

NOTES ON A NUMBER OF NEW GUINEAN SPECIES*

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APONOGETONACEAE

Aponogeton loriae Martelli in Nuovo Giorn. Bot. Ital. ser. 2, 3: 472, *pl.* 8. 1897.

BRITISH NEW GUINEA: Central Division: Kubuna, *L. J. Brass* 5567, Nov. 1933, alt. 100 m., common in shallow, stony streams in forest, leaves brown, completely submerged, spikes of greenish yellow flowers protruding just above the water. Western Division: Penzara, between Morehead and Wassi Kussa Rivers, *L. J. Brass* 8671, Dec. 1936, in stream in savanna forest.

The New Guinean specimens have sometimes been referred to *A. crispus* Thunb. by F. v. Mueller (Descr. Not. Pap. Pl. 2: 51. 1886), and to *A. monostachyum* L. f. by Hemsley (Kew Bull. 113. 1899), but they differ from both species in their greenish yellow flowers and the persistent spathe gradually decaying from the apex to the base. The leaves, for the most part, gradually taper into the petiole. This Papuan species is also known from the southern Celebes, and possibly occurs also in Queensland.

JUNCAGINACEAE

Triglochin procera R. Br. var. *dubia* Benth. Fl. Austral. 7: 168. 1878; Buchenau in Pflanzenr. 16(IV.14): 14. 1903.

BRITISH NEW GUINEA: Western Division: Penzara, between Morehead and Wassi Kussa Rivers, *Brass* 8447, Dec. 1936, savanna forest, common in streams which contain water only during the wet season; Tarara, Wassi Kussa River, *Brass* 8666, Jan. 1937, savanna forest, massed in a small stream, dry during the dry season. Plant about 50 cm. high; roots swollen into terminal tubers; leaves about 2 mm. broad; carpels free.

The first record of the genus within Malaysia, the species and a variety also known from Australia and Tasmania.

PONTEDERIACEAE

Monochoria hastata (L.) Solms in DC. Monog. Phan. 4: 523. 1883.

Pontederia hastata L. Mant. Pl. 362. 1771.

NORTHEAST NEW GUINEA: Morobe District, vicinity of Kajabit Mission, *Mrs. M. S. Clemens* 10636, Aug.-Dec. 1939, alt. 240-600 m.

DISTRIBUTION: From India to S. China and throughout Malaysia; as yet not reported from Queensland.

PHILYDRACEAE

Helmholtzia novoguineensis (Krause) Skottsberg in Bot. Jahrb. 65: 260. 1932; Bull. Jard. Bot. Buitenz. III. 13: 112. 1933.

Xerotidae sp., Teijsmann in Natuurk. Tijdschr. Ned. Ind. 37: 132. 1877.

Astelia novoguineensis Krause in Bot. Jahrb. 59: 559. 1924.

* Results of the Richard Archbold Expeditions.

NETHERLANDS NEW GUINEA: Idenburg River, 4 km. SW. of Bernhard Camp, *L. J. Brass* 13431, Mar. 1939, alt. 850 m., rare in rain forest ravines (flowers and fruit white); same locality, 6 km. SW. of Bernhard Camp, *L. J. Brass* 12859, Feb. 1939, alt. 1150 m., occasional in undergrowth of rain forest ravine (flowers and fruit white).

DISTRIBUTION: New Guinea and Moluccas (Ambon, Buru, Ceram); another species in Australia.

Philydrum lanuginosum Banks ex Gaertn. Fruct. 1: 62. 1788.

BRITISH NEW GUINEA: Lower Fly River, Gaima, east bank, savanna areas, *L. J. Brass* 8353, Nov. 1936, common in sedge stands in shallow swamps (flowers yellow); Western Division, Dagwa, Oriomo River, *L. J. Brass* 6002, Febr.—March 1934, common on fringes of small savanna swamps (flowers yellow).

DISTRIBUTION: From SE. and E. Asia to Australia, but within Malaysia hitherto only found in the Malay Peninsula. The record from Java on the basis of a Hillebrand specimen is doubtless due to an error in the locality, and Merrill (Philip. Jour. Sci. 10, Bot.: 88. 1915) showed that the Philippine record also was based on an erroneously localized collection. This is the first record of its occurrence in New Guinea.

Both members of this family here recorded were easily identified through Skottsberg's excellent revision in Bull. Jard. Bot. Buitenz. III. 13: 110–113. 1933.

HAEMODORACEAE

Haemodorum coccineum R. Br. Prodr. 300. 1810; F. v. Mueller Descr. Not. Pap. Pl. 2: 67. 1890.

BRITISH NEW GUINEA: Tarara, Wassi Kussa River, *L. J. Brass* 8384, Dec. 1936, savanna forest, common on sour gray clay soil flats (rootstock red inside; flowers red).

The genus was hitherto known only from Australia, but F. von Mueller mentioned it nearly sixty years ago as occurring on the Wassi Kussa River without indicating the collector.

DROSERACEAE

Drosera indica L. Sp. Pl. 282. 1753.

BRITISH NEW GUINEA: Lake Daviumbu, Middle Fly River, *L. J. Brass* 7827, Sept. 1936, common in thick cover on wet grass-plains (flowers purple).

Drosera petiolaris R. Br. ex DC. Prodr. 1: 318. 1824.

BRITISH NEW GUINEA: Western Division, Wassi Kussa River, near Tarara, *L. J. Brass* 8386, Dec. 1936, on wet sandy flats (one of the first herbs to flower; flowers pink).

Drosera ? *spathulata* Labill. Nov. Holl. Pl. 1: 79, *pl.* 106, *f.* 1. 1804; Diels, Pflanzenr. 26(IV.112): 83. 1906.

BRITISH NEW GUINEA: Wassi Kussa River, Tarara, *L. J. Brass* 8752a, Jan. 1937, on wet ground in savanna forest (rare herb; flowers white).

This specimen was found in a cover with *L. J. Brass* 8752 and separated at Buitenzorg. The dimensions of the three styles, which are bifid to the base, do not agree with Diels's description. The "normal" habitat in Malaysia for this species is found at medium or high altitudes; whereas,

D. burmannii Vahl (*L. J. Brass* 5962) occurs at low altitudes. In Australia, however, e.g. Queensland, *D. spathulata* Labill. also is found at low altitudes. It may be that this Papuan strain corresponds to the Queensland material. The type was collected at low altitude in Australia.

PODOSTEMONACEAE

Torrenticola queenslandica Domin in *Bibl. Bot.* 89²: 149, *pl.* 35, *fig.* 7-13. 1925; Engler, *Nat. Pflanzenfam.* II. 18a: 484. 1930.

Podostemon queenslandicus Domin l.c. nom. altern.

BRITISH NEW GUINEA: Port Moresby area, Roona, *C. E. Carr* 12415, July 29, 1935, about 700 m. alt., on submerged rocks in the Laloki River (plant dark green; fruit brown).

As far as I know this is the second collection of the species, and the first record of the occurrence of the family in New Guinea. The material is in the same advanced stage of growth as the original collection, but flowers are needed for any further remarks on its exact affinity. It exactly matches the figure of the type-collection.

The only previous record of this family in New Guinea was made by Zippel (*Flora* 12: 285. 1829; *Alg. Konst- & Letterbode* 1: 297. 1829) of *Lemnopsis mnioides* Zipp. According to Hallier f. (*Meded. Rijksherb. Leiden*) this is an *Utricularia*. In 1947 I could not trace the specimen in the Leyden Herbarium.

H. J. Lam (*Blumea* 2: 117. 1936) cited a passage from d'Albertis's "New Guinea: What I did and what I saw" 2: 93. 1880, relating to a peculiar plant which d'Albertis found June 17, 1876. "It grows on the heaps of stones that abound in the river, and seen from a certain distance, its dark color, almost black, and its peculiar shape make it resemble the scales of a serpent. Its branches lie flat, so as to offer as little resistance as possible to the water. It owes to this curious conformation its power of resisting the strength of the current." According to my wife's MS. cyclopedia of Malaysian collectors this must have been on the Fly River which d'Albertis ascended from May 22 till June 25, 1876. If the plant was *Torrenticola* the vegetative phase must have resembled the scales of a serpent. The tiny flowering stems cannot have been meant as one cannot see these "from a distance" separately. Another argument against identifying d'Albertis's plant as a representative of the Podostemonaceae is the fact that Brass explored the Fly River area, and has, to my knowledge, collected nothing of the kind.

CORYNOCARPACEAE

Corynocarpus australasica C. T. White, *Contr. Arnold Arb.* 4: 57. 1933.

NETHERLANDS NEW GUINEA: SW. New Guinea, Zwaluw bivak, *Branderhorst* 428, June 10, 1908 (shrub with immature flowers); id. *Tuinweg* near Kp. Kabatiel, *Branderhorst* 271, Dec. 6, 1907 (tree with fruit).

Both numbers were unidentified specimens in Herb. Bog., which undoubtedly belong to this Papuan-Queensland tree-species. It seems that

Beguín has collected a new species of the genus in Halmaheira (Moluccas).

STACKHOUSIACEAE

Stackhousia intermedia F. M. Bailey in Queensl. Agric. Jour. 3(4):174. 1898; Brouwer in Blumea 3:174. 1938.

BRITISH NEW GUINEA: Western Division: Mabaduan, *L. J. Brass* 6519, April 1936, common grass associate in savanna forests (flowers and fruit yellow); Wassi Kuasa River, Tarara, *L. J. Brass* 8661, Jan. 1937, common in savanna forests (flowers brown-green); Wuroi, Oriomo River, *L. J. Brass* 6072, Jan.-March 1934, alt. 30 m.; same locality and date, *L. J. Brass* 5760, alt. 10-30 m., sporadic and rather uncommon on savanna.

DISTRIBUTION: From Sumatra through Malaysia and the Philippines to North Queensland and Micronesia.

SAPINDACEAE

Sarcopteryx coriacea Radlk. Sapind. Holl.-Ind. 98. 1878.

NETHERLANDS NEW GUINEA: Arfak Mountains, Angi Lakes, by ♀ lake, *L. S. Gibbs* 5531, alt. 2100 m. (small tree; fruit red).

The material consisting of a duplicate from the Brit. Mus. Herb. exactly matches the other collections mentioned by Radlkofer. Neither Gibbs nor Radlkofer cited this number; it was inserted in Herb. Bog. as *Euonymus* sp.

BOMBACACEAE

Papuodendron lepidotum C. T. White in Jour. Arnold Arb. 28:272, *pl.* 1. 1946.

NORTHEAST NEW GUINEA: between Umbili and Wobbe, *R. Schlechter* 16334, July 30, 1907, alt. 300-400 m.

This specimen, which was provisionally identified as a new species of *Cumingia* by Ulbrich in the Berlin Herbarium, is the first known collection of White's new genus.

Camptostemon philippinensis (Vidal) Becc. Malesia 3:273. 1889; Bakhuizen van den Brink in Bull. Jard. Bot. Buitenz. III. 6:219, 245. 1924; Troll in Flora n. ser. 28:350. 1933.

Cumingia philippinensis Vidal Phan. Cuming. Philip. 212, *pl.* 1. 1885.

BRITISH NEW GUINEA: Western Division: Tarara, Wassi Kussa River, *L. J. Brass* 8517, Dec. 1936, common in mangroves (tree; flowers white); Mabaduan, *L. J. Brass* 6475, April 1936, very common mangrove tree, sometimes forming nearly pure forest (25 m. high, lower part of trunk fluted; bark ± scaly, reddish brown when cut; very numerous large flattened brown knobby pneumatophores).

Known from the Philippines, Borneo, the Moluccas, and North Australia; first record from New Guinea.

STYRACACEAE

Bruinsmia styracoides Boerl. & Koord. in Natuurk. Tijdschr. Ned. Ind. 53:68. 1893.

NETHERLANDS NEW GUINEA: 2 km. SW. of Bernhard Camp, Idenburg River, *Brass & Versteegh* 13506, April 1939, alt. 700 m., frequent on slopes of primary forest (tree 20 m. high). NORTHEAST NEW GUINEA: Morobe District, Yunzaing, *Mrs. M. S. Clemens* 2970, April 1936, alt. 1500 m., forested hills.

DISTRIBUTION: From Sumatra to New Guinea, but hitherto in the latter island only reported from the southeast part, the record being based on a Forbes specimen.

Styrax agrestis (Lour.) G. Don, Gen. Hist. 4: 5. 1837.

NETHERLANDS NEW GUINEA: Idenburg River, Bernhard Camp, *L. J. Brass* 13953, April 1939, alt. 50 m., common in flooded perhaps permanently swampy rain forest of river plains (straggling tree attaining 12 m.; flowers white); same place and date, *L. J. Brass* 13820, swampy rain forest (shrub \pm 4 m. high). BRITISH NEW GUINEA: Middle Fly River, Lake Daviumbu, *L. J. Brass* 7565, Aug. 1936, common in brushy outskirts of lake shore rain forest (slender virgate tree 4–5 m. high). NORTHEAST NEW GUINEA: Morobe District, Yoangen to Mongi, *Mrs. M. S. Clemens* 6613, June 1937, alt. about 1000 m.

The species is distributed very widely, from Annam and Hainan through Borneo, Celebes, and the Moluccas to New Guinea, the Bismarcks, the Solomons, and Micronesia. Hitherto it was only reported from the northern parts of New Guinea. It seems to be exceedingly variable in habit, and very tolerant as to habitat.

SYMPLOCACEAE

Symplocos confusa Brand, Pflanzenr. 6(IV.242): 88. 1901.

NETHERLANDS NEW GUINEA: 9 km. NE. of Lake Habbema, *Brass & Versteegh* 10492, Oct. 1938, alt. 2600 m., rare (tree 20 m. high, 45 cm. diameter, crown not wide-spreading; bark 13 mm. thick, smooth; wood yellow-brown).

A widely distributed species, described under various names, known from SE. Asia (Ceylon to Luchu Islands) through Malaysia to New Guinea.

BIGNONIACEAE

Neosepicaea viticoides Diels in Bot. Jahrb. 57: 500, fig. 1. 1922.

BRITISH NEW GUINEA: Lake Daviumbu, Middle Fly River, *L. J. Brass* 7580, Aug. 1936, abundant in rain forests (large canopy liane; corolla brown outside, purple within; [leaflets 3–4;] terminal panicle with young foliage); Lower Fly River, east bank, opposite Sturt Island, *L. J. Brass* 7994, Oct. 1936, in rain forest (high climbing liane; flowers streaked brown; [always 3 leaflets]). NORTHEAST NEW GUINEA: Kaiser Wilhelmsland, Djamu River, *R. Schlechter* 17557, April 1908, about 250 m. alt., liane in the forest.

Schlechter's collection is the first ever made of this species. In preliminary work this plant was identified as a member of the Verbenaceae, and I found Schlechter's number among the latter family inserted under a provisional name. The species was originally described by Diels as having 5–7 leaflets, but the Brass collections have only 3–4. The petiolule of the terminal leaflet is of the same length as those of the lateral ones and, hence, the leaf is digitately compound.

BOTANIC GARDENS,

BUITENZORG, JAVA.



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