

NOTES ON THE FLORA OF JAVA, V.

IDENTIFICATION OF THE NEW SPECIES AND COMBINATIONS  
PROPOSED BY C. P. THUNBERG IN THE FLORULA JAVANICA  
BY L. WINBERG AND F. O. WIDMARK (1825)

by

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Though the new names published in Thunberg's "Florula" have been entered in the Index Kewensis, few botanists have tried to verify the status and synonymy of the new species proposed in this 2-thesis booklet. Thunberg's names were entered in Juel's "Plantae Thunbergianae" (1918, 412 pp.).

The diagnoses are generally too short and vague to allow a definite opinion. Only Schott, Mueller Arg., and F. E. Wimmer have examined material of resp. the Araceae, Euphorbiaceae, Campanulaceae.

The booklet contains descriptions of 41 species. Of these 21 were proposed as new and were no homonyms. The type specimens of these new species which are, in general, well-preserved and complete were put at our disposal by the kind co-operation of Dr H. Nannfeldt, Director of the University Institute for Systematic Botany at Uppsala. The assistant-botanist Dr Carl G. Alm informed us that 2 species could not be uncarthed, and also were not mentioned in Thunberg's catalogue, written 1820, viz: *Cyperus uniflorus* Thunb. and *Passerina javanica* Thunb.

It appears that nearly all species could be very easily identified: of the 21 new species 2 could not be examined, 5 had been reduced earlier, 13 are reduced in this paper, and 1 is a doubtful name (*Pandanus*). In 3 other cases Thunberg's epithets proved to be the correct ones under the Rules. Accordingly 3 new combinations have been proposed. A few species, which were not collected in Java, presented some difficulties as appeared from the notes on the back of the sheets written by Bergius: *Pandanus odoratus* Thunb. was a native of Mauritius, and *Vitis trifoliata* Thunb. of Surinam, whilst others hailed from Ceylon. One additional species earlier described by Thunberg is included in our report, viz. *Bignonia javanica* Thunb., nomen.

One plant-geographical remark may precede the alphabetically arranged list of the identification: though the bulk of Thunberg's plants were collected in the lowland of Java, apparently in the environs of Batavia, two plants of his Javan collection have undoubtedly been collected at at least 800 m altitude, viz. *Anotis hirsuta* and *Pratia nummularia*. These have been collected either S. of Batavia or S. of Semarang.

The species alphabetically listed below are preceded by the number they bear in the Florula Javanica. At the end of the reference the locality where they were collected is cited in accordance with Bergius's notes on the sheets.

43. *Acrostichum lineare* Thunb. Fl. Jav. (1825) 23. — Java.  
This is reduced to *Stenochlaena palustris* (Burm. f.) Bedd. Cf. Backer & Posthumus, Varenflora v. Java (1939) 150.
25. *Arum purpureum* Thunb. Fl. Jav. (1825) 20. — Java.  
According to Engl. Pfl. R. IV, 23; F (1920) 97 dubious, but as Schott noted rightly on the type specimen, identical with *Homalomena rubescens* (Roxb.) Kunth. As Roxburgh's basynym dates from 1832, this species, which is not rare near Batavia must be called *Homalomena purpurea* (Thunb.) B. B. S., comb. nov. It is not, as is asserted in Ind. Kew. a species from Japan.
34. *Clerodendron spicatum* Thunb. Fl. Jav. (1825) 22. — Ceylon.  
According to Lam & Bakuizen van den Brink, Bull. J. B. B. III, 3 (1921) 78 possibly synonymous, with *Clerodendron serratum*. The specimen undoubtedly represents a well-known Javan drug of the genus *Orthosiphon*, commonly known as *Orthosiphon stamineus* Bth. in Wall. (1831). This is antedated by the name *O. aristatus* (Bl. 1826) Miq. [*O. grandiflorus* (Bl.) Bold.]. A still older epithet is used in *Orthosiphon spiralis* (Lour.) Merr., Lingnan Agr. Rev. 2 (1925) 137, but it seems that the type specimen of Loureiro's is missing (as was affirmed by Dr G. Taylor, May 1949) or has, at any rate, not been properly identified, and that, therefore, its interpretation is liable to doubt. Thus, the correct name for this plant seems to be *Orthosiphon spicatus* (Thunb.) B. B. S., comb. nov. Why this very common drug was not botanically described earlier than 1825 is not quite understandable.  
*Bignonia javanica* Thunb. Mus. Ups. xvii (1794) 150; Fl. Ceyl. 1825, 7, nomen; Juel, p. 321. — Java.  
This plant of which the vernacular name was given as "kudo" is present in 3 sheets with an immature pod and 3 leaves. It represents *Dolichandrone spathacea* (L. f.) K. Sch. Why this species, which was collected in Java, was mentioned in the Florula Ceylanica and not in the Florula Javanica is not clear.
39. *Croton spiciflorum* Thunb. Fl. Jav. (1825) 23.  
Apparently, based on *Caturus spiciflorus* Burm. According to Mueller Arg. there were 2 specimens representing *Claoxylon indicum* (Reinw. ex Bl.) Endl. ex Hassk. According to Corner this species should not be called *Cl. polot* (Burm. f.) Merr. (cf. Gard. Bull. S. S. 10, p. 292).
37. *Croton orbiculare* Thunb. Fl. Jav. (1825) 23. — Java.  
This is clearly identical with the species currently known as *Mallotus moluccanus* M. A. Merrill has shown (Enum. Philip. Fl. Pl. 2, 1923, 432) that the basynym derived from *Croton moluccanus* L. cannot be used, as Linné's type specimens represent two other *Euphorbiaceae*.

This plant should be called *Melanolepis multiglandulosa* (Bl. 1825) Rehb. f. & Zoll. As neither the exact month of publication of Thunberg's *Florula* nor the exact month of publication of Blume's 12th "Bijdragen" is known we have to provisionally accept them to be simultaneously published in the year 1825. As Blume's epithet, derived from a nomen nudum of Reinwardt (ex Blume Cat. Hort. 1823, p. 105), is better known than that of Thunberg we have chosen it as the correct one.

40. *Croton pellatun* Thunb. Fl. Jav. (1825) 23. — Java.  
Based on *Ricinus tomentosus* Thunb. Diss. Ric. (1815) 6 = *Mallotus ricinoides* (Pers.) M. A.
38. *Croton reticulatum* Thunb. Fl. Jav. (1825) 23. — Ceylon.  
This name is pre-empted by *C. reticulatum* Willd. (1805). According to Muell. Arg. it is *Coelodiscus thunbergianus* M. A. in DC. (1866). However, its identity is uncertain. Trimen (Handb. Fl. Ceyl. 3, p. 68) says it is doubtful and probably belongs to *Mallotus rhamnifolius* M. A. but Pax & Hoffmann distinguish it as a separate species allied to *M. eriocarpus* M. A. and gave it a new name *M. thunbergianus* (M. A.) P. & H. (Pfl. R. IV, 147, VII, 1914, 162). This, however, belongs in a section different from that of *M. rhamnifolius*.
33. *Justicia spathulata* Thunb. Fl. Jav. (1825) 22. — Java.  
There are two specimens in Thunberg's Herbarium, both representing *Peristrophe bivalvis* (L.) Merr. The vernacular "boa cletong" cited by Thunberg as a Malay name is unknown to us. It is the common, cultivated form described under the name *Peristrophe tinctoria* (Roxb.) Nees which was formerly distinguished as a distinct species. The other specimen is also a *Peristrophe* which, however, in the absence of developed flowers, we cannot identify with any Malaysian species. It is not conspecific. The Ind. Kew. cited the species wrongly to be described in Thunb. Fl. Jap.
3. *Kaempferia speciosa* Thunb. Fl. Jav. (1825) 8.  
This was identified by Wahlenberg as representing *Hedychium coronarium* Koen. in Retz. (1783).
26. *Lagerstroemia javanica* Thunb. Fl. Jav. (1825) 21. — Java. Incolis Pulaja.  
The specimen represented is clearly identical with *Lagerstroemia speciosa* (L.) Pers.
11. *Lobelia javanica* Thunb. Mem. Ups. Append. V (1797) 105, nomen; Fl. Jav. (1825) 9. — e Java et Ceylona.  
The specimen clearly represents *Pratia nummularia* (Lamk.) Kurz, as F. E. Wimmer already indicated on the sheet.
6. *Oldenlandia hirsuta* L. f. Suppl. (1781) 127; Thunberg, Fl. Jav. (1825) 8. — Java.  
Thunberg's specimen undoubtedly represents the species described by the younger Linné and which is now called *Anotis hirsuta* (L. f.) Miq. ex Backer & Van Slooten, Geïllustr. Handb. Theeonkr. (1924) 203, not Hoehr. (1925) as in Ind. Kew.
7. *Oldenlandia linearifolia* Thunb. Fl. Jav. (1825) 9. — e Java et Ceylona.  
This is the common weed *Hedyotis corymbosa* (L.) Lamk.

9. *Oldenlandia longiflora* Thunb. Fl. Jav. (1825) 9. — Java.

This is a homonym of *O. longiflora* Lamk. which is now reduced to *Rondeletia pilosa*. Thunberg's specimen represents apparently a small-flowered *Ophiorrhiza* with awned stipules. Failing a revision of this difficult genus, we feel not justified to name it; nomenclaturally it has no value.

8. *Oldenlandia nudiflora* Thunb. Fl. Jav. (1825) 9. — Java.

The sheet represents a specimen of *Hedyotis ovatifolia* Cav.

10. *Oldenlandia triflora* Thunb. Fl. Jav. (1825) 9. — e Ceylona, incolis galapala.

There are 3 sheets, all marked Ceylon. All belong to the very common *Hedyotis biflora* (L.) Lamk.

4. *Ophrys lancea* Thunb. ex Sw. in Vet. Acad. Handl. Stockh. xxi (1800) 223, descr. 1; Fl. Jav. (1825) 8. — Java.

This clearly represents *Spiranthes australis* Lindl. (1824). Apparently the oldest name is *Aristotelea spiralis* Lour. The epithet *spiralis*, however, can not be used in *Spiranthes* because of *Spiranthes spiralis* Koch (1849). The next two specific epithets are those of *Epidendrum aristotelia* Raensch. 1797 and *Neottia sinensis* Pers. (1807). Both these names are typified by Loureiro's description. According to F. T. Hubbard (Bot. Mus. Leafl. Harv. Univ. 4, 1937, 85—89) Raenschel's epithet is illegitimate, but Persoon was fully justified in proposing a new epithet because of the combination *Neottia spiralis* Willdenow (1805), or rather (L.) Sw. ex Willd. — Willdenow had, apparently, accession to Swartz's text of the Fl. Ind. Occ. before it was published, since Willdenow in 1805 even cites the pages in Swartz, though Swartz's 3rd volume is dated, acc. to Pritzell, 1806.

The correct name seems therefore to be *Spiranthes lancea* (Thunb.) B. B. S., comb. nov.

24. *Pandanus odoratus* Thunb. Fl. Jav. (1825) 19.

This specific name is questioned by Martelli, Webbia 4 (1913) 26, who doubted it to represent a *Pandanus*. To *Pandanus odoratissimus* L. f. Suppl. (1781) 26 was added "Thunb." In the same year Thunberg described *Keura odora* Thunb. Nov. Gen. Pl. 1 (1781) 26. Whether these names are all based on the same material of Thunberg is uncertain. This uncertainty is increased by the notes on the herbarium sheets marked fol. ♀ and ♂, which run: fol.: "e Java, Ceylona. C. P. Thunberg ex insula Mauritiana, malay pudak."; ♀: "e Ceylona Thunberg"; and ♂: "e Java, Ceylona. C. P. Thunberg. ex insula Mauritiana". The ♂ specimen has certainly inflorescences of 2 different species. The upper left partial inflor. of ♂ may belong to fol.

The description also presents some peculiar features, e.g. the "flowers" are stated to be "monoecious", which in Malaysian *Pandanus* is never the case.

It seems that the description is based on two different species. Moreover, we do not believe that the specimens have been collected in Java. They cannot be identified with the aid of Backer's key (Handboek Flora Java part 1, 1925, 36).

31. *Ruellia serrata* Thunb. in Nov. Act. Soc. Sc. Upsal. vii (1815) 143; Fl. Jav. (1825) 21. — Java.

According to the Ind. Kew. the original description of Thunberg referred to a Japanese species and was reduced by Nees in DC. Prod. 11: 161, to *Bonnaya penicillata* Nees. As Juel (l. c. p. 313) rightly remarked, the only specimen in Thunberg's herbarium, which we have examined is doubtless different from the plant of his original description, and, therefore, not its type specimen. It typifies his description of *Ruellia serrata* sensu Florula Javanica, and represents a specimen of *Ilysanthes ruelloides* (Colsm. 1793) O. K. (= *I. reptans* [Roxb.] Urban); the identity of the Japanese species needs clarification. A new synonym of this species is *Ilysanthes aristo-serrata* Hayata from Formosa.

32. *Ruellia tetragona* Thunb. Fl. Jav. (1825) 22. — e Java et Ceylona. The specimen represents *Artanema longifolia* (L.) Wettst. ex Bold. (1916).

22. *Triumfetta urticaefolia* Thunb. Fl. Jav. (1825) 19. — Ceylon.

This represents *T. suffruticosa* Bl. As both names date from 1825 it seems preferable to adopt Blume's name.

23. *Uvaria javanica* Thunb. Fl. Jav. (1825) 19. — Java.

This was reduced to *Unona tripetaloidea* Dun. by Ind. Kew. However, there are two specimens, marked 1 and 2. No. 1 = *Canangium odoratum* (Lamk.) Baill. ex King, the other represents *Desmos chinensis* Lour. The description only refers to *Canangium*.

16. *Vitis trifoliata* Thunb. Fl. Jav. (1825) 11. — Surinam.

On the back of the sheet it is noted that the specimen came from Surinam where it was collected by Dahlberg. It is clearly identical with *Vitis erosa* (L. C. Rich.) Baker (*Cissus erosa* L. C. Rich.).