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REDUCTION OF THE GENERA SCHIZOPREMNA BAILL. (VERB.) AND WORCESTERIANTHUS MERR. (OLACAC.)

BY

C. G. G. J. VAN STEENIS
(*Flora Malesiana Foundation, Leyden, The Netherlands*)

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1. **Schizopremna** Baill. = **Faradaya** Seem.

In a recent plant-geographical study of the Lesser Sunda Islands by Mr C. Kalkman the genus *Schizopremna* Baill. (1892), only known from a very brief diagnosis as an endemic genus from Timor (1897), passed again my attention. After Baillon nobody seems to have made a renewed study of the type. No specimen seems to be present in the general larger herbaria, also not Paris where Baillon's original material should be preserved. Dr Moldenke, who has examined an enormous number of sheets kindly informed me that he had never found a specimen.

Thanks to the cooperation of Dr H. Sleumer, Dr J. Leandri and Mr J. H. Kern I received on loan, from Baillon's private herbarium, a tiny envelop containing one flower in the bud stage and a loose corolla of what is presumably the type, said to have been collected by Mr Jacquinot in Timor, and later the original sheet which was inserted in the Paris general Herbarium as a bis-genus at the end of the family.

The type material is only provided with buds and the specimen is rather poor. In scanning Malaysian verbenaceous collections no result was obtained. I came to the conclusion that my despair to locate identical material was due to an error of some sort. Mr Kern told me he had found at Paris a specimen of a *Cyperus* labelled in exactly the same way: 'Coupang (Timor), M. Jacquinot'. This species is endemic in Melanesia and was certainly erroneously localized in Timor. He had also found out that the hand-writing on these labels is not that of Jacquinot himself.

A search among the West Pacific Verbenaceae was crowned with success; an exactly matching specimen is Reinecke 173 from Samoa identified as *Faradaya amicorum* (Seem.) Seem., duplicates of which will be represented in various herbaria. At Leyden there is only one other specimen of this species viz Brass 2642 from the Solomon Islands. Furthermore there is a specimen from Opulo Island (Samoa) (Christophersen 188) labelled *F. powellii* Seem. If this is representative of Seemann's species indeed, I regard it conspecific with *F. amicorum* Seem.

It appears that there is a possibility that the *Cyperus* and '*Schizopremna*' specimens mentioned above belong to a set of Jacquinot's specimens which by error have been wrongly localized in Timor; in all probability they have been collected in Samoa, Tonga, or some other island of Melanesia. Thus the name of Jacquinot has to be added to the list of names belonging to wrongly localized specimens I compiled in the Flora Malesiana (1950).

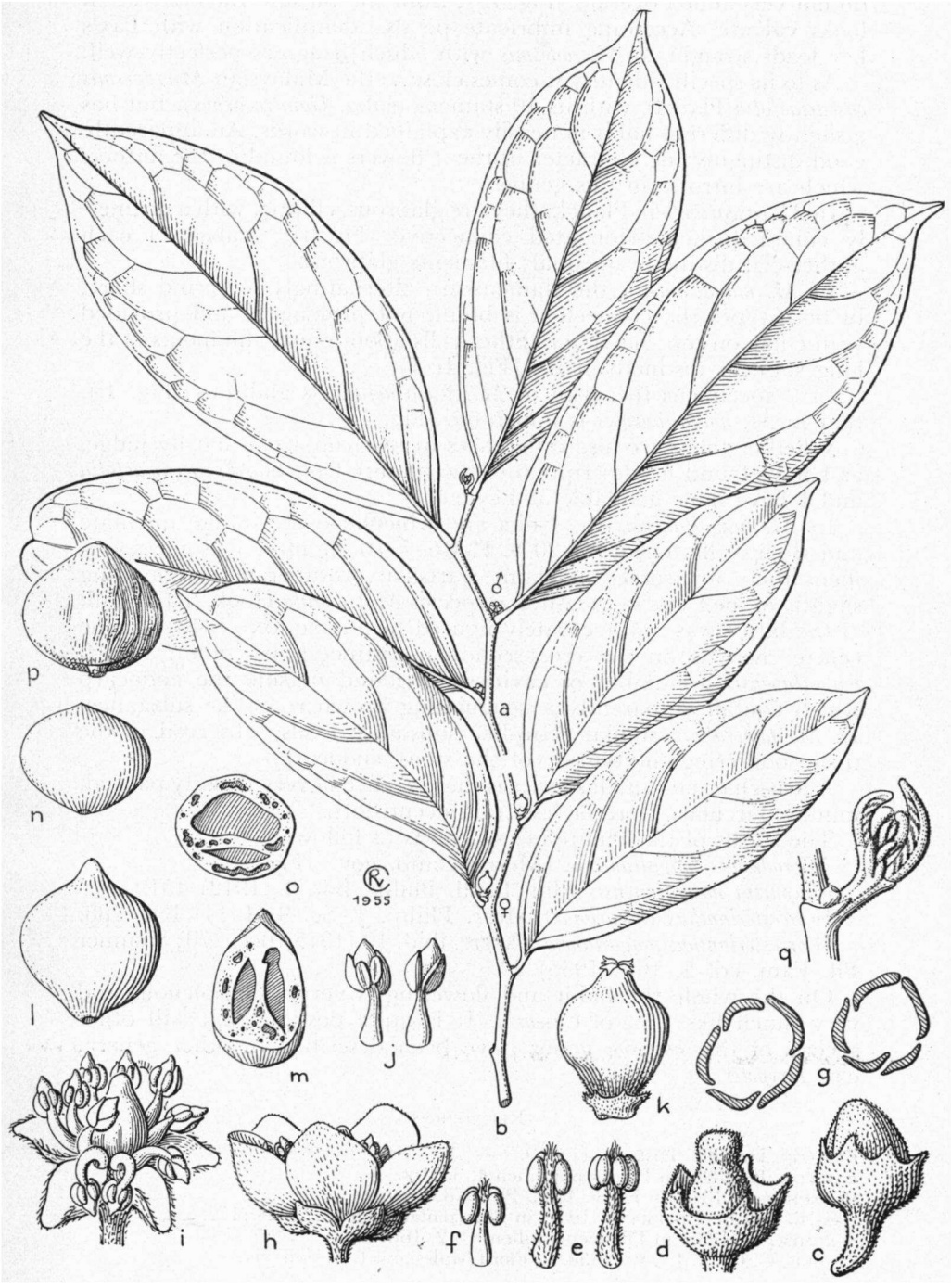
2. **Worcesterianthus** Merr. = **Microdesmis** Hook. f.

In connection with the recent revision of the Flacourtiaceae in the Flora Malesiana by Dr H. Sleumer the monotypic Philippine genus *Worcesterianthus* (*W. magallanensis* (Elm.) Merr.) was again looked over, as its habit appeared to have so much in common with certain members of the Flacourtiaceae. The distinctly celled ovary, however, removes it at once from this family. Dr Sleumer, in his recent treatment (1935) of the Olacaceae, was doubtful about its position in the Olacaceae specially through its dioecious flowers. Using the characters by which it was described to find its status with Hutchinson's key I arrived at the Pandaceae, in which family it does not fit. I felt much intrigued and I had an idea that I had seen the plant before.

Recently, during preliminary identification work, I came across some *Drypetes* specimens which reminded me so strongly of *Worcesterianthus*, in the lead-green colour of the dried leaf, its nervation, and the presence of a peculiar, claw-like terminal 'bud', that I had another, closer look at it. It appeared then that the peculiar, claw-like, terminal 'bud', repeated the structure of the young, more or less zigzag, bifarious twig-end, showing that growth was in flushes. Furthermore it appeared that in this terminal 'bud', which was more or less obliquely patent to the foregoing growth period, the very young leaflets were decidedly accompanied by stipules, which at once removed it from the Olacaceae (Fig. 1q). Dioecious flowers, a celled ovary, stipules, and bifarious leaves form a structural combination well-known in the Euphorbiaceae. An attempt to identify it by means of PAX and HOFFMANNS' key (1931) led however to nothing definite.

Now a nervation and leaf-colour very closely resembling *Drypetes* which belongs to the Phyllanthoideae is found in *Microdesmis* of the Crotonoideae. In this genus, however, the petals are imbricate in the ♂ flowers, whereas those in *Worcesterianthus* had been described as valvate. Verification of this character on one of the two very small buds of ♂ flowers I had, led to the find that Merrill made an error in describing them as valvate; they are really imbricate though the margins

Fig. 1. a. *Microdesmis magallanensis* (Elm.) Steen. a. ♂ twig (Elmer 12323), × 2/3, b. ♀ twig (Elmer 12142), × 2/3, c. bud (F.B. 21629), × 10, d. calyx and pistil, ditto, × 10, e. long stamens from bud, both sides, ditto, × 16, f. small stamen from bud, ditto, × 16, g. sections of bud, ditto, schematic, × 16, k. enlarged ovary (Elmer 12142), × 5/2, l. fruit (F.B. 18436), × 4/3, m. ditto, longitudinal section, × 4/3, n. fruit (B.S. 19528), × 4/3, o. cross-section of ditto, × 4/3, p. fruit (Elmer 12079), × 4/3, q. twig-tip enlarged, showing stipules (Elmer 12323). — *Microdesmis casearíaefolia* Planch. h. ♂ flower (Korthals s.n.), × 10, i. ditto, from above, j. stamens, × 16.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do not very much overlap (Fig. 1g); from the outside the aestivation looks valvate. Accepting imbricate petals, identification with Pax's key leads straight to *Microdesmis* with which it agrees perfectly well.

As to its specific identity it comes close to the Malaysian *Microdesmis casearíaefolia* Planch. with its 10 stamens (subg. *Ganitrocarpus*), but has a slightly different habit not easily explained in words. An apparently good distinguishing character in the ♂ flowers is found in the anthers which are introrse in this genus.

In *M. casearíaefolia* Planch. they are glabrous, elliptic, with a distinctly enlarged, acute-elongated connective (Fig. 1j); halves of each anther-cell distinctly unequal; filaments glabrous.

In *M. magallanensis* the stamens are alternatingly long and short; in both types the connective is blunt, not prolonged, and provided with ciliae on top; halves of anther-cells about equal; filaments of the long stamens distinctly hairy (Fig. 1e–f).

In ♀ specimens the pistil of *M. casearíaefolia* is glabrous (Fig. 1i), that in *M. magallanensis* is tomentose (Fig. 1d).

Whether there are also differences in the fruit I can hardly judge, as I have found no description of the mature fruit of *M. casearíaefolia* and I have none available at Leyden.

In *M. magallanensis* the fruits are orbicular-ovate, often apiculate and slightly flattened, 13–20 × 13–16 × 10–11 mm; in some specimens there are sometimes faint wart-like protuberances reminding slightly of the fruits in the African species *M. puberula* Hook. f. The fruit of the latter was not accurately figured by PLANCHON (1848): in the centre there is on the cross-section a distinct hole (tube). In *M. magallanensis* a number of cavities are found outside the endocarp which contain apparently a coagulating brown resin-like substance. In *M. puberula* a similar resin-like substance is also observed in the tissue bordering the outside of the stony endocarp.

A leaf-character in all species is the presence of very densely packed, minute, circular, more or less translucent dots.

The status of the Philippine species is as follows:

Microdesmis magallanensis (Merr.) comb. nov.—Fig. 1.

Flacourtia magallanensis Elm. Leafl. Philip. Bot. 4 (1912) 1519.

Worcesterianthus casearioides Merr. Philip. J. Sc. 9 (1914) Bot. 288.

Worcesterianthus magallanensis Merr. ibid. 10 (1915) Bot. 270; Sleumer Pfl. Fam. ed. 2, 16b (1935) 22.

On the whole the habit and flowering is very inconspicuous and very much like that of *Casearia*. It is quite possible that still other species of this evasive genus have been described in other genera, e.g. *Drypetes*.

REFERENCES

BAILLON, H. 1892. Hist. Pl. 11:119.
BAILLON, H. 1897. in Pflanzenfamilien 4, 3a:166.
PLANCHON, J. 1848. in Hook. Icon. Pl. t. 783.
PAX, F. und K. HOFFMANN. 1931. in Pflanzenfamilien ed. 2, 19c:172.
SLEUMER, H. 1935. in Pflanzenfamilien ed. 2, 16b:22.
STEENIS, C. G. G. J. VAN. 1950. in Flora Malesiana I, 1:xviii–xix.