

TWO NEW SPECIES OF SCLERIA

by

S. T. B L A K E

(Queensland Herbarium, Brisbane)

(Issued 1. XII. 1961)

The two species of *Scleria* described below were studied while revising the Australian and Malaysian species of the genus. The study of the Malaysian species has been taken over by Mr. J. H. Kern and the opportunity has been offered to publish the descriptions here. I am grateful to Dr. C. G. G. J. van Steenis and to Mr. Kern for this opportunity.

1. *Scleria oblata* S. T. Blake, sp. n. —

Herba perennis metralis vel brevior; rhizoma lignosum horizontale. *Culmi* approximati, multinodes, acute triquetri faciebus fere plani, \pm striati ceterum laeves, glabri, 2—3 mm crassi, circum medium vaginis obtecti. *Folia* superiora distantia, intermedia subaeque approximantia, inferiora ad vaginas redacta; vaginae arctae haud alatae, majore parte vel omnino laeves etiam in angulis, superiore parte \pm pubescentes; ligulae multo breviores quam latae, usque 1 mm longae, margine scariosa usque ad 0.5 mm lata tandem marcescente breviter denseque pilosae; laminae saepe inflorescentiam superantes, ad apicem angustissimum longe attenuatae, usque ad 8 mm latae, fere planae vel partim recurvae, majore parte laeves apicem versus praecipue in margine carinaque atque basim versus in margine minute scabridae, facie superiore prope basim \pm puberulae. *Inflorescentia* communis circa 15—25 cm longa, 3—5 cm lata. *Bracteeae* foliis similes saltem inferiores culmum superantes. *Paniculae* 3—6, singulae, erectae, contiguae vel inferiores \pm distantes, pyramidales, brunneae, e bractearum vaginis vix vel breviter exsertae, circa 3—6 cm longae summa ceteris paulum major; axis ramique glabri fere laeves hi patuli. Bracteolae inconspicuae setaceae, eae ramorum primariorum usque medium ramum adaequantur vel paulum superantes, ceterae spiculis breviores. *Spiculae* unisexuales fere semper geminatae; glumae \pm stramineae, dense tenuiterque atrosanguineo-striolatae. *Spiculae masculae* pedicellatae, pedicello scabridulo quam spicula saepe longiore, ambitu anguste lanceolatae vel suboblongae, leviter recurvae, 3.5—4 mm longae; glumae ovatae, obtusae, superiores muticae, infimae \pm mucronatae, carina interdum etiam lateribus \pm scaberulae. *Spiculae femineae* sessiles vel breviter pedicellatae, 4—4.5 mm longae; glumae late vel latissime ovatae, acutae vel subacuminatae, apiculatae, minute ciliolatae. *Nux* glumis brevior, oblata, haud angulata, fere mutica, basi breviter truncata, glabra, laevis, nitida, cum disco 2.3—2.5 mm longa, 2.5—2.8 mm lata; discus pallidus tenuiter rubido-striolatus, fere ad basim 3-lobatus, nuce angustior, ejus lobi latissime ovati vel oblati, rotundati, appressi, tenuiores, lateribus reflexi, sinusibus acutis. — *Typus*: *Elbert 3078* in BRI, L.

CEYLON. Colombo: *Macrae* (MEL); without definite locality: *Thwaites C. P. 2745* (MEL, BO).

THAILAND. Bangkok: *Kerr 6974* (SING).

BANGKA. Lobok Besar, 20 m, sandy soil: *Anta 438* (L).

RHIO ARCHIPELAGO. Pulau Batan: *Ridley 6112* (SING).

MALAYA. Perak: Batu Gajah: *Burkill & Haniff in S. F. N. 13387* (SING).
 Trengganu, Bundi: *Rostado* (SING). Pahang, Kuala Pahang: *Ridley 1479* (SING); Kuala Taban: *Seimund 257 p.p.* (SING). Selangor, Kuala Lumpur: *Hume 7739 A* (SING). Malacca, Malacca: *Gaudichaud 92* (FI), *Griffith* (FI), *Hervey* (SING), ? *Ridley* (SING); Alor Gajah: *Ridley* (SING). Johore, Tanah Merah Road: *Ridley 1719* (SING); Kota Tinggi, Lombong, rice fields: *Corner* (SING). Penang, Penang Hill, 690 m: *Nauen* (SING); hill S. of Ginting Pass: *Burkill in S. F. N. 4615* (SING); Waterfall: *Curtis 22 p.p.* (SING). Singapore, Reservoir: *Holtum & Henderson* (SING); Changi: *Ridley 5809* (SING); Galang: *Ridley* (SING); P. Ubin: *Furtado in S. F. N. 18630* (SING, BO).

JAVA. West Java, Tjikoja, ad vias et in sylvis aridis: *Zollinger 469* (FI, L); near Djakarta, 0 m: *Kern 8423* (L); Res. Bantam: *van Hasselt* (L); Bogor, grassy ruderal areas, stream bank: *de Wit 4210* (L). Central Java, Magelang: *Blume* (L). Pulau Panaitan, N of Mt. Parat: *van Borssum Waalkes 636* (L).

PHILIPPINE ISLANDS. Palawan, Taytay: *Bur. Sci. 9244 Merrill* (BO, L, SING); Mindanao, Bukidnon, Malaybalay, 570 m: *Santos 5991* (L). Sulu Prov., Turtle Is., upper slope on hill, 56 m: *Santos 4740* (L).

BORNEO. East Borneo, Maloewi, along the shore, 3 m: *Aët 183* (L, BO). North Borneo: Sandakan and vicinity: *Ramos 1709* (L). Labuan I., Port Victoria, shadow of trees, clayey soil, roadside: *van Royen 2890* (L).

CELEBES. S. E. Celebes, Rumbia, Wambakowu, monsoon forest: *Elbert 3078* (BRI, L).

Specimens of this species have been referred to *S. levis* Retz. by most authors, but *S. levis* is the correct name for the very different species widely known as *S. hebecarpa* Nees as I have pointed out in *J. Arnold Arb.* 35: 226—7. 1954. I also stated that the "name *S. levis* (the epithet of which is often spelled *laevis*) has been commonly applied to specimens of *S. terrestris* (L.) Fasset on which the fruits are somewhat depressed due to imperfect development." At first sight *S. oblata* resembles such specimens of *S. terrestris*, but the bracteoles are inconspicuous, the male spikelets \pm recurved, the ligule is shorter and densely hairy on the margins, the peduncles are very short and the disc is more deeply divided with acute sinuses; the short, oblate, shining mature nut is quite distinctive and the smooth culms and nearly smooth leaves are noteworthy. *Burkill & Haniff in S. F. N. 1314* and *Ridley's* specimens from Galang have more prominent bracteoles than the other specimens, especially in the topmost panicles.

2. *Scleria tricuspidata* S. T. Blake, sp. n. —

Herba annua viridis \pm scaberula plerumque 10—30 cm alta. *Culmi* fasciculati, triquetri, \pm scaberuli vel marginibus etiam parce scabri vel fere laeves, faciebus rigide pubescentes vel glabri, sub inflorescentia enodes vel uninodes. *Folia* basalia et caulinea saepius fere vel omnino ad vaginas redacta; vaginae triquetrae, marginibus costiformibus minute scaberulis haud alatae, faciebus \pm scabro-pubescentes; ligulae breviores quam latae, rotundatae, \pm 1 mm longae, margine hirsutae; laminae, ubi adsunt, lineares in apicem angustum rotundatum attenuatae, sursum marginibus carinaeque scabrae alibi scaberulae vel laeves, 2—3.3 mm latae, culmum interdum superantes. *Inflorescentia* communis sparsa circa 3-nodis e paniculis 3—5 composita. *Bractee*

inferiores folio evoluto simillimae. *Paniculae* singulae vel binae ad nodos distantes ortae, inferiores longissime pedunculatae, oligostachyae, densae, summa ceteris major valde remota; pedunculi graciles, admodum nutantes, scabridi, inferne compressi et ancipites sursum triquetri bialati. *Spiculae* unisexuales, singulae sed arcte approximatae, pedicellatae; glumae pallidae tenuiter ferrugineo-striatae carina virides, extus glabrae. *Spiculae masculae* paucae, saepius paniculam terminantes, pedicello 1—2 mm longo praeditae, oblongo-lineares 3—4 mm longae. *Spiculae femineae* saepe brevius pedicellatae, 4.5—5 mm longae; glumae anguste ovatae, acutae, carina sursum \pm scaberula \pm excurrente. *Nux* gluma brevior, alba, opaca, fere oblonga (admodum ellipsoidea vel admodum ovoidea), acuminato-apiculata, prope basim abrupte constricta, obtuse trigona, reticulato-rugosa atque \pm verrucosa, parce pubescens, cum disco 2.5—2.75 mm longa, 1.7—1.8 mm lata. Discus arcte appressus basi productus, a basi visus fere triangularis obscure trilobatus, nuce paulo angustior, margine \pm incrassatus, lobis \pm obtusis mucronatis mucrone erecto subulato 0.2 mm longo. — *Typus*: *Blake 5291* in BRI (holotypus), K, L, MEL.

MOLUCCAS. Aru Is., P. Trangan: *Buwalda 5555* (BO, L).

AUSTRALIA. Northern Territory. Gove (12° 15'S., 136° 43'E.) in *Melaleuca leucadendron* stand: *Specht 957* (BRI); Port Bradshaw (12° 27'S., 136° 42'E.) at edge of *Melaleuca leucadendron* swamp: *Specht 783* (BRI); South Bay, Bickerton I., in the Gulf of Carpentaria, in moist *Melaleuca leucadendron* stand: *Specht 559* (BRI). — Queensland. Cook District, Cairns, in wet sandy forest land about sea level: *Blake 9379* (BRI). North Kennedy District, Rockingham Bay, in moist places: *Dallachy* (MEL, BRI). Moreton District, Coolum on wet swampy ground: *Blake 13760* (BRI); Alexandra Headland, swampy cliffside: *Blake 5190 A* (BRI); base of Buderim Mtn, marshy ground: *Blake 5208* (BRI); Geebung, Brisbane, hillsides in open forest: *Blake 5086* (BRI), and in damp places: *Blake 5309* (BRI); Chermiside — Aspley, Brisbane, damp places: *Blake 5126* (BRI); Moggill, Brisbane, damp hillside in open forest: *Blake 5291* (BRI); The Gap, Brisbane, 60 m, damp grassy places: *Blake 18739* (BRI); Samsonvale near Brisbane, 37 m, damp grassy place in open forest: *Blake 15498* (BRI); Sunnybank, damp places: *Blake 5299* (BRI); near Brisbane (?), in swamps: *F. M. Bailey 32* (BRI, MEL).

Individuals of this species are slender, small, scabrous, annual plants found growing in damp places often associated in Australia with *Scleria novae-hollandiae* Boeck. and *S. rugosa* R. Br. which have a somewhat similar habit. The outstanding characters are: culms nodeless or with one node below the lowermost panicle; long, leaf-like bracts; widely spaced, solitary or binate, very small panicles on long, very slender peduncles; unpaired, pedicellate, mostly female spikelets; pallid glumes with green keels; dull, nearly oblong nut shorter than the glumes; and small, closely appressed disc nearly deltoid in outline as seen from below, with the lobes ending abruptly in short, erect, subulate points. Its closest ally is *S. novae-hollandiae* Boeck. which is smooth or nearly so with sessile or subsessile male spikelets, shallowly scrobiculate nuts and short, thin, broadly rounded, mucicous lobes of the disc.

In Proc. Roy. Soc. Qd. 58: 50. 1947, I had identified this taxon with *S. benthamii* C. B. Clarke, Kew Bull. Add. Ser: 8: 58. 1908, but *S. benthamii* is a different species as stated op. cit. 60: 53. 1949. I had assumed that an unnumbered *Bailey* specimen at Brisbane was part of the type collection since it agreed with Clarke's description. Clarke cited "Brisbane River, *F. Mueller*, n. 61", but *Mueller* did not number his specimens; *F. M. Bailey* however,

sent many numbered specimens to Mueller some of which have been cited as having been collected by Mueller. However, the sheet at Melbourne numbered 61 from which the specimen at Kew would have been taken by Bentham (see Fl. Austr. 1: pref. 12*. 1863) has a specimen of a different species. This specimen is scanty, but is sufficient to show that the species has stems with 2 or perhaps 3 nodes below the lowermost panicle, denser and rather larger panicles on shorter, stouter, erect peduncles with spikelets more equally distributed, male and female spikelets nearly equal in length and mostly in pairs or the upper ones of a branch without accompanying females, broader and more obtuse female glumes, glossy, larger, more ovoid nut about as long as the glumes with more regular reticulations and a thicker disc with definitely recurved margins; I have seen no other specimen to match it.

Bentham referred the type of *S. benthamii* to *S. tessellata* Willd. and on a single collection (Rockingham Bay: *Dallachy*) of *S. tricuspidata* he based *S. tessellata* Willd. var. *debilis* Benth. Fl. Austr. 7: 430. 1878 which is not *S. debilis* Wright. This epithet is therefore not available and *S. tricuspidata* has been described independently with a more copious collection as the type of the name. *S. tessellata* resembles *S. tricuspidata* in habit but is stouter, with 2 nodes below the inflorescence, longer male spikelets about as long as the female, slightly broader nut more evenly tessellated, and a deeply lobed disc with oblong or \pm obovate, \pm acuminate lobes with deep \pm V or U-shaped sinuses.¹⁾

S. laxa R. Br. var. *pseudotessellata* Domin, Biblioth. Bot. 85: 489. 1915 is probably another synonym.

Bentham loc. cit. 428 supposed that *S. novae-hollandiae* was the same as *S. laxa* R. Br. Domin, following Clarke's arrangement of specimens at Kew, treated the two names as synonymous, but they belong to quite distinct species. In the original description in Flora 58: 120—1. 1875, Boeckeler quoted "Herb. Luerssen. Port Mackay. Nov. Holland. (Am. D.)". In 1937 I had on loan from Berlin a sheet with a TYPE label carrying the upper part of two culms, a packet marked "Herb. O. Boeckeler. Nova Holland. Port Mackay. Am. Dietrich coll. nr 725", and a label reading "*Scleria Novae Hollandiae* Böklr in Hb Luerssen". This sheet was presumably destroyed in 1943.

Boeckeler described complete plants, so it seems likely that the holotype should have been in Hb. Luerssen (HBG) and that the Berlin sheet was really a clastotype. There is an excellent sheet of *Dietrich* 725 at Melbourne agreeing fully with the description and marked as determined by Boeckeler, and this should be the neotype if no holotype can be found at Hamburg. Domin cited *Dietrich* 2443 *p.p.* as the type, indicating that it was mixed with material of *S. brownii* Kunth, a species with which Boeckeler's description does not agree. There is some evidence that some of Dietrich's collection numbers were altered later and this may have occurred in this case with some admixture of material.

S. novae-hollandiae is widely distributed northward from Brisbane through the coastal and subcoastal parts of northern and north-eastern Australia to southern New Guinea, and is also in Guam and Luzon. *S. merrillii* Palla,

¹⁾ This is apparently not *Scleria tessellata* Willd., but probably *S. mikawana* Makino. See my paper, this issue p. 200. — J. H. KERN.

Allgem. Bot. Zeitschr. 17: Beil. 8. 1911 is a synonym as I pointed out in J. Arnold Arb. 35: 225 (1954); I have seen two isotypes (*Merrill in Kneucker, Cyp. (excl. Carices) & Junc. exsicc. ix Lief. 249: BRI, L*).

S. laxa R. Br. Prodr. 240. 1810 appears to be a rare species of which I have seen a few collections from Thursday Island (*Jaheri, BO*) westward to the Northern Territory and southward along the Queensland coast to lat. 26° 30'S. The type (BM), of which there is a photograph and fragment at Brisbane, has a label with "*Scleria laxa* North Coast" in Brown's writing; there is no further indication of locality in his manuscript, but these annual species flower and fruit chiefly during the summer when Brown was in the Gulf of Carpentaria. The sheet also bears the distribution number 6068.

S. filipendula S. T. Blake, Proc. Roy. Soc. Qd. 58: 49. 1947 is a synonym, the type of which, *Blake 5233* (BRI) is from the southern limit of its range.

Like *S. novae-hollandiae* and *S. tricuspidata*, *S. laxa* comprises slender, annual, tufted plants with up to 2 nodes beneath the lowermost panicle, small panicles on long slender peduncles, unisexual mostly unpaired spikelets, few small male spikelets, and nuts shorter than the glumes. *S. laxa* differs from both in that the terminal panicle is scarcely, if at all, larger than the others, the nut is globular and deeply tessellate even at maturity, and the disc is more deeply lobed and much thicker, especially at the sinuses.