

**THE VERBENACEAE, COLLECTED IN PAPUA BY L. J. BRASS
FOR THE ARCHEBOLD EXPEDITION.**

(American Museum of Natural History),
1933—1934

by

EVA BEER & H. J. LAM
(Leiden).

References:

- H. J. LAM, The Verbenaceae of the Malay Archipelago, etc. Groningen, 1919.

& R. C. BAKHUIZEN VAN DEN BRINK, Bull. du Jard. bot. de Buitenzorg, Sér. III, Vol. III, 1921, 1—116.

& _____, Nova Guinea XIV, Livr. 1, 1924.

Mr. BRASS's New Guinea collection has yielded valuable data to our knowledge of the Verbenaceae. He discovered one new genus (*Archboldia*), 3 new species (*Clerodendron Brassii*, *C. populneum* and *Premna inaequilateralis*) and some interesting additions to the area's of earlier described species, among which the rediscovery of *Faradaya chrysoclada*, and the discovery of two species new for South New Guinea (*Premna sessilifolia* and *Teysmanniodendron bogoriense*) and of one more for the whole island (*Glossocarya Hemiderma*).

Archboldia.

(EVA BEER & H. J. LAM in Blumea II, 1936, 31).

A. ericoides E. BEER & H. J. LAM, l. c.

Western Division: Wuroi, Oriomo River, edge of small swamp in savannah forest (nr. 6025).

Endemic shrub about 1 m, with a few erect branches from enlarged stock, branchlets, petioles and underside of midribs purple; fr. very young red, in Jan.—March.

Callicarpa L.

1. **C. longifolia LAM., forma subglabrata SCHAUER** — East Asia to Tropical Australia.

Central Division: Dieni, Ononge Road, 500 m in alt. (nr. 3969).

Slender shrub, 2.2—5 m high, common in rain forest; fls. and fr. white, April—May.

2. *C. pedunculata* R. BR. — Formosa, Philippines, East Malaysia to Polynesia.

Central Division: Mafulu, 1250 m in alt. (nr. 5520).

Slender large bush or small tree, common in forest regrowths; fls. pink, fr. bright purple, Sept.—Nov.

3. *C. pentandra* ROXB., var. *Cumingiana* (SCHAUER) BAKH. — Malaysia.

Central Division: Dieni, Ononge Road, 500 m in alt. (nr. 3925); Mafulu, alt. 1250 m (nr. 5537).

Small tree, common in forest regrowth; fls. purple-pink, fr. red, Sept.—Nov. (Mafulu) and Apr.—May (Dieni).

4. *C. tomentosa* (L.) MURR., var. *lanata* (L.) BAKH. — India to New Guinea.

Central Division: Mafulu, 80 m in alt., on forested river bank (nr. 5495); Laloki Riv., Rona, in July, rain forest, alt. 450 m (nr. 3675).

Small slender tree; indumentum reddish brown, lvs. pale softly pubescent, fls. purple-pink, Sept.—Nov.; fr. purple-black, abt. 5 mm in diam., Apr.

Clerodendron L.

1. *C. Brassii* (§ *Tridens*) EVA BEER & H. J. LAM, nov. spec. — *fig. 1* — *Frutex*; *ramuli* glabri i. s. in nodis paulo inflati, internodia quadrangularia, alternatim deplanata; *folia* opposita, membranacea, glabra, late cordata, integra, apice acuminata, circ. 27 cm long, 20 cm lata (1 folium tantum videmus); *costa media* subtus prominens; *nervi secundarii* utrinque 9—10, eorum 3 inferiores ad basin conferta, paulo prominentes, recti vel paulo curvati et sinuosi; *nervi tertiarii* transversi, reticulatione minuta translucentim tantum conspicua; *petiolus* gracilis 12 cm longus; *inflorescentia* e pedunculo 7 cm longo paniculata, glabra bracteis parvo-foliosis persistentibus 1.5—0.4 × 0.5—0.2 cm, circ. 20 cm longa et lata (vel probabiliter major; unam tantum videmus); *pedicelli* graciles 0.3—0.4 cm longi; *calyx* glaber membranaceus circ. 1.5 cm longus tripartitus, 2 lobis majoribus apice bidentatis, 0.9—1.2 cm latis, 1 minore integro, 0.5 cm lato; *corolla* glabra exserta, in alabastro late clavato, tubus anguste cylindricus 2.5 cm longus, lobi 5 obovati subpatentes 1.5 × 0.8 cm; *stamina* 4 valde exserta, glabra, gracilia, 6—7 cm longa, corollae fauce inserta, antheris parvis, 0.25—0.35 cm longis; *stylus* filiformis exsertus, 6 cm longus, stigmate bifido; *ovarium* glabrum 4-sulcatum,

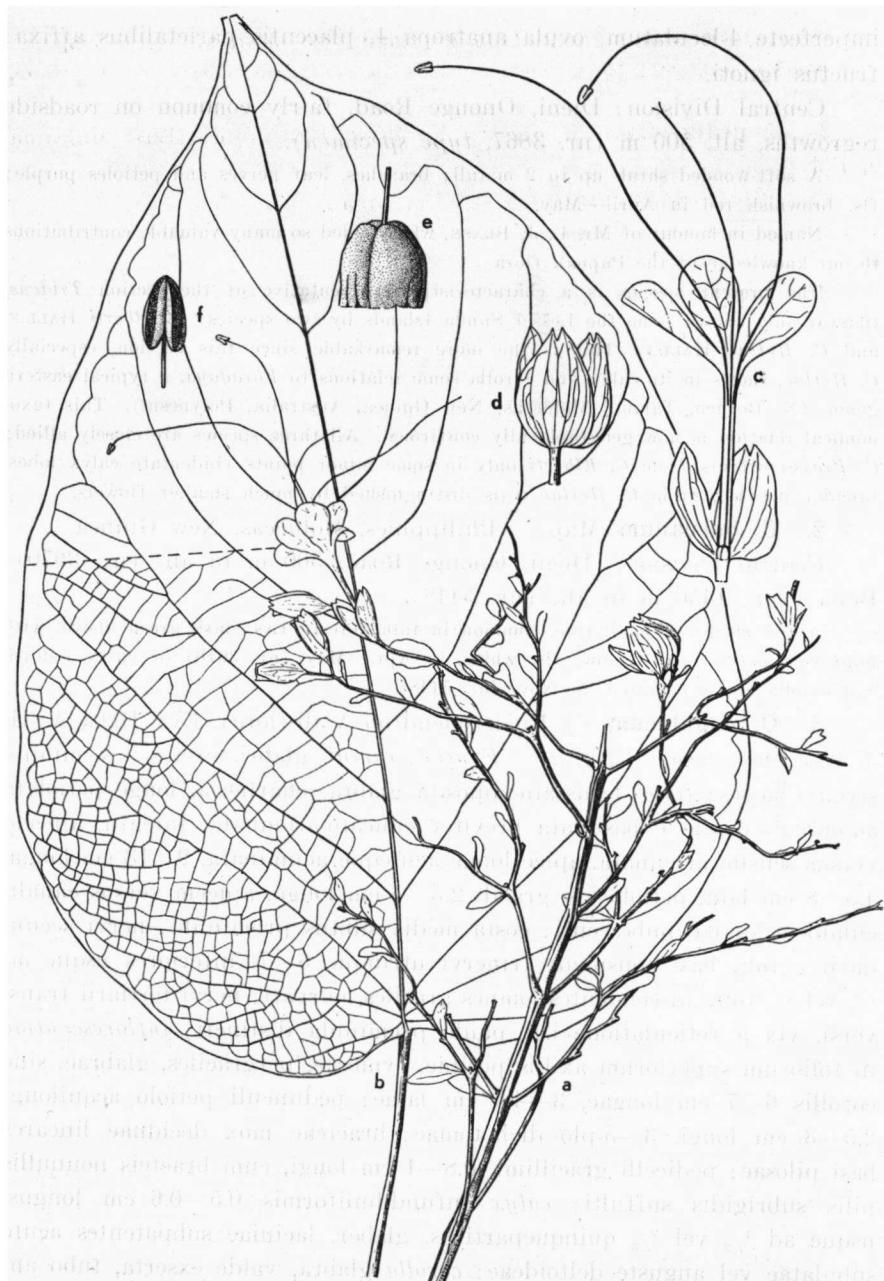


Fig. 1 — *Clerodendron Brassii*, nov. spec. — a. inflorescence; b. leaf; c. longitudinal section of flower; d. calyx; e. ovary and base of style; f. anther, ventral side — after type specimen.

imperfecte 4-loculatum, ovula anatropa 4, placentis parietalibus affixa; fructus ignoti.

Central Division: Dieni, Ononge Road, fairly common on roadside regrowths, alt. 500 m (nr. 3867, *type specimen*).

A soft-wooded shrub up to 2 m tall; branches, leaf nerves and petioles purple; fls. brownish red in April—May.

Named in honour of Mr. L. J. BRASS, who yielded so many valuable contributions to our knowledge of the Papuan flora.

The present species is a characteristic representative of the section *Tridens*, thusfar only known from the Lesser Sunda Islands by two species: *C. Elbertii* HALL.F. and *C. Hettiae* HALL.F. This is the more remarkable since this section, especially *C. Hettiae*, shows in its calyx and corolla some relations to *Faradaya*, a typical eastern genus (N. Borneo, Talaud, Moluccas, New Guinea, Australia, Polynesia). This taxonomical relation is now geographically confirmed. All three species are closely allied; *C. Brassii* differs from *C. Elbertii* only in some minor points (bidentate calyx lobes, broader petals); from *C. Hettiae* it is distinguished by much smaller flowers.

2. *C. buruanum* Miq. — Philippines, Moluccas, New Guinea.

Central Division: Dieni, Ononge Road, 500 m in alt. (nr. 3970); Bella vista, 1450 m in alt. (nr. 5448).

A tall shrub or small tree, common in rain forest. Lvs. dark green above, with impressed nerves, pale below, fls. white, in Apr.—May (nr. 3970) or calyx reddish and corolla cream coloured, in Nov. (nr. 5448).

3. *C. populneum* (§ Euclerodendron-Axilliflora) EVA BEER & H. J. LAM, nov. spec. — *fig. 2* — *Frutex*; *ramuli* glabri teretes, i. s. minute striati, laeves; *folia* decussato-opposita glabra, chartacea, longe petiolata acuminato-ovata, e basi lata breviter cuneato-attenuata, integra, apicem versus sensim attenuata, apice longe acuteque acuminata, 9—13 cm longa, 4.5—8 cm lata, petiolo i. s. gracili 2.5—5 cm longo, apicem versus canaliculato et sparse pubescenti; costa media subtus prominula; nervi secundarii e folii basi conspicue trinervi utrinque 6—7, inferiores usque ad $\frac{1}{2}$ vel $\frac{2}{3}$ folii adscendentibus, omnes graciles, curvati; nervi tertiarii transversi, vix a reticulatione i. s. paulo prominula distincti; *inflorescentiae* in foliorum superiorum axillis positae, cymosae, pergraciles, glabrae, sine corollis 6—7 cm longae, 3—4.5 cm latae; pedunculi petiolo aequilongi 2.5—3 cm longi, 3—5-plo dichotomae; bracteae mox deciduae lineares basi pilosae; pedicelli gracillimi, 0.8—1 cm longi, cum bracteis nonnullis pilis subrigidis suffulti; *calyx* infundibuliformis 0.5—0.6 cm longus, usque ad $\frac{1}{2}$ vel $\frac{2}{3}$ quinquepartitus, glaber, laciniae subpatentes acute subulatae vel anguste deltoideae; *corolla* glabra, valde exserta, tubo anguste cylindrico 2—2.5 cm longo, 0.1 cm diametro, apicem versus paulo dilatato; petala oblonga, apice rotunda, 0.6—0.8 × 0.25 cm; *stamina* 4, 1.5 cm exserta circ. 2—2.5 cm longa, paulo sub fauce inserta, glabra,

antherae glabrae, i. s. atrae, circ. 0.1 cm longae; stylus corollae tubo aequilongus, haud exsertus, filiformis, stigmate bifido; ovarium glabrum, bicarpellatum, paulo sulcatum, imperfecte 4-loculatum, ovula placentis parietalibus (marginalibus) affixa, anatropa; fructus ignoti.

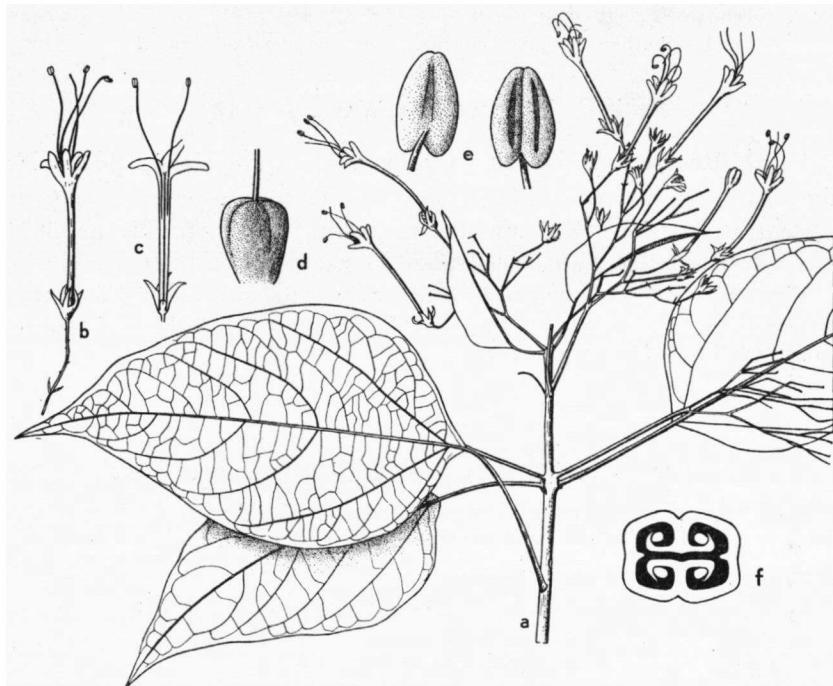


Fig. 2 — *Clerodendron populneum*, nov. spec. — a. branchlet with leaves and inflorescence; b. flower; c. id., longitudinal section; d. ovary and base of style; e. anther, ventral and dorsal sides; f. ovary, cross-section — after type specimen.

Central Division: Baroka, 20 m in alt., on savannah ridges (nr. 3781, *type specimen*).

Erect shrub 2 m high, fls. in April.

Apparently related to *C. disparifolium* BL. from Western Malaysia and with the common sea shore species *C. inerme* (L.) GAERTN., but distinguished from both by the peculiar *Populus*-like leaves (hence its specific name) and its non-exsert style; and from the latter, moreover, by its deeply laciniate calyx.

Faradaya F. v. MUELL.

1. *F. chrysoclada* K. SCHUM. — Endemic in South New Guinea.

Central Division: Mafulu, 1250 m alt. (nr. 5219).

Open spreading tree, 10 m tall, solitary on artificial grassland,

evidently left when ground was cleared for gardens; fls. yellow in Sept.—Nov.

Undoubtedly a representative of this remarkable endemic species, thusfar known only from the Astrolabe Range, Central Div. The specimen bears, anomalously, its leaves in 4-merous alternating whorls, a phenomenon also occasionally observed in other Verbenaceae e.g. *Premna integrifolia*.

For the distribution of the genus see under *Clerodendron Brassii*.

Glossocarya WALL.

1. **G. Hemiderma** BENTH. & HOOK. — Queensland, South New Guinea.

Central Division: Kubuna, 100 m in alt., in rain forest (nr. 5674).

Scandent large shrub with white flowers in Nov.

First record of this genus and species in New Guinea. The disjunct area of the genus (Ceylon, Further India, Queensland) is, however, but little filled up by the discovery of *G. Hemiderma* in Papua.

Gmelina L.

1. **G. macrophylla** (R. BR.) BENTH. — New Guinea (Okaba, Malu), Queensland.

Western Division: Wuroi, Oriomo Riv., 10—30 m in alt., in edge of rain forest and scattered over savannahs (nr. 5753).

A bushy tree, 4—6 m high, shining lvs. grey beneath, with 2 large glands at base of lamina; fls. purple pink, fr. soft red, Jan.—March.

Premna L.

1. **P. inaequilateralis** EVA BEER & H. J. LAM, nov. spec. — *fig. 3* — *Arbor parva*; *ramuli* teretes, novelli minute hirsuto-pubescentes, deinde glabrata; *folia* opposita chartacea, oblique rotundata vel rotundo-ovata, margine integra, basi oblique subcordata vel plerumque truncata, interdum paulo breviterque attenuata, apice late acuta vel obtuse acumulata; supra sparse, in nervis supra et in lamina subtus et in petiolo densius pubescentia pilis simplicibus; 5.5—11.2 cm longa, 5—8.5 cm lata, petiolo 2.5—3 cm longo; costa cum nervis secundariis subtus paulo prominens, nervi secundarii 5—6, tertiarri transversi; *inflorescentiae* terminales, corymbosae, pubescentes, 6—9 cm longae, 10—14 cm latae, pedunculus ± 2 cm longus; bracteae lineares deciduae; *calyx* cupuliformis 0.1 em altus, bilabiatus, uno labio bidentato, uno plus minusve undulato vel obscure 3-denticulato, extus pubescens, intus glaber, in fructu haud elargatus; *corolla* 0.4 cm longa, tubo et in medio lobis minute

adpresso pubescens, cetera petala glabra, intus fauce dense pilosa excepta glabra, bilabiata, labium superius integrum, inferius 3-lobatum lobo medio majore; *stamina* 4, vix vel haud exserta, sub fauce inserta; *ovarium* glabrum stylo vix exerto stigmate bifido.

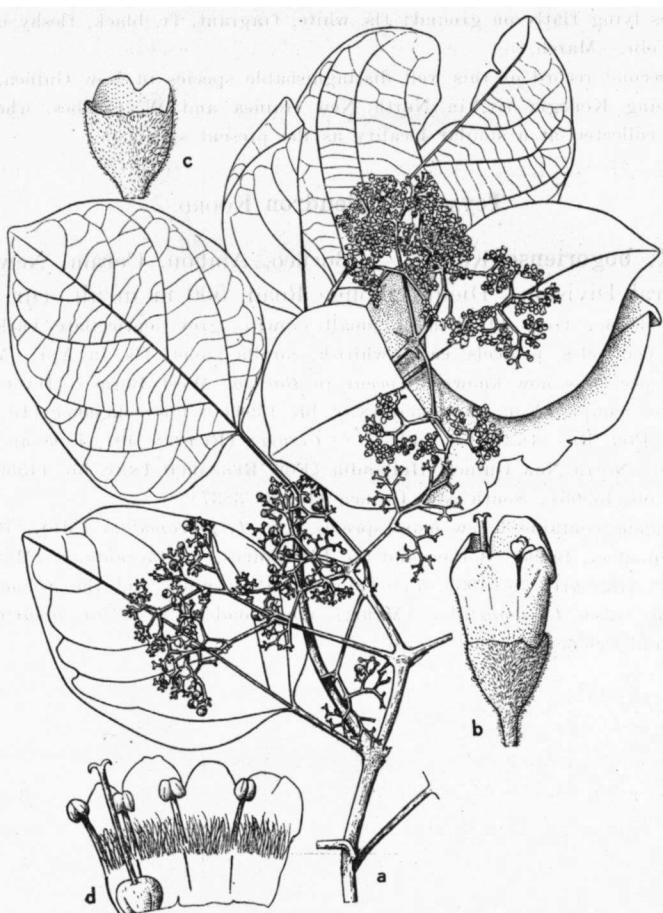


Fig. 3 — *Prema inaequilateralis*, nov. spec. — a. branchlet with leaves and inflorescences; b. flower; c. calyx; d. corolla, opened so as to show the stamens, with pistillum — after type specimen.

Central Division: Mafulu, 1250 m in alt., common in forest regrowths (nr. 5536, *type specimen*).

A small tree of flat branching habit; fls. green in Sept.—Nov.

We are sorry that we have to add a new species to this extremely difficult genus, in which flower features are almost as vague and little distinct as those of

the extremely variable leaves. Its specific name is chosen because of the oblique leaf base, which is constant in the specimen examined.

2. *P. sessilifolia* H. J. LAM — Central Celebes, New Guinea.

Western Division: Dagwa, Oriomo River, alt. 45 m, common in rather extensive colonies on open grassy ridges (nr. 6007).

Leaves lying flatly on ground; fls. white, fragrant, fr. black, fleshy up to 1 cm diam., in Febr.—March.

The second record of this well distinguishable species in New Guinea, the other habitats being *Kenegia* riv. in North New Guinea and W. Celebes, where it was apparently collected at a similar locality as the present specimen.

Teysmanniodendron Koord.

1. *T. bogoriense* Koord. — Borneo, Ambon, Ceram, New Guinea. Central Division: Dieni, Ononge Road, 500 m in alt. (nr. 3837).

Tall, slender tree, 30 m high, small crown; grey lenticellate bark, greenish when out; peduncles, pedicels, calyx whitish, corolla violet, fls. in Apr.—May.

This species is now known to occur in *Borneo*: West Borneo (HALLIER 3032); East Borneo, Sampit (FOR. RESEARCH INST. bb. 13944); Poeroektjahoe (Id. 10504) — *Amboina*: (FOR. RES. INST. bb. 14274) — *Ceram*: (RUTTEN 497, 1898 and 2066) — *New Guinea*: North New Guinea, Hollandia (FOR. RESEARCH INST. bb. 14560); Manoe-kwari (Id. bb. 15905); South New Guinea (BRASS 3837).

The genus contains a few more species, e. g. *T. pteropodum* (MIQ.) BAKH. from Sumatra, Simaloer, Banka, Borneo and the Philippines, *T. Ahernianum* (MERR.) BAKH. (cf. Journ. Arn. Arb. 16, 1935, 74) from the Philippines and the Solomon Islands and possibly also *T. longifolia* (MERR.) nov. comb. (= *Vitex longifolia*) from Mindanao and Celebes.