NOTES ON THE GESNERIACEAE OF BOMBAY

BY

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Key to the Gesneriaceae of Bombay (after Cooke and others) :

Seeds with a long hair at each end ; epiphytic shrubby plants : 1. *Aeschynanthus.*

Seeds not tipped with long hairs ; ground plants :

Inflorescence cymose, axillary or terminal :

Pedicels adnate to the petioles ... 2. *Didymocarpus.*

Pedicels not adnate to the petioles :

Small, erect herbs with leaves nearly as broad as long ; stamens 2 ... 3. *Epithema.*

Small undershrubs with stoutish stem ; leaves oblanceolate, much longer than broad ; stamens 4 perfect ... 4. *Isanthera.*

Inflorescence in elongated racemes :

Stamens 4 ; calyx winged, one wing often much larger than the rest ... 5. *Klugia.*

Stamens 2 ; calyx not at all, or at least not prominently winged, all the wings, when present, being about equal ... 6. *Rhynchoglossum.*

1. AESCHYNANTHUS Jack

The name *Aeschynanthus* was first published by Jack in Trans. Linn. Soc. 14 : 42, t. 2, f. 3, 1823, and is one year later than *Trichosporum* D. Don in Edinburgh Phil. Journ. 7 : 84, 1822. The name *Aeschynanthus*, however, is included in the list of *nomina conservanda* in the 1947 edit. of the Intern. Rules of Botanical Nomenclature.

1. *Aeschynanthus Perrottetii* A. DC. in DC. Prodr. 9 : 261, 1845 ; C. B. Clarke in DC. Monogr. Phan. 5(1) : 25, 1883 ; id. in Hook. f., Fl. Brit. Ind. 4 : 339 1884 ; Dalz. & Gibs., Bomb. Fl., 135 ; Cooke, 2 : 321 ; Gamble, Fl. Madr. 985.
   Aeschynanthus grandiflorus Graham, Cat. 146, 1839 (non Spreng.)
   Trichosporum Perrottetii (A. DC.) O. Kuntze in Rev. Gen. Plant., 1891.

The habit and leaves of this plant are very similar to those of some of the Hoyas of Bombay, for which it might easily be taken. The corolla is long, tubular, somewhat curved, the colour being red or scarlet. The fruit is a long capsule, very similar to the follicles of the Apocynaceae or Asclepiadaceae. Among the plants in Kew Herbarium there is a specimen labelled by Dalzell as '*Hoya pauciflora* R. W.', the identification of which has been corrected by C. B. Clarke to '*Aeschynanthus Perrottetii* A. DC. var. *malabarica* C. B. Clarke' ; another specimen, Ritchie 1861, is also labelled as *Hoya*, but here the mistake is easily understandable as the specimen is in fruit and looks remarkably like *Hoya Wightii* Hook. f. The seeds of *Aeschynanthus Perrottetii* are typical, as they are very minute and possess one very long hair at each end.

2. *Aeschynanthus Perrottetii* A. DC. var. *planiculmis* C. B. Clarke in DC. Monogr. Phan. 5(1) : 26, 1883 ; id. in Hook. f., Fl. Brit. Ind. 4 : 340 (*platyculmis*).
   Aeschynanthus planiculmis Gamble, Fl. Madr. 985, 1924.
   Aeschynanthus ceylanica Wight, Icon. t. 1347 (non Gardn.)

Clarke in the original description of this variety, gives the following characters: branches compressed ; leaves densely approximate, broadly lanceolate

or elliptic, narrowed at both ends; umbels 2-4-flowered; corolla 35-40 mm. long. Gamble, loc. cit., raised this variety to the rank of a species, and gave as the distinguishing features of the plant its flattened stems and its very broadly ovate leaves. Cooke, p. 322, seems inclined to deny recognition to Clarke's variety, as he explains the flattening of the stems as due to the epiphytic character of the plant.

Among the specimens at Kew, there are a few with very markedly broad leaves, whilst others, said to be the typical species by Clarke, have narrow oblong leaves. Moreover, there seems to be a continuous set of intermediate stages between the broad and the narrow leaved specimens, sometimes both types of leaves appearing on one and the same specimen. In my opinion, there is very little ground for erecting the broad-leaved plants into a variety, much less so for erecting them into a species.

When Clarke first published the name of his variety in 1883, he called it *planiculmis*, and the publication being valid, the name must stand as a legitimate one. In 1884, Fl. Brit. Ind. 4 : 340, the name appeared changed into *platyculmis*; moreover, in Kew Herbarium there are numerous sheets with this amended spelling written in Clarke's own handwriting; this shows that Clarke intended the name to be *platyculmis* and not *planiculmis*. It is quite possible that De Candolle introduced the correction into Clarke's MS before publication in the DC. Monogr. Phan., the hybrid name *platyculmis* being considered offensive to the ears of a good Latin scholar. Be that as it may, the name was actually and validly published as *planiculmis* and this is the spelling that has to be retained.

2. Didymocarpus Wall.

The generic name *Didymocarpus* Wall. in Edinb. Phil. Journ. 1 : 378, 1819 is *nomen conservandum* against *Roettlera* Vahl. Enum., 1 : 87, 1805.

1. *Didymocarpus hamosa* Wall., Cat. no. 788, 1829, *nom. nud.*
   Chirita hamosa (Wall.) R. Br. in Benn. Pl. Jav. Rar. 117, 1840; Clarke. in Comm. et Cyrt. Beng. 110, t. 78, 1874; id. in DC. Monogr. Phan 5(1) : 128, 1883; id. in Hook. f., Fl. Brit. Ind. 1 : 360, 1884; Cooke 2 : 322.
   Didymocarpus cristata Dalz. in Hook. Kew Journ. Bot. 3 : 225, 1851; Dalz. & Gibs., Bomb. Fl. 134.
   Roettlera hamosa (Wall.) O. Kuntze, Rev. Gen. Pl. 415, 1891; Fritsch in Engler, Pflanzenfam. 4(3b) : 148, 1895.

Wallich published the name of *Didymocarpus hamosa* in his Catalogue or List, but in the absence of a description, the publication was not valid; the plant was first described by R. Brown under the name of *Chirita hamosa*, the name *Didymocarpus hamosa* Wall. being cited as a synonym by Brown, the date 1840 must therefore be considered as the earliest date for the valid publication of *Chirita hamosa* as well as *Didymocarpus hamosa*.

When this plant is in its vegetatives stages, i.e., in full foliage, it is very similar to *Klugia notoniana* or *Rhynchoglossum obliquum*, its leaves are very oblique, and of about the same size as those of the two plants just mentioned. The most typical part of the plant is that the pedicels of the flowers and fruits are adnate to the petiole of the leaves, in the axil of which they are produced. After the decay of the leaves, the plant presents a very strange appearance.

3. Klugia Schlecht.

1. *Klugia notoniana* (Wall.) A. DC. Prodr. 9 : 276, 1845; Wight, Icon. t. 1353, and Illustr. t, 159 bis; Bot. Mag. t., 4620; C. B. Clarke, in DC. Monogr. Phan. 5(1) : 159, 1883; id. in Hook. f., Fl. Brit. Ind. 4 : 366, 1884; Fritsch in Engl. Pflanzenfam. 4(3b) : 155. f. 71, 1895; Cooke, 2 : 323.
   Wulfenia notoniana Wall., Tent. Fl. Nep. 16, 1826; id. in Cat. 409.
   Rhynchoglossum scabrum Dalz. in Kew Journ. Bot. 2 : 140, 1850.
   Klugia scabra Dalz. and Gibs., Bomb. Fl. 134.
   Klugia notoniana var. *scabra* C. B. Clarke, in Kew Herb.

When this plant is neither in flower nor in fruit, it is not possible to separate it from *Rhynchoglossum obliquum* or its variety *parviflora*. When in

flower it is quite easy, as its flowers are considerably larger than those of *Rhynchoglossum*; its calyx, moreover, is 5-winged, one of the wings being considerably larger than the rest, at least on many occasions, and even when the wings are equal they are much larger than those of *Rhynchoglossum*.

This seems to be a relatively rare plant in Bombay; it is only towards the south of the Presidency that it becomes tolerably common.

4. Rhynchoglossum Blume

1. *Rhynchoglossum obliquum* Blume, Bijdr. 741, 1826; Clarke in DC. Monogr. Phan. 5(1): 161, 1883.
   Rhynchoglossum Blumei DC. Prodr. 9: 274, 1845.
   Wulfenia intermedia Wall. Cat. 408, 1829.
   Loxotis intermedia Benth., Scroph. Ind. 57, 1835.

This is the typical variety, and does not occur in Western India; it is the commoner variety in Burma, Java, Sumatra. This species is very similar in most respects to *Klugia notoniana* A.DC., from which it differs mainly in having only two stamens and a plain, not-winged calyx.

2. *Rhynchoglossum obliquum* Blume, var. *parviflora* C. B. Clarke in DC. Monogr. Phan. 5(1): 163, 1883; id. in Hook. f., Fl. Brit. Ind. 4: 367, 1884; Cooke, 2: 324.
   Rhynchoglossum obliquum DC. Prodr. 9: 274, 1845; Wight, Illustr. t. 139 bis, f. 7; C. B. Clarke, Comm. et Cyrt. Beng., t. 88, 1874 (non Blume).
   Rhynchoglossum zeylanicum Hook. Bot. Mag. t. 4198.
   Rhynchoglossum Khasdei DC. Prodr. 9: 274, 1845.
   Wulfenia obliqua Wall., Tent. Fl. Nep. 45, t. 35, 1826; id. in Cat. 407, 1829.

This is much the commoner form in Western India; Clarke in DC. Monogr. Phan., loc. cit., states that this plant is found in valleys in subtropical districts almost everywhere, and that it is about the most widely spread among the plants belonging to this family.

This variety differs from the typical variety in having its calyx teeth very acuminate, and the inferior corolla lip narrower than and about twice as long as the superior lip. In general, flowers of the variety are smaller than those of the typical plant. Many of the plants which I have collected in Khandala on the Western Ghauts show the remarkable arrangement of the inflorescence which was mentioned in the case of *Didymocarpus*, that is to say, the inflorescence is adnate to the petioles, and there may be as many as four or five racemes arranged in a row along the petiole of a single leaf.

R. obliquum var. *parviflora* is a very common plant along the Western Ghauts; it is generally found on rocky ground, occasionally on trees or on old walls; the leaves are very thin and hence rather difficult properly to preserve in herbarium specimens, unless special care is taken in the pressing process.

5. Epithema Blume

1. *Epithema carnosum* Benth., Scroph. Ind. 57, 1835; Clarke in DC. Monogr. Phan. 5 (1): 177, 1883.
   Adina carnosa G. Don, Syst. 4: 665, 1837–1838.
   This is an East Himalayan plant, not found in Western India.

2. *Epithema carnosum* Benth., var. *hispida* C. B. Clarke, in DC. Monogr. Phan. loc. cit. 178; id. in Hook. f., Fl. Brit. Ind. 4: 369, 1884; Cooke, 2: 325.
   Epithema hispidum Wight, MS. in Herb. Kew.
   Epithema pusilla C. B. Clarke MS. in Herb. Kew.
   Epithema zeylanicum Wight, Illustr. 159, f. 3; Ic. Icon., v. 1384.

This variety, as indicated by the name, differs from the typical plant in having hispid leaves and peduncles. It seems to be a fairly rare plant in Bombay, except in the Southern districts of the Presidency, where it is tolerably common. The variety *pusilla* Clarke appears to be but a young specimen of var. *hispida*.

6. Isanthera Nees

1. *Isanthera permollis* Nees in Trans. Linn. Soc. 17 : 82, 1834 ; DC. Prodr. 9 : 279, 1845 ; Wight, Icon. t. 1355; Clarke in Hook. f., Fl. Brit. Ind. 4 : 372, 1884: Fritsch in Engl. Pflanzenfam. 4 (3b) : 159, 1895 ; Santapau in Journ. Bomb. Nat. Hist. Soc. 46 : 380, 1946.

For a full description of this plant, see the last reference, where I gave the plant as a new record for the Presidency of Bombay. The shape of the leaves and the habit of the plant is quite distinct from the rest of the Gesneriaceae of Bombay. It seems to be a fairly common plant in Southern India ; but as for Bombay, I have only seen the specimens mentioned in my paper in this *Journal*.

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