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GONIOTHALAMUS TRIPETALUS (LAM.) VELDK. & R. M. K. SAUNDERS (ANNONACEAE), COMB. NOV.

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ABSTRACT

J. F. VELDKAMP & R. M. K. SAUNDERS. 2010. *Goniothalamus tripetalus* (Lam.) Veldk. & R.M.K. Saunders (Annonaceae), comb. nov. *Reinwardtia* 13(2): 167–169. — *Goniothalamus tripetalus* (Lam.) Veldk. & R.M.K. Saunders (Annonaceae) is a new combination.

Key words: Ambon, *Annonaceae*, Ceram, *Goniothalamus*, Malesia, Moluccas, Rumphius, *Uvaria*.

ABSTRAK

J. F. VELDKAMP & R. M. K. SAUNDERS. 2010*. *Goniothalamus tripetalus* (Lam.) Veldk. & R.M.K. Saunders (Annonaceae), comb. nov. *Reinwardtia* 13(2): 167–169. — *Goniothalamus tripetalus* (Lam.) Veldk. & R.M.K. Saunders (Annonaceae) dikemukakan sebagai kombinasi baru.

Kata kunci: Ambon, *Annonaceae*, Ceram, *Goniothalamus*, Malesia, Moluccas, Rumphius, *Uvaria*.

INTRODUCTION

The combination *Uvaria tripetala* Lam. (1785: 597) (Annonaceae) was exclusively based on the description and plate by Rumphius (1741: 197–199, t. 66, f. 1) of his *Cananga sylvestris trifolia* from Ambon. Dunal (1817: 104) published the illegitimate new combination *Unona tripetaloides* for it, which was corrected to *Un. tripetala* by De Candolle (1824: 90). Hasskarl (1866: 182) surprisingly suggested that it might be a species of *Artabotrys* R. Br., despite the fact that it is a tree and so lacks the climbing hooks, such a diagnostic feature of the genus. We agree with Merrill (1917: 228) that the name *Uvaria tripetala* is referable to *Goniothalamus* (Blume) Hook. f. & Thomson due to the overall flower structure, with three smaller apically connivent inner petals, and three larger spreading outer petals with a conspicuous midrib.

Rumphius (1741, t. 66, f. 1, our Fig. 1) described and illustrated the species in detail, and listed a number of native names. Two features of the fruit morphology are particularly striking: each monocarp has a longitudinal ridge running its entire length, from the stipe to the apex; and the pericarp surface is markedly pustulate. Rumphius reported that the trees were not common in Ambon,

occurring sporadically in abandoned gardens, both in the lowlands and higher mountains. Remarkably, the species has never been collected again. Robinson, for instance, who collected extensively on Ambon with the aim of providing new specimens as representatives of Rumphius' species, failed to find it (Merrill, 1917). The names given by Rumphius are furthermore not listed by Heyne (1950: 633), who under *?Goniothalamus spec.* merely summarised the Rumphian text and Merrill's brief note, indicative of a lack of further information.

Only one species of *Goniothalamus* is known from the Moluccas: *G. ceramensis* Miq. (1865: 33), collected in 1860 in Ceram by Teijsmann (*HB 1990*) and sent to U (now in L) with a duplicate in BO. As far as known this also has never been collected again and only leafy branches and a single fragmented fruit are available. Miquel noted a ridge on the monocarp ("uno latere costa obtusa longitudinali"), similar to that in the species illustrated by Rumphius. The holotype sheet has an attached envelope with shards of a monocarp and three seeds that were clearly originally inside it in view of the corresponding ridges on the inside of the remnants. On the outside of one fragment there is a thin white line which may be the remnant of a

fleshy ridge, but it does not conform with Miquel's description. The surface of the pericarp is smooth, unlike the pusticules illustrated by Rumphius" only with an oblique illumination some darker patches can be discerned.

Given the possible discrepancies between the protologues of *Uvaria tripetala* and *Goniothalamus ceramensis* (and the type collection of the latter name), we hesitate to unite the two names. A new

combination is nevertheless required for the Rumphian enigma:

Goniothalamus tripetalus (Lam.) Veldk. & R. M. K. Saunders, *comb. nov.* — Fig. 1.

Uvaria tripetala Lam., Encycl. 1: 597. 1785.
(*Cananga sylvestris trifolia* Rumph., 1741. Herb.

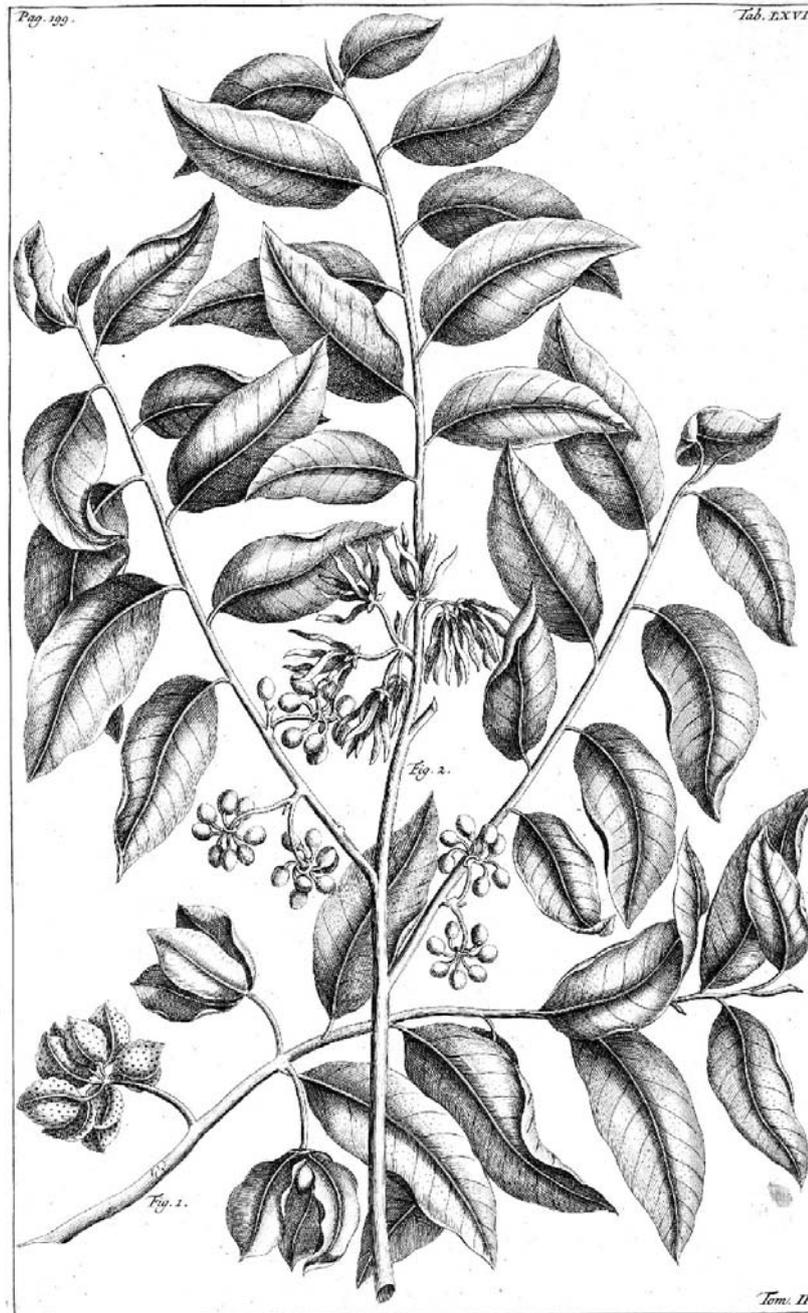


Fig. 1. *Cananga sylvestris trifolia* Rumph. \equiv *Goniothalamus tripetalus* (Lam.) Veldk. & R.M.K. Saunders. Rumphius, Herbarium amboinense 2: Tab. 66, Fig. 1.

Amboin. 2: 197–199, t. 66, f. 1. 1741, nom. inval.). [*Uvaria zeylanica* auct. non L.: L. (Stickman), Herb. Amboin.: 10. 1754; (edited in Amoën. Acad. 4: 121. 1759)].

Unona tripetaloides Dunal, Monogr. Anon.: 104. 1817, nom. superfl.

Unona tripetala (Lam.) DC., Prodr. 1: 90. 1824. — Type: *Rumphius's plate*. — Epitype: by lack of material none could be designated.

For completeness' sake we add:

Goniothalamus ceramensis Miq., Ann. Mus. Bot. Lugduno-Batavum 2: 33. 1865. — Type: *Teijsmann HB 1990* (U, holo, sh. 014759, now in L; BO), Ceram, see <http://145.18.162.53:81/c8>

Polyalthia ceramensis Boerl., Icon. Bog. 1, 2: 106 (name); 1, 3: 187 (validation), t. 65. --- Type: *Treub s.n.* (BO, holo, not found; nor in L), “habitat in insula Ceram, prope Wahai”.

Note. Because of the epithet, we were suspicious that *Polyalthia ceramensis* might be another name for *G. ceramensis*, but according to the plate and description this is a “true” *Polyalthia* Blume *s.l.* Ms. Van Steenis-Kruseman (1950) noted that Treub's Moluccan collections would be in BO and L, but the specimen could not be found in either herbarium.

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Mr. A. Sumadijaya (BO) went into great efforts but failed to find additional material in BO. Dr. P.J.A. Keßler (L) is thanked for his comments.

REFERENCES

BLANCO, F.M. 1837. *Flora de Filipinas*: 465. Lopez, Manila.

BOERLAGE, J.G. 1899-a. *Anonaceae. Icones bogorienses* 1, 2: 106 (name). Brill, Leiden.

BOERLAGE, J.G. 1899-b. *Anonaceae. Icones bogorienses* 1, 3: 187 (validation), t. 65. Brill, Leiden.

CANDOLLE, A.P. DE. 1824. *Prodromus systematis naturalis regni vegetabilis* 1: 90. Treuttel & Würtz, Paris, Strasbourg, London.

DUNAL, M.-F. 1817. *Monographie de la famille des Anonacées*: 104. Treuttel & Würtz, Paris, London, Strasbourg & Renaud, Montpellier.

HASSKARL, J.K. 1866. *Neuer Schlüssel zu Rumph's Herbarium amboinense*: 182. Schmidt, Halle.

HEYNE, K. 1950. *De nuttige planten van Indonesië*: 633. Van Hoeve, 's Gravenhage / Bandung.

LAMARCK, J.B.A.P. DE MONNET. 1785. *Encyclopedie méthodique. Botanique* 1: 597. Pancoucke, Paris; Plomptoux, Liège.

LINNAEUS, C. 1754. (Stickman), *Herbarium amboinense*: 10. Höjer, Upsala.

LINNAEUS, C. 1759. (Stickman), *Herbarium amboinense. Amoenitates academicae* 4: 121. Salvius, Stockholm.

MERRILL, E.D. 1917. *An interpretation of Rumphius's Herbarium Amboinense*: 228. Bureau of Printing, Manila.

MIQUEL, F.A.W. 1865. *Anonaceae archipelagi indici. Ann. Mus. Bot. Lugduno-Batavum* 2: 33.

ROXBURGH, W. 1814. *Hortus bengalensis*: 43. Mission Press, Serampore.

ROXBURGH, W. 1832. *Flora indica*, ed. 2: 667. Thacker & Co., Calcutta & Parbury, Allen & Co., London.

RUMPHIUS, G.E. 1741. *Herbarium amboinense* 2: 197–199, t. 66, f. 1. Changuion, Catuffe & Uytwerf, Amsterdam, etc.

VAN STEENIS-KRUSEMAN, M.J. 1950. *Malaysian plant collectors and collections. Fl. Males. I*, 1: 532. Noordhoff-Kolff, Jakarta.



Altingia excelsa Noronha, *Altingiaceae*.
(Photo: H. Wiriadinata)



Costus speciosus (J. Konig) Sm., *Costaceae*
(Photo: H. Wiriadinata)



Nelumbo nucifera Gaertn., *Nelumbonaceae* (Photo: E. A. Widjaja)

INSTRUCTION TO AUTHORS

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Taxonomic identification key should be prepared using the aligned couplet type.

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