus trigonus, basi haud incrassatus, glaber, badius, $1\frac{1}{2}$ —2 mm longus, stigmatibus 3 (rarius 2 vel 4). Nux immatura turgido-trigona, rufescens, apice obtusa, distincte stipitata, c. 1 mm longa.

NEW CALEDONIA. Néhoué, in very dry eroded soil, Jan. 7, 1961, H. S. McKee 7990 (L, *typus*).

A close ally of *Schoenus kennyi* (F. M. Bail.) S. T. Blake, Proc. Roy. Soc. Queensl. 51 (1940) 48 [*Arthrostylis kennyi* F. M. Bail., Queensl. Agric. Journ. 28 (1912) 278, t. 58; *Schoenus subaphyllus* Kük. var. *kennyi* (F. M. Bail.) Kük. in Fedde, Rep. 48 (1940) 250] from Queensland and New South Wales. It is the only species of sect. *Subaphylli* in which the basal leaf-sheaths are neither dark purple nor glossy, and its leaf-blades and lower bracts are much longer than in any other species belonging to this section. The lowest bract, situated somewhat below the terminal head which it often conspicuously overtops, bears no secondary head in its axil, and therefore looks like an ordinary leaf near the top of the stem. In *Schoenus kennyi* this bract is very short and often subtends a secondary head. Between the lowest bract and the basal sheaths there are often 1—2 stem-leaves in *Schoenus kennyi*, but none in *S. microcephalus*. In *Schoenus kennyi* the blades of the basal leaves, though obvious, are much reduced, in *S. microcephalus* they are normally developed and up to 15 cm long. The terminal head of *Schoenus microcephalus* is only 4—5 mm wide, that of *S. kennyi* usually 10—15 mm. The spikelets in *Schoenus kennyi* are 5—7 mm long, in *S. microcephalus* 3—4 mm; the longest glume in

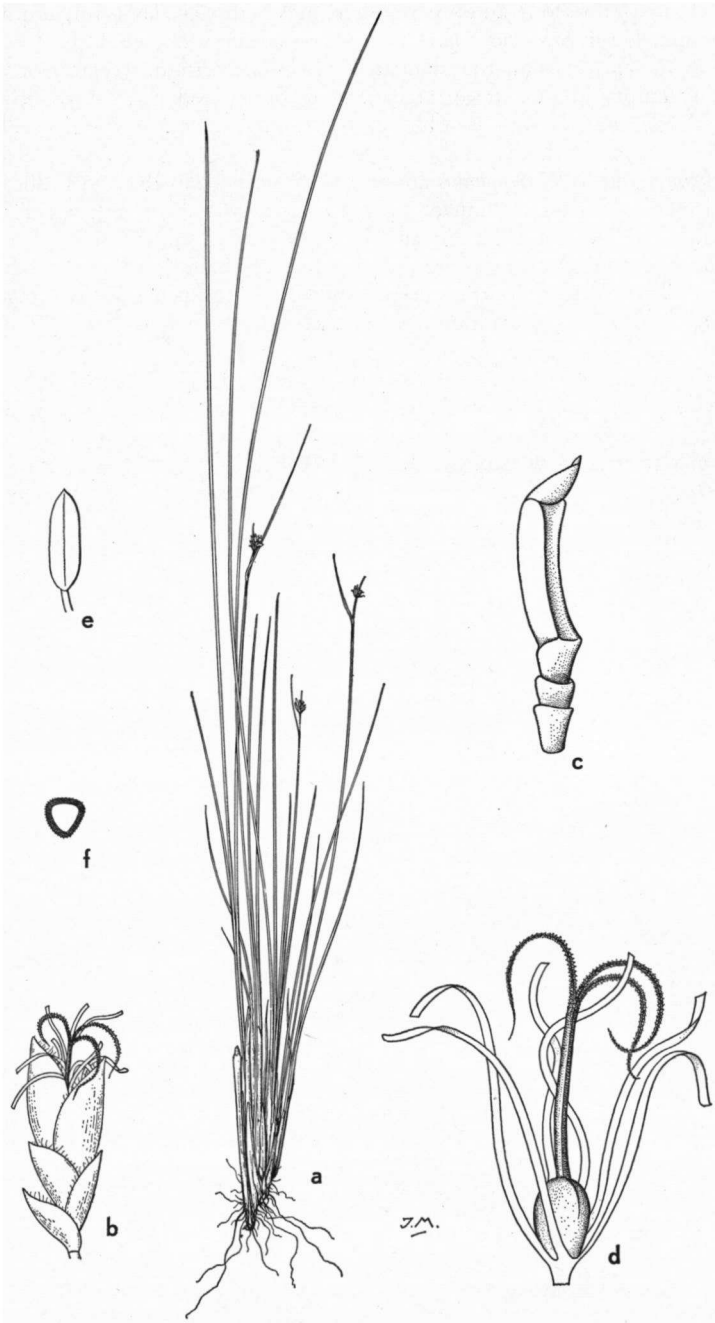


Fig. 3. *Schoenus microcephalus* Kern — a. Habit, $\times \frac{1}{2}$; b. spikelet, $\times 7\frac{1}{2}$; c. rhachilla of spikelet, $\times 15$; d. flower, $\times 15$; e. stamen, $\times 15$; f. cross-section of style, $\times 30$. — (H. S. McKee 7990)

S. kennyi is about $4\frac{1}{2}$ mm long and mucronulate, in *S. microcephalus* 3 mm and muticous. Whereas the spikelets in *Schoenus kennyi* are 2—4 (—several?)-flowered, they are as a rule 1-flowered in *S. microcephalus*, the elongated rhachilla-internode (typical of *Schoenus*) bearing a tiny empty glume, more rarely a more or less reduced second flower. The anthers in *Schoenus microcephalus* are oblong, 1 mm long, in *S. kennyi* twice as long and linear.

Schoenus kennyi and *S. microcephalus* are near to *S. subaphyllus* Kük. in Fedde, Rep. 44 (1938) 179 [*S. aphyllus* Boeck., *Linnaea* 38 (1874) 280, non Vahl, 1806], which is known from Queensland, Western New South Wales, Victoria, and Western Australia. In *Schoenus subaphyllus* the leaf-blades are either reduced to minute mucros or absent; the very shiny, dark to blackish purple, deeply split or quite open sheaths often separate from the stem; there are two glumiform, lanceolate, brown to purplish involucre bracts not sheathing the stem.

Kükenthal reduced *Schoenus kennyi* to varietal rank under *S. subaphyllus*. However, since he says that *S. kennyi* differs from *S. subaphyllus* only by the 1—2-noded stems and the presence of a secondary head of spikelets, he obviously overlooked several differential characters clearly exposed by S. T. Blake.

As to *Schoenus microcephalus*, the question whether the characters which distinguish it from *S. kennyi* are of specific value, is difficult to answer, a fact not surprising for a taxon of an isolated island flora.