A SKETCH OF THE VEGETATION AND FLORA OF THE KAPPEL SAVANNA NEAR TAFELBERG, SURINAME. II

BY

K. U. KRAMER AND J. VAN DONSELAAR (Botanical Museum and Herbarium, Utrecht)

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HUMIRIACEAE

Humiria balsamifera (Aublet) St. Hil. var. balsamifera KH 3294, var. guianensis (Benth.) Cuatrecasas KH 2954, 3288, 3313. K: Widespread, but not common, in thickets. S: Northern and southern savannas, savanna scrub and savanna woods. R: Kaieteur savanna (var. guianensis).

ICACINACEAE

*Pleurisanthes parviflora (Ducke) Howard KH 2959, 3088. K: A shrub-like tree in small savanna thickets, a liana of several m in savanna wood. The genus is new to Guiana. Amazonian Brazil.

LAURACEAE

Cassytha filiformis L. KH 3015. K: In open savanna vegetation, on Tetracera asperula and Marliera montana. S: Tafelberg; savannas throughout the country.

LECYTHIDACEAE

Couratari spec. prob. nov. KH 2965. K: A small tree, $4\frac{1}{2}$ m, in dense thickets; only fruiting. Dr. A. Mennega notes: "The fruits show affinity to C. multiflora (Smith) Eyma, but the shape and venation of the leaves are different. C. tenuicarpa A. C. Smith has similar foliage but much smaller fruits with considerably thinner pericarp. Such a low tree that is already fertile is unusual in the genus." Described by airport personnel as flowering with showy pink flowers.

LENTIBULARIACEAE

- Utricularia fimbriata H.B.K. KH 3312. K: Uncommon in open savanna vegetation. S: Northern and southern savannas, on wet sand. See Taylor (1967).
- Utricularia hispida Lam. (= U. angustifolia Benj.). KH 2942. K: Local but often plentiful on the open savanna, in a white- and a yellow-flowered form. R: Tafelberg, etc.; see Taylor, l.c.

LILIACEAE

Smilax cumanensis Willd. KH 2951. K: In savanna wood. S: Everywhere common in open places.

LORANTHACEAE

- Oryctanthus florulentus (Rich.) Urb. KH 3311, on Clusia, is probably this species. S: Tafelberg; widespread, often on savannas.
- Phoradendron racemosum (Aublet) Krug et Urban KH 3026. K: Savanna thickets, on Euceraea nitida, causing swellings on the host branches. S: Tafelberg; widespread, but not common, in various types of vegetation and on various hosts.
- Phthirusa savannarum Maguire KH 2921, 3031. K: In savanna thickets on the Kappel and Lareco savannas, both collections on *Licania incana*. Described from Tafelberg, without indication of host; not otherwise known.
- Phthirusa squamulosa Eichler KH 2920, 3286. K: On Marlierea montana on the savanna. S: Widespread, usually on savannas, often on Licania.

MALPIGHIACEAE

- *Byrsonima eugeniifolia Sandwith KH 2902. K: Uncommon in savanna thickets. New to Suriname; known by several collections from British Guiana.
- Byrsonima obversa Miq. KH 3304. K: Uncommon in savanna thickets. S: Widespread, but not usually on savannas.

MARANTACEAE

Monotagma secundum (Peters) K. Schumann KH 3044. K: In savanna wood. S: Widespread, but not often collected.

MELASTOMATACEAE

- Aciotis laxa (L. C. Rich.) Cogn. KH 3257. K: A shrub in moist savanna wood. S: Tafelberg; widespread in various types of vegetation.
- Clidemia pycnaster Tutin KH 3014. K: Thickets on moist savanna. R: Kaieteur savanna; Tafelberg. S: A few other collections; a species of sand and clay savannas.
- Comolia lythrarioides (Steudel) Naud. KH 2945. K: A dwarf shrub of moist, open savanna vegetation. S: Common on wet sand on savannas throughout the country. R: Auyan-tepuí. Guianas, Trinidad.
- Comolia villosa (Aublet) Tr. KH 3058. K: Uncommon in savanna thickets. R: Tafelberg, Roraima area; see Gleason (1953).
- Henriettea succosa (Aublet) DC. KH 3006, 3265, 3266. K: A common shrub of savanna thickets on sandstone outcroppings. According to WURDACK (in litt.) 3006 might be a hybrid with *H. maroniensis* Sagot. S: Widespread and common, in various types of vegetation.

- Macairea pachyphylla Benth. KH 2933, WB 1523. K: A tall shrub in savanna thickets; uncommon. S: Tafelberg; edge of savanna scrub and wood in southern Suriname. R: Kaieteur savanna, Mt. Roraima, Cerro Duida, and Auyan-tepuí.
- Miconia ciliata (L. C. Rich.) DC. KH 2900, WB 1524. K: Savanna thickets.
 S: Tafelberg; widespread and often common in savannas and open woods, often in moist localities. R: Ptari-tepuí, Auyan-tepuí.
- Miconia diaphanea Gleason WB 1560. K: In forest on granite South of the savanna. S: Tafelberg, also known from a few other localities; otherwise Amapá.
- Miconia holosericea (L.) DC. KH 3089. K: In wood by creek on the savanna, uncommon. S: Frequent and widespread, often but not always on savannas.
- *Miconia phaeophylla Triana KH 2960. K: In savanna scrub. Described from Peru; also reported from Cerro Duida. New to Suriname; also once found on the northern savannas (Brinckheuvel Nat. Res., Teunissen and Wildschut LBB 11395).
- Tibouchina aspera Aublet KH 3267. K: Uncommon in savanna thickets. S: Widespread and common on savannas. R: Mt. Roraima.

MUSACEAE

Heliconia psittacorum L.f. WB 1529. K: On the savanna. Not found by Kramer and Hekking; introduced?

MYRSINACEAE

- *Conomorpha fulvo-pulverulenta Mez KH 3269. K: In savanna thickets, sterile. New to Suriname. British Guiana.
- Conomorpha magnoliifolia Mez KH 3290. K: Uncommon in savanna scrub. S: A common constituent of savanna scrub and wood.
- Cybianthus fuscus Mart. WB 1574. K: By creek in savanna wood. S: Uncommon in the interior.

MYRTACEAE

- Automyrcia albido-tomentosa Amshoff KH 3271, 3298. K: Uncommon in savanna thickets. S: Otherwise only collected on Tafelberg. R: Kaieteur savanna (type locality).
- Eugenia albicans (Berg) Urban KH 2955. K: Tree in savanna wood. S: Uncommon in the interior.
- Eugenia punicifolia (H.B.K.) DC. KH 3261. K: Seedling on open, wet savanna. S: Common on the northern and southern savannas.
- Marlierea montana (Aublet) Amshoff KH 3056, 3087, 3264, 3281, 3289, 3293, 3307. K: Common in savanna thickets as a shrub, and in savanna wood as a tree. S: Tafelberg; widespread and common in savannas and savanna wood, on wet soil. See MoVAUGH (1958).

- Myrcia sylvatica (G. F. W. Meyer) DC. KH 2913, 3316. K: In savanna thickets. S: Tafelberg; widespread and common in savannas, less common in woods, in spite of its name.
- Myrcia tafelbergica Amshoff KH 3034. K: By creek in savanna wood. S: Several collections from Tafelberg. Not otherwise known.
- Myrciaria floribunda (Willd.) Berg KH 3299. K: In savanna thicket. S: Widespread and common, in various kinds of vegetation.
- Plinia spec. KH 2888. K: In savanna wood east of the savanna. According to McVaugh (pers. comm.) this is presumably an undescribed species.

OCHNACEAE

- *Elvasia essequibensis Engler KH 3315. K: A tree in savanna wood North of the savanna. Sterile, but the determination is scarcely doubtful. New to Suriname; apparently only known from British Guiana; see DWYER (1943).
- Ouratea surinamensis (Planch.) Wehlburg KH 3292. K: Rare in savanna scrub. S: Tafelberg; widespread but not common on savannas and in savanna woods. French Guiana.
- Sauvagesia erecta L. KH 3092. K: Disturbed wet savanna; only once found. S: Tafelberg; common throughout the savannas.
- Sauvagesia sprengelii St. Hil. KH 2908. K: Common on the entire savanna. S: Northern and southern savannas, on wet sand. R: Tafelberg, Ptaritepui, Auyan-tepui.

ORCHIDACEAE

Several collections from this family are as yet undetermined. The taxonomy and distribution of the orchids of Suriname are still very imperfectly known, and some species may represent new records for the country.

- Brassavola martiana Lindley WB 1547. K: Epiphytic in savanna wood towards Tafelberg. S: Apparently not rare. See Schweinfurth (1967, p. 155).
- Habenaria leprieurii Rchb.f. KH 2491. K: Terrestrial on open savanna, uncommon, with another, as yet unidentified Habenaria species (KH 2936). S: Also elsewhere on savannas. See Schweinfurth (l.c., p. 72).
- Liparis elata Lindley KH 3038. K: Terrestrial in very moist savanna wood by a creek. See Schweinfurth (l.c., p. 129).
- Maxillaria ringens Rchb.f. KH 3079. K: Epiphytic in dense, moist savanna wood by a waterfall. See Schweinfurth (l.c., p. 197).
- *Pleurothallis hexandra Garay et Dunsterville KH 3329. K: A sterile epiphyte in savanna thicket; taken alive to the Botanical Garden at Baarn, Netherlands, where it survived for a number of years, flowered regularly, and was identified by Mr. L. Y. Th. Westra to whom we are indebted for the name. Apparently the second collection of this unusual species, described from Venezuela. See Schweinfurth (l.c., p. 112).

- Pleurothallis spiculifera Lindley KH 3080. K: With Maxillaria ringens. See Schweinfurth (l.c., p. 118).
- Pogonia unifoliata C. Schweinf. KH 2946a. K: Terrestrial on moist, open savanna, uncommon, with an as yet undetermined species of Spiranthes (KH 2946). R: Recorded from Ptari-tepui.

PALMAE

- The species of this family were extensively dealt with by WESSELS BOER in his account for the Flora of Suriname (1965). For the Kappel savanna only the following needs to be mentioned:
- Bactris campestris Mart. KH 3052. K: A common, shrubby treelet of savanna thickets, often by watercourses and sandstone outcroppings, soon sprouting from the base after a fire (fig. 4).

PAPILIONACEAE

- Cajanus cajan (L.) Millsp. KH 3049. K: Southern edge of the savanna; introduced.
- Ormosia costulata (Miq.) Kleinh. KH 2899, 3306. K: Not rare in savanna thickets. S: Tafelberg; according to RUDD (1965) a sand savanna species of British Guiana, Suriname, and the Middle Amazon area.

PIPERACEAE

- Peperomia rotundifolia (L.) Kunth KH 3048. K: Epiphytic in moist savanna wood. The specimen tends towards P. lanjouwii Yuncker, a species that cannot be maintained as distinct; see Kramer and Görts (1968).
- Piper consanguineum Kunth WB 1533. K: In savanna wood. S: A dwarf shrub, widespread in various types of forest.

POLYGALACEAE

Polygala adenophora DC. KH 2950. K: Open savanna, remarkably rare. S: A common savanna plant in northern and southern Suriname. R: Mt. Roraima, Kaieteur savanna, etc.

POLYGONACEAE

Coccoloba excelsa Benth. KH 3272, 3287. K: Frequent in savanna thickets. S: A widespread savanna shrub.

PROTEACEAE

Roupala montana Aublet KH 3314. K: A shrub in savanna thickets, sterile, probably becoming a tree in the nearby wood. S: On the northern savannas, on loamy soil.

RAPATEACEAE

Cephalostemon affinis Koernicke Maas 3385. K: On the savanna; apparently rare, not found by Kramer and Hekking. R: Tafelberg, etc.; see MAGUIRE (1958) and LINDEMAN and GÖRTS (1968).

Rapatea paludosa Aublet var. sessiliflora Maguire KH 3029. K: Common by watercourses on the savanna, among shrubs and palms (fig. 10). Described from Tafelberg and regarded as endemic (MAGUIRE, l.c., LINDEMAN and GÖRTS, l.c.), but recently collected on the Middle Amazon.

RHIZOPHORACEAE

- Sterigmapetalum guianense Steyermark KH 3301. K: A tree, 7 m tall, in savanna thicket, sterile. S: Described from Tafelberg and apparently endemic to the area.
- Sterigmapetalum spec. KH 3274, 3300. K: Sterile shrubs in savanna thickets. Perhaps an undescribed species; apparently related to St. columbianum Monachino.

RUBIACEAE

- Cephaelis guianensis (Aublet) Standley WB 1532. K: In savanna wood. S: Uncommon in the interior.
- Cephaelis silvatica Brem. KH 2897, 3021. K: In savanna wood and Bactris thickets by watercourses on the savanna. S: Described from the nearby Wilhelmina Mountains and apparently not otherwise known.
- Cephaelis tomentosa (Aublet) Vahl KH 3246. K: Edge of ravine in savanna wood. S: A showy and everywhere common shrub of the forest undergrowth.
- Duroia eriopila L.f. var. tafelbergensis Steyermark KH 3066. K: In moist savanna wood. S: Known by three other collections from Tafelberg, among which the type; see STEYERMARK (1965, p. 203).
- Malanea macrophylla Bartling ex Griseb. KH 3297. K: An uncommon shrub of savanna thickets around sandstone outcroppings. S: Tafelberg; widespread in scrub, forest, etc.
- Pagamea capitata Benth. ssp. capitata KH 3094, 3273. K: One of the commonest shrubs of the savanna. S: Tafelberg; of local distribution on other savannas. R: Kaieteur savanna.
- *Palicourea corymbifera (Müll. Arg.) Standley KH 2884. K: A shrub of 3-4 m in open savanna wood. Reported from southern Venezuela, Brazil, and Colombia by STANDLEY (1930); apparently not previously found in Guiana.
- Palicourea longiflora (Aublet) A. Rich. KH 3020. K: A shrub in moist savanna wood. S: Tafelberg (Maguire 24612, distributed as P. crocea); widespread in various types of forest.
- Perama hirsuta Aublet KH 2939. K: Moist, open savanna; remarkably uncommon. S: Tafelberg; a common savanna plant throughout the country, on wet sand.
- Posoqueria latifolia (Rudge) R. & S. KH 3043. K: A tree in very moist savanna wood. S: Widespread in various types of vegetation.
- Psychotria microcephala Miq. KH 2885. K: In moist savanna wood. S: Widespread; a variable, possibly inclusive taxon.

- Psychotria officinalis (Aublet) Räuschel KH 2883. K: In open savanna wood. S: Widespread; a dwarf shrub of the forest undergrowth.
- Psychotria patens Swartz WB 1530, 1580. K: In savanna wood near the savanna and in rainforest on granite South of it. S: Uncommon in forests of the interior.
- Retiniphyllum schomburgkii (Benth.) Müll. Arg. KH 3033. K: Ubiquitous but not plentiful on the Kappel and Lareco savannas. S: A very common sand savanna species. R: Tafelberg and other table-mountains.
- Ronabea latifolia Aublet KH 2952, WB 1534. K: A shrub in savanna wood. According to Bremeram (pers. comm.) the KH collection represents an aberrant variety. S: Tafelberg (Maguire 24357, distributed as Psychotria erecta); widespread, mostly in forests.
- Sipanea pratensis Aublet KH 3032. K: Lareco savanna. S: Widespread and often plentiful on savannas; surprisingly rare in the Kappel savanna area.

SAPINDACEAE

Matayba opaca Radlk. KH 3057. K: A small tree in savanna wood, locally very common North of the savanna, dominant with Dimorphandra hohenkerkii. S: Widespread and often common in savanna woods and bushes.

THEACEAR

- Ternstroemia punctata (Aublet) Swartz KH 2923, 3273a. K: In savanna scrub. S: Widespread in savanna thickets and bushes on sand.
- Ternstroemia spec. KH 3295. K: Savanna scrub. A sterile shrub, 3/4 m. Related to T. dentata, but differing, i.a., by its obtuse leaves.

TURNERACEAE

Turnera glaziovii Urb. KH 2912, WB 1541, Maas 3383. K: A common, low shrub with handsome yellow flowers of savanna thickets (fig. 8). S: Tafelberg, not otherwise found. Described from an unknown locality in Brazil; no further records could be found in the literature.

URTICACEAE

Urera baccifera (L.) Gaud. WB 1573. K: In forest on granite South of the savanna. S: several collections from the mountains of the interior, usually on moist rocks.

XYRIDACEAE

- Abolboda americana (Aublet) Lanjouw KH 2953, 3284. K: Frequent in wet, open savanna. S: A common plant of wet sand savannas. See MAGUIRE and WURDACK (1958).
- Abolboda grandis Griseb. KH 3256, 3310. K: On wet, open savanna and by creek in savanna wood, much less common than the preceding. S: In northern Suriname on wet white-sand savannas. Tafelberg, Kayser savanna; see MAGUIRE and WURDACK, l.c.

- Xyris connosepala Lanjouw et Lindeman KH 2940 is probably this species. K: Open savanna. S: Tafelberg; endemic. See Maguire and SMITH (1964) and MENNEGA, LINDEMAN and GÖRTS (1968).
- Xyris fallax Malme (X. dolichosperma Lanjouw) KH 2962, 3012. K: Scattered on moist savanna. S: Northern to southern savannas. R: Tafelberg, Kaieteur savanna. See Maguire and Smith (1964).
- Xyris malmeana L. B. Smith KH 3275. K: In savanna scrub, rare. S: Northern and southern savannas, Tafelberg. See MAGUIRE and SMITH, l.c.
- Xyris spathacea Lanjouw KH 3308 is probably this species. K: Uncommon on moist, open savanna.

ZINGIBERACEAE

Costus claviger R. Ben. WB 1576. K: Moist place in granitic area South of the savanna. S: Throughout the country, but nowhere common, except on granitic outcroppings in the mountains.

PTERIDOPHYTA

This group is dealt with somewhat more extensively, partly because of the senior author's taxonomic specialization, partly because of the absence of a modern treatment, Posthumus's work (1928) being antiquated.¹)

- Adiantum humile Kunze KH 2894. K: By creek in savanna wood, uncommon. Previously reported from Suriname under the synonym A. killipii Maxon and Weatherby (Kramer, 1954).
- *Anemia buniifolia (Gardner) Moore KH 2967. K: In cracks of sandstone rocks in the shade of savanna thicket; very local. Not reported from Guiana by MICKEL (1962), but collected before on savannas (A. C. SMITH, 1931).
- Asplenium auritum Swartz KH 3074. K: Epiphytic in moist savanna wood. S: Tafelberg; widespread in the mountains of the interior. Called A. sulcatum Lam. by Posthumus, a species described from the Mascarenes (type P!) that is certainly distinct.
- Asplenium hostmannii Hieron. WB 1571. K: In forest South of the savanna. S: Not uncommon in the interior of Suriname. Placed in the synonymy of A. laetum Swartz by Posthumus (1928) and by Morton and Lellinger (1966); but in the two last-named authors' key A. laetum is found under the heading "stipe and base of rhachis dark or atropurpureous and shining", which is not true for the cited specimen, nor for the isotype of A. hostmannii in herb. U. The matter requires further study.
- Asplenium salicifolium L. KH 3047. K: Epiphytic in very moist savanna wood. With Morton and Lellinger's key (l.c.) this runs to A. auriculatum Swartz, but a series of specimens from Suriname suggests that that is only a form of A. salicifolium.
- 1) In the absence of critical treatments for most genera, little is said here about the distribution of most species outside Suriname.

- Cochlidium linearifolium (Desv.) Maxon KH 3073. K: Epiphytic in moist savanna wood. S: Uncommon, almost confined to the interior.
- Cyathea (Cnemidaria, "Hemitelia") macrocarpa (Presl) Domin KH 2881, 2892. K: A small, slender-stemmed species, scarcely to 2 m tall; frequent in moist places on the savanna and by creeks in savanna wood. R: Tafelberg, Kaieteur savanna, etc. S: very local, but not confined to the interior.
- Dicranoglossum desvauxii (Kl.) Proctor KH 3077. K: Epiphytic in moist savanna wood. S: Widespread and not rare throughout the country. This is Eschatogramme furcata of Posthumus (1928); the true Dicranoglossum furcatum (L.) J. Smith is now also known from Suriname.
- Elaphoglossum glabellum J. Smith KH 2896, 2932. K: Epiphytic in savanna wood, also in thickets. S: Uncommon in the interior.
- Elaphoglossum luridum (Fée) Christ KH 3243. K: Epiphytic in savanna wood. Incorrectly referred to E. schomburgkii by Christensen (Index Filicum, 1906). The dark, stellate foliar scales and the subsessile or very short-stalked sterile leaves are distinctive. Described from French and British Guiana. S: Not rare in some parts of the country, mostly in savanna woods. Also seen from Amapá; not included in Alston's account of the Brazilian species (1958).
- Elaphoglossum plumosum (Fée) Moore KH 2893, 3245, WB 1536. K: Epiphytic in mossy savanna wood. S: Tafelberg, otherwise very rare.
- Elaphoglossum pteropus C. Chr. KH 2880, 3017. K: Epiphytic in savanna wood. Described from French and British Guiana. S: Reported from Suriname by Posthumus (l.c.), but the two collections in herb. U cited by him are E. luridum. The true E. pteropus is known from the country by three collections.
- Elaphoglossum rigidum (Aublet) Urban KH 3045. K: Epiphytic in dense, moist savanna wood. S: Tafelberg; not uncommon in the interior.
- Elaphoglossum spathulatum (Bory) Moore WB 1561. K: Epiphytic in forest on granitic substrate South of the savanna. S: Tafelberg; rare and local in the mountains.
- Gleichenia flexuosa (Schrader) Mett. = Dicranopteris flexuosa (Schrader) Underwood KH 3083, WB 1522. K: In savanna thickets, among sandstone rocks. R: Mt. Roraima, etc. S: Widespread, but uncommon, on sand.
- Grammitis furcata Hooker and Grev. KH 3036. K: Epiphytic in swampy wood. S: Tafelberg; otherwise widespread but confined to the mountains.
- Hymenophyllum polyanthos (Swartz) Swartz KH 2924, 3023, 3082, WB 1562. K: Epiphytic in savanna wood, common, extending to savanna scrub.
 - S: Tafelberg; widespread and often common throughout the country.
- Lindsaea divaricata Kl. KH 2886. K: By creek in moist savanna wood. S: Uncommon, mostly in moist places.
- Lindsaea dubia Sprengel KH 3095. K: On sandstone rocks by creek in wood. S: Tafelberg; frequent in forests outside the coastal plain.

- Lindsaea guinanensis (Aublet) Dryander ssp. guianensis KH 2879, 3067. K: In moist savanna woods. S: Infrequent in forests of the interior.
- Lindsaea lancea (L.) Bedd. var. elatior (Kunze) Kramer KH 3054. K: In swampy forest. Almost matches this variety, but the terminal segment is acute. In drier savanna woods it is replaced by the next.
- Lindsaea lancea (L.) Bedd. var. falcata (Dryander) Ros. KH 2874. K: Not rare in savanna wood, mostly along creeks but on dry ground. S: Tafelberg; frequent in forests of the interior.
- Lindsaea lancea (L.) Bedd. var. lancea KH 3019, WB 1505. K: In savanna woods, much less common. S: Tafelberg; frequent in forests almost throughout the country.
- *Lindsaea pendula Kl. KH 2891. K: In Bactris thickets, in moist places, locally plentiful (fig. 5). R: A Roraima sandstone species, so far not found on Tafelberg; new to Suriname.
- Lindsaea stricta (Swartz) Dryander var. jamesoniiformis Kramer KH 2930, 3084. K: Savanna thickets, mostly among sandstone rocks. R: Described from Tafelberg; almost confined to the Roraima sandstone substrate.
- Lindsaea stricta (Swartz) Dryander var. parvula (Fée) Kramer KH 2934, WB 1521. K: Frequent in moist places on the savanna, notably in Mauritia lanes, where it also often grows elsewhere in the country.
- Lindsaea surinamensis Posthumus KH 3247. K: By ravine in savanna wood. Extending from French Guiana to Colombia and now known from several collections from Suriname.
- Lycopodium carolinianum L. var. meridionale (Underwood et Lloyd) Nessel et Hoehne KH 3039. K: On moist savanna. S: A common plant of sand savannas.
- Lycopodium cernuum L. KH 3244. K: Moist place on the airstrip; rare. *Lycopodium duidae A. C. Smith var. guianense Kramer, var. nov. Differt a var. duidae caule repente praecipue dorsaliter distincte applanato; strobilis magis tenuibus, ad 1½ cm latis (cum sporophyllis); sporophyllis minoribus, haud ultra 6 mm longis et 1½ mm latis, plus sensim apicem versus angustatis, margine non membranaceo et non vel vix erosociliato. Typus: Kramer and Hekking 3030, Kappel savanna near Tafelberg, Suriname (U). Paratypus: Kramer and Hekking 2778, white sand savanna between the Cola creek and Zanderij, Suriname (U) (this has most sporophylls to only 5 mm long).

This was at first taken for L. juliforme Underwood and Lloyd, described from Mt. Roraima and reported from Cerro Duida by A. C. SMITH (1931), because of its almost to quite entire sporophylls, but that species, and its relative L. tatei A. C. Smith (Bull. Torr. Bot. Cl. 57: 180, 1930), have more abruptly acuminate sporophylls, with \pm distinct laminal part and acumen, whereas the almost evenly tapering sporophylls of the Suriname collections, and also the characters of the vegetative parts, agree very well with L. duidae. The differences noted above seem to warrant varietal recognition. I am much indebted to Mr. C. V. Morton,

- Washington, for drawing my attention to the similarity with L. duidae, and for loan of material of the three above-named species.
- K: Common in moist parts of the Kappel savanna; the collection from the vicinity of Zanderij is geographically interesting.
- Metaxya rostrata (H.B.K.) Presl. K: On sandstone rocks by a creek in wood, frequent; not collected. S: Not rare South of the coastal plain, in forests, often on local accumulations of ferritic material.
- Oleandra pilosa Hooker KH 3061. K: In moist savanna wood, by creek; ± shrubby. S: Very local.
- Polypodium crassifolium L. KH 3065. K: In moist savanna wood. S: A common epiphyte.
- Polypodium lycopodioides L. var. salicifolium (Willd.) Bonap. KH 3010. K: Epiphytic in savanna thicket, rare. S: Generally not uncommon, as an epiphyte of ± open places.
- Polypodium tectum Kaulf. KH 2927. K: A scandent epiphyte in savanna thicket. S: Widespread, but uncommon.
- Polypodium triseriale Swartz KH 3011. K: A pendulous epiphyte in savanna scrub, not common. S: Not often collected.
- Polytaenium guayanense (Hieron.) Alston KH 3078, 3255. K: Epiphytic in moist savanna wood. S: Widespread but not common; yet less rare than the three other species known from Suriname. The taxonomy follows Tryon (1964).
- Pteridium aquilinum (L.) Kuhn ssp. caudatum (L.) Bonap. var. arachnoideum (Kaulf.) Herter KH 3050. K: Uncommon in savanna scrub. S: Widespread, but not common, on sand savannas.
- Schizaea elegans (Vahl) Swartz KH 3028, 3096. K: In thickets by creek on the savanna and on sandstone in savanna wood. S: Tafelberg; widespread, but generally uncommon in various types of vegetation, often on sand. The variety flabellum (Mart.) Prantl passes into typical Sch. elegans and would not seem to merit recognition.
- Schizaea pennula Swartz KH 2929. K: Poorly developed plants from savanna thickets; surprisingly rare. S: Very common elsewhere on sand savannas, with Sch. incurvata Schkuhr which was not found on the Kappel savanna. Tafelberg.
- Selaginella parkeri (Hooker and Grev.) Spring KH 3428. K: In savanna wood at edge of ravine. S: Tafelberg; not rare in forests of the interior, but surprisingly not yet found when the family treatment for the Flora of Suriname was published (Alston, 1938).
- Selaginella pedata Kl. KH 2882, 3022, 3070. K: In savanna wood, on sand and sandstone. S: Quite common in forests South of the coastal plain.
- Stigmatopteris meniscioides (Willd.) Kramer, comb. nov. Basionym: Aspidium meniscioides Willdenow, Spec. Pl. 5: 218, 1810. Referred to the monotypic genus Cyclodium by Posthumus (1928) and to Dryopteris by Maxon and Morton (1948). The affinity is with Stigmatopteris, rather than with Dryopteris in its modern, restricted sense. The pellucid-

- punctate lamina and the serrate pinna-apices (not in all specimens) agree very well with *Stigmatopteris* as originally defined by Christensen, and the peltate, fugacious indusia with Christensen's group *Peltochlaena*. The almost wholly anastomosing veins are peculiar, but only gradually different from and in pattern similar to the venation of *St. varians* (Fée) Alston, which also shares the laminal dimorphism with *St. meniscioides*. The less pronouncedly dimorphic and free-veined *St. guianensis* (Kl.) C. Chr. is more distantly related. The type of *Aspidium meniscioides*, from Brazil, was seen in herb. B-Willd. KH 3075, 3254. K: By creek in moist savanna wood. S: Not rare in moist, shaded places.
- Trichomanes ankersii Hooker and Grev. KH 2875, 2956, 3055. K: Epiphytic in savanna wood on Astrocaryum sciophilum, and on sandstone rocks. S: A widespread epiphyte, mostly scandent on tree trunks in forest shade.
- Trichomanes arbuscula Desv. KH 2958, 3242, WB 1504. K: On sandstone rocks in savanna wood. S: Widespread, terrestrial and epiphytic.
- Trichomanes botryoides Kaulf. KH 3250. K: On sandstone rocks by creek in savanna wood. S: Tafelberg; infrequent, often collected on rocks.
- Trichomanes cellulosum Kl. KH 3253. K: On sandstone rocks of dry creek beds. The second record for the country, the first being from Tafelberg.
- Trichomanes cristatum Kaulf. KH 2895, 2957. K: Terrestrial in savanna wood, also on sandstone rocks. S: Tafelberg; widespread, usually epiphytic. Perhaps an aggregate, as already noted by MAXON and MORTON (1948).
- Trichomanes hostmannianum (Kl.) Kunze KH 2964. K: In crevices of sandstone rocks, in savanna scrub. S: A widespread terrestrial fern, but not otherwise known as a savanna plant.
- *Trichomanes macilentum van den Bosch KH 2878. K: On sandstone rocks of dry creek bed. S: Not previously recorded, but collected on Tafelberg (Geijskes 1013) and in the Wilhelmina Mts. (Schulz 10312).
- Trichomanes pilosum Raddi KH 2876. K: On sandstone rocks by creek in wood. S: Widespread and often common, terrestrial or occasionally epiphytic.
- Trichomanes rigidum Swartz KH 3072. K: On sandstone by waterfall in wood. S: Tafelberg; widespread in the mountains.
- Trichomanes trollii Bergdolt KH 3249. K: On sandstone by creek bed in savanna wood. S: Tafelberg; terrestrial or epilithic, uncommon in the interior of the country.
- Vittaria lineata (L.) J. E. Smith KH 3009. K: Epiphytic in savanna thicket, on arboreal ants' nest (prob. Anochetus). S: Widespread, but very rarely found on savannas.
- Xiphopteris nana (Fée) Copeland KH 2931. K: Epiphytic in savanna scrub, rare. S: Tafelberg, apparently not rare in the interior of Suriname, but probably often overlooked through its small size. Usually a forest epiphyte. The genus is united with *Grammitis* by Morton (1967) and other modern authors, but the name is there preoccupied by *G. nana* Brack.

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