CRITICAL NOTES ON NEW GUINEA PLANTS DESCRIBED BY A. GILLI

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SUMMARY

Two new genera and nineteen new species of Dicotyledons from Papua New Guinea collected and described by A. Gilli (1980) have been examined by specialists. These families are Begoniaceae, Cruciferae, Elaeocarpaceae, Euphorbiaceae, Hypericaceae, Leguminosae, Rosaceae, Rubiaceae, Saxifragaceae, and Sterculiaceae. Both new genera are reduced: Melachone to Amaracarpus (Rub.), Disaster to Commersonia (Sterc.). Supposed new generic records to Malesia proved erroneous: a new Thelygonum belongs to Nertera (Rub.), and a Trochiscus to Nasturtium (Cruc.); the Viburnum from Papua is a Psychotria (Rub.). All species are reduced to those already known. It is advocated as undesirable to describe novelties from odd tropical plant collections.

INTRODUCTION

In 1974 Dr. A. Gilli, Vienna, made a botanical tour in Papua New Guinea. He identified the material he collected there, to which was added a small collection made by the anthropologist H. C. Dosedla, in 1971, in Papua New Guinea.


As the latter part contained quite a number of new species, and even some new genera, and also some astounding new records of families and genera hitherto unknown for the Malesian region, it seemed necessary to re-examine a selected number of these novelties or new records, some of which seemed out of the way in the Malesian flora.

This led to the participation of several specialists whose help is here appreciated, and whose conclusions are enumerated in compact form. We have restricted ourselves largely to the more obvious novelties concerning families or genera which were unknown from Malesia, or for which specialists are extant.

It appeared that Dr. Gilli had insufficient knowledge of the literature on the botany of Malesia. Obviously he did not realize that since Lauterbach's 'Beiträge zur Flora Papuasiens' an enormous progress has been made on the collections and publications on the flora of New Guinea, in the frame-work of the Flora Malesiana project, and that for many families and genera there are specialists who should be entrusted with identifications in their specialities.

Examination of novelties by specialists in the families below has revealed that none of the genera and species proposed as new have stood the test. They are accordingly reduced. Several taxa were assigned to wrong families or genera.
I add, that working out odd local Malesian collections is at the present stage of knowledge impossible, or at least highly undesirable. This point of view is in effect true for almost any tropical region, especially when one stands in an isolated position as regards availability or knowledge of literature and a large reference herbarium. Such attempts simply create more work and solve nothing.

I will even go further and certify that in well-equipped centres trained taxonomists will generally refrain from naming new collections in unrevised families and genera.

We sincerely hope that Dr. Gilli will, for the forthcoming third instalment covering the Monocotyledons, consult specialists or at least use up-to-date literature.

**Begoniaceae (M. J. S. Sands, Kew)**


Papua New Guinea: Mt. Hagen, 1500 m, *Dosedla 139* (type in W).

**Note:** *Begonia naumoniensis* Irmscher, with which Gilli compared his assumedly new species, is quite different in inflorescence and fruit characters, but *B. isoptera*, to which he also refers, while not occurring in Papua New Guinea, may well be closely allied to *B. augustae*.

**Cruciferae (J. F. Veldkamp)**


**Note:** To this species belong also a specimen cited by Gilli (l.c. 430) and referred to *N. officinale* R. Br. (*Dosedla 93*).

*Nasturtium schlechteri* O. E. Schultz. — *Trochiscus macrocarpus* A. Gilli, I.c. 430.


**Note:** In a note (l.c. 431) Gilli mentioned the paucity of Cruciferae in New Guinea: 4 *Nasturtium* and 1 *Cardamine*, all endemic. This is a distinct underestimate. Besides the introduced cq. cultivated species of *Brassica*, *Raphanus*, and *Capsella*, there are at least 4 species of *Cardamine*, 5 of *Nasturtium*, at least 1 of *Rorippa*, and 2 of the endemic genus *Papuzilla*.

**Elaeocarpaceae (R. Weibel, Geneva)**


Papua New Guinea: Between Laiagam and Kandep, 3100 m, *Gilli 432* (type in W).

**Note:** Unfortunately Dr. Gilli has omitted to consult Coode’s revision of the Papuan species of *Elaeocarpus* (Brunonia 1, 1978, 131). I have examined the isotypes of *E. altigenus* (Schlechter 18793, in K, P).
Elaeocarpus fuscoides Knuth. — *E. mingendensis* A. Gilli, l.c. 432.

_Note:_ I have examined an isotype of *E. fuscoides* Knuth (*Clemens 4681A*, in A).

**EUPHORBIACEAE** (H. K. Airy Shaw, Kew)

Papua New Guinea: Forest near Par, 2200 m, *Gilli* 514 (type in W), 515 (W).

*Macaranga pleioneura* Airy Shaw var. _velutina_ Whitmore. — *M. hageniana* A. Gilli, l.c. 437.
Papua New Guinea: Mt. Hagen, 1700 m, _Doseda_ 27 (type in W).

**HYPERICACEAE** (N. K. B. Robson, London)

Papua New Guinea: Kuna Saw Mill near Mt. Hagen, _Doseda_ 76 (type in W).

_Note:_ Gilli’s lengthy discussion on the status of his new species he concluded by saying that it could possibly be a form (either a variety or a subspecies) of the variable *H. papuanum*. The differences Gilli mentioned are either based on a misunderstanding or represent a slight extension of variation range in an already variable species.

As to venation Gilli’s plant has 4 (–5) pairs of nerves, as I depicted for *H. papuanum* (Fl. Males. I, 8, 1974, 23, fig. 18); there is no difference.

The smaller size of the petals (6–9 by 3–4 mm, as against my definition 9–15 by 4–5 mm) is in part due to the fact that in Gilli’s specimen they are not sufficiently spread out to measure accurately; I am inclined to regard them as depauperate, small for the species but no more than that.

The seed length in *H. papuanum* is 0.7–0.8 mm, Gilli gives for his 0.5 mm, but I measure them as 0.6 mm, which almost eliminates the difference.

**LEGUMINOSAE** (R. M. Polhill, Kew)


_Note:_ This species is introduced from Africa.

*Crotalaria lanata* Bedd. ex Polh. _ined._ — *C. lanata* Bedd., _non_ Thunb. — *C. semperflorens* Vent.; A. Gilli, l.c. 444.

*Crotalaria micans* Link. — *C. anagyroides* Kth. — *C. striata* (_non_ DC.) A. Gilli, l.c. 444.
Crotalaria montana Roth. — *C. linifolia auct. non* L. f.: A. Gilli, l.c. 444.  

Crotalaria pallida Ait. — *C. striata* DC.; A. Gilli, l.c. 444  
Papua New Guinea: *Dosedla 198, Gilli 361.*

**ROSACEAE (C. Kalkman)**

*Note:* Gilli mentioned the differences with *Pygeum retusum* and *Pygeum platyphyllum*, which is quite apt. *Pygeum retusum* is a synonym of *Prunus costata*, *Pygeum platyphyllum* is a synonym of *Prunus gazelle-peninsulace*. These two species are quite closely related. I reduce the new species to *Prunus costata*, although the leaves are a bit on the large side.

*Rubus fraxinifolius* Poir. — *R. fraxinifolius* subsp. *celebicus* Bl.; A. Gilli, l.c. 456  

*Rubus papuanus* Schlechter ex Diels. — *R. ferdinandi* Focke; A. Gilli, l.c. 456 (*Ferdinandi*).  

*Rubus rosifolius* J. Sm. — *R. mingendensis* A. Gilli, l.c. 457.  
*Note:* *Rubus rosifolius* is a rather variable species known from a large area. The specimens mentioned clearly belong to it. According to Gilli *R. mingendensis* would differ from *R. rosifolius* amongst others by having smaller leaves. This is true for *Gilli 408* which has very small leaflets. Since it has been collected at 2950 m altitude, c. 500 m above the upper limit of the species in New Guinea thusfar known (the highest record even I have seen over its area) this does not surprise me very much.

*Rubus rosifolius* J. Sm. — *R. mingendensis* var. *trichocarpa* A. Gilli, l.c. 457.  
*Note:* The var. *trichocarpa* 'differs' in having hairy ovaries. Since the ovaries of *R. rosifolius* normally possess some hairs, the variety cannot be accepted. Its 'description' is dubiously validly published to my mind.

Papua New Guinea: Mt. Hagen, College area, *Dosedla 45a* (type in W).  
*Note:* This is a slightly deviating specimen of the common *R. rosifolius*. Some of the
leaves are unifoliolate, most are trifoliolate, whereas *rosifolius* normally has pinnate leaves with at least 2 pairs of lateral leaflets. Hybridization of *R. rosifolius* (subg. *Idaeobatus*) with *R. hasskarlii* (subg. *Malachobatus*) is highly improbable.

According to the label the fruits are blackish blue. This must be an error: all *Idaeobatus* in Malesia have red or reddish fruits.


**Rubiaceae** (C. E. Ridsdale & C. G. G. J. van Steenis)


**Note:** The epithet microphyllus is already occupied in *Amaracarpus.*

**Nertera granadensis** (Mutis ex L. f.) Druce. — *Thelygonum gracile* A. Gilli, l.c. 469.


**Psychotria** sp. — *Viburnum albopedunculatum* A. Gilli, l.c. 423.


**Note:** The specimens belong to the unrevised *Psychotria sarmentosa* group. As far as known *Viburnum* does not occur in New Guinea.

**Psychotria** sp. — *Caelospermum chonanthum* A. Gilli, l.c. 458.


**Uncaria sterrophylla** Merr. & Perry. — *U. dosedlai* A. Gilli, l.c. 462.

Papua New Guinea: Koropugl near Mt. Hagen, *Dosedla 249* (type in W).

**Saxifragaceae** (J. F. Veldkamp)


**Sterculiaceae** (C. G. G. J. van Steenis)


**Note:** The flower structure of *Disaster* was erroneously interpreted, the stellate disk described and figured being really 5 staminodes. The genus was accommodated by Gilli in Rhamnaceae.