

## MISCELLANEOUS BOTANICAL NOTES XXIV

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148. THE IDENTITY OF THE GENUS LEPTONYCHIOPSIS RIDL.  
(STERCULIACEAE)

In Malesian *Sterculiaceae* there was still one enigmatic monotypic genus unsolved, *Leptonychiopsis (parviflora)* Ridl., J. R. As. Soc. Str. Br. 82 (1920) 173; Fl. Mal. Pen. 1 (1922) 290, described after a specimen collected by a Malayan, 10 Dec. 1892, filed under Ridley 3743. Ridley distinguished this from *Leptonychia* by its 3-merous flowers.

Recently I could borrow a type sheet from the Kew Herbarium to which is attached an ample pencil-drawn analysis. Unfortunately, it is hardly feasible to check this, as there is only one small bud on the specimen, which I did not dare to analyse.

A comparison, however, with other material from Malayan *Leptonychia* sufficiently served the purpose and led to the conviction that it should be reduced to *Leptonychia cf. heteroclita* (Roxb.) Kurz, with which it agrees completely in all vegetative characters (e.g. with HMB 1867, also from Johore): short stellate hairs on pedicels and innovations, exactly matching stipules, exactly matching peculiar, circular, 'eye-shaped', ciliate domatia in axils of nerves and veins, leaf shape, texture, and size, scalariform veins, the slightly spindle-shaped swollen petiole, and microscopically dotted undersurface of leaves.

Anatomical investigation of the type of *Leptonychiopsis* and comparison with the anatomy of other *Leptonychia* specimens from Johore, by Dr. P. Baas, Leiden, corroborated the congenerity.

I cannot account for the 3-merous calyx and corolla, which in the many specimens of *Leptonychia* I have examined are always 5-merous. But I must point out that there is an unusual variability in the merousness of the fruit; this was hitherto described as being 2- or 3-celled, but there are quite a few fruits which are 4-celled and also clearly 5-celled fruits with fertile seed in each cell. For a future revision it is advised to make a study of this variation which could possibly show that there is variability in other floral parts. It is always assumed that the fertile stamens are placed in one whorl, but I doubt this as they differ alternatingly somewhat in size.

149. NOTE ON PTERYGOTA IN INDO-MALESIA (STERCULIACEAE)

In assisting Dr. I. G. M. Tantra with his revision of Malesian *Sterculia* we came on *Pterygota*, as several excluded names in *Sterculia* were reduced to that genus. The question arose to which species of *Pterygota* they should be reduced.

In continental Asia several *Sterculia* names were referred to *Pterygota*, which Kostermans (Reinwardtia 2: 366. 1953) all reduced to *P. alata* (Roxb.) R. Br. He added that this differs from the Malesian *P. horsfieldii* (R. Br.) Kostermans, which would have a truncate leaf-base, a whorl of 8—10 erect parallel anthers, smaller fruit, and seeds with smaller and thinner wings.

However, a thorough examination of literature and material at the Rijksherbarium

revealed that of these differences only the character of the stamens can be maintained.

It is true that the leaf-base in the Asian material of *P. alata* is mostly cordate, but *Pierre 1600* from Indo-China has no cordate leaf-base; also *Pierre's* beautiful plate of *Sterculia alata* (Fl. For. t. 196) does not show cordate leaf-bases. In *Roxburgh's* excellent plate of *Sterculia alata* (Corom. Pl. t. 287) leaves are cordate in degree; in *Beddome's* equally magnificent plate (Fl. Syl. t. 230) the leaf-base is cordate. He called this *S. haynii*, which is a synonym of *P. alata*.

In Malesia the leaf-base of *P. horsfieldii* is mostly rounded to truncate; sometimes it is almost broad-cuneate; in a New Guinea specimen (*bb 33489*) it is deeply cordate as in the Asian material. For *Malaya Corner* (*Wayside Trees: 619*) mentioned the leaf-base to be deeply cordate and also *Kochummen* (*Tree Fl. Malaya 2: 371*, as *P. alata*) pictured a deeply emarginate to subcordate leaf-base. However, a Malayan specimen (*FRI 4093*) has a broadly rounded to truncate leaf-base. Thus, we conclude that the leaf-base is variable and cannot yield a sharp criterion to distinguish between *P. alata* and *P. horsfieldii*.

As to the size of the fruit, and especially the seed, not much material is available, but it is sufficient to come to a conclusion. Seeds in Asian material are about 6—7.5 cm in length, but full-grown seeds from Borneo (*Kostermans 4091*) measure also 7 cm, and, moreover, the wing on the seed in this material is even thicker than that in Asian material. Immature fruits may partially dehisce when dried in the herbarium and then the immature seed has a membranous wing in the young stage.

The only character remaining for specific distinction between the Malesian *P. horsfieldii* and the continental Asian *P. alata* is the structure of the androecium. In *P. horsfieldii* the anthers are linear and are arranged in a neat whorl of 8—10 (16—20 cells), straight, parallel, and erect. This is found in both the male and the bisexual flowers.

In *P. alata*, the anthers are in a globular to more or less wide cylindrical head and are assembled in 5 phalanges, each of the phalanges having 2 pairs of 4 or sometimes 5 anthers (8—10 cells). In all the plates mentioned this situation is well pictured and I could corroborate it on specimens. The stamens are shorter and not parallel, in all there are 20—25 anthers in both male and bisexual flowers.

The conclusion is that obviously there are two taxa, differing critically only in the androecium, but that essentially so. I cannot add any other differences in indumentum, size of flowers, etc. and find it a remarkable situation indeed.

*P. horsfieldii* (R. Br.) *Kosterm.* is now reported from all Malesian islands, districts, or island groups except Sumatra, though it is a rare tree in the South Malesian Province; in Java it is only known from the extreme West (*Udjung Kulon Peninsula: Peutjang I.*) and from East Java (once found by *Horsfield* and once by *Kalshoven*); in the Lesser Sunda Islands it is only found locally in Flores. In Borneo it is not commonly collected; in Celebes only once in the northern Peninsula; in the Philippines rather frequently in Luzon and Mindoro and in the Guimaras Is. (*PNH 11833*); in the Moluccas in Ceram and Morotai. From New Guinea very many collections are known; from the northern Solomons there is one from *Bougainville* (*NGF 824*).