

MISCELLANEOUS NOTES ON NEW GUINEA PLANTS XI

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AMARANTHACEAE

**Alternanthera brasiliana** (Torner) O.K.; Backer, Fl. Males. I, 4 (1949) 91, 594.

E. NEW GUINEA. Morobe Dist., Lae Subdist., Tamiloa, NGF 49277, 49278 E. E. Henty, cultivated in garden 4—6—72 and intruding garden beds.

CAMPANULACEAE

**Peracarpa carnosa** (Wall. in Roxb.) Hook. f. & Th.; Moeliono, Fl. Males. I, 6 (1960) 110.

E. NEW GUINEA. Eastern Highlands, Goroka Subdist., Mt. Kerigona, 5° 50' S, 145° 15' E, at 3150 m alt., LAE 54625 P. F. Stevens & P. J. Grubb.

FAGACEAE

In my last treatment of *Nothofagus* in Malesia (Fl. Males. I, 7, 1972, 277—294) one species was known from the type specimen only, viz. *N. crenata*, found in West New Guinea near Habbema Lake. It is very characteristic by its smallish, ovate-oblong acutish leaves and small, stalked, lamellate cupules with one nut (l.c. fig. 6); the type carries half-ripe cupules.

Near Lake Kutubu Mr. R. A. Hynes has now found specimens which cannot be separated from *N. crenata* except for their entire leaf margin. Some twigs had fully mature cupules, but some had also flush with male inflorescences in which the flowers are in triads, a character unknown as yet in this species. Although I found, in scanning all individual leaves, two in which there was a faint indication of one or two very inconspicuous teeth, it seems for the present appropriate to distinguish this as an entire-leaved variety.

In sterile state it may be difficult to distinguish it from small-leaved specimens of *N. flaviramea*.

Unfortunately the material reached me too late to include this record in Flora Malesiana.

**Nothofagus crenata** var. *sapeii* Steen., var. *nov.*

Folia integra. Flores ♂ in triadis sessiles; pedicelli angulati 2 mm longi, perianthia 2 mm longa. — T y p u s: R. A. Hynes K.F. 27 (L, holo; LAE).

E. NEW GUINEA. Southern Highlands, SE. end of Lake Kutubu (nearest village Keseka), 143° 20' E, 6° 25' S, *Nothofagus*-grove on limestone ridge, canopy trees some 27 m tall, diameter up to c. 1.3 m, with *Castanopsis acuminatissima* and scrambling bamboo prolific in the substage, 21—2—71, at 950 m alt., R. A. Hynes K.F. 27.

The name of the variety commemorates the late Sapei, 'hoofdmantri' of Herbarium Bogoriense.

The problem before us is of course a very complex one and I challenge that this conclusion is essentially correct.

In biology it is often difficult to make fair statistics and especially so in plant geography, as present ranges evolved in the past whereby age, geo-ecology (ecological opportunities through the past), palaeogeography, and palaeoclimates have been decisive for range extension through dispersal.

To be meaningful, statistics should therefore be applied as far as possible to *comparable entities*. It appears to me that a comparison of Phanerogams and Ferns is as rough an approximation as for example comparing areas of very different size, viz. a continental flora with that of an island.

Phanerogams are entered in his statistics with 12,500 genera with *c.* 225,000 species, ferns by 351 genera with 9,000 species.

A much more appropriate comparison could have been made of the ranges of for example *Orchidaceae* and Ferns, as both these groups are in size much better comparable and, moreover, in ecology (largely restricted to humid climates) and dispersibility (minute wind-dispersed seed in *Orchidaceae*).

Although I cannot produce approximately accurate figures for orchids, the result would have been the same, as certainly much more than 80% of orchid genera are endemic in the sense this term is used here.

However, this contrast could then hardly be ascribed to dispersibility, but would in all probability lead to assume that the greater age of ferns is responsible for the contrast. To me Mr. Smith's attempt appears to be an unfounded argumentation.

#### 147. THE TYPIFICATION OF *ACHIMENES* P. BR. (GESNERIACEAE)

In his account of the Jamaican species of *Columnnea* (Bull. Br. Mus., Nat. Hist., Bot. 4, 1969, 184) Stearn concludes that "Being a later homonym of *Achimenes* P. Browne, it (i.e. *Achimenes* Pers.) needs conservation". I cannot share his opinion, and his argumentation to attain this view is redundant.

P. Browne (1756) based *Achimenes* on two species, both with a phrase name. These two species belong in later generic concepts to two genera. One of these species was soon referred to *Columnnea*, viz. by Burman (1756), a reduction followed by Swartz (1788), by Persoon (1806), and all later authors. According to the usual rest-method this left only one species in *Achimenes*, a genus formally described by Persoon and based solely on that species.

Nomenclaturally this is perfectly simple, clear, and in order.

However, Stearn finds that the generic description of *Achimenes* given by Browne more applies to the first species (reduced to *Columnnea*) than to the other, which induces him to state (p. 183): "Hence *Achimenes* P. Br. as to type is congeneric with *Columnnea* L." and further "Browne's generic name was based on this species", citing characters from the description for this argumentation. Stearn introduces here an element of confusion, by interpreting what P. Browne must have had in mind when establishing *Achimenes*.

Since we cannot interrogate P. Browne about this matter, we can only accept that he *did* include and accept the second species in *Achimenes*, and that is all there is to it. There is nomenclaturally no reason whatsoever to discard Persoon's legal typification of the 'purified' *Achimenes* concept of P. Browne.

Stearn's conclusion (p. 183) that "Under the name *Achimenes*, Persoon in fact established a new genus distinct from *Achimenes* P. Browne (*sensu stricto*)" and that *Achimenes* would be a "later homonym" (p. 184), is nomenclaturally redundant.

## LEGUMINOSAE

**Lotononis bainesii** Baker, Fl. Trop. Afr. 2 (1871) 6; Schreiber in Merxm., Prod. Fl. SW. Afr. fam. 60 (1970) 81.

E. NEW GUINEA. Madang Dist., Bundi Subdist., Brahman, NGF 49232 E. E. Henty, 17—3—72, in grazed pasture, decumbent herb with yellow flowers.

A recent introduction from South Africa, grown in several Grassland Experiment Stations, e.g. in Kenya.

## RUBIACEAE

**Mitracarpus hirtus** (L.) DC.; Merr. & Perry, J. Arn. Arb. 26 (1945) 36; Stone, Micronesica 6 (1970) 551.

E. NEW GUINEA. Morobe Dist. Lae Subdist., Botanic Gardens, weed in garden beds, 31—7—72, NGF 49282 E. E. Henty; ditto, Angau Hospital, lawn margin, NGF 49279 E. E. Henty. — Central Dist. Laloki River, Rona, grassland herb, 450 m alt., March 1933, Brass 3559; Kanosia, open places, sea-level, Carr 11043.

An erect herb, up to c. 50 cm, with white flowers, habit of a *Borreria*, easily distinguished from *Borreria* and other genera of similar habit, as *Spermacoce* and *Diodia* (= *Hemidiodia*) in having a terminally opening, operculate capsule.

Native in the New World, reported to be naturalized in the Marianas, India, and Tonga Is. — R. C. Bakhuizen van den Brink.

## SOLANACEAE

**Browallia americana** L.; Backer & Bakh. f., Fl. Java 2 (1965) 482.

E. NEW GUINEA. Eastern Highlands Dist., Aionora near Kainantu, 1000 m alt., bank beside ditch in coffee plantation, gregarious herb 1 m high, NGF 49170 E. E. Henty.

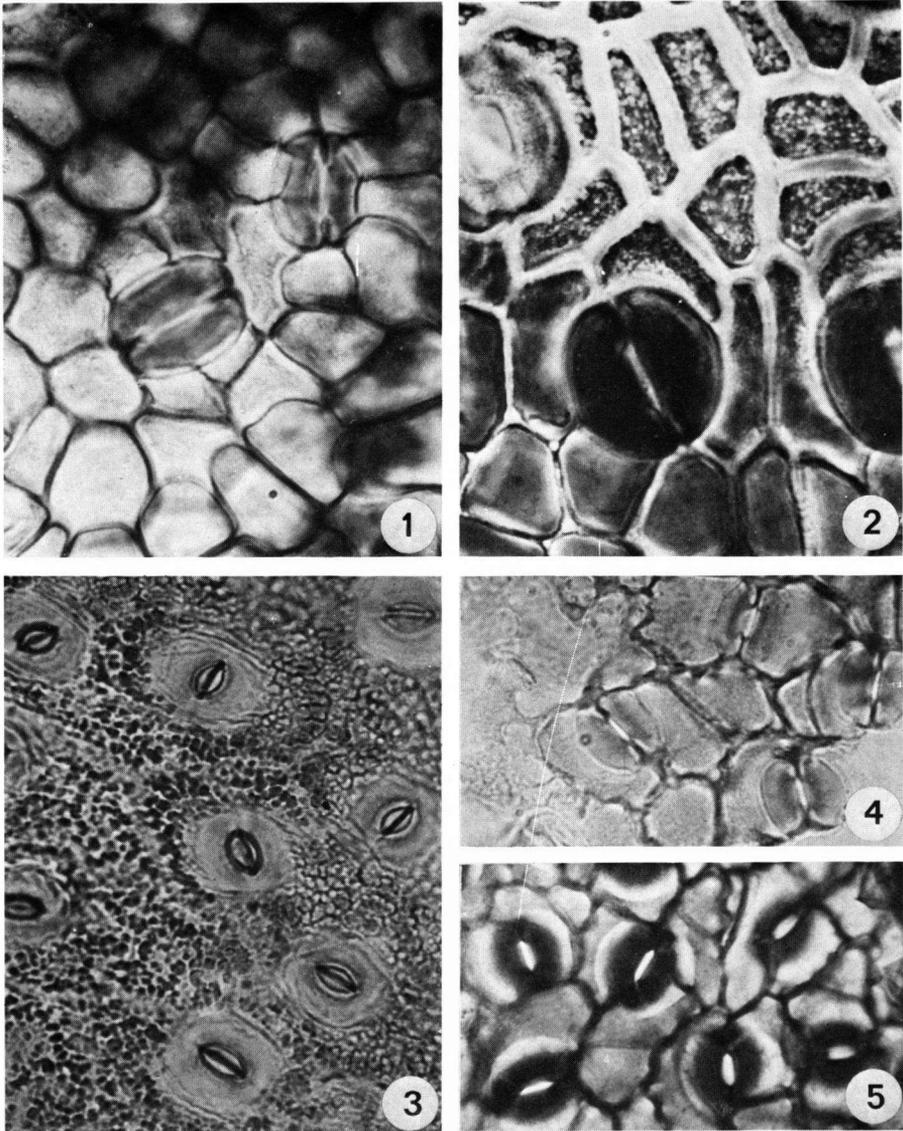


Plate I. *Crypteroniaceae*. Abaxial epidermis, all  $\times 670$ . — 1. *Dactylocladus stenostachys* (Teysmann s.n.), paradermal section, anomocytic and anomocytic to cyclocytic stoma. — 2. *Alzatea verticillata* (Ule 6750), paradermal section, anomocytic stomata. — 3. *Axinandra zeylanica* (Thwaites 2668), cuticular maceration, coarsely granular cuticle, indistinct anticlinal flanges. — 4. *Axinandra alata* (Beccari P.B. 3651), paradermal section, paracytic stomata. — 5. *Crypteronia paniculata* (Hooker & Thomson s.n.), *ibid.*

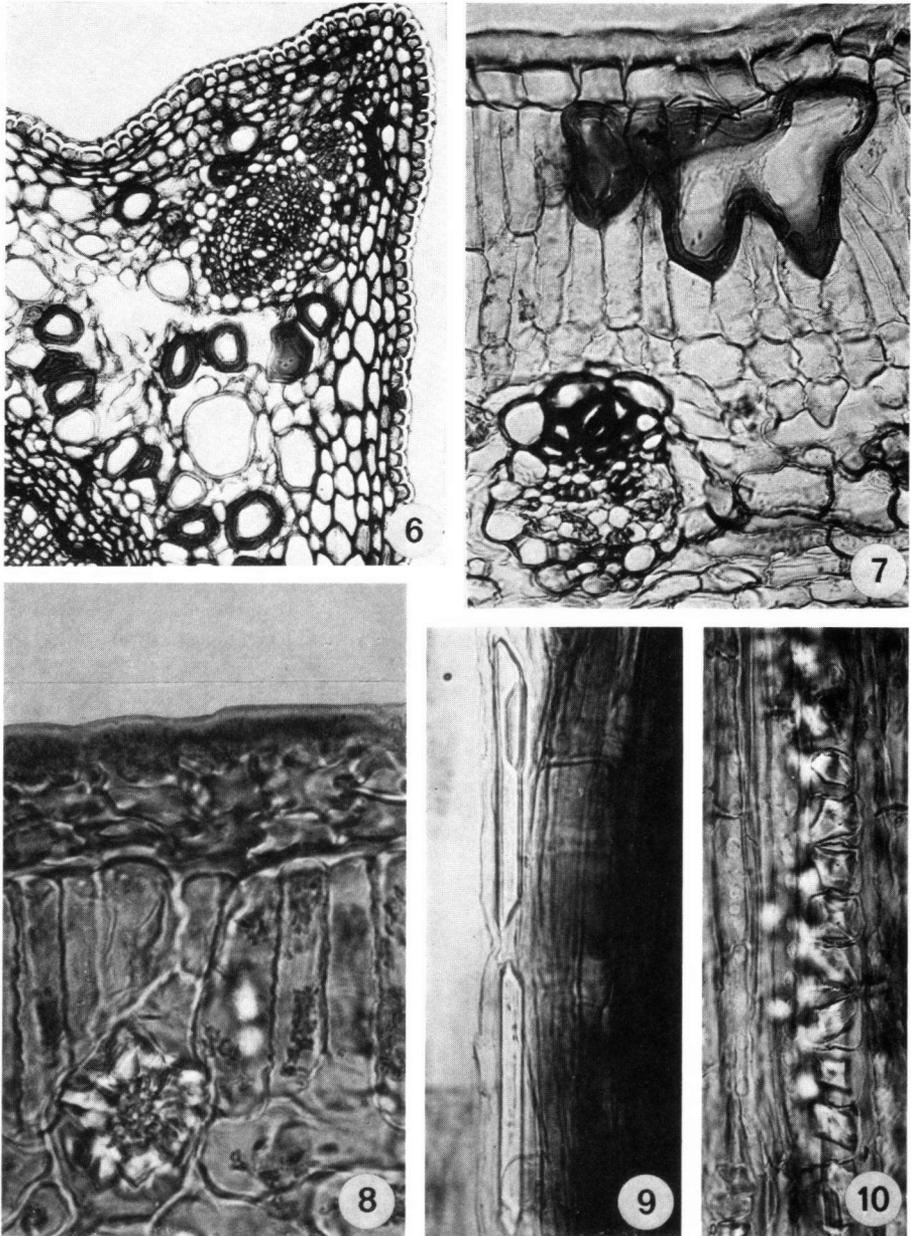


Plate II. *Crypteroniaceae*. — 6. *Alzatea verticillata* (Woytkowski 6196), transverse section of internode, cortical bundles and stone cells in cortex,  $\times 105$ . — 7. *ibid.*, lamina, little branched idioblastic sclereid,  $\times 200$ . — 8. *Axinandra zeylanica* (d'Alleizette 2485), transverse section through lamina, large druse, note irregular wall thickenings in epidermis and hypodermis,  $\times 670$ . — 9. *Crypteronia paniculata* (Kostermans 255), styloids in secondary phloem,  $\times 425$ . — 10. *Rhynchocalyx lawsonioides* (De Joncheere s.n.), solitary crystals in chambered phloem parenchyma,  $\times 400$ .