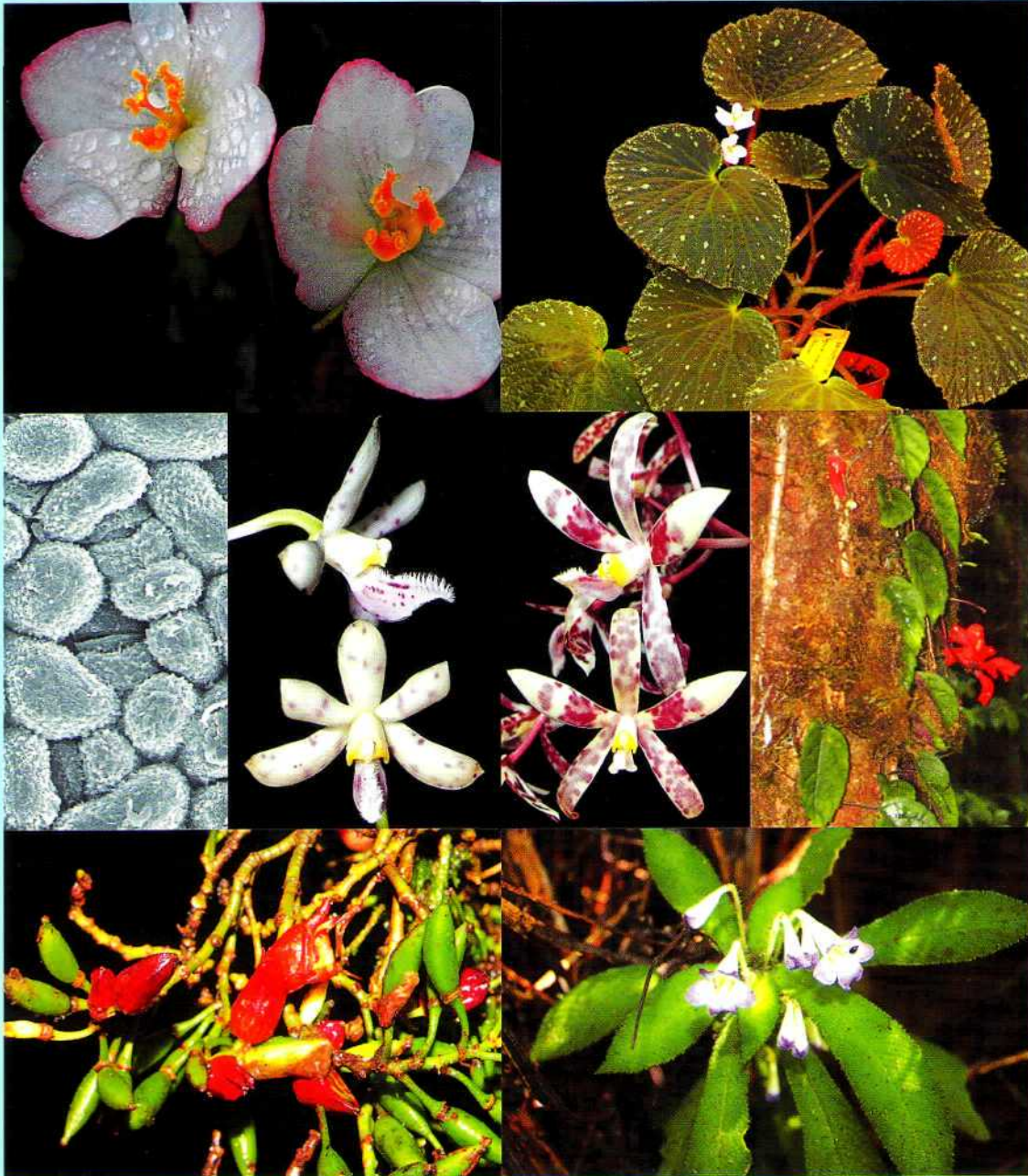




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Cover images: 1. *Begonia holosericeoides* (female flower and habit) (Begoniaceae; Ardi *et al.*); 2. Abaxial cuticles of *Alseodaphne rhododendropsis* (Lauraceae; Nishida & van der Werff); 3. *Dipodium puspitae*, *Dipodium purpureum* (Orchidaceae; O'Byrne); 4. *Agalmyla exannulata*, *Cyrtandra coccinea* var. *celebica*, *Codonoboea kjellbergii* (Gesneriaceae; Kartonegoro & Potter).

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A NEW COMBINATION IN OROPHEA (ANNONACEAE) FOR UVARIA NITIDA ROXB. EX G. DON

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ABSTRACT

TURNER, I. M. 2014. A new combination in *Orophea* (Annonaceae) for *Uvaria nitida* Roxb. ex G. Don. *Reinwardtia* 14(1): 181 – 182. — The identity of *Uvaria nitida* Roxb. ex G. Don. (Annonaceae) has not been considered for 180 years. The plant is only known from material grown in the Calcutta Botanic Garden in India following introduction from, reportedly, the Moluccas. Examination of a specimen from the Brussels Herbarium, designated here as lectotype, indicates that the species is a member of *Orophea* subgenus *Sphaerocarpon*, similar to *Orophea gabra* Merr. A new combination in *Orophea* is made.

Key words: lectotype, new combination, *Orophea glabra*, *Uvaria nitida*, William Roxburgh.

ABSTRAK

TURNER, I. M. 2014. Kombinasi baru *Orophea* (Annonaceae) pada *Uvaria nitida* Roxb. ex G. Don. *Reinwardtia* 14 (1): 181 – 182. — Identitas dari *Uvaria nitida* Roxb. ex G. Don. (Annonaceae) masih belum jelas selama 180 tahun. Tumbuhan ini hanya diketahui dari material yang tumbuh di Kebun Raya Kalkuta di India dan diintroduksi di Maluku. Hasil pemeriksaan spesimen dari Herbarium Brussels dijadikan sebagai lektotipe, yang mengindikasikan bahwa jenis ini merupakan anggota dari *Orophea* submarga *Sphaerocarpon*, mirip dengan *Orophea gabra* Merr. Sebuah kombinasi baru pada *Orophea* telah dibuat.

Kata kunci: Kombinasi baru, lektotipe, *Orophea glabra*, *Uvaria nitida*, William Roxburgh.

INTRODUCTION

William Roxburgh, the father of Indian Botany, supervised much introduction of plants to the Botanic Garden of the East India Company in Calcutta. One such is a species that Roxburgh named *Uvaria nitida*. The earliest publication of the name by Roxburgh is in the *Hortus Bengalensis* (Roxburgh, 1814) but, other than the name, the sole piece of information supplied is that the plant was introduced to Calcutta from the Moluccas. Therefore the name is not validly published here. The publication of a description by Roxburgh was not achieved until the posthumous publication of his complete (except cryptogams) *Flora Indica* (Roxburgh, 1832). Here Roxburgh provides a very short description and again states that the plant came from the Moluccas. However, as happened with many Roxburgh taxa due to the delays in publication of the original Roxburgh works, the publication of this name was validated earlier - in this case by George Don in his *A General History of the Dichlamydeous Plants*. Don refers the name to a Roxburgh manuscript - presumably a manuscript copy of *Flora Indica* - and provides a brief description sufficient to validate the name. The only known specimen of *Uvaria nitida* is in

the Herbarium of the National Botanic Garden of Belgium (BR) (Forman, 1997). It was part of the herbarium of Martius who purchased a collection including Roxburgh specimens from the Linnean Society in London (Turner & Veldkamp, 2012). George Don may well have seen both the Roxburgh manuscript and herbarium specimens at the Linnean Society, where his brother David was the librarian. The *Uvaria nitida* specimen consists of a branchlet bearing several leafy twigs with the remains of some post-flowering inflorescences. It bears a small ticket labelled 'Uvaria nitida 2697', apparently in Roxburgh's own hand. There is also a Herbarium Martii label bearing the name *Uvaria nitida* Roxb. The specimen clearly does not belong in *Uvaria* - there is no sign of stellate indumentum. To someone familiar with Asian Annonaceae the specimen has the look of a member of *Orophea* subgenus *Sphaerocarpon* (syn. *Mezzettia* Ridl.; Leonardia & Keßler, 2001), with the leaves drying brown and rather shiny and more or less glabrous. The rather congested remains of axillary inflorescences with very short, fine pedicels provides the closest match with *Orophea glabra* Merr., a species from the Philippines. However, the carpel number on the one flower remnant bearing any reproductive structures appears to be more than

six, the carpel number reported for *O. glabra* (Keßler, 1988). The Moluccas remain relatively poorly known botanically and it is possible that *O. glabra* extends southwards from the Philippines to eastern Indonesia. Alternatively, Roxburgh's introduction may have been wrongly localised or the plant have been first bought to the Moluccas (presumably Ambon) from elsewhere.

As noted on the specimen by Dr C. Meade, the plant is an *Orophea* and therefore a new combination is required for the name. This is provided below. I refrain from formally reducing *Orophea glabra* to a synonym of *O. nitida*, but note the strong similarity. Indonesian botanists are encouraged to look for *Orophea nitida* in their country in order to confirm its status.

Orophea nitida (Roxb. ex G. Don) Meade ex I. M. Turner, *comb. nov.*

Basionym: *Uvaria nitida* Roxb. ex G. Don, Gen. Hist. 1 (1831) 93. – Lectotype: [India, cultivated in East India Company Botanic Garden, Calcutta] *W. Roxburgh 2697* (holo: BR! (BR - S.P. 802 875) [image available at <http://www.br.fgov.be/RESEARCH/COLLECTIONS/HERBARIUM/detail.php?ID=601526>], designated here).

OROPHEA GLABRA Merr., Govt. Lab. Publ. Philipp. 29 (1905) 14. Lectotype: Philippines,

Masbate Province, Ticao Island, May-June 1904, *W.W. Clark Forestry Bureau no. 1017* (holo: NY, designated by Keßler (1990: 513); iso: BM, K!).

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The Curator of Vascular Plants (BR) kindly permitted the loan of the Roxburgh specimen.

REFERENCES

- FORMAN, L. L. 1997. Notes concerning the typification of names of William Roxburgh's species of phanerogams. *Kew Bulletin* 52: 513–534.
- KEßLER, P. J. A. 1988. Revision der Gattung *Orophea* Blume (Annonaceae). *Blumea* 33: 1–80.
- KEßLER, P. J. A. 1990. Studies on the tribe Saccopetalae (Annonaceae)—II Additions to the genus *Orophea* Blume. *Blumea* 34: 505–516.
- LEONARDÍA, A. A. P. & KEßLER, P. J. A. 2001. Additions to *Orophea* subgenus *Sphaerocarpon* (Annonaceae): revision and transfer of *Mezzettiopsis*. *Blumea* 46: 141–163.
- ROXBURGH, W. 1814. *Hortus bengalensis*. Mission Press, Serampore.
- ROXBURGH, W. 1832. *Flora indica*. (2nd edition), Volume 2. W. Thacker & Co., Calcutta.
- TURNER, I. M. & VELDKAMP, J. F. 2012. William Roxburgh's eye plant and its relevance in the nomenclature of *Phaeanthus* (Annonaceae). *Kew Bulletin* 66: 571–579.

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Scope. *Reinwardtia* is a scientific irregular journal on plant taxonomy, plant ecology and ethnobotany published in December. Manuscript intended for a publication should be written in English.

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- Journal : KRAENZLIN, F. 1913. *Cyrtandraceae* novae Philippinenses I. *Philipp. J. Sci.* 8: 163-179.
MAYER, V., MOLLER, ML, PERRET, M. & WEBER, A. 2003. Phylogenetic position and generic differentiation of *Epithemateae* (*Gesneriaceae*) inferred from plastid DNA sequence data. *American J. Bot.* 90: 321-329.
- Proceedings : TEMU, S. T. 1995. Peranan tumbuhan dan ternak dalam upacara adat "Djoka Dju" pada suku Lio, Ende, Flores, Nusa Tenggara Timur. In: NASUTION, E. (Ed.). *Presiding Seminar dan Lokakarya Nasional Etnobotani II*. LIPI & Perpustakaan Nasional: 263-268. (In Indonesian).
SIMBOLON, H. & MIRMANTO, E. 2000. Checklist of plant species in the peat swamp forests of Central Kalimantan, Indonesia. In: IWAKUMA *et al.* (Eds.) *Proceedings of the International Symposium on: Tropical Peatlands*. Pp. 179-190.
- Book : RIDLEY, H. N. 1923. *Flora of the Malay Peninsula* 2. L. Reeve & Co. Ltd, London.
- Part of Book : BENTHAM, G. 1876. *Gesneriaceae*. In: BENTHAM, G. & HOOKER, J. D. *Genera plantarum* 2. Lovell Reeve & Co., London. Pp. 990-1025.
- Thesis : BAIRD, L. 2002. *A Grammar of Kéo: An Austronesian language of East Nusantara*. Australian National University, Canberra. [PhD. Thesis].
- Website : http://www.nationaalherbarium.nl/fmcollectors/k/Kostermans_AJGH.htm. Accessed 15 February 2012.



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