



<http://dx.doi.org/10.11646/phytotaxa.202.4.5>

***Paralasianthus* (Rubiaceae), a new genus from Southeast Asia**

HUA ZHU*

Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Kunming 650223, P.R. China

*Author for correspondence: zhuh@xtbg.ac.cn

Abstract

The new genus *Paralasianthus* is described from South-East Asia. Five species are recognised in the genus, four of which required new combinations, *P. brevipes*, *P. dichotomus*, *P. lowianus* and *P. hainanensis*, and one is described as a new species, *P. zhengyianus*. A key to the species is presented.

Key words: *Paralasianthus*, new genus, Rubiaceae, South East Asia

Introduction

The circumscription of *Lasianthus* Jack (1823: 125) has been modified by different authors, especially with regards to the number of ovary locules or pyrenes (Zhu *et al.* 2012). Jack (1823) described *Lasianthus* with a 4-locular ovary and a single, erect, basal ovule in each locule, which normally develops into a drupe with 4 pyrenes. Based on Malesian species Blume (1826) expanded Jack's delimitation and defined *Lasianthus* as having 4–9-locular ovaries and drupes with 4–9 pyrenes. Korthals (1851) established *Mephitidia* subgen. *Dysosmia* (Korthals 1851: 224) based on a Javan species, *M. dichotoma* Korthals (1851: 224), which had a 2-locular ovary and a compressed, 2-pyrenate drupe with a thin wall. Miquel (1859) raised it to generic rank as *Dysosmia* (Korthals 1851: 224) Miquel (1859: 314), and returned *Lasianthus* Jack to Blume's definition. Boerlage reduced *Dysosmia* in synonymy with *Saprosma* (Boerlage 1891: 106). Baillon (1880) included the African genus *Saldinia* A. Richard ex de Candolle (1830: 483) into *Lasianthus* Jack, as a subgenus. *Saldinia* has a 2-locular ovary, which develops into a 1-pyrenate drupe with a hard wall. Baillon's classification was not used in the treatments of Asian *Lasianthus* by later authors. However, Bremekamp proposed the new combination *L. furcatus* (Miquel 1857: 252) Bremekamp (1957: 94), based on *Canthium furcatum* Miquel (1857: 252), and synonymized *Saprosma dichotomum* (Korthals 1851: 224) Boerlage (1891: 142) with *L. furcatus* (Miquel) Bremekamp (1957: 94). *Dysosmia* Korthals (1851: 224) was again returned to *Lasianthus* because its type is *Saprosma dichotomum*. Bremekamp restored *Saldinia* and redefined *Lasianthus* as having 2 or more locules per ovary and drupes with 2 or more pyrenes with a relatively soft wall (compared with *Saldinia*). In revisions of *Lasianthus* for Southeast Asia (Zhu 2001), East Asia (Zhu 2002) and the Malesian region (Zhu *et al.* 2012), *Lasianthus* was defined as having a 3–9-locular ovary and drupes or pyrenes with a thick wall.

A group of closely-related Asian species, which are glabrous plants with leaves with looped venation, with ovaries commonly 2-locular, and drupes with 2 thin-walled pyrenes, have been included in several different genera. Some of them were treated as *Lasianthus*, some as *Saprosma* and others as *Amaracarpus*. This group of species does not match *Lasianthus*, as they normally have 2-pyrenate drupes with a thin wall. They are separated from *Saprosma* by the lack of conspicuous colleters at the base inside of the stipules and bracts (except very minute ones), petioles without articulation, and leaves with looped venation. They differ from *Amaracarpus* in being glabrous plants, having stipules without setae, bracteoles neither connate nor bifid, not forming a compact with stipules, and reduced leaves. This group of species thus has a combination of characters that separates it from similar genera; therefore, a new genus, *Paralasianthus* H. Zhu, is here proposed to accommodate this group of species.

5. *Paralasianthus hainanensis* (Merrill) H. Zhu, *comb. nov.*

Basionym:—*Lasianthus hainanensis* Merrill (1922: 355). *Saprosma merrillii* Lo (1993: 15). Type:—CHINA. Hainan, Five Finger Mt., s.d., F.A. McClure 8569 (holotype not found; isotypes SCBI!, US (00129845))

Distribution—China (Hainan).

Acknowledgements

This research was supported by the National Natural Science Foundation of China (No. 41471051, 41071040, 31170195) and a grant from NWO of the Netherlands (grant no. B 85-340). I am grateful to the National Herbarium of the Netherlands for use of their Herbarium, Library and research facilities. Prof. Richard Corlett helped improve the English of the article. I also thank the anonymous reviewers for their constructive comments on this article.

References

- Baillon, H. (1880) *Histoire des plantes*. Vol. 7. Hachette, Paris, 432 pp.
- Blume, C.L. (1823) *Catalogus van eenige der merkwaardigste zoo in- als uitheemse gewassen, te vinden in 's Lands Plantentuin te Buitenzorg s.l. n.d.*, 51 pp. [unkown publisher]
- Blume, C.L. (1826–1827) *Flora Nederlandsch Indie (Bijdragen)*. Ter Lands Drukkerij, Batavia, pp. 995–1001.
- Boerlage, J.G. (1891) *Handleiding tot de kennis der flora van Nederlandsch Indië*. Vol. 2. Boekhandel en Drukkerij, Leiden, pp. 106–108, 142.
- Bremekamp, C.E.B. (1957) Monographie du genre *Saldinia* A. Rich. (Rubiaceae). *Candollea* 16: 91–129.
- Bremer, B. & Manen, J.-F. (2000) Phylogeny and classification of the subfamily *Rubioideae* (Rubiaceae). *Plant Systematics and Evolution* 225: 43–72.
<http://dx.doi.org/10.1007/BF00985458>
- Craib, W.G. (1933) Contributions to the flora of Siam. Add. 38. *Kew Bulletin* 1933: 18–30.
- Craib, W.G. (1934) *Florae Siamesis Enumeratio*. 2(1). The Bangkok Times Press, Bangkok, pp. 207–220.
- Elmer, A.D.E. (1913) *Leaflets of Philippine Botany*. Vol. 5. Philippine Islands Press, Malina, 1887 pp.
- King, G. & Gamble, J.S. (1904) *Lasianthus* Jack. *Journal of the Asiatic Society of Bengal* 73: 106–133.
- King, G. & Gamble, J.S. (1909) Addend.-Corrig. *Journal of the Asiatic Society of Bengal. Part 2. Natural History* 74: 871.
- Korthals, P.W. (1851) *Mephitidia* sect. *Dysosmia* Korthals. *Nederlandsch Kruidkundig Archief. Verslagen en Mededelingen der Nederlandsche Botanische Vereeniging* 2 (2): 217–224.
- Lo, H.S. (1993) Materials for Chinese Rubiaceae (III). *Botanical Journal of South China* I: 1–17.
- Merrill, E.D. (1922) Noteworthy Philippine Plants XVII. *Philippine Journal of Science* 20: 432.
- Merrill, E.D. (1923) *An Enumeration of Philippine Flowering Plants*. Vol. 3. Bureau of Printing, Malina, 566 pp.
- Miquel, F.A.W. (1859) *Flora van Nederlandsch Indië*. Vol. 2. Van der Post Jr., Amsterdam, pp. 314–326.
- Puff, C. (1992) On the correct tribe position of *Saprosma* Bl. (Rubiaceae). 2nd *Flora Malesiana Symposium*. Progr. & Summ., Yogakarta, 34 pp.
- Richard, A. & Candolle, A.P. de (1830) *Saldinia. Prodromus Systematis Naturalis Regni Vegetabilis*. Vol. 4. Treutte & Würtz, London, pp. 483–484.
- Ridley, H.N. (1918) New and rare Malayan plants X. *Journal of the Asiatic Society of Straits* 79: 85–86.
- Ridley, H.N. (1923) *The Flora of the Malay Peninsula*. Vol. 2. L. Reeve & Co. LTD., London, pp. 149–169.
- Schumann, K. & Lauterbach, K. (1900) *Die Flora der Deutschen Schutzgebiete in der Südsee*. Verlag Gebrüder Borntraeger, Leipzig, 586 pp.
- Valeton, T. (1909) *Dysosmia dichotoma* Miq. In: *Icones Bogorienses III*. Librairie et Imprimerie, Leiden, pp. 213–216.
- Valeton, T. (1927) Die Rubiaceae von Papuasien. II. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* lxi: 105–111.
- Wong, K.M. (1989) *Lasianthus* Jack. In: Whitmore, T.C. (Ed.) *Tree Flora of Malaya*. Vol. 4. Longman, London, pp. 367–373
- Zhu, H. (2001) A taxonomic revision of the genus *Lasianthus* Jack (Rubiaceae) from Thailand. *Acta Phytotaxonomica Sinica* 39 (2): 116–150.

Zhu, H. (2002) A revision of the genus *Lasianthus* (Rubiaceae) from China. *Systematics and Geography of Plant* 72: 63–1109.
Zhu, H., Roos, M.C. & Ridsdale, C.E. (2012) A taxonomic revision of the Malesian species of *Lasianthus* (Rubiaceae). *Blumea* 57: 1–102.
<http://dx.doi.org/10.3767/000651912X652012>

Identification list

The numbers following the collections are the species numbers as given below and in the taxonomic treatment of the species above. Specimens cited here are in Leiden except two where the acronym codes of a herbarium are indicated in brackets.

Paralasianthus:

- 1 = *P. dichotomus*
 2 = *P. zhengyianus*
 3 = *P. brevipes*
 4 = *P. lowianus*
 5 = *P. hainanensis*
 Beusekom *et al.* 3301: 1; 890: 4; 872: 4; 2200: 3—Blume s.n.: 1—Boeea 6209: 4—BW (Indonesia) 13585: 1;
 BW13574: 1; BW10652: 1; BW10661: 1; BW10680: 1.
 Clemens *et al.* 1218: 1; 1063: 1; 1544: 1.
 Danser 5877: 1—De Vriese s.n.: 1.
 Hallier 350: 1—Hardial *et al.* 373: 4.
 Iwatsuki *et al.* T14605: 4.
 Junghuhn s.n.: 1.
 KEP-FRI series 22139: 4; 0793: 4; 13235: 4; 5655: 3; 023066: 4; 16056: 4;—Kerr 15942: 4—King's collector 2840:
 4;—Kostermans 1620: 1; 1047: 1—Krukoff 4077: 4.
 Lörzing 1830: 1—LAE 58698: 1—Larsen *et al.* 46310 (AAU): 1; 46310: 1; 33530: 4; 32822: 4; 45981 (AAU):
 4;—Laumonier TFB4317: 1—Ledermann 9552: 1—Lei 539: 5; 852: 5.
 Maxwell 81-136: 4; 77-174: 4.
 NGF41291:1—Niyomdham *et al.* 1430: 3
 Popta 1507: 1—Pullen 1536: 1.
 Ramlan 89: 1—Ramos & Edano 38840: 2.
 Van Royen & Sleumer 5739:1.
 Schlechter 18971: 1; 16951: 1;—Schmutz 5856: 1; 5886: 1—Stone 11055: 4.
 Tagawa *et al.* T4714: 4.
 Van Ooststroom 14062: 1—Verheijen 4781a: 1—Vinas & Nagari UPNG7609: 1.