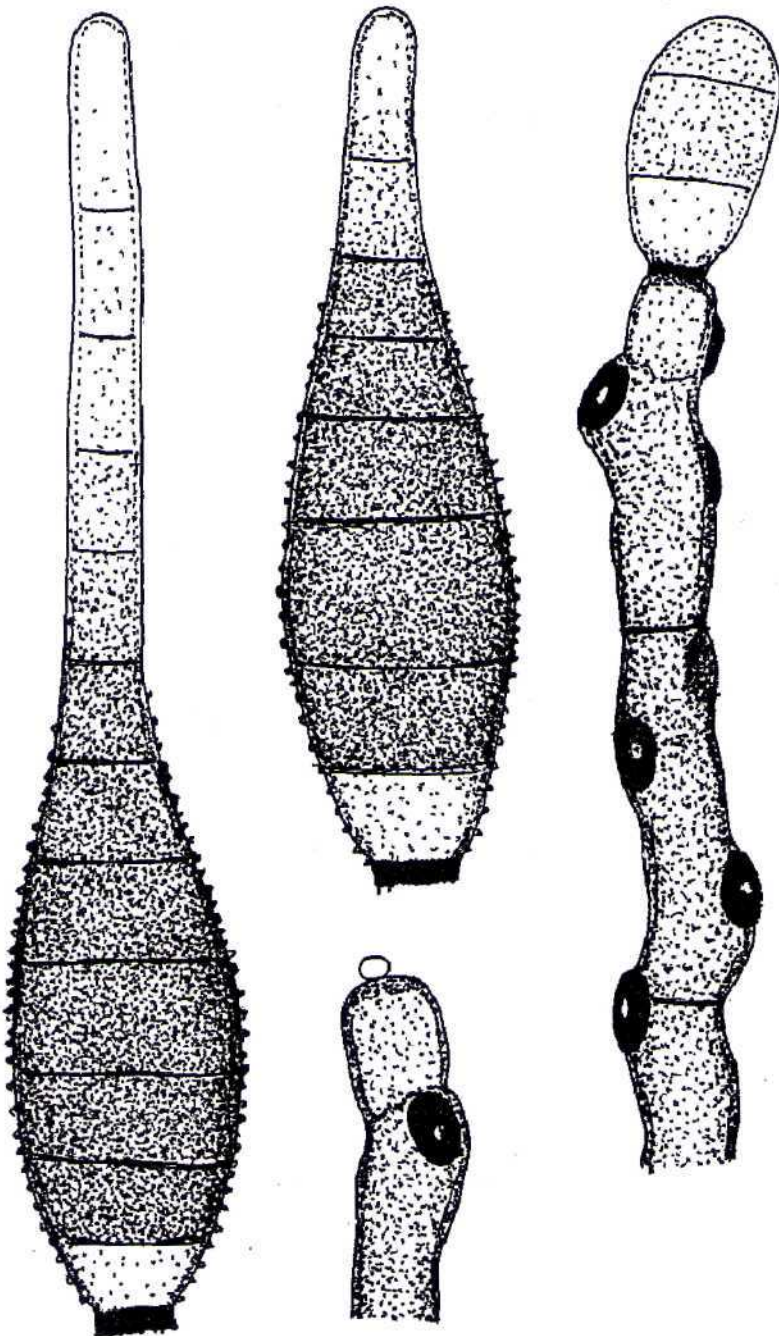




A JOURNAL ON TAXONOMIC BOTANY,  
PLANT SOCIOLOGY AND ECOLOGY



# REINWARDTIA

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## THE CORRECT NAME FOR THE TETRASTIGMA (VITACEAE) HOST OF RAFFLESIA (RAFFLESiaceae) IN MALESIA AND A (NOT SO) NEW SPECIES

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### ABSTRACT

VELDKAMP, J.F. 2008. The correct name for the *Tetrastigma* (Vitaceae) host of *Rafflesia* (Rafflesiaceae) in Malesia and a (not so) new species. *Reinwardtia* 12(4): 261 – 265. — The correct name for *Tetrastigma lanceolarium* auct. non Planch. or *T. leucostaphylum* (Dennst.) Alston ex Mabb. (Vitaceae) in Malesia is *T. rafflesiae* Miq. The name *T. lawsonii* is superfluous and has been misapplied to a species here described as new.

**Key words:** *Rafflesia*, *Tetrastigma*, Malesia

### ABSTRAK

VELDKAMP, J.F. 2008. Nama tepat untuk *Tetrastigma* (Vitaceae) tumbuhan inang *Rafflesia* (Rafflesiaceae) di Malesia, dan suatu jenis (yang tidak terlalu) baru. *Reinwardtia* 12(4): 261 – 265. — Nama yang benar untuk *Tetrastigma lanceolarium* auct. non Planch. atau *T. leucostaphylum* (Dennst.) Alston ex Mabb. (Vitaceae) di Malesia adalah *T. rafflesiae* Miq. Nama *T. lawsonii* adalah berlebihan dan telah disalahgunakan pada jenis yang di sini dipertelakan sebagai jenis baru.

**Kata kunci:** *Rafflesia*, *Tetrastigma*, Malesia

### INTRODUCTION

It is well-known that *Rafflesia* spp. (Rafflesiaceae), native to Malesia, parasitise species of *Tetrastigma* Planch. (Vitaceae), especially one that has been known under various names, usually *T. lanceolarium* (Roxb.) Planch. and more recently *T. leucostaphylum* (Dennst.) Alston ex Mabb. However, the latter is a species from Bangladesh, Bhutan, India, and Nepal, the first is a superfluous name for it, misapplied to *T. nilagiricum* (Miq.) B.V. Shetty, a South Indian/ Sri Lanka species (Shetty & Singh 2000). Latiff (2001) regarded these as synonymous.

In his paper he tried to sort out the nomenclature of the Malesian species and concluded that the correct name should be *T. tuberculatum* (Blume) Latiff. I have here relied on his synonymy.

Unfortunately, this was not the end of the quest: the name has to be changed again, for its Javanese basionym, *Cissus tuberculata* Blume (1825), is a later homonym of the South American *C. tuberculata* Jacq. (1797) (See also King 1896).

*The International Code of Botanical Nomenclature* (ICBN, 2006) requires that

basionyms should be legitimate and, if not, their epithets can only be used again (without ascription) in a different combination if there is no alternative at that rank.

58.1. The epithet in an illegitimate name if available may be used in a different combination, at the same or a different rank, if no other epithet is available from a name that has priority at that rank. The resulting name is then treated as new, either as a nomen novum with the same type as the illegitimate name (see also Art. 7.5 and Art. 33 Note 2), or as the name of a new taxon with a different type. Its priority does not date back to the publication of the illegitimate name.

Since Latiff cited four legitimate synonyms, he should have selected one of these for the correct name, and the combination he made is therefore superfluous.

TETRASTIGMA TUBERCULATUM [Blume]  
Latiff

Fol. Malays. 2 (2001) 186, nom. superfl. — *Cissus tuberculata* Blume, Bijdr. 4 (1825) 1899, non Jacq.

(1797). — *Vitis tuberculata* [Blume] M.A. Lawson in Hook. f., Fl. Brit. India 1 (1875) 656, pro comb., nom. legit.! — *Vitis lawsonii* King, J. Asiat. Soc. Bengal 65, 2 (1896) 394 (“*lawsonii*”), pro comb., nom. superfl. — *Tetrastigma lawsonii* [King] [Herb. Kew ex Burkill, Dict. Econ. Prod. Mal. Penins. 2 (1935) 2245, in syn.; Burkill ex A.W. Hill, Index Kew. Suppl. 9 (1938) 280, nom. inval.] Burkill ex Latiff, Gard. Bull. Singapore 36 (1984, “1983”) 220, pro comb., nom. superfl. — Lectotype: *Blume s.n.* [“*G. Parang*”, which is near the town “*Tjanjor*” (Cianjur) that Blume mentioned] (L, holo, *sh.* 897,348–8), here designated, but see note.

NOTES. Wallich (1831–1832) used *Vitis tuberculata* for his no. 6014 and like most of the names there it is a nomen nudum. In the 19th century, however, many regarded the c. 4250 Wallich names as validly published. This error persists to this day for they have been included without warning or comment in the Index kewensis, now IPNI on the Internet.

The combination *Vitis tuberculata* was therefore available for use by M.A. Lawson and is legitimate according to Art. 58.1 since no other alternative was available. The only reference he gave was to Blume’s basionym with which it is therefore homotypic. From his words it is obvious that he did not intend to describe a new species. He merely tried to match material with existing literature, as we still do today, with all the dangers of that. In 1875 a Latin diagnosis or the appointment of a type were not yet required. Had Latiff cited this combination when proposing *Tetrastigma tuberculata*, it would have been legitimate in 2001. But he didn’t, so it isn’t.

The only specimen Lawson cited was *McClelland s.n.* from Burma, Pegu, and he clearly based his description on that. Whether it really belongs to Blume’s species is an entirely different matter, which will be discussed below.

Merely changing the authorship from “(Blume) Latiff” to “(M.A. Lawson) Latiff”, thus retaining the combination with the same name and type and so validating the combination at a later date would be a nice trick and would maintain at least the continued use of the combination itself. However, doing so would result in an isonym, a name with the same combination, with the same type, but with different author(s), for which the ICBN (Art. 6, Note 2) states that “The name is always to be cited from its original place of valid publication”, i.e. the earliest one. It does not cover the curious case where it would be the same author, but I think the meaning is clear. The ICBN only in exceptional cases allows you to mend your ways at a later date.

Latiff mentioned as the type “*Java, Bogor, Blume s.n. (L)*”, apparently selecting between the syntypes indicated by Blume: “*Buitenzorg et Tjanjor*”. However, in L there is no specimen from “*Buitenzorg*” (Bogor), but there are two from the Gunung (Mountain) Parang near the town “*Tjanjor*” (Cianjur): L. *sh.* 897,348–8 and –14, labelled as *Cissus tuberculatus* by Blume. Willem Meijer, the well-known *Rafflesiaceae* specialist, labeled both as isotypes.

King gave the following reasons for the name change to “*Vitis lawsonii*”: “This is the plant which Blume called *Cissus tuberculata*; but it is not the *Vitis tuberculata* of Wallich which becomes *Vitis rumicisperma*, Lawson. For this species Mr. Lawson keeps Blume’s specific name, but he changes its generic name to *Vitis* – a course which I regret to be unable to follow, first because there is an earlier *Cissus tuberculata* than Blume’s (*viz.*, that of Jacquin dating from the years 1797 to 1804 during which that author’s *Hortus Schoenbrunnensis* was published, and which therefore the plant to which any author who reduces *Cissus* to *Vitis* ought to give the name *V. tuberculata*); second, because Blume did not call his plant *Vitis tuberculata* but *Cissus tuberculata*.”

It will be clear that he thought that Blume’s species and that of Lawson were the same and that the epithet “*tuberculata*” was inapplicable because of the homonymy and he therefore proposed “*lawsonii*”. However, Lawson had validated the combination, because in *Vitis* the epithet “*tuberculata*” was still available and the combination is permitted by Art. 58.1; thus, King was not allowed to change it and his combination *Vitis lawsonii* is therefore superfluous.

As King himself was one of those who reduced *Cissus* L. to *Vitis* L., King here casually made the new combination *Vitis tuberculata* (Jacq.) King, which of course is a later homonym of that of Lawson (1875).

Gagnepain (1911) reported the presence of an isotype of *Cissus tuberculata* Blume in P, with a “superb” tendril, a pedate 5-foliolate leaf, and 2 seeds in each berry. Unfortunately he gave no locality. This would seem to be a much better candidate for a lectotype, but could not be found.

*Tetrastigma lawsonii* was mentioned as a synonym of *V. lawsonii* by Burkill (1935) and the former name therefore is not valid. This reference was copied verbatim by Hill (1938), and then still remained invalid, although from the typography it is not clear whether he regarded it as a synonym or an accepted name. Latiff (1984: 220) unwittingly



made the combination attributing it to Burkill, but as he should have used "*tuberculata*", it is superfluous.

The earliest synonym according to Latiff is:

#### CISSUS MUTABILIS Blume

Bijdr. 4 (1825) 190; Miq., Fl. Ned. Indië 1, 2 (1859) 605. — *Vitis mutabilis* Miq., Ann. Mus. Bot. Lugd. Bat. 1 (1863) 75. — *Tetrastigma mutabile* Planch. in A. DC., Monogr. Phan. 5, 2 (1887) 440. — Type: "*in humidis, praecipue in calcareis provinciarum septentrionalium Javae insulae. Floret: Julio — Sept., etc. Nomen: Aroij kibarera*".

NOTES. Latiff mentioned as the type: "*Java, s. loc., Blume s.n. (L)*". I have found no collections in L with this name so labelled by Blume himself. There are two sheets (L. sh. 897,348—44, —45) on which he wrote "*Cissus montana Bl. 747*", an unpublished name. To the first Blume added on the label "*Salak Decbr.*", which is in conflict with the flowering period he mentioned. On the second sheet Meijer added "Type. *Tetrastigma mutabilis*" in February 1981. Neither sheet was labelled by Latiff. Miquel (1863) proposed "*Vitis mutabilis* Miq."

Both sheets contain only loose leaflets, a few petioles, and one piece of stem, which is not tuberculate, but completely smooth. One can only hope that all came from the same plant.

Miquel (1859) more or less extracted his diagnosis from Blume's description and in 1863 complained that there was too little material to identify the name properly: "*Specimina suppetentia prorsus manca, cirrhis floribusque plane deficientibus. V(itis) landuk accedere videtur. Pauca itaque habeo quae diagnosi citata addam. Stigmatum forma et seminum numerus characteres essentialis praeberentur*". My translation: "The specimens available surely are incomplete, with the tendrils and flowers being totally absent. It seems close to *V. landuk*. I have therefore little to add to the diagnosis cited. The form of the stigma and the number of seeds seem to provide the essential characters".

Except for Miquel's labeling there is no indication at all that this is Blume's original material of *Cissus mutabilis*. There may have been some note to this effect on the original covers in 1862, when Miquel became Director of the Rijksherbarium and had to clean up an awful mess, but these were not included when the specimens were remounted on 17 December 1897 (the Leiden sheet numbers are

a code for this date).

Backer & Bakhuizen f. (1965) ambivalently echoed its uncertain status: "Hardly to be distinguished from the preceding species [*T. lanceolarium*]; insufficiently known".

Perhaps modern analyses can solve this problem, but they are beyond my means and powers and I therefore regard this name as a *nomen dubium*.

The next candidate, according to Latiff, is:

#### VITIS RAFFLESIAE Miq.

Ann. Mus. Bot. Lugd. Bat. 1 (1863) 76. — *Tetrastigma rafflesiae* Planch. in DC., Monogr. Phan. 5 (1887) 443. — Type: *Korthals s.n.* [L, sh. 897,348—162, —163 (2 sheets), West Sumatra, Mt. Malintang (15 May 1835, according to Korthals's unpublished diary in the archives of L)].

NOTES. In Leiden there are only three sheets under this name. Although Miquel described floral parts, these collections have no inflorescences. However, the pieces of stem have the typical small tubercles. The derivation of the epithet seems obvious: a *Rafflesia* must have been found on it. Unfortunately, Korthals in his diary was more interested in the growth of the *Rafflesia* than in what he called *Cissus*.

In L there are three drawings of *R. hasseltii* Suringar in the Korthals Icones collection (L sh. 941,23—19, —20, —21). It is tempting to think that they depict the specimen after which the species was named. Meijer (in Latiff, 1984) said that this is the commonest host for this species.

Latiff labelled all three herbarium sheets merely as "*Tetrastigma*" and in 2001 cited as the type *Korthals s.n. xi/63*. I have found no such a note ("*xi/63*") on any label, possibly it is an error for "*163*". He also said "*s. loc.*", which is correct as far as the labelling goes, but Miquel said it came from West Sumatra, Mt. Malintang, again information that may have been lost in the remounting. Meijer added to this on one of the -163 sheets: "*G(unung = mountain) Malintang, where R. arnoldii is rather common*".

I therefore conclude that the host of *Rafflesia* should have the most appropriate name: *Tetrastigma rafflesiae* (Miq.) Planch.

The later synonyms Latiff provided then are of lesser interest.

## VITIS KUNSTLERI King

J. Asiat. Soc. Bengal 65, 2 (1896) 396. — *Tetrastigma kunstleri* Craib, Fl. Siam Enum. 1 (1926) 313. — Lectotype: *King's Collector 8027* (CAL, holo; K, SING), Malay Peninsula, Perak, Larut, near Batang Padang River, designated here.

## TETRASTIGMA ENCEPHALOSPERMUM Ridl.

Bull. Misc. Inform. Kew 1926 (1926) 62. — Type: *SF 14643 (Boden Kloss)* (K, holo; SING), Sumatra, Mentawai Arch., Sipora Isl.

NOTES. The island of Sipora is not in Sarawak. The collector is Boden Kloss, not Ridley.

## A NEW SPECIES

As stated above, the only specimen Lawson cited under *V. tuberculata* was *McClelland s.n.* The name may have been misapplied, but as can be seen from the descriptions subsequent authors since 1875 have recognized it as a distinct species. I hope to have shown above that the epithet "*lawsonii*" cannot be used because it was published as a superfluous name for *V. tuberculata* Lawson, which causes this not-so-new species to be without one. Still, the ICBN requires one to describe it as new.

*Tetrastigma latiffii* Veldk., *spec. nov.*

*Tetrastigma lawsonii* auct. non Latiff: [Herb. Kew ex Burkill, Dict. Econ. Prod. Mal. Penins. 2 (1935) 2245, in syn.; Burkill ex A.W. Hill, Index Kew. Supp. 9 (1938) 280.] Burkill ex Latiff, Gard. Bull. Singapore 36 (1984, "1983") 220, pro specim.

*Vitis lawsonii* auct. non King: King, J. Asiat. Soc. Bengal 65, 2 (1896) 394 ("*lawsonii*"), pro specim.

*Vitis tuberculata* auct. non M.A. Lawson: M.A. Lawson in Hook. f., Fl. Brit. India 1 (1875) 656, pro specim.

Cirri desunt vel pauci. Petioli 2.2—4.3 cm longi, foliola 3 coriacea, basi decurrenti, subtus glabra, terminalia 10.7—13.8 cm longa. Inflorescentiae subsessiles. Flores glabris apice plano. Stigmatis lobi acuminati glabri. Infrutescentia baccis 1—3 globosis 1.7—2 cm in diam. luteis. Semina 3 vel 4 oblonga testa laevi endospermio M-formi in sect. transv. — Type: *King's Collector 6287* (CAL, holo; BM, K, L, SING), Malay Peninsula, Perak, Larut.

Tendrils absent to few. Petioles 2.2—4.3 cm long. Leaflets 3, coriaceous, base decurrent, underneath glabrous; terminal leaflet 10.7—13.8 cm long. Inflorescences subsessile. Flowers flat-topped, glabrous. Stigmas-lobes pointed, glabrous. Berries 1—3 per infructescence, globose, 1.7—2 cm diam., yellow. Seeds 3 or 4, oblong; testa smooth; endosperm M-shaped in transverse section.

HABIT. Lowland forest margins.

DISTRIBUTION. Burma (Pegu = Myanmar, Bago), Malay Peninsula (Kedah, Penang, Perak, Selangor), Singapore, Sumatra (Aceh).

EPONYMY. With pleasure I dedicate this species to the long-time student of the family and genus in SE Asia, my good friend Prof. Dato' Dr. Abdul Latiff Mohamad.

NOTES. The diagnosis above is based on the descriptions by Lawson (1875), Gagnepain (1911), Ridley (1922), Suessenguth (1953), and Latiff (1984), which all clearly refer to the same species.

The earliest specimen mentioned that belongs here is *McClelland s.n.*. As it was only a voucher for *V. tuberculata*, and not its type I felt free to appoint the collection selected by Latiff who was under the impression that *T. lawsonii* had not been typified.

## ACKNOWLEDGEMENTS

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