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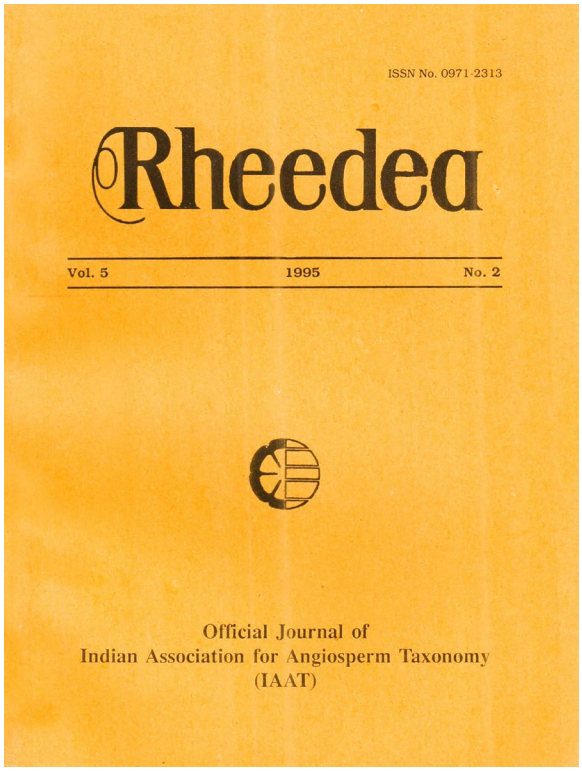

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Notes on *Scleria bancana* Miq., *Scleria ciliaris* Nees and *Scleria levis* Retz. (Cyperaceae)

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Abstract

Scleria bancana Miq. and *S. ciliaris* Nees are distinct species. The latter is probably introduced into West Java. The hairy specimens of *S. levis* are distinguished as *S. levis* var. *pubescens* (Steud.) Tjitrosoedirdjo, comb. et stat. nov.

NOTES ON *SCLERIA BANCANA* AND *S. CILIARIS*

The Malesian species of *Scleria* Berg. (Cyperaceae) have been studied by Blake (1954) and Kern (1961, 1974). One species recognized by them is *S. ciliaris* Nees. I encountered this in the field in rubber plantations of West Java and was struck by the presence of two different entities which appeared to be, *S. ciliaris* (s. str.) and *S. bancana* Miq. As Blake as well as Kern had restricted their studies entirely on herbarium specimens, living material of *S. ciliaris* (s. str.) were not seen by them. In the herbarium the differences between the two species concerned become obscured by the drying process.

Those seen by Blake and Kern were consulted in BO, K and L. Some specimens were also seen at BIOT and U.

Of the 68 specimens in BO infact 60 belong to *S. bancana*. Of the 95 specimens in L, and 83 specimens in K, 79 and 67 respectively represent *S. bancana*. Only 8 specimens in BO, 16 in L, and 16 in K belong to *S. ciliaris* (s.str.).

From their treatments and the notes on the sheets it appears that both Blake and Kern considered typical *S. ciliaris* to have long and narrow partial panicles, but otherwise they were unable to distinguish between the present two species. In the field the two can be easily distinguished; *S. ciliaris* has a taller and slender habit, long narrow dark reddish brown inflorescences with two or three long narrow partial panicles, while *S. bancana* is shorter and more robust, the inflorescences are yellowish green or brown, and very prickly, with one or two small partial panicles. Usually the populations are either of one species or of the other, but occasionally I found them mixed.

No intermediary specimens were seen, contrary to Kern's remark (1974) that there would be a continuous series between the two extremes.

In the greenhouse under controlled and identical circumstances these specific differences persisted. I have not been able to grow them from seed so far, so it is uncertain whether these differences are genetically stable, but this seems very likely. *Scleria ciliaris* (s. str.) occurs only in South China, Vietnam, Thailand, and surprisingly, in West Java (Figure 1). *Scleria bancana* is widely distributed and known from Thailand, Vietnam, the Malay Peninsula and Singapore, Sabah, Sarawak, and Indonesia (Sumatra, West Java, Kalimantan, Celebes, Moluccas, Nusa Tenggara, Irian Jaya), the Philippines, Papua New Guinea, Micronesia (Caroline Island) and Tropical Australia (Queensland and Northern Territory).

From the unparalleled distribution of *S. ciliaris* and the fact that the first collection of this species was made only about a century ago (*Koorders* 34552, in April 1899, in Pelabuhan Ratu, "Wijnkoopsbaai") it is very likely that the species was introduced in West Java from China from where it was originally described by Nees. There is a history of ancient maritime activity in that area. Another example of a species occuring only there in Malesia, with the next closest stations in South China to Sri Lanka, is the beach plant *Launaea sarmentosa* (Wild.) Sch. –Bip. ex O. Ktze. (Compositae), and it most likely came in with ballast cargo.

At present the distribution of *S. ciliaris* (s. str.) in West Java is still limited to the areas of Bogor, Sukabumi, and Banten.

An artificial key and detailed descriptions of the two species are provided below:

1a. Culms short and comparatively robust; rhizomes and base of culms only slightly reddish or purplish. Inflorescence short, oblong, compact, densely contracted with especially the upper axes hidden; inflorescence appearing very prickly, yellowish green to brown; terminal partial panicle 5–11 cm long; lateral partial panicles one or two, 2–3 cm long; pericarp (sub) globose, reticulate as in golf ball, ridges hirtellous, soon glabrescent ..... *Scleria bancana*

1b. Culms tall and slender; rhizomes and base of the culms strongly reddish and dark purple. Inflorescence long and narrow, lax, not looking very prickly, dark purplish brown; terminal partial panicle 10.5–15 cm long; the lateral partial panicles two or three, rather remote, 3–12 cm long; pericarp broadly ellipsoid, only slightly rugulose, ridges with numerous short bristles, tradily glabrescent ..... *Scleria ciliaris*

Scleria bancana Miq., Fl. Ind. Bat. Suppl., 1 : 602. 1861. Type: Bangka, Circa Muntok, *Kurz s. n.* (U).

S. malaccensis Boeck., Linnaea 38 : 507. 1874; K. Schum., Bot. Jahrb. 13 : 266. 1891; Ridl., J. Str. Br. R. As. Soc. 23 : 18. 1891. Type: Malacca, *Gaudichaud s. n.* (K).

S. bancana Miq. var. *nana* Ridl., J. Str. Br. R. As. Soc. 59 : 225. 1911, Fl. Mal. Pen. 5 : 178. 1925. Type: Satul, *Ridley* 14804 (K).

Notes on some *Scleria* species

Perennial. Rhizomes woody, swollen at the internodes, these and base of the culms only slightly reddish and dark purple. Culms 30 – 150 cm tall. Leaves tristichous. Lower sheaths broadly winged, the upper ones narrowly so. Contraligule rounded, appendage conspicuous, triangular, 0.3 – 1.5 cm long, membranous, white and brown when fresh. Blades linear, margins and veins smooth. Inflorescences short, oblong, compact, densely contracted, especially the upper axes hidden, appearing very prickly, 5 – 11 cm long, yellowish green to brown. The terminal partial panicle 5 – 11 cm long, lateral partial panicles one or two, 2 – 3 cm long, the lowermost remote or not, the upper overlapping the terminal partial panicle. Primary bracts similar to the leaves, the lowermost distinctly overtopping the inflorescence. Secondary bracts very conspicuous giving the inflorescence a very prickly appearance. Disk 3–lobed, yellowish brown when fresh. Immature fruit green, then turning white, sometimes pale grey, black or straw colour, 2.2 – 2.5 by c. 2 mm. Pericarp (sub) globose, reticulate as in a golf ball, ridges hirtellous, soon glabrescent.

Distribution: Thailand, Vietnam, South China, Tropical Australia and Caroline island. Widely distributed in Malesia, but in Java only in the Western part. In Nusa Tenggara in Sumbawa and Sumba, and in the Philippines only in Palawan and Busuanga.

(Fig. 1)

Habitat: Primary and secondary forest, rubber plantations, savanna; also along road sides, waste places, on beach walls etc. at low and medium altitudes, usually below 1000m, in Celebes up to 1100 m, in Papua New Guinea up to c. 1400 m.

Vernacular names: Rumput sedayan bukit (Mal.), *rija–rija korisan* (Sum. E. C.), *gegas* (Bangka), *peridang* (Kutei), *wannensil, tabinsuroh, babandang* (N. Borneo).

Specimens examined: Thailand: *Hansen & Smitinand* 11876 (K & L) – Ranong, Muang Len; *Kerr* 13726 (K) – Satul; *Kerr* 14701 (K & L) – Songkla, Tepa; *Put* 4169 (K & L) – Surat Thani, Kantuli; *Sangkhachand & Nimanong* 1285 (K & L) – Narathiwat, Waeng; *Shimizu, Fukuoka & Nalampoon* 8135 (K & L) – Nakhon Si Thammarat; *Smitinand* 4050 (L) – Trat, Kao Kuap; *Ridley* 14804 (K) – Satul; *Smitinand* 4137 (L) – Trang, Huay Yawt, Thale Sawng; *Smitinand 5748* (K & L) – E. Chanthaburi, Makham. Cambodia : *Poilane* 27334 (K) – Kandal. Tanasserim & Andamans: *Helfer* 6118 (K). Vietnam : *Nguyen van Khiem s. n.* (L) – Bien Hoa. Malay Peninsula : *Evans s. n.* (K) – Labong, Endau, Pahang; *Gaudichaud s. n.* (K); *Gianno* 69 (L) – Tasek Bera, Pahang; *Henderson* SF 20429 (L) – Telok Padang, N. Temaja, Anamba islands; *Henderson* SF 22969 (BO & L) – Bukit Ketri, Pahang; *Hollthum* SF 38289 (K) – Segamat, Johor; *Iwatsuki, Fukuoka and Hutoh* 14269 (L) – Lombong, Johor; *Lemann s. n.* (K) – Griffiths, Malacca; *Poore* 322 (K) – Kuala Lumpur; *Ridley* 1556 (K) – Kwala Brawas; *Simpson, Damanhuri, Khairudin, Ayau & Buruk* 89/2 (K & L) – Kuala Kangsar, Perak. Singapore: *Hullet s. n.* (K), *Meijer s. n.* (L), *Sinclair s. n.* (L) – Seletar forest. Sumatra: *Bunnemeijer* 1353 (BO) – Muntok, Bangka; *Bunnemeijer* 1652 (BO) – Sungai Liat, Bangka; *Bunnemeijer* 2347 (BO) – Kepo Tobali, Bangka; *Bunnemeijer*

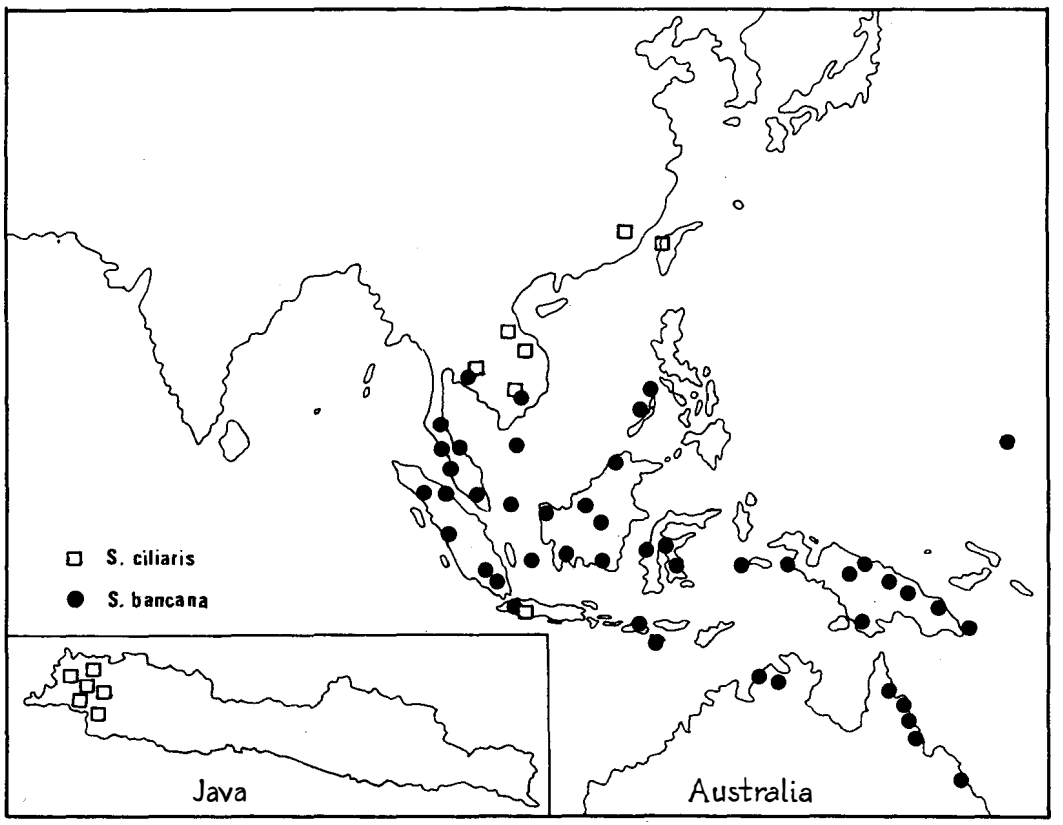

Fig. 1. Distribution of *Scleria ciliaris* and *S. bancana* in Malesia

6217, 6275, 6397, 6433, 6461 (BO) – P. Bintan; *Bunnemeijer* 6549 (BO) – Lingga, P. Selayar; *Dames* 12 (BO) – Dairi lands, North Sumatra; *Dekker and Wirjahardja* 3605 (BIOT) – Serdang, Palembang, South Sumatra; *Koorders* 21503 (BO) – S. Batang; *Kostermans s. n.* – Lake Padamaran, Palembang, South Sumatra; *Rutten – Koistra* 8 (BO) – Plaju, South Sumatra; *Soekisman* 171 (BIOT) – Sembawa, Palembang, South Sumatra; *Soekisman* 187 (BIOT) – Gelumbang, Prabumulih, South Sumatra. Java: *Backer* 92921 (BO) – Cipanas, West Java; *Hildebrand s. n.* (BO) – Janglapa, Parung; *van Steenis* 11183 (BO) – Dungus Iwul; *van Steenis* 11784, 11785 (BO) – Maribaya, Jasinga; *van Steenis* 12680 (BO) – Cidurian, G. Tenjoleat; *Tjitrosoedirdjo* 279 (BIOT) – Cikasungka, Cigudeg; *Tjitrosoedirdjo* 288A (BIOT) – Pasir Kandang, Cigudeg. Philippines: *Clemen* 5088 (K); *Merrill* 9202 (BO, K & L) – Tay tay, Palawan; *Merrill 9523 (K)* – Mt. Capoas, Palawan; *Ramos* 41175 (L). Borneo: *Aban and Sigin* SAN 96283 (K & L); *Agatho Elsener* H 197 (L) – Sanggu, West Kalimantan; *Brooke* 8235 (L) – Betong, Sarawak; *Clemen* 5088 (K) – Sarawak; *Clemen* 21361 (BO & L) – Kapit, Upper Rejang River, Sarawak; *Endert* 1737 (BO) – West Kuttai, East Kalimantan; *Endert* 1571 (BO, K & L) – West Kuttai, East Kalimantan; *Gibbs* 2948 (K) – Keningan Plain; *Hoogerwerf s. n.* (L) – Pangkalan Bun, South Kalimantan; *Kartawinata* 680 (BO); *Keith* 5976 (K & L) – Penampang, Tambunan; *Meijer* 949 (BO & L) – Bongan, District Muara Muntai, Jambu; *Meijer* 955 (BO) – Kutai, East Kalimantan; *Miki* 10 (BO) – Danau Salak; *Motley* 765 (K) – Banjarmasin, South Kalimantan; *Otik* NBF 4245 (K & L); *Polak* 272 (BO) – Pasir Panjang, Singkawang; *Shea* 26074 (BO & L) – Kg. Semane, Bentrang, Pontianak, West Kalimantan; *Simpson, Wong, Forman & Blewett* 89/110 (K) – Belait district, Undulan forest. *Soekisman* 5 (BIOT) – Tungkap, Tapin, South Kalimantan; *Wiriadinata* 578 (BO & L) – Long Bagun; *Yates* 65 (K). Celebes: *Eyma* 1467 (BO, K & L) – Masamba, N. E. of Singkalong; *Eyma* 3403 (BO & K) – Tinompo, Menado; *Kjellberg* 542 (BO) – Kendari; *Meijer* 11086 (BO & L) – Matano lake, Soroako. Moluccas: *Boerlage* 35 (BO) – Toya, Ambon; *Buwalda* 5392 (BO, K & L) – Aru Island; *Robinson* Pl. Rump. 433 (BO, K & L) – Ambon; *de Wiljes Hissink* 20 (L) – Ambon. Irian Jaya & Papua New Guinea: *Anang s. n.* (BO & L) – near Dempta, Irian Jaya; *Braderhorst* 172 (L); *Brass* 7670, 8252 (BO), 5808 (BO & L) – Papua New Guinea; *van Duuren s. n.* (L); *Foreman & Stocker* LAE 60406 (L) – Woroi village, Oriomo river, Daru subdistrict, Western district, Papua New Guinea; *Gjellerup* 87a, 96 (BO); 667 (BO & L) – New Guinea; *Henty & Streimann* NGF 3887 (L) – Dagaruga Ridge, Baiyer – Jimi–Divide, Western Highlands district; *Himson* 27 (L) – Jambi, Sepik district; *Hoogland & Craven* 10232 (BO, K & L) – near Ambunti, Sepik district; *Kalkman* 130 (BO, K & L) – Cycloop Mt., Irian Jaya; *Kanehira & Hatusima* 12964 (BO) Manokwari, Irian Jaya; *Kruid* 172 (BO) – New Guinea; *Mangold* BW 2199 (BO, K & L) – Manokwari, Irian Jaya; *Meijer Drees* 90 (K & L) – Cycloop Mt; *Pleyte* 1138 (BO & L) – Misool Island, Irian Jaya; *Pullen* 7239 (L) – Morehead Patrol Post, road to Tonda, Western district, Papua New Guinea; *Pulsford* UPNG 223 (L) – Musgrave River Road, 40 miles from University, Sogeri subdist., Western dist., Papua New Guinea; *Raynal* 16824 (L); *van Royen & Sleumer* 5703 (BO, K & L) – Athur Hill, S. of Ifar, Cycloop Mt.; *Sands, Pattison & Wood* 2705

(K); *Sunarti & Suhardjono* 143 (L) – Merauke, Irian Jaya; *Stevens* LAE 50195 (L) – Gabensis, Lae subdist., Morobe dist., Papua New Guinea; *Widjaja & Hamzah* 209 (BO & L) – Sentani, Irian Jaya; *A. G. de Wilde & Vervoort* 443 (L) – Dojo; *Womersley* NGF 2919 (K) – Morobe dist., *Womersley* 3668 (K) – Angoram, Sepik dist., Papua New Guinea; *van Zanten* 1007 (L) – Tanah Merah, Irian Jaya. Australia: *Adams* 2819 (K); *Batianoff & Dilleward* 9435 (K) – Leeks Creek, Great Keppel Island; *Boylannd & Gillieat* 412 (K) – N. of Daintree, Cook dist. Queensland; *Blake* 23431 (K & L) – Isabella Falls; *Brass & White* 163 (K) – Mossman, North Queensland; *Clarkson* 3606 (K) – near Massey Creek, Cook District; *Clemens s. n.* (K) – North Queensland; *Henderson* H 1506 (K) – North Queesnland; *Hyland* 8330 (L) – Mc Ilwraith Range Leo Ck. Road; *Must* 616 (L); *Specht* 131 (K) – Delissaville, Cox's Pen.; *Specht* 436 (K) – Little Lagoon, Gulf of Carpentaria, Northern Territory.

Scleria ciliaris Nees in Wight, Contr. 117. 1834.
Type : *Vachell s. n.*, "In China, in vicinia Macao urbis" (K).

Scleria chinesis Kunth, Enum. Pl. 2 : 357. 1837, nom. superfl.

(Fig. 2)

Perennial. Rhizomes woody, swollen at the internodes, these and base of the culms strongly reddish and dark purple. Culms 60 – 200 cm tall. Leaves tristichous. All sheaths broadly winged, margins scaberulous. Contraligule rounded, appendage conspicuous, triangular to lanceolate, 0.5 to 1.5 cm long, membranous, white when fresh, turning pale brown when dry. Blades linear, margins scaberulous. Inflorescences long and narrow, lax, bristly, but not appearing prickly, dark and purplish brown; terminal partial panicle 10.5 – 15 cm long; lateral partial panicles two or three, rather remote, long and narrow often spike-like, 3 – 12 cm long. Primary bracts similar to the leaves, the lowermost only slightly overtopping the inflorescence. Disk 3- lobed, lobes obtuse and not longer than one fourth the length of the fruit, brown purplish when fresh, turning brown when dry. Fruit white, sometimes pale grey, black or straw coloured, 2.5 – 3 cm by c. 2 mm. Pericarp only slightly rugulose, ridges with numerous short bristles, tradily glabrescent, broadly ellipsoid.

Distribution : Thailand, Vietnam, South China, West Java in Malesia.

Habitat : Secondary forest, rubber plantations, road sides, waste places etc.; usually found at altitudes below 1000 m, in Vietnam up to 1500 m.

Vernacular name : Ilat (Sund.)

Specimens examined : Thailand: *Kerr* 17748 (K & L) – Trat, Kao Kuap, 600 m in light evergreen forest. Vietnam: *D' Alleizette s. n.* (L) – Tonkin bay; *Poilane* 319 (L) – Annam, Maung Leum, Quang Nam Prov. ; *Squires* 111 (K) – Hue and vicinity, Dalat

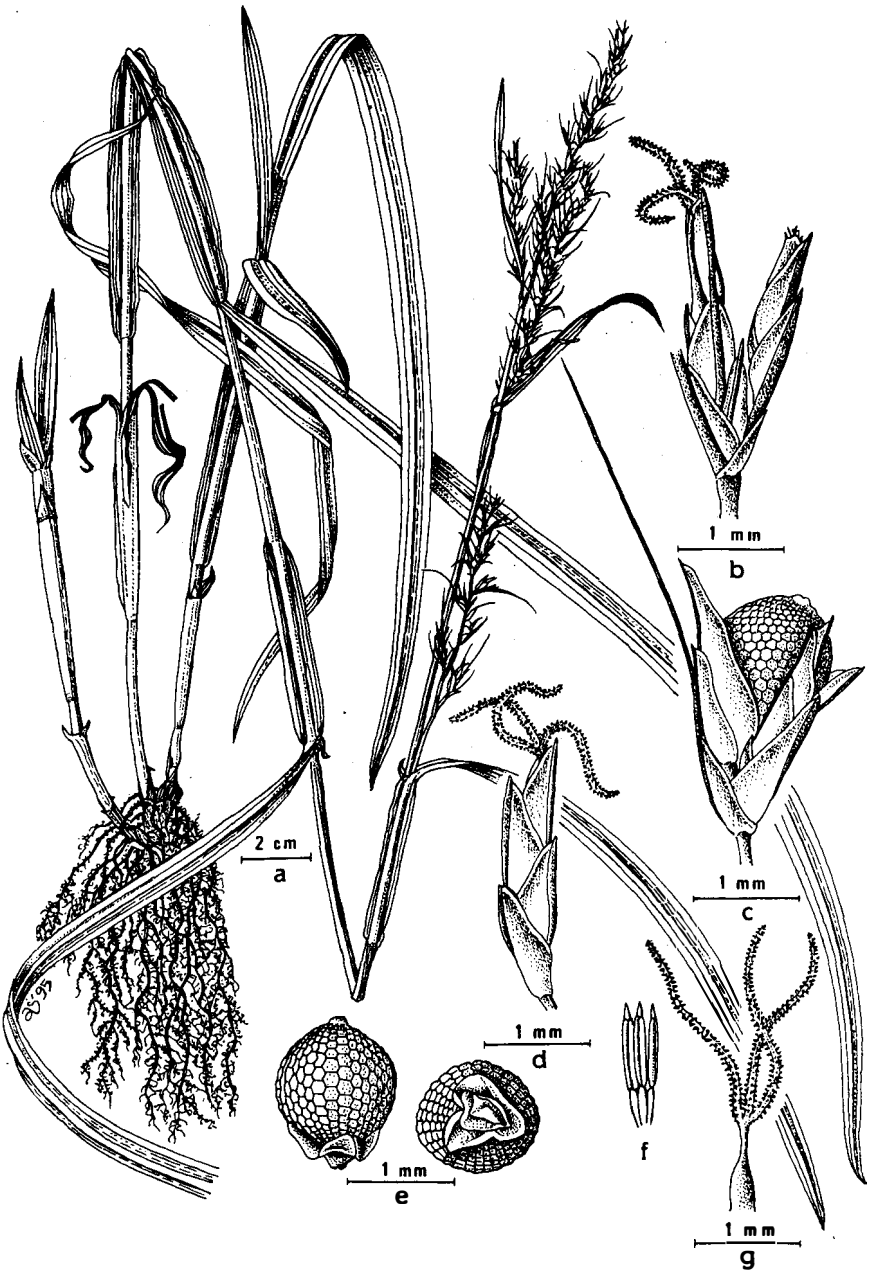

Fig. 2. a. *Scleria ciliaris,* showing the stem with winged leafsheaths; b. Spikelet with male and female flowers; c. Spikelet with young nut in its glumes; d. Female flower; e. A nut attached to the disc; f. Stamens; g. Pistil.

and vicinity, in sandy soil at edge of forest. China & Hongkong; *Degener* 29609 (L) – Victoria Peak, Hongkong; *Degener* 29622 (L) – Long Cheung, Kwoloon, near Hongkong; *Hance* 840, 1054 (K) – Hongkong; L 445703 (L) – Luo-fu Shan, Kwangtung, 100 m in mountainous place; *Pere Faurie* 15808 (K); *Ryves s. n.* (K), *Shin Ying Hu* 5085, (K) – Hongkong and the New Territories; *Shin Ying Hu* 7125 (K) – Dragon BackVictoria Island; *Shin Ying Hu* 9883 (K) – Kadoorie farm, in wet areas; *Shin Ving Hu* 11738 (K) – U Khai Sha, on newly reclaimed bank; *Tsui* 184 (K) – Pak Wan Cheung, Wai– Yeung district, Kwangtung, elevation 247 feet. West Java: *Bakhuizen v. d. Brink* 20 (BO) – Parungpanjang, 150 m.; *Bakhuizen v. d. Brink* 3049 (BO)– Ciareng, near Pangundangan halte Cibadak; *Bakhuizen v.d. Brink,* 6968 (BO & L) – Gunung Parungpung Leutik, Southeast of Leuwiliang, Bogor; *Boerlage s. n.* (L) – near by Masigit; *Buwalda* 2853 (BO & L) – Bantarjaya, Lebak Bolang, Rangkasbitung, Banten; *Koorders* 34552 (BO) – Pelabuhan Ratu; *Meer* 1380 (L) – Gunung Bedil; *Tjitrosoedirdjo* 286 (BIOT) – Hoream, Cikasungka, Cigudeg, Bogor 300 m in the young rubber plantations.

NOTES ON *SCLERIA LEVIS* RETZ.

In a rubber pnantation in Cigudeg, Bogor, I found *Scleria levis* which was different from the very hairy materials from Rangkasbitung, Banten, West Java.

The two varieties of *Scleria levis* described below were studied while revising *S. ciliaris* at the Rijksherbarium, Leiden.

Scleria levis Retz., Obs. 4 : 13. 1786; Blake, J. Arnold Arb. 35 : 226. 1954; Kern, Blumea 11 : 164. 1961; & in Steenis, Fl. Mal. 1,7 (3) : 732. 1974. Type : Ex India Orientali (LD), (n. v.).

Scleria zeylanica Pior., Encycl. Meth. 7 : 3. 1806. Type : Ceylon, *Sonnerat* (P), (n.v.).

Scleria hebecarpa Nees in Wight, Contrib. Bot. Ind. 117 : 1834; Valck. Suring., Nova Guin. Bot. 8 : 712. 1912; Palla in Rechinger, Denkschr. Math.-Naturw. Kais. Akad. Wiss. Wien. 89 : 500. 1913; Kukenth., Bot. Jahrb. 59 : 58. 1924; Ohwi, Bot. Mag. Tokyo 56 : 212. 1942. Type : In Ceylona insula; *Macrae* (CGE), (n. v.).

Scleria japonica Steud., Syn. Cyp. 169. 1855. Type : Japonia : Herb. *Goering* n. 347 (P), (n. v.).

Scleria dietrichiae Boeck., Flora 58 : 121. 1875. Type : Port Mackay, N. Holl. : *Am. Dietrich* 726 (BM, HBG), (n. v.).

Scleria wichurai Boeck., Bot. Jahrb. 5 : 510. 1884. Type : Manila : *Wichura* (n. v.).

var. **levis**

Perennials, ca. 50 –100 cm high, rhizome creeping, short, thick, covered with ovate brown or dark red scales. Culms at the base dull green to brown, sometimes purplish; stem slender, erect, triquetrous, scabrous on the angles, and distinctly 3– winged. Leaves equally

distributed on stem, linear, glabrous, margins serrulate. Contra ligule semi orbicular, densely hirsute, the top with or without scarious appendage, appendage up to 2 mm long ovate. Inflorescence slender, oblong lanceolate, 6–12 cm by 1–4 cm, with one or two smaller axillary partial panicles with less branches, base of the branches with white hairs. Spikelet in cluster of 2 or 4, unisexual. Male spikelets oblong lanceolate, 3 – 4 mm long; stamens 3, anther linear. Female spikelets ovate, 4–6 mm long; stigma 3-fid. Disk deeply 3-lobed, appressed to the nut, acutish, 1/3 of the nut, brown. Immature nut green, turning to white, straw, pale grey or black; globose to ovoid, narrow at the apex, 2 – 3 mm long, 2 mm wide, minutely velvety or glabrescent, shiny.

Distribution: Widely distributed from India to Burma, Vietnam, South China, Japan, throughout Malesia to Queensland and New Caledonia.

Habitat: In open forests (often in teak-forest), monsoon & deciduous dipterocarp forests, savanna, fallow rice fields, alang-alang land, rubber plantations etc., at low and medium altitude; up to c. 1800 m in Goroka Town area, Eastern Highlands, Papua New Guinea.

Vernacular names: Rumput belidand (Mal.), *Jukut ilat* (Sund.), *kerisan* (Jav.), *sianit* (C. Sum.), *teteles* (Gayo), *pedugan* (Bawean), *a'ada* (Toraja), *tentaripa* (Talaud; Philip), *daat* (Tag.).

var. **pubescens** (Steud.) Tjitrosoedirdjo, comb. et stat. nov.

Scleria pubescens Steud., Syn. Cyp. 168. 1855. Type : Java : *Zoll. Mor.* ex parte Hrbr. n. 377 (P), (n. v.).

Scleria vestita Boeck., Linnaea 38 : 482. 1875. Type : Hongkong : *Hance* 1157 (K).

Scleria hebecarpa Nees var. *pubescens* (Steud.) C. B. Clarke in Hook f., Fl. Brit. Ind. 6 : 689. 1894, based on *S. pubescens* Steud.

Scleria hebecarpa Nees forma *pilosa* Valck. Suring., Nova Guin. Bot. 8 : 712. 1912. Type: Nova Guinea : *von Roemer* 672 (BO), fide Valck. Sur., (n. v.).

More hairy as compared to var. *levis,* sometimes softly pilose, upper part of the sheaths, panicles, and rachis very hairy. Spikelets sometimes hairy. Terminal panicle oblong, brown, robust with erect branches. Disk deeply 3–lobed, pale brown, upto 1/3 – 1/2 of the nut. Nut globose to ovoid, narrow at the apex, trigonous, softly velvety or glabrous, shiny.

Distribution and specimens examined: India: *Rao* 3878 (L) – Garbhanga, South of Gauhati; *Rao* 8844 (L) – Agartala, Shillong. Thailand: *Maxwell* 88–893 (L)– Doi Sutep, east side, above Pah Laht, distr. Muang, Chiang Mai. Philippines: *Ramos & Edano* BS 30957 – Jamidan Capiz Province Panay. Adjacent islands of Borneo: *Henderson* SF 20213 (BO & L) – Siantan, P. Tanjungsuka, Anambas & Natuna Islands, under coconut palms. Sumatra: *Bunnemeijer* 4030 (L) – G. Malintang, 1050 m; *Dekker & Wirjahardja*

3756 (BIOT) – LP3, Bendosari, Tamanbogo, Lampung, 200 m above sea level; *Surbeck* 273 (L) – Padang Sidempuan. Java: *Backer* 93406 (BO) – Kiara Payung, Cianjur; *van Steenis* 11788 (L) – Maribaya, North of Jasinga, 50 m; *van Steenis* 7476 (BO) – Plosokerep, Indramayu, 20–30 m; *Tjitrosoedirdjo* 239 – Bantarjaya, Lebak, Rangkasbitung, Banten.

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