

THE GENUS *SCLERIA* IN BRAZIL (*)

by EARL L. CORE

Since the publication of my original treatment of the genus *Scleria***, many new data have been discovered relative to the distribution of these plants in Brazil and it seems advisable, therefore, to bring these together for the benefit of students of the Brazilian flora.

The following abbreviations are used for institutions where the cited specimens are deposited:

- BD — Botanischer Garten, Berlin-Dahlem
- C — Universitetets Botaniske Museum, Copenhagen
- D — Herbier Delessert, Geneva
- G — Gray Herbarium, Harvard University, Cambridge, Massachusetts
- K — Royal Botanic Gardens, Kew
- M — Missouri Botanical Garden, St. Louis
- NY — New York Botanical Garden
- S — Riksmuseets Botaniska Avdelning, Stockholm
- US — United States National Herbarium, Washington
- V — Naturhistorisches Museum, Vienna

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(**) The American Species of *Scleria* — Brittonia 2: 1-105; pl. 1-3; 1936.

KEY TO THE SPECIES

1. Hypogynium obscure or none (*Hypoporum*)
 2. Inflorescence simple
 3. Achene essentially smooth
 4. Annual 2 *S. lindleyana*
 4. Perennial
 5. Scales hirsute 3 *S. hirtella*
 5. Scales glabrous 10 *S. leptostachya*
 3. Achene reticulate or verrucose
 4. Annual
 5. Bracts glabrous
 6. Achene 1 mm. long
 7. Spikelets about 5 mm. long 6 *S. cuyabensis*
 7. Spikelets 2-3 mm. long 7 *S. verticillata*
 6. Achene 1.5-2 mm. long 8 *S. burchellii*
 5. Bracts hirsute 1 *S. interrupta*
 4. Perennial
 5. Inflorescence interruptedly glomerate-spicate 10 *S. leptostachya*
 5. Inflorescence a single cluster at the summit of the culm. 5 *S. filiculmis*
 2. Inflorescence more or less branched
 3. Achene smooth
 4. Inflorescence virgately branched; achene 1-1.5 mm. long. 11 *S. spicata*
 4. Inflorescence not virgately branched 10 *S. leptostachya*
 3. Achene verrucose-tuberculate or reticulate
 4. Leaves less than 5 mm. wide
 5. Inflorescence lax, paniculate or interruptedly glomerate-spicate
 6. Perennial
 7. Inflorescence interruptedly glomerate-spicate
 8. Achene transversely rugose 10 *S. leptostachya*
 8. Achene reticulate 4 *S. catharinensis*
 7. Inflorescence virgately branched 12 *S. aromatica*
 6. Annual
 7. Inflorescence paniculate, branches several
 8. Achene strongly verrucose-reticulate 13 *S. micrococca*
 8. Achene irregularly verrucose or transversely undulate-rugose
 9. Glabrous 14 *S. pusilla*
 9. Pubescent 15 *S. minima*
 7. Inflorescence interruptedly glomerate-spicate; branches few 8 *S. valdemuricata*
 5. Inflorescence spicate, dense 16 *S. composita*
 4. Leaves 5 mm. wide or wider

5. Panicle virgately branched, very large 17 *S. virgata*
5. Panicle dense, not virgately branched
 6. Leaves not incised at apex 18 *S. variegata*
 6. Leaves short-incised at apex 29 *S. bradei*
1. Hypogynium present
 2. Pistillate spikelets lowest in each branch, sessile, oneflowered, the staminate on distinct long peduncles (*Hymenolytrum*)
 3. Ligule unappendaged
 4. Leaves 7-15 mm. wide 29 *S. cyperina*
 4. Leaves 18-45 mm. wide 30 *S. grandis*
 3. Ligule with a very large membranous appendage
 4. Leaves 3-4 cm. wide; inflorescence large, dense 31 *S. stipularis*
 4. Leaves 0.5-2 cm. wide
 5. Hypogynium-margins horizontal, lobes none or very obscure 32 *S. ramosa*
 5. Hypogynium distinctly 3-lobed, the lobes lanceolate
 6. Sheaths wingless 33 *S. violacea*
 6. Sheaths winged
 7. Hypogynium-lobes entire 34 *S. macrogyne*
 7. Hypogynium-lobes dissected
 8. Leaves 5-12 mm. wide 35 *S. comosa*
 8. Leaves 12-20 mm. wide 36 *S. cyperinoides*
 2. Without this combination of characters
 3. Hypogynium-margin ciliate, fimbriate, or serrate
 4. Hypogynium ciliate on the margin (*Ophryoscleria*)
 5. Achene very large, 3.5-6 mm. long 20 *S. macrophylla*
 5. Achene smaller, 1-3 mm. long
 6. Achene 1-2 mm. long; leaves 7-11 mm. wide 21 *S. microcarpa*
 6. Achene 2-3 mm. long; leaves 1-6 cm. wide
 7. Margin of the hypogynium densely ciliate
 8. Style-base black, usually persistent .. 22 *S. mitis*
 8. Style-base brown, rather early deciduous
 9. Leaves oblong, about 5 cm. wide .. 23 *S. sprucei*
 9. Leaves linear or lanceolate, 1-3 cm. wide 24 *S. sororia*
 7. Margin of the hypogynium ciliolate or nearly glabrous
 8. Leaves broad, usually 1.5-3 cm. wide 25 *S. schiedeana*
 8. Leaves narrower, 1 cm. or less broad
 9. Hypogynium cup-shaped, or obscu-

- rely lobed, large 26 *S. phylloptera*
 - 9. Hypogynium flat, low, distinctly, 3-lobed
 - 10. Terminal panicle large, 10 cm. long 27 *S. uleana*
 - 10. Terminal panicle small, 5 cm. long, fewflowered 28 *S. obtusa*
- 4. Hypogynium fimbriate or serrate on the margin (*Schizolepis*)
 - 5. Leaves oblong, about 5 cm. broad and less than 20 cm. long 37 *S. olyroides*
 - 5. Leaves lanceolate, usually narrower, or, if 5 cm. broad, then much more than 20 cm. long
 - 6. Achenes smooth
 - 7. Inflorescence or achenes (usually both) purplishviolet 38 *S. arundinacea*
 - 7. Inflorescence brown; achenes white ... 39 *S. latifolia*
 - 6. Achenes rugose
 - 7. Achenes white
 - 8. Achenes strongly rugose-tuberculate
 - 9. Leaves 2-5 cm. wide 40 *S. panicoides*
 - 9. Leaves 1.2-2 cm. wide 45 *S. acanthocarpa*
 - 8. Achenes sparsely tuberculate 44 *S. plusiophylla*
 - 7. Achenes violet-purple, or white variegated with purple
 - 8. Inflorescence pale straw-color
 - 9. Leaves glabrous 41 *S. arguta*
 - 9. Leaves minutely pubescent 43 *S. microstachya*
 - 8. Inflorescence purplish 42 *S. myricocarpa*
- 3. Hypogynium 3-lobed, the lobes entire (*Euscleria*)
 - 4. Upper part of the panicle bearing only staminate spikelets, lower part bearing only pistillate spikelets 46 *S. bracteata*
 - 4. Staminate and pistillate spikelets intermixed throughout the inflorescence
 - 5. Achene verrucose, reticulate or papillate
 - 6. Hypogynium supporting 3-9 tubercles
 - 7. Achene papillate or transversely rugose 47 *S. alpina*
 - 7. Achene reticulate
 - 8. Bracts glabrous 48 *S. colorata*
 - 8. Bracts ciliate 49 *S. sellowiana*
 - 6. Hypogynium not supporting tubercles
 - 7. Leaves 8-24 mm. wide
 - 8. Leaves 8-10 mm. wide, the larger ones more than 30 cm. long 50 *S. warmingiana*

8. Leaves 10-24 mm. wide, usually less than 30 cm. long 51 *S. huberi*
7. Leaves 1-7 mm. wide
 8. Culm very strongly muricate-scabrous on the angles 53 *S. tenacissima*
 8. Culm slightly roughened or smooth on the angles
 9. Annual, with fibrous roots 52 *S. muhlenbergii*
 9. Perennial by rootstocks 54 *S. lagoensis*
5. Achene smooth
 6. Achene purple-violet or variegated with white
 7. Angles of the sheath broadly winged .. 55 *S. vaginata*
 7. Angles of the sheath narrowly winged or wingless
 8. Leaf-sheaths more or less wooly-pubescent
 9. Hypogynium short 56 *S. flagellum-nigrorum*
 9. Hypogynium stipitate 57 *S. scandens*
 8. Leaf-sheaths glabrous 58 *S. melaleuca*
 6. Achene white
 7. Achene very large, 4-6 mm. long
 8. Ligule with a very conspicuous scarious appendage; plant climbing 62 *S. secans*
 8. Ligule unappendaged
 9. Pistillate scales 1 cm. or more long 60 *S. longigluma*
 9. Pistillate scales much shorter, usually 5 mm. or less long
 10. Hypogynium distinctly 3-lobed .. 61 *S. setuloso-ciliata*
 10. Hypogynium annuliform, margin entire or obscurely denticulate .. 55 *S. vaginata*
 7. Achene smaller, 1.5-4 mm. long
 8. Ligule bearing a conspicuous scarious appendage
 9. Pistillate scales broadly ovate, dark purple 62 *S. secans*
 9. Pistillate scales lanceolate, stramineous to ferrugineous 63 *S. scabra*
 8. Ligule unappendaged
 9. Sheath broadly winged 55 *S. vaginata*
 9. Sheath wingless or nearly so
 10. Culm slender or filiform, lower peduncles capillary 64 *S. retroserrata*
 10. Culm robust, not filiform
 11. Hypogynium 3-lobed, the lobes crenulate 61 *S. setuloso-ciliata*

- 11. Hypogynium lobes not crenulate
- 12. Leaves pubescent 65 *S. clarkei*
- 12.. Leaves glabrous 59 *S. pterota*

1. *S. interrupta* Rich. Act. Soc. Hist. Nat. Paris 1:113. 1792.

Hypoporum interruptum Nees, Linnaea 8:303. 1834. Based on *Scleria interrupta* Rich.

Hypoporum distans Nees, in Mart. Fl. Bras. 2(1): 171 (in note). 1842 (fide Clarke, Symb. Ant. 2:139. 1900).

Scleria hirtella var. (beta) Boeck. Linnaea 38:440. 1874.

Scleria distans var. *interrupta* Kukenth. Repert. Sp. Nov. 23: 214. 1926.

Based on *Scleria interrupta* Rich.

TYPE LOCALITY: French Guiana (Leblond).

DISTRIBUTION: Savannahs and pinelands, West Indies to Central America, French Guiana and Brasil.

BRAZIL: Pernambuco, Pickel 2911 (CU, US); Ceará, Municipio de Fortaleza, Drouet 2576 (US).

2. *S. lindleyana* Clarke, Kew Bull. Add. Ser. 8: 56. 1908.

Scleria hirtella var. (alpha) Nees, in Mart. Fl. Bras. 2(1): 170, in part. 1842 (fide Clarke, loc. cit.)

TYPE LOCALITY: Brazil, Bahia, Ilheos (Salzmann 620); Rio de Janeiro (Riedel 911); Minas Gerais, (Riedel 68); French Guiana (Sagot 1349).

DISTRIBUTION: Wet soil, Brazil to Guiana.

BRAZIL: Bahia, Salzmann 620 (US); Rio de Janeiro, Riedel 911 (US).

3. *S. hirtella* Sw. Prodr. Veg. Ind. Occ. 19. 1788.

Carex hirtella Gmel. Syst. Nat. 2: 138. 1791. Based on *Scleria hirtella* Sw.

Scleria interrupta Michx. Fl. Bor. Am. 2: 168. 1803; not Rich. Act. Soc. Hist. Nat. Paris 1: 113. 1792. "Carolina ad Floridam".

Cenchrus hirsutus Spreng. Neue. Entdeck. 3: 15. 1822 (fide Kunth, Enum. Pl. 1: 166. 1833). Type locality, Hispaniola.

Hypoporum humile Nees, Linnaea 9: 303. 1834.

Hypoporum hirtellum Nees, Linnaea 9: 303. 1834 (fide Britton, Ann. N. Y. Acad. Sci. 3: 236. 1885).

Hypoporum interruptum Torr. Ann. Lyc. N. Y. 3: 382. 1836. Based on *Scleria interrupta* Michx.

Scleria cenchroides Kunth, Enum. Pl. 2: 352. 1837 (fide Boeck. Linnaea 38: 440. 1874). "Cap. b. spei; ad oram orientalem legit Drège".

Scleria hirta Willd.; Kunth, Enum. Pl. 2: 352, in syn. 1837. "Willd. herb. n. 17329 (forma fructu laevi)."

Scleria mollis Kunth, Enum. Pl. 2: 352. 1837. (fide Boeck. Linnaea 38: 440. 1874). "Brasilia meridionalis".

Scleria nutans Willd.; Kunth, Enum. Pl. 2: 351. 1837 (fide Britton, Ann. N. Y. Acad. Sci. 3: 235. 1885). "Guiana, Brasilia, Chili, Mexico".

Scleria interrupta Kunth, Enum. Pl. 2: 352, in part (as to syn. *S. hirta*). 1837.

Scleria pulchella Nees, in Mart. Fl. Bras. 2(1): 170, in syn. 1842.

Anerma hispidula Schrad. in sched., fide Nees, in Mart. Fl. Bras. 2(1): 170. 1842.

Hypoporum nutans Nees, in Mart. Fl. Bras. 2(1): 170. 1942. Based on *Scleria nutans* Kunth.

Scleria michauxii Chapm. Fl. S. U. S. 532. 1860. Based on *Scleria interrupta* Michx.

Scleria hirtella var. *pauciciliata* Britton, Ann. N. Y. Acad. Sci. 3: 236. 1885.

Scleria humilis Britton, Ann. N. Y. Acad. Sci. 3: 235. 1885. Here ascribed to Nees (Linnaea 9: 303. 1834), who did not make this combination.

TYPE LOCALITY: Jamaica.

DISTRIBUTION: Wet grassy lands, pine barrens and savannahs, southern United States to northern Argentine and Chile; also in Africa.

BRAZIL: "In vicinibus Barra", Amazonas, Spruce (G, NY); Bahia, Blanchet (D); Bahia, Salzmann (G); Minas Geraes, Warming (NY); Santa Ana, São Paulo, Rabello & Barbosa (M); Alto da Serra, São Paulo, L. B. Smith 1916 (G); Parana, Curitiba, Dusen 2239, 13490 (NY, US); Tubarao, Santa Catharina, Ule 1374 (BD); Para, Kappler 1557 (M); S. Leopoldo, Rio Grande do Sul. Leite 466 (US); Rio Grande do Sul, Municipio St. Amaro, Rincão do Mello, Jurgens 22 (US); Ceara, Dias da Rocha (US); Amapa, Para, Swallen 7020 (US); Amapa, A. T., Baldwin 4058 (US); Alexandra, Parana, Guenter Tessmann 3614 (US).

4. *S. catharinensis* Boeck. Allg. Bot. Zeitschr. 2: 158. 1896.

TYPE LOCALITY: Campo de Capiuare, Santa Catharina, Brazil (Ule 1923).

DISTRIBUTION: Known only from the type locality, Ule 1923 (BD).

The single specimen which represents this species is very similar to *Scleria leptostachya*, differing in having reticulate achenes, whereas those of *S. leptostachya* are merely transversely rugose, if not quite smooth.

5. *S. filiculmis* Boeck. Allg. Bot. Zeitschr. 2: 158. 1896.

TYPE LOCALITY: Santa Catharina, Brasil (Ule 1939).

DISTRIBUTION: Known from the type locality, Ule 1939 (BD).

This species, although represented by only a single collection, is certainly quite distinct. It seems to belong near *Scleria baldwinii* and *S. georgiana*, but differs strongly from both in its low habit and its tuberculate achenes.

6. *S. cuyabensis* Pilger Bot. Jahrb. 30: 144. 1901.

TYPE LOCALITY: "Matto Grosso: häufig zerstreut auf trockenem, steinigem Boden bei Cuyaba" (Meyer Iter. II. bras. 366, March, 1899).

DISTRIBUTION: In campos, Matto Grosso, Brazil.

BRAZIL: Matto Grosso, *Meyer Iter. II. bras.* 366 (BD), *Pl. It. Regnell. II.* 3191a, 3191 (S), *Exp. I. Regnell.* 1494b (S).

This species, closely related to the following, is separated by its much longer spikelets.

7. *S. verticillata* Muhl.; Willd. *Sp. Pl.* 4: 317, excl. syn. Michx. 1805.

Hypoporum verticillatum Nees, *Linnaea* 9: 303. 1834. Based on *Scleria verticillata* Muhl.

Hypoporum diffusum Nees, *Linnaea* 9: 303. 1834, *fide* Boeck. *Linnaea* 38: 446. 1874.

Scleria diffusa Michx.; Kunth, *Enum. Pl.* 2: 359. 1837. Based on *Hypoporum diffusum* Nees.

Scleria tenuiflora Willd.; Kunth, *Enum. Pl.* 2: 353. 1837, in syn. "Willd. herb. n. 17331 e Sierra Leona, (an patria recte notata"?).

Scleria tenella Kunth, *Enum. Pl.* 2: 353. 1837. Type locality, Guiana.

Hypoporum tenellum Nees, in *Mart. Fl. Bras.* 2(1): 171. 1842. Based on *Scleria tenella* Kunth.

Scleria kunthiana Steud. *Syn. Pl. Cyp.* 176. 1855.

Scleria hirtella var. *glabrescens* Boeck. ms. in *C. Wright* 3417 (*fide* Clarke, *Symb. Ant.* 2: 139. 1900).

Scleria verticillata f. *brevis* Kukenth. *Repert. Sp. Nov.* 23: 214. 1926. Type locality, Cuba: prov. Pinar del Rio, Herradura (*Ekman* 17730, Oct. 21, 1923).

Scleria verticillata f. *capillaris* Kukenth. *Repert. Sp. Nov.* 23: 214. 1926. Type locality, Cuba: prov. Pinar del Rio, Laguna Santa Maria (*Ekman* 17275, Aug. 23, 1923).

Scleria verticillata var. *tenella* Kukenth. *Bot. Jahrb.* 56: Beibl. 125: 20. 1921. Type locality, Brazil: Rio Branco, Serra do Mel (*Ule* 8063, in part).

TYPE LOCALITY: Virginia, Carolina.

DISTRIBUTION: Wet sandy soil and cultivated grounds, Ontario to Brazil.

BRAZIL: Para, *Goeldi* 1077 (US).

8. *S. burchellii* Clarke, *Kew. Bull. Add. Ser.* 8: 56. 1908.

TYPE LOCALITY: Brazil; Goyaz (*Burchell* 9060) and Diamantina, Minas Geraes (*Schwacke* 8438).

DISTRIBUTION: Brazil.

BRAZIL: *Glaziou* 20052 (BD); Goyaz, *Burchell* 6762 (G), 9060 (K); Minas Geraes, *Schwacke* 8438 (BD).

This species, closely related to *Scleria cuyabensis* and to *S. verticillata*, differs from them in the size of the achene.

9. *S. valdemuricata* Kükenth. *Bot. Jahrb.* 56: Beibl. 125: 20. 1921.

TYPE LOCALITY: Brazil, Hylaea, Amazonas, "in Sumpfcampo bei der Serra do Mel, Rio Branco, Surumu" (*Ule* 8063, July 1909).

DISTRIBUTION: Known only from the type locality, *Ule* 8063, (BD). This species is scarcely to be separated from *Scleria pinetorum* Britton, but in view of their great geographical remoteness I have held them distinct until further collections can be studied.

10. *S. leptostachya* Kunth, Enum. Pl. 2: 354. 1837.

Hypoporum leptostachyum Nees, in Mart. Fl. Bras. 2(1): 172. 1842.
Based on *Scleria leptostachya* Kunth.

TYPE LOCALITY: "Brasilia meridionalis, Sellow legit".

DISTRIBUTION: Wet grassland, Brazil and Bolivia.

BRAZIL: "Brasilia meridionalis", *Sellow* (BD); Minas Geares, *Regnell* III. 1321 (BD, US), *Riedel* 2990 (BD), *Loefgren* 396 (S); Rio Grande do Sul, *Pl. Itin. Regn. II.* 1024 (S); Parana, *Dusen* (US).

Kunth's description of this plant reads, in part, as follows: "achenio breviter stipitato, elliptico, umbonato, transverse undulato-rugoso, cretaceo-albido". The type collection consists partly of plants with extremely verrucose achenes and partly of plants with very smooth achenes. Such a variation in the achenes is somewhat unusual for *Scleria* and it might be thought that the collection was mixed, were it not for the fact that both kinds of achenes may in some cases be found on the same individual.

11. *S. spicata* (Spreng.) F. Macbr. Field Mus. Publ. Bot. 4: 168. 1929.

Rhynchospora spicata Spreng. Syst. Veg. 1: 194. 1825.

Scleria pleostachya Kunth, Enum. Pl. 2: 355. 1837. Type locality, "in summo jugo montium Serra do S. Antonio dic'to, prov. Minarum" (*Sellow*).

Hypoporum pleostachyum Nees, in Mart. Fl. Bras. 2(1); 172. 1943.
Based on *Scleria pleostachya* Kunth.

TYPE LOCALITY: Brazil.

DISTRIBUTION: In moist, soil, Brazil.

BRAZIL: São Paulo, *Riedel* in 1833 (US); Minas Geraes, *Riedel* (M).

The incomplete specimen of *Rhynchospora spicata* Spreng., according to Macbride, is the same as the plant which has been called *S. pleostachya* Kunth, which name lapses, therefore, into synonymy.

12. *S. aromatica* Core, Brittonia 1: 239. 1934.

TYPE LOCALITY: "S. de Antonio Pereira, Minas" (*Schwacke* 8851).

DISTRIBUTION: Campos, southern Brazil.

BRAZIL: Minas Geraes: *Schwacke* 8851 (BD), *Ule* 3772 (BD).

C. B. Clarke labels *Schwacke* 8851 as *Scleria virgata*, with a question-mark, adding that he had no example of *S. virgata* with which to compare it. He says it "is exceedingly like *S. pleostachya*, but the nut is muricate". The present species is quite unlike *S. virgata* in many features, notably the much smaller inflorescence.

13. *S. micrococca* (Liebm.) Steud. Syn. Pl. Cyp. 179. 1855.

Hypoporum micrococcum Liebm. Vidensk. Selsk. Skr. V. 2: 256. 1850.

"Samlet i torre Savaner ved Segovia i Nicaragua af Mag. Orsted i Januar".

Hypoporum purpurascens Liebm. Vidensk. Selsk. Skr. V. 2: 256. 1850; not Nees, Linnaea 9: 303. 1834. "Voxer i torre Savaner ved Mirador i Potrero de Consoquitla, blomstrende i October; ligeledes i Dep. Oajaca ved Talea i August" (Orsted).

Scleria liebmanni Steud. Syn. Pl. Cyp. 179. 1855. Based on *Hypoporum purpurascens* Liebm.

Hypoporum verticillatum Nees, Bonplandia 3: 87. 1855; not Nees, Linnaea 9: 303. 1834.

Scleria tenella Griseb. Cat. Pl. Cub. 249, in part. 1866; not Kunth, Enum. Pl. 2: 353. 1837.

Scleria luzulaeformis Wright; Sauv. Anal. Acad. Cienc. Habana 8: 156. 1871. "En sabana cerca de San Juan de Buena Vista, jurisdiccion de Bayamo", (Wright 3418 p.p.).

Scleria costaricensis Boeck. Allg. Bot. Zeitschr. 2: 157. 1896. "Entre Terraba et Boruca, Costa Rica" (Tonduz 4634).

TYPE LOCALITY: Nicaragua.

DISTRIBUTION: Wet fields, Mexico to northern Brazil, also in Cuba.

BRAZIL: Amazonas, Ule 8063 in parte (BD).

14. *S. pusilla* Pilger, Bot. Jahrb. 30: 144. 1901.

TYPE LOCALITY: Matto Grosso, "am Uferabhang des Quellflusses des Ronuro" (Meyer 596).

BRAZIL: Matto Grosso, Meyer It. II. bras. 596 (BD), Pl. It. Regnell. II 3170 (S).

This species is very near *Scleria micrococca*, differing from it in having the achenes irregularly echinate instead of reticulate.

15. *S. minima* Clarke, Kew Bull. Add. Ser. 8: 57. 1908.

Scleria minima f. *angustifolia* Kukenth. Bot. Jahrb. 56: Beibl. 125: 20. 1921. Type locality, Rio Branco, Surumu, Amazonas (Ule 8063, in part).

TYPE LOCALITY: Goyaz, Brazil (Burchell 6914-2).

DISTRIBUTION: Brazil.

BRAZIL: Goyaz, Burchell 6914-2 (K); Amazonas, Ule 8063 in part.

Scleria minima Clarke may be only a pubescent form of *S. pusilla* Pilger.

16. *S. composita* (Nees) Boeck. Linnaea 38: 444. 1874.

Hypoporum compositum Nees, in Mart. Fl. Bras. 2(1): 171. 1842.

TYPE LOCALITY: Brasilia "ad Aldeam S. Mariae, prov. Goyazanae" (Pohl).

DISTRIBUTION: Swamps, Brazil and Bolivia to northern Argentina.

BRAZIL: Goyaz, Glaziou 22354 (US, BD), Pohl (BD); Rio Grande do Sul, Pl. Itin. Regnell. II. 1079 (S); Matto Grosso, Pl. Itin. Regnell. II. 3200 (S).

A rather variable species, chiefly as to pubescence and width of leaves.

17. *S. virgata* (Nees) Steud. Syn. Pl. Cyp. 176. 1855.

Hypoporum virgatum Nees, in Mart. Fl. Bras. 2(1): 172. 1842.

Scleria trigonocarpa Boeck. Cyp. Nov. 1: 37. 1888. "Prope Rio de Janeiro leg. Dr. E. Goldi".

Scleria diffusa Clarke, Kew Bull. Add. Ser. 8: 57. 1908, not Michx.; Kunth, Enum. Pl. 2: 359. 1837. "Brazil. Minas Geraes; Itacolumi, legit Langsdorff?"

TYPE LOCALITY: Brazil, "ad Sebastianopolin et in silvis prov. Maraganiensis" (Martius).

DISTRIBUTION: Woods, Brazil.

BRAZIL: Maranhão, Martius 382 (BD); Rio de Janeiro, Goldi (BD), Martius (BD), Wilkes Exped. (G), L. B. Smith 1430 (G), Minas Geraes, Riedel (K).

This is a very clear-cut species, its unusually large virgate inflorescence differing markedly from that of any species. C. B. Clarke, doubtfully labeling Schwacke 8851 as *Scleria virgata*, states that he had no material of *S. virgata* with which to compare it. This possibly accounts for his describing *S. diffusa* as a new species, whereas it is clearly only *S. virgata*.

18. *Scleria variegata* (Nees) Steud. Syn. Pl. Cyp. 176. 1855.

Hypoporum variegatum Nees, in Mart. Fl. Bras. 2(1): 173. 1842.

TYPE LOCALITY: "In silvis ad Sebastianopolin, in silvaticis submontanis prov. Minarum, Julio et Septembri" (Martius).

DISTRIBUTION: Wet shady places, Brazil.

BRAZIL: Parana, Dusen 219a (S, G, M); Rio de Janeiro, Brade 11191 (G).

This species, related to *S. scabrosa*, differs in its spreading inflorescence. It is a very handsome plant.

19. *S. bradei* Pilger, Fedde Repert. 42: 173. 1937.

BRAZIL: Rio de Janeiro, Nietheroy, Imbuhy, A. C. Brade 12818. I have not seen the type specimen, which is in the Herbarium of the Botanical Garden of Rio de Janeiro (No. 24130).

20. *S. macrophylla* Presl, Rel. Haenk. 1: 200. 1828.

Scleria paludosa Poepp. & Kunth, Enum. Pl. 2: 344. 1937. "Peruvia (prope Torache, ad fl. Huallagam superiorem, in sylvis paludosis. Poeppig legit".

Ophryoscleria paludosa Nees, in Mart. Fl. Bras. 2(1): 185. 1842. Based on *Scleria paludosa* Poepp. & Kunth.

Scleria palmifolia Hoffmgg.; Schlecht. Bot. Zeit. 3: 492. 1845 (fide Boeck. Linnaea 38: 522. 1874). "Salzm. hrbr. Bahia".

Scleria macrocarpa Salzm.; Schlecht. Bot. Zeit. 3: 492, as syn. 1845.

Ophryoscleria asperrima Liebm. Vidensk. Selsk. Skr. V. 2: 261. -851.

"Et Exemplar hjembragtes af Mag. Orsted, samlet ved Bredderne af Rio de S. Juan de Nicaragua i Juni".

Scleria asperrima Steud. Syn. Pl. Cyp. 170. 1855. Based on *Ophryoscleria asperrima* Liebm.

TYPE LOCALITY: "In insula Luzon" (Haenke), in error; doubtless tropical South America.

DISTRIBUTION: Marshes and swampy forests, Mexico to Brazil and Bolivia.

BRAZIL: Goyaz, *Burchell* 7752 (G); Bahia, *Salzmann* (US); Para, *Goldi* 1078 (G, US), *Killip & Smith* 30407 (US); Boa Vista, Para, *Swallen* 3128 (US); Ceara, *Gardner* 1895 (NY, US).

21. *S. microcarpa* Nees, *Linnaea* 9: 302. 1834.

Scleria ovuligera Reichb.; Nees, *Linnaea* 9: 303. 1834 (*fide* Kunth, Enum. Pl. 2: 341. 1837).

Ophryoscleria microcarpa Nees, in Mart. Fl. Bras. 2(1): 184. Based on *S. microcarpa* Nees.

Scleria foliosa Wright; Sauv. Anal. Acad. Cienc. Habana 8: 154. 1871; not A. Rich. Tent. Fl. Abyss. 2: 509. 1851. Type locality, Cuba (*Wright* 3807).

Scleria latifolia Balb.; Boeck. *Linnaea* 38: 517, as syn. 1874.

Scleria microcarpa var. *latifolia* Boeck. *Linnaea* 38: 517. 1874. Type locality, Guadeloupe.

Scleria microcarpa var. *foliosa* Clarke, Symb. Ant. 2: 149. 1900.

TYPE LOCALITY: Brazil.

DISTRIBUTION: Swamps, roadsides, and moist thickets, Cuba and Mexico to Paraguay.

BRAZIL: Amazonas, *Baker* 151 (NY), Cucuhy, Rio Negro, *Holt & Gehriger* 343 (US), Rio Purus, *Traill* in 1875 (G); Matto Grosso, *Moore* 837 (NY); Bahia, *Blanchet* 2433 (NY); Minas Geraes, *Clausen* 660 (G, in part); Para, *Burchell* 9906 (G), Para, *Killip & Smith* 30268 (NY, US); Rio Negro, Uacara, *Luetzelburg* 22157; Rio Castanho, Upper Rio Negro basin, Amazonas, *Cardona* 1440 (US); Recife, Pernambuco, *Pickel* 3335 (NY); Manaus, *Tate* (NY); Cucuhy, Rio Negro, Amazonas, *Baldwin* 3255 (US); Ilha Nova Vida, Rio Negro, Amazonas, *Baldwin* 3275 (US); Igarape Bucury, Rio Negro, Amazonas, *Baldwin* 3490 (US); Muirapinima, Rio Negro, Amazonas, *Baldwin* 3372 (US); Carvoeira, Rio Negro, Amazonas, *Baldwin* 3350 (US).

22. *S. mitis* Berg. Vet. Akad. Handl. Stockh. 26: 145. pl. 5. 1765.

Shoenus lithospermus L. Sp. Pl. ed. 2. 65, pro parte. 1762. (*fide* Clarke, Symb. Ant. 2: 150. 1900).

Carex lithosperma L. Syst. Veg. ed 13. 706. 1774 (*fide* Clarke, loc. cit. 150).

Carex mitis Gmel. Syst. Nat. 2: 138. 1791. Based on *S. mitis* Berg.

Scleria riparia Poepp. & Kunth, Enum. Pl. 2: 341. 1837. "Peruvia (prope Tocache, mission del Huallaga alto, in fluviorum ripis paludosis) Poeppig legit".

Scleria latifolia Reichb.; Nees, in Mart. Fl. Bras. 2(1): 183, as syn. 1842. "Specimen majus ante anthesin decreptum".

Ophryoscleria lucida Nees, in Mart. Fl. Bras. 2(1): 183. 1842. "In silvis prov. S. Pauli et Rio de Janeiro; in campis altis do Paranan et in silvis Minarum Novarum (Martius); in Gujana (Weigelt)".

Ophryoscleria mitis Nees, in Mart. Fl. Bras. 2(1): 183. 1842. Based on *Scleria mitis* Berg.

Ophryoscleria riparia Nees, in Mart. Fl. Bras. 2(1): 184. 1842. Based on *Scleria riparia* Poepp. & Kunth.

Scleria praealta Salzm.; Schlecht. Bot. Zeit. 3: 461, as syn. 1845. "In paludosis Bahia".

Scleria lucida Steud. Syn. Pl. Cyp. 168. 1855. Based on *Ophryoscleria lucida* Nees.

Scleria trialata Bertero; Boeck. Linnaeae 38: 521, as syn. 1874.

Scleria trinitatis Boeck. Cyp. Nov. 2: 31. 1890 (fide Clarke, Symb Ant. 2: 150. 1900). "Insula Trinitatis".

TYPE LOCALITY: "Habitat in Surinamo".

DISTRIBUTION: Clearings and wet banks, Guatemala and Cuba to Paraguay and Bolivia.

BRAZIL: Blanchet (S); Para, Goldi 1081 (G, US, M, NY), Para, Killip & Smith 30213 (NY, US), Para, Spruce (BD, NY); Lagoa Santa, Minas Geraes, Warming (NY); Ilheos, Bahia, Blanchet (D), Bahia, Salzmänn (US); Rio de Janeiro, Harshberger 856 (US); Santa Ana da Chapada, Matto Grosso, Malme (S).

23. *S. sprucei* Clarke, Kew Bull. Add. Ser. 8: 61. 1908.

TYPE LOCALITY: "Amazonas, at the mouth of the river Solimoes" (Spruce 1565).

DISTRIBUTION: Forests, Brazil; known only from the type locality, Spruce 1565 (K, BD, NY).

Because of its short broad leaves, this is a most distinctive species.

24. *S. sororia* (Nees) Kunth, Enum. Pl. 2: 343. 1837.

Ophryoscleria sororia Nees, in Mart. Fl. Bras. 2(1): 184. 1842.

TYPE LOCALITY: "In Brasilia meridionalis campis, ad Vittoriam prov. S. Spiritus: Sellow in H. B. Berol".

DISTRIBUTION: Known only from the type locality, Sellow (BD).

BRAZIL: From the type locality, Sellow (BD); Campinas, Sao Paulo, Viegas 3243 (US).

25. *S. schiedeana* Schlecht. Bot. Zeit. 3: 489. 1845.

Ophryocleria schiedeana Liebm. Vidensk. Selsk. Skr. V. 2: 261. 1850. Based on *Scleria schiedeana* Schlecht.

Schizolepis paranensis Palla, Denkschr. Akad. Wiss. Wien 79: 196. 1908. "Bei Antonina, (Parana), 1904, Wacket".

TYPE LOCALITY: "In Barranca de Tioselo, Mexico" (Schiede).

DISTRIBUTION: Mexico and Brazil.

BRAZIL: Parana, Wacket (V).

26. *S. phylloptera* Wright; Griseb. Cat. Pl. Cub. 248. 1866.
Scleria microcarpa var. *angustifolia* Boeck. Flora 64: 79. 1881 (*fide* Clarke, Symb. Ant. 2: 150. 1900).
Scleria microcarpa var. *phylloptera* Kukenth. Repert. Sp. Nov. 23: 218. 1926. Based on *Scleria phylloptera* Wright.
TYPE LOCALITY: "Cuba occ., in humidis pr. Hanabana Wr. a. 1865; 724b".
DISTRIBUTION: Muddy banks, Cuba and Mexico to Brazil.
BRAZIL: Goyaz, Burchell 8558 (G); Sao Paulo, Brade 6158 (S).
27. *S. uleana* Boeck. Allg. Bot. Zeitschr. 2: 159. 1896; Clarke, Kew Bull. Add. Ser. 8: 60. 1908.
TYPE LOCALITY: "Brazil. S. Catharina; Tubarao, Ule. n. 1373; S. Francisco, Ule, n. 230".
DISTRIBUTION: Known only from the type collections.
BRAZIL: From the type localities, Ule (BD); Sao Paulo, Villa Emma, Brade 12167 (US).
28. *S. obtusa* Core, Brittonia 1: 240. 1934.
TYPE LOCALITY: Near Lake Rogagua, Bolivia, Mulford Biol. Exped. 1224 (type in N. Y.).
DISTRIBUTION: Pampas and campos, Brazil, Bolivia, and Paraguay.
BRAZIL: Pernambuco, Ridley, Lea & Ramage (S); Rio de Janeiro, Ule 4794 (BD).
The specimens here referred to *Scleria obtusa* resemble *S. phylloptera*, but have the hypogynium much lower. In this they are like *S. uleana*, but all these specimens have the terminal panicle small, 5 cm. long or less, and distinctly few-flowered, while in *S. uleana* the terminal panicle is 10 cm. long or more. and more profusely flowering.
29. *S. cyperina* Kunth, Enum. Pl. 2: 345. 1837.
Hymenolytrum cyperinum Nees, in Mart. Fl. Bras. 2(1): 175. 1842.
Based on *Scleria cyperina* Kunth.
TYPE LOCALITY: Venezuela, "Cumana. Humb (oldt). legit".
DISTRIBUTION: Savannahs, Colombia to Guiana.
BRAZIL: Rio Branco, Surumu, Ule 8368 (BD); Amapa, Amapa Terr., Baldwin 4083 (US); mouth of Rio Uaupes, Amazonas, Baldwin 3515 (US).
30. *S. grandis* Core, Jour. Wash. Acad. Sci. 35: 322. 1945.
TYPE LOCALITY: Santa Isabel, Rio Negro, Amazonas, Baldwin 3412, Feb. 15-16, 1944 (US).
DISTRIBUTION: Amazon Valley of Colombia and Brazil.
BRAZIL: Known only from the type locality.
This very distinctive species is clearly distinguished from its nearest relative, *S. cyperina*, by its more robust habit, its much broader leaves, and its smooth achene. *S. grandis* and *S. cyperina* are the

only known members of the section *Hymenolytrum* lacking the large, conspicuous, scarious appendage to the ligule found in *S. stipularis*. *S. ramosa*, *S. violacea*, *S. macrogyne*, *S. comosa*, and *S. cyperinoides*.

31. *S. stipularis* Nees, Jour. Bot. Hook. 2: 394. 1840.

Hymenolytrum silvestre Schrad.; Nees, in Mart. Fl. Bras. 2(1): 176. 1842 (fide Steud. Syn. Pl. Cyp. 171. 1855).

Scleria pyramidalis Hochst. "Hrbr. Hohenack. nr. 1171"; Steud., loc. cit. 171, as synonym.

TYPE LOCALITY: British Guiana (*Schomburgk*).

DISTRIBUTION: Forests, Guiana to Peru.

BRAZIL: Cassiquiare, Salano, Ph. v. Luetzelburg 22558 (US); Manaus, Amazonas, Killip & Smith 30143 (NY).

32. *S. ramosa* Clarke, Kew Bull. Add. Ser. 8: 59. 1908.

TYPE LOCALITY: Goyaz: Brazil (*Burchell* 8413).

DISTRIBUTION: Known only from the type collection, *Burchell* 8413 (K).

Although represented by a single specimen, this species seems clearly distinct, being easily separated from the related *S. violacea* by its unlobed hypogynium.

33. *S. violacea* Pilger, Bot. Jahrb. 30: 145. 1901.

TYPE LOCALITY: "Mattogrosso: auf Sumpfboden an einem Buriti-Bach am oberen Kulisehu" (*Meyer* 715).

DISTRIBUTION: Moist soil, Matto Grosso, Brazil.

BRAZIL: Matto Grosso, Pl. Itin. Regnell. II. 1967, 1967a, 1967b (S), *Meyer* 715 (BD).

It is possible that this plant should be called *Scleria martii* Steud. (Syn. Pl. Cyp. 171. 1855). I have not seen the type of that species, but in Martius, Flora Brasiliensis (2: pl. 22) there is a very good sketch of it (as *Hymenolytrum*). Nees says of it that the fruit was not mature, but the sketch shows the ovary as being obscurely trigonous. *S. violacea* Pilger coincides with the sketch of *S. martii*, except for the fact that the achene is very sharply 3-angled. Whether the mature achene of the Neesian species would be sharply trigonous I am not able to say. Probably, however, *S. violacea* Pilger is the same as *S. martii* Nees, and should be so called. Specimens in the Gray Herbarium and the Herbarium of the New York Botanical Garden, doubtfully labeled *S. martii*, have no resemblance to Nees' plant, lacking the very conspicuous scarious appendage to the ligule. They represent *S. cyperina* Kunth. Both *S. martii* (as figured by Nees) and *S. violacea* possess the appendage to the ligule, and further resemble each other in the wingless sheaths, in striking contrast to the broadly winged sheaths of *S. cyperinoides* and *S. macrogyne*.

34. *S. macrogyne* Clarke, Kew. Bull. Add. Ser. 8: 59. 1908.
TYPE LOCALITY: "British Guiana: Parker, Appun, n. 448; Massaruni River, Jenman, nn. 2463, 6088. Brazil: Piauh, Gardner, n. 2985; Rio Negro; San Joaquin, Ule, n. 6065".
DISTRIBUTION: In woods and thickets, British Guiana and Brazil.
BRAZIL: Cucuhy, Rio Negro, Amazonas, Baldwin 3250 (US).
35. *S. comosa* (Nees) Steud. Syn. Pl. Cyp. 171. 1855.
Hymenolytrum comosum Nees, in Mart. Fl. Bras. 2(1): 175. 1842.
TYPE LOCALITY: "In silvis ad Canuma prov. Rio Negro" (Martius).
DISTRIBUTION: In woods, Brazil.
BRAZIL: Sao Paulo, Lofgren 464 (S).
I have not seen the type of this species, and the single specimen I have examined, doubtfully marked by Ekman as *Scleria comosa*, in Mus. Bot. Stockholm, is immature. It is distinct from any other species of the section *Hymenolytrum* that I have seen and may well represent *S. comosa*.
36. *S. cyperinoides* Clarke, Kew Bull. Add. Ser. 8: 61. 1908.
TYPE LOCALITY: "North Brazil, Vaughan n. 28; Rio Negro, Barra, Spruce n. 1252; South Brazil, Burchell n. 9789".
DISTRIBUTION: In dense forests, Venezuela to Brazil and Bolivia.
BRAZIL: Amazonas, Holt & Blake 560 (US, NY) Spruce 1252 (G, K, BD, NY); Para, Goldi 1079 (G, NY, US, M), Manaus, Killip & Smith 30143 (NY, US).
37. *S. olyroides* Kunth, Enum. Pl. 2: 348. 1837. (Pl. 1, f. 8).
Schizolepis olyroides Nees, in Mart. Fl. Bras. 2(1): 187. 1842. "In campis ad Vittoriam prov. S. Spiritus: Sellow".
Schizolepis rufescens Schrad.; Nees, in Mart. Fl. Bras. 2(1): 187, as syn. 1842.
Scleria flagellum Spreng.; Nees, in Mart. Fl. Bras. 2(1): 187, as syn. 1842.
TYPE LOCALITY: "Brasilia meridionalis. Sellow legit".
DISTRIBUTION: Campos, Brazil, known only from the type locality, (between Vittoria and Bahia, prov. S. Spiritus) Sellow in 1836 (BD).
Remarkable for its very short and broad leaves, abruptly narrowed near the apex.
38. *S. arundinacea* Kunth, Enum. Pl. 2: 347. 1837.
Scleria latifolia Nees, Flora 11: 303. 1828; Boeck. Linnaea 38: 530. 1874; not Sw.
Scleria sylvestris Poepp. & Kunth; Kunth, Enum. Pl. 2: 346. 1837.
"Provincia Peruviana Huanaco (in sylvis ad Cuchero). Poeppig legit".
Scleria cyanocarpa Kunth, Enum. Pl. 2: 347. 1837. "Brasilia meridionalis. Sellow legit".

Schizolepis latifolia Nees, in Mart. Fl. Bras. 2(1): 186. 1842. Based on *Scleria latifolia* Sw.

Schizolepis trigonocarpa Nees, in Mart. Fl. Bras. 2(1): 186. pl. 26. 1842. "In silvis prov. Maragnaniensis et Paraensis" (Martius).

Scleria silvestris Nees, in Mart. Fl. Bras. 2(1): 188. 1842; variant spelling.

Schizolepis silvestris Nees, in Mart. Fl. Bras. 2(1): 223-224 (index). 1842.

Scleria grandifolia Miq. Linnaea 19: 230. 1847 (fide Boeck. Linnaea 38: 532. 1874. "Crescit ad Osembo in Para" Focke).

Scleria kappleriana Hochst.; Steud. Syn. Pl. Cyp. 172, as syn. 1855.

Scleria trigonocarpa Steud. Syn. Pl. Cyp. 171. 1855. Based on *Schizolepis trigonocarpa* Nees.

Schizolepis arundinacea Palla, Denks, Acad. Wien. 79: 196. 1908. Based on *Scleria arundinacea* Kunth.

TYPE LOCALITY: "Nova Hollandia" in error; probably Martinique.

DISTRIBUTION: In forests and clearings, Central America and the Lesser Antilles south to Bolivia, Paraguay, and Argentina.

BRAZIL: Scoulen (BD), Sellow (BD); Riedel (US, BD) 912 (US), Lhotzky (BD), Rio de Janeiro, Burchell 980 (G, NY, US), Rio de Janeiro, Glaziou 15690 (BD), Rio de Janeiro, Rudolphi (BD); Rio de Janeiro, Beyrich (BD), E. W. D. & Mary Holway 1129 (US), Rio de Janeiro, Forssell 305 (S), Rio de Janeiro, Widgren 814 (S); Bahia, Luschmann 115 (BD); "prov. Maragnaniensis" Martius (BD); Santa Catarina, Ule 966 (BD, US), Gaudichaud (BD), Scoulen 189 (BD), Santa Catharina, Brennemann III. 15 (BD); Rio Grande do Sul, Czermak & Reineke 444 (D); Sumare, Holway 1071 (NY, US); S. Leopoldo, Rio Grande do Sul, Eugenio Leite 462; Porto Parati, R. Herter 716 (US).

The chief point of difference between *S. arundinacea* and *S. latifolia* appears to lie in the color of the inflorescence, typical material of *S. arundinacea* being deep-purple, while in *S. latifolia* the inflorescence is brown-straw-colored. *S. arundinacea* may, therefore, be only a color variant of *S. latifolia*. Nees' description of *Schizolepis latifolia* (Mart. Fl. Bras. 2(1): 186. 1842) is based on material that is typical of *Scleria arundinacea* ("tota inflorescentia purpurascens"). I have examined the types of *S. sylvestris* Poepp. & Kunth, *S. cyanocarpa* Kunth, and *S. trigonocarpa* Nees, and find no essential points of difference between them and *S. arundinacea*. Nees apparently intended (loc. cit. 188) to transfer *Scleria silvestris* to the genus *Schizolepis*, since under the heading *Schizolepis*, No. 3 is *Schizolepis olyroides*, No. 4 is *Scleria silvestris* and No. 5 is *Schizolepis foliosa*. Evidently through an error the name *Scleria* was printed for No. 4, instead of *Schizolepis*. The combination *Schizolepis silvestris* occurs, in this work, only in the index.

39. *S. latifolia* Sw. Prodr. Veg. Ind. Occ. 18. 1788.

Carex latifolia Gmel. Syst. Nat. 2: 138. 1791. Based on *S. latifolia* Sw.

Scleria nervosa Wikstr. Vet. Akad. Handl. 1827: 75. 1827 (fide Clarke, Symb. Ant. 2: 152. 1900). Type locality, Guadeloupe.

Scleria loefgreniana Boeck. Vidensk. Meddel. 1894: 240. 1895. Type locality, Fazenda Campo Grande, São Paulo, Brazil (Edwall 1977).

Scleria lacunosa Boeck. Allg. Bot. Zeitschr. 2: 160. 1896. Type locality, "India occident".

TYPE LOCALITY: Jamaica.

DISTRIBUTION: Moist shady places, Central America and the Lesser Antilles south to Bolivia.

BRAZIL: Rio de Janeiro, Wilkes Exped. (G, US), Ball (G), São Paulo, Atamp (US), Edwall 1977 (BD), Lofgren 614 (C); Para, Goldi (NY).

40. *S. panicoides* Kunth, Enum. Pl. 2: 348. 1837.

Schizolepis panicoides Nees, in Mart. Fl. Bras. 2(1): 188. Based on *Scleria panicoides* Kunth.

TYPE LOCALITY: "Brasilia meridionalis. Sellow legit".

DISTRIBUTION: Damp shady places, Brazil to Bolivia.

BRAZIL: Rio de Janeiro, Ball in 1882 (NY), Rose & Russel 20787 (US), Mendonca 840 (BD), L. B. Smith 1261 (G); Paraná, Dusen 217a (G); São Paulo, Campos Novaes (US), Freyreis (S); Minas Geraes, Mexia 4686 (US).

Standley (Field Mus. Publ. Bot. 8: 283. 1931) believes that this is the same as *Scleria foveolata* Cav. (Ic. 5: 35. 1799), and should be so called. I have not seen the type of *S. foveolata*.

41. *S. arguta* (Nees) Steud. Syn. Pl. Cyp. 172. 1855.

Schizolepis arguta Nees, in Mart. Fl. Bras. 2(1): 189. 1842.

Scleria myricocarpa f. *pallida* Kunth; Nees, in Mart. Fl. Bras. 2(1): 189. 1842.

TYPE LOCALITY: "In Brasilia: Sellow in Sched. et Herb. Schrad".

DISTRIBUTION: In woods, Brazil.

BRAZIL: "Brasilia" Sellow (BD); Rio de Janeiro, Ball in 1882 (NY), Minas Geraes, Kuntze in 1892 (NY), Mexia 5145 (NY).

Nees (Mart. Fl. Bras. 2(1): 189. 1842) ascribes the combination *Scleria myricocarpa* f. *pallida* to Kunth. Enum. Pl. 2: 347. 1842. Kunth indeed wrote this name on the herbarium sheet on which the form was founded, but did not publish it, saying only: "suppetit forma spicis stramineo-pallidis". Evidently the combination was first made by Nees himself (loc. cit.).

This species is apparently separated from *S. myricocarpa* only by the color of the inflorescence and may be only a color variant of that species.

42. *S. myricocarpa* Kunth, Enum. Pl. 2: 347. 1837.

Schizolepis myriocarpa Nees, in Mart. Fl. Bras. 2(1): 189. 1842. Based on *Scleria myricocarpa* Kunth.

Scleria atropurpurea Boeck. Vidensk. Meddel. 1879-80: 29. 1879. "In vicinia urbis Rio de Janeiro a cl. Dr. A. Glaziou collectae".

TYPE LOCALITY: "Brasilia meridionalis. Luchsnath legit".

DISTRIBUTION: Southern Brazil.

BRAZIL: Rio de Janeiro, Glaziou 7989 (BD, C), L. B. Smith 2153 (G).

Evidently Kunth believed *S. arguta* to be only a color form of *S. myriocarpa* (sec Kunth, Enum. Pl. 2: 347. 1842).

43. *S. microstachya* Boeck. Flora 63: 454. 1880.

TYPE LOCALITY: "Brasilia" (Sellow).

DISTRIBUTION: Known only from the type collection, Sellow (BD).

This species is possibly only a pubescent form of *Scleria arguta*, which it resembles in its minute ciliate bractlets and in the solitary, recurved spikelets.

44. *S. plusiophylla* Steud. Syn. Pl. Cyp. 172. 1855.

Schizolepis foliosa Nees, in Mart. Fl. Bras. 2(1): 188. 1842.

TYPE LOCALITY: "In Brasilia meridionali: Sellow in Herb. R. Berol".

DISTRIBUTION: Brazil and Paraguay.

BRAZIL: Minas Geraes, Regnell II. 300 (US, BD), 301 (US), Glaziou 18593 (BD).

In transferring *Schizolepis foliosa* Nees to the genus *Scleria*, Steudel was prevented from forming the combination *S. foliosa* by the preexistence of that binomial.

45. *S. acanthocarpa* Boeck. Vidensk. Meddel. 1869: 154. 1870.

Scleria glazioviana Boeck. Flora 65: 352. 1882. "In vicinia urbis Rio de Janeiro leg. Glaziou; mis. sub. no. 13306".

TYPE LOCALITY: "In silvis ad Lagoa Santa m. Sept., Nov. lecta" (Warming).

DISTRIBUTION: In woods, Brazil to Colombia.

BRAZIL: "Brasilia meridionalis," Sellow in 1836 (BD); Minas Geraes, Engler in 1865 (C), Warming (BD); Rio de Janeiro, Glaziou 13306 (BD, C).

46. *S. bracteata* Cav. Ic. 5: 34. pl. 457. 1799.

Scleria floribunda HBK. Nov. Gen. & Sp. 1: 233. 1816 (fide Kunth, Enum. Pl. 2: 345. 1837). "Crescit locis temperatis, scopulosis regni. Novogranatensis inter Pandi et Fusagasuga, alt. 450-900 hex".

Scleria papillata Willd.; Kunth, Enum. Pl. 2: 345, as syn. 1837. Type locality, Brazil.

Macrolomia bracteata Schrad.; Nees, in Mart. Fl. Bras. 2(1): 182. t. 24. 1842. Based on *Scleria bracteata* Cav.

Scleria rigens Salzm.; Steud. Syn. Pl. Cyp. 171, as syn. 1855.

Scleria bracteata f. *simplicior* Kukenth. Repert. Sp. Nov. 26: 253. 1929. Type locality, Tipuani, Bolivia (Buchtein 5107).

Scleria macrolomioides H. Pfeiffer, in Fedde Repert. 33: 214. 1933. Type locality, near "Mindos", Mexico (herb. Liebm. ex herb. Univ. Christianiensis).

TYPE LOCALITY: "Habitat inter Panamaidis mare et collem vulgo Lancon, in humidis saepiusque inundatis".

DISTRIBUTION: Moist thickets and borders of forests, Mexico and West Indies to Paraguay and Bolivia.

BRAZIL: Para, Spruce 89 (NY), Goldi 1084 (US, G); Bahia, Salzmann (US, G); Matto Grosso, Pl. It. Regnell. II 1681, 2262 (S); Sao Paulo, Burchell 5558 (G), Lofgren 360 (S); Minas Geraes, Warming (NY), Herb. Bras. Regnell. II 300 (S); Pindorama, Sao Paulo, Mendes 3427; Estrada de Olivenca, Estado da Bahia, Ricardo de Lemos Froes 20059 (NY); Vigia Para, F. Drouet 2126 (US) Humayta Municipality, Rio Madeiro basin, Amazonas, Krukoff 7135 (US) Belem, Para, Baldwin 4556 (US).

"The stems often form impenetrable tangles, and the exceedingly sharp-edged leaves cut one's flesh mercilessly" (Standley, Field Mus. Publ. Bot. 8: 285. 1931); hence the common name, razor-grass.

This very common and widely distributed neotropical species is most remarkable, having its staminate and pistillate spikelets borne in separate portions of the large inflorescence.

47. *S. alpina* Core, Brittonia 1: 241. 1934.

TYPE LOCALITY: Wet open campo above timberline, alt. 2650 m., Serra da Caparao, Espirito Santo, Ynes Meria 4033, November 27, 1929 (Type in US).

DISTRIBUTION: Known only from type locality.

It is interesting to note that practically all known species of the tubercle-bearing *Scleriae* occur mainly in somewhat cool climates of both the northern and southern hemispheres. The present species is no exception since, while collected in tropical Brazil, it was from a sub-alpine region at an elevation of 2650 m.

48. *S. colorata* Core, Brittonia 1: 242. 1934.

TYPE LOCALITY: In campos, Parana, Brazil, P. Dusen 3739, December 14, 1903 (type in S).

DISTRIBUTION: Known only from the type locality.

49. *S. sellowiana* Kunth, Enum. Pl. 2: 350. 1837.

Chondrolomia sellowiana Nees, in Mart. Fl. Bras. 2(1): 174. 1842

Based on *Scleria sellowiana* Kunth.

TYPE LOCALITY: "Brasilia meridionalis. Sellow legit".

DISTRIBUTION: Moist grasslands, southern Brazil and Uruguay.

50. *S. warmingiana* Boeck. Vidensk. Meddel. 1869. 152. 1807.

TYPE LOCALITY: Brazil, "ad Lagoa Santa in silvis et virgulis vix frequens" (Warming 740).

DISTRIBUTION: Known only from the type locality, Warming 740 (BD, C).

51. *S. huberi* Clarke, Kew Bull. Add. Ser. 8: 60. 1908.

Scleria peruviana Kükenth. Bot. Jahrb. 56: Beibl. 125: 22. 1921. "Peru — Rio Acre: Seringal Auristella" (Ule 9150).

TYPE LOCALITY: "Brazil, Rio Purus" (Huber 4591).

DISTRIBUTION: Dense forests in the Amazon Valley of Brazil and Peru.

BRAZIL: Amazonas, Huber 4591, (D, type); Acre Territory, Ule 9150 (BD).

52. *S. muhlenbergii* Steud. Nom. ed. 2. 2: 543. 1841.

"*Scleria setacea*" of Am. authors, not Poir in Lam. Encyc. 7: 4: 1806.

Scleria reticularis Muhl. Descr. Gram. 266. 1817; not Michx. Fl. Bor. Am. 2: 167. 1803. "Habitat in Carolina Septentrionali".

Scleira micrantha Poir. in Lam. Encyc. Suppl. 5: 108. 1817. "Cette plante a été recueillie par M. Ledru a Porto-Rico".

Scleria reticularis Spreng. Syst. 3: 831, in part. 1826 (fide Boeck. Linnaea 38: 469. 1874).

Scleria reticularis J. & C. Presl; Presl, Rel. Haenk. 1: 202. 1828.

Scleria laxa Torr. Ann. Lyc. N. Y. 3: 376. 1836; not R. Br. Prodr. 240. 1810.

Scleria muhlenbergii Steud. Nom. ed. 2. 2: 543. 1841. "Am. sptr." Based on *Scleria reticularis* Muhl.

Scleria oligantha A. Rich. in Sagra, Hist. Cuba 11: 295. 1850.

Scleria muhlenbergiana Liebm. Vidensk. Selsk. Skr. V. 2: 258. 1850. Variant spelling for *Scleria muhlenbergii* Steud.

Scleria torreyana Walp. Ann. 3: 696. 1852. "Habitat in America boreali (New Jersey, Long Island)".

Scleria hemitaphra Steud. Syn. Pl. Cyp. 169. 1855. Type locality, Louisiana (Drummond).

Scleria dictyocarpa Wright; Griseb. Cat. Pl. Cub. 249. 1866. "Cuba or. et occ.," Wright 3416a.

Scleria bracteata var. *angusta* Griseb. Cat. Pl. Cub. 249, in part. 1866. Type locality, Cuba.

Scleria debilis Wright; Sauv. Anal. Acad. Cienc. Habana 8: 154. 1871. "En sabanas húmedas de Pinar del Rio, Chirigota, Retiro, embarcadero de Bacunagua, & c."

Scleria reticularis var. *pubescens* Britton, Ann. N. Y. Acad. Sci. 3: 232. 1885.

Scleria trichopoda Wright; Britton, Ann. N. Y. Acad. Sci. 3: 232, as syn. 1885.

Scleria setacea var. *hemitaphra* Kükenth. Repert. Sp. Nov. 23: 215. 1926. Based on *Scleria hemitaphra* Steud.

Scleria latilacunosa Kükenth. Bot. Jahrb. 56: Beibl. 125: 21. 1921. "Campo der Serra do Mel, Rio Branco, Surumu", Ule 8065, July, 1909.

TYPE LOCALITY: "Am. sptr". "Cette plante croit dans l'Amerique, elle a été recueillie par M. Ledru a Porto-Rico".

DISTRIBUTION: Pine barrens and low meadows, Brazil and Bolivia, north to the West Indies, Central America and the United States.

BRAZIL: Para, Goldi 1085 (G, US); Amazonas, Ule 8065 (BD); Tapera, Pernambuco, Pickel 2798 (US); Ilha de Marajo, Para, Swallen 4929 (US).

53. *S. tenacissima*, Steud. Syn. Pl. Cyp. 175. 1855.

Omoscleria tenacissima Nees, in Mart. Fl. Bras. 2(1): 181. 1842.

TYPE LOCALITY: "In silvis ad oppidum Barra do Rio Negro prov. ejusdem nominis et in graminosis udis silvaticis prov. Paraensis" (Martius, type in BD).

DISTRIBUTION: In woods, Brazil and Bolivia.

BRAZIL: Para, Martius (BD); Spruce (BD, NY).

54. *S. lagoensis* Boeck. Vidensk. Meddel. 1869: 151. 1870.

Scleria moritziana Boeck. Linnaea 38: 460. 1874. "Caripe Venezuelae, Moritz hb. n. 645b".

TYPE LOCALITY: "In paludibus et pratis humidis, nunc etiam in marginibus silvarum juxta campos circa Lagoa Santa frequens", (Warming, type in BD).

DISTRIBUTION: Wet soil in campos and borders of forests, Colombia, Brazil, and Bolivia.

BRAZIL: Minas Geraes, Warming (C, NY, BD).

55. *S. vaginata* Steud. Syn. Pl. Cyp. 179. 1855.

Scleria tonduzii Boeck.; Tonduz, Bull. Herb. Boiss. 3: 464, nomen. 1895; Allg. Bot. Zeitchr. 2: 160. 1896. Type locality, Costa Rica. (Tonduz 8181).

TYPE LOCALITY: Not known ("Am. septr. an? austr.").

DISTRIBUTION: In moist forests, Costa Rica to Brazil, Bolivia, and Peru.

BRAZIL: "Brasilia? Pohl? (BD).

56. *S. flagellum-nigrorum* Berg. Vet. Akad. Handl. Stockh. 26: 144. pl. 4. 1765.

Scleria flagellum Sw. Prodr. Veg. Ind. Occ. 18. 1788; Fl. Ind. Occ. 1: 88. pl. 3. 1797. Type locality, Jamaica.

Scleria margaritifera Gaertn. Fruct. 1: 13. pl. 2. 1788. (fide Sw. Fl. Ind. Occ. 88. 1797).

Carex flagellum Gmel. Syst. Nat. 2: 138. 1791. Based in *Scleria flagellum* Sw.

Scleria glabellum Poir. in Lam. Encyc. 7: 1, sphalm. 1806.

Scleria nigricans J. & C. Presl; Presl, Rel. Haenk. 1: 201. 1828. "Hab. ad Guayaquil", Ecuador (Haenke).

Omoscleria flagellum Nees, in Mart. Fl. Bras. 2(1): 180. 1842. Based on *Scleria flagellum* Sw.

Scleria flagellum var. *angustifolium* Nees; Boeck. Linnaea 38: 504. 1874.

TYPE LOCALITY: "Habitat in Surinamo & Jamaica, in sylvis, inter vepres & arbores quibus fulcitur", type in S.

DISTRIBUTION: In woods and thickets, Ecuador, Venezuela, Guiana and Brazil.

BRAZIL: Matto Grosso, Moore 485 (NY); Rio de Janeiro, Wilkes Exped. (US, G); Freyreis (S).

The name *Scleria flagellum-nigrorum* Berg. has been applied first to one plant, then to another, since its first publication and its synonymy has presented one of the most puzzling problems to be confronted in the genus. This is all the more unfortunate, in view of the fact that Bergius intended it as the type species of the genus.

Especially has it been confused by authors with *Scleria secans* (L.) Urban (see Symb. Ant. 2: 169. 1900). Britton (Bull. Torrey Club 42: 489. 1915) states that his "examination of the type specimen of *Schoenus secans* L. in the herbarium of the British Museum of Natural History, some years ago, showed that it was the same as *Scleria reflexa* HBK., and not the same as *Scleria flagellum-nigrorum* Berg". Through the kindness of Dr. Gunnar Samuelsson, of the Riksmuseum, Stockholm, I have been able to verify Dr. Britton's observation and at the same time to determine the identity of *Scleria flagellum-nigrorum*. A number of specimens that have been accumulating in herbaria under various names for a century can now be labeled with certainty. The two species are quite distinct and it is difficult to see how the confusion arose. *Scleria secans* has white fruits, and a long membranaceous appendage to the ligule, while in *Scleria flagellum-nigrorum* the fruits are variegated with purple and the ligule is short and unappendaged.

57. *S. scandens* Core, Proc. Wash. Acad. Sci. 35: 322. 1945.

TYPE LOCALITY: Ilha Nova Vida, upper Rio Negro, Amazonas, Baldwin 3285, Feb. 12, 1944 (US).

DISTRIBUTION: Known only from the type locality.

58. *S. melaleuca* Reichb.; Schlecht. & Cham. Linnaea 6: 29. 1831.

Scleria communis Liebm. Vidensk. Selsk. Skr. V. 2: 71, in part. 1850. (fide Clarke, Symb. Ant. 2: 146. 1900).

Scleria pratensis var. *melanocarpa* Boeck. Vidensk. Meddel. 1869: 153. 1870. "Ad Lagoa Santa cum forma typica".

Scleria pratensis var. *mucronata* Boeck. ms. (fide Clarke, Symb. Ant. 2: 146. 1900).

TYPE LOCALITY: Hacienda de la Laguna, Surinam (Weigelt).

DISTRIBUTION: Wet grassy plains and on banks along shaded streams, West Indies and continental tropical America.

BRAZIL: Para, Dahlgren & Sella 72 (NY), Goldi (G, US, NY), 1082 (US); Moura, Rio Negro, Baldwin 3362 (US); Barcellos, Rio Negro, Amazonas, Baldwin 3331 (US); Rio de Janeiro, Forssell 287 (S), Dusen 133 (G, US), Sao Paulo, Holway & Holway 2011 (US), Minas Geraes, Warming (C, BD); Belem, Para, Baldwin 4539 (US).

59. *S. pterota* Presl, Isis 21: 268. 1826.
 Schoenus latifolius Vahl, Enum. 2: 226. 1806 (fide Kunth, Enum. Pl. 2: 338. 1837).
 Scleria latifolia Sieber; Presl, Isis 21: 268. 1828 (fide Boeck. Linnaea 38: 482. 1874).
 Scleria asperata Presl, Isis 21: 268. 1828.
 Scleria margaritifera Presl, Isis 21: 268. 1828 (fide Boeck. Linnaea 38: 482. 1874).
 Dichromena vahlii Dietr. Sp. Pl. 2: 169. 1833 (fide Clarke, Symb. Ant. 2: 147. 1900).
 Scleria affinis Presl; Steud. Nomencl. ed. 2. 2: 542. 1841.
 Scleria communis Kunth, Enum. Pl. 2: 340, pro parva parte. 1837 (fide Clarke, Symb. Ant. 2: 146. 1900). "Brasilia, Bahia, Martinica, Jamaica, et ?Nova Hollandia (an patria a Sieb. recte notata?)."
 Scleria selleana Schrad.; Nees, in Mart. Fl. Bras. 2(1): 179, as syn. 1842.
 Scleria conspersa Sellow; Nees, in Mart. Fl. Bras. 2(1): 179. 1842.
 Scleria pratensis Lindl.; Nees, Nova Acta Acad. Leop. Carol. 19: Suppl. 1: 121. 1843.
 Scleria simplicior Steud. Syn. Pl. Cyp. 169. 1855. "Rengger legit in Paraguay".
 Scleria ottonis Boeck. Linnaea 38: 490. 1874. Type locality, Cuba (Otto 299).
 Scleria flagellata Sw.; Boeck. Linnaea 38: 506, as syn. 1874.
 Scleria pittieri Boeck.; Tonduz, Bull. Herb. Boiss. 3: 7, nomen. 1895. Allg. Bot. Zeitschr. 2: 159. 1896. "In Costarica leg. H. Pittier".
 Scleria boliviana Palla; Buchtein, Contrib. Fl. Boliv. 1: 90, name only. 1910.
 TYPE LOCALITY: Puerto Rico.
 DISTRIBUTION: In boggy meadows and wet clearings throughout the West Indies and continental tropical America; common.
 BRAZIL: Blanchet 162 (S); Minas Geraes, Claussen 660 (G, NY); Rio de Janeiro, Wilkes Exped. (G), Riedel 909 (US), Holway 1849 (NY, US), Widgren in 1842 (S), Glaziou (BD), De Moura 951 (BD), Burchell 1598 (G), Campinas, Sao Paulo, Viegas 3240 (Cornell); Bahia, Salzmann (US, G); Matto Grosso, Malme (S), "Brasil meridional", Dupre in 1842 (NY).
60. *S. longigluma* Kükenth. Bot. Jahrb. 56: Beibl. 125: 22. 1921.
 TYPE LOCALITY: Brazil, "Amazonas: Rio Branco, Parime: Auf Sumpfcampo bei der Serra de Paracaima", (Ule 8066, type in BD).
 DISTRIBUTION: Swamps in campos, Brazil to northern Argentina.
 BRAZIL: Amazonas, Ule 8066 (BD); Matto Grosso, Pl. Itin. Regnell. II. 3458 (S).
61. *S. setuloso-ciliata* Boeck. Flora 65: 30. 1882.
 TYPE LOCALITY: Mazatenango, Guatemala (Bernoulli 567). Type in BD.

DISTRIBUTION: Moist places and cultivated fields, Cuba and Mexico to Brazil.

BRAZIL: Para, Goldi 1087 (US, NY).

52. *S. secans* (L.) Urban Symb. Ant. 2: 169. 1900.

Schoenus secans L. Syst. ed. 2: 865, excl. syn. Rumpf. 1759.

Carex lithosperma L. Syst. ed. 12: 618, in part. 1767 (fide Sw. Fl. Ind. Occ. 1: 88. 1797).

Schoenus lithospermus L. Sp. Pl. ed. 2: 1: 65, in part. 1762 (fide Sw. Ind. Fl. Occ. 1: 88. 1797).

Arundo farcta Aubl. Pl. Guian. 1: 52. 1775 (fide Poir, in Lam. Encyc. 7: 1. 1806).

Scleria reflexa HBK. Nov. Gen. & Sp. 1: 232. 1816. "Crescit locis planis humidis Novae Andalusiae prope Cumana et Bordones".

Scleria caricifolia Schrad.; Nees, in Mart. Fl. Bras. 2(1): 177, as syn. 1842.

Mastigoscleria reflexa Nees, in Mart. Fl. Bras. 2(1): 177. 1842. Based on *Scleria reflexa* HBK.

Scleria renggeriana Steud. Syn. Pl. Cyp. 173. 1855. Type locality, Paraguay.

Scleria weigeltiana Schrad.; Boeck. Linnaea 38: 504, as syn. 1874.

TYPE LOCALITY: Jamaica. Type in British Museum.

DISTRIBUTION: Wet thickets and savannahs, West Indies and Mexico to Bolivia.

BRAZIL: Pohl (D), Burchell 9273 (G), Goldi 1086 (US); Bahia, Salzmann in 1840 (G & US); Rio de Janeiro, Burchell 1844 (G), L. B. Smith 1356 (G), Weddell in 1843 (NY); Minas Geraes, Warming (NY, C.), Santa Catharina, Ule 967 (US); Rio Grande do Sul, Municipio Porto Alegre, Morro Sta. Anna, Jurgens 162.

The synonymy of this common tropical species, long confused with *S. flagellum-nigrorum*, is discussed under that species. I see no reason for separating *S. reflexa* from the present species, and that widely-used name hence lapses into synonymy.

"Climbing over shrubs and trees, very sticky and cutting; festoons over vegetation along edge of forest, road, or clearing, forming a complete covering" (Hitchcock ms.). "Growing in clumps of 10-25 culms which climb amongst and over trees to a height of 40 feet or over. A very formidable plant; the culms and leaves cutting the flesh like a knife" (Harris ms.).

63. *S. scabra* Willd. Sp. Pl. 4: 315. 1805.

Scleria porphyrorhiza Wright; Sauv. Anal. Acad. Cienc. Habana 8: 155. 1871. "En los pinares de la Vuelta de Abajo, cerca de Pinar del Rio", Wright.

Scleria lobulata Palla, Denks. Akad. Wien 79: 197. 1908. Type locality, Campinas, Brazil, Campos Novaes 1324.

TYPE LOCALITY: Cumana, Venezuela (Humboldt). Type in BD.

DISTRIBUTION: Woods, Cuba to Venezuela and Brazil.

BRAZIL: Sao Paulo, *Campos Novaes* 1324, (US, V), Amazonas, *Spruce* (NY).

64. *S. retroserrata* Kükenth. Bot. Jahrb. 56: Beibl. 125: 21. 1921.

TYPE LOCALITY: Brazil, "Amazonas: Rio Branco, Surumu, auf nassem Campo der Serra do Mel" (*Ule* 8064, type in BD).

DISTRIBUTION: Known only from the type locality, *Ule* 8064 (BD).

65. *S. clarkei* Lindm. Bih. Sv. Vet. Akad. Handl. 26 (9): 32. 1900.

TYPE LOCALITY: "Exp. I. Regn. A, 3289, Matto Grosso, Buritizinho sub montibus Sierra do Itapirapuan, in campo glareoso, April, 1894 (*Lindman*).

DISTRIBUTION: Known only from the type locality, Matto Grosso, Brazil. *Exp. I. Regnell. A. 3289* (S).



Core, Earl Lemley. 1952. "THE GENUS SCLERIA IN BRAZIL." *Rodriguésia: Revista do Jardim Botânico do Rio de Janeiro* 15, 137–162.

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