ON THE IDENTITY AND NOMENCLATURE OF SOME INDIAN PLANTS

J. K. MAHESHWARI

Systematic Botanist, Central National Herbarium, Botanical Survey of India, Sibpur

ABSTRACT

The paper deals with the nomenclature, synonymy and identity of some Indian species of Randia Linn. (sensu latu), Butea Koern. ex Roxb., and Gymnosporia Bth. & Hk. f. Recent work has shown that nomenclatural changes are required in these genera and a few critical points have to be elucidated and corrected. These are discussed in the following pages. Two new combinations are also proposed.

XEROMPHIS Rafin.

The genus Xeromphis Rafin. (Sylva Tellur. 21, 1838) is given as a synonym of Randia Linn. in Index Kewensis. Recent studies of Keay (Bull. Jard. Bot. Etat Brux. 28: 37-39, 1958) on West African species have shown that Randia Linn. (sensu latu) is a very heterogeneous, pantropical assemblage of species. He proposed that Randia Linn. sect. Ceriscus Hook. f., should be transferred to the genus Xeromphis Rafin. Both pollen and floral morphology seem to support this separation. The two genera may be distinguished as follows:

<table>
<thead>
<tr>
<th>Xeromphis</th>
<th>Randia (sensu stricto)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Inside of corolla tube with a distinct band of long hairs.</td>
<td>2. Inside of corolla tube with scattered hairs or glabrous.</td>
</tr>
<tr>
<td>3. Placentae in the centre on either side of a distinct septum which divides the ovary.</td>
<td>3. Placentae on the walls of the ovary and usually, but not always meeting to make the ovary spuriously bilocular.</td>
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<tr>
<td>4. Seeds distinctly divided by the septum in fruit.</td>
<td>4. Seeds in a single mass which comes away from the walls of the fruit.</td>
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TYPE SPECIES: Xeromphis retzii Rafin.—Xeromphis spinosa (Thumn.) Keay.

DIAGNOSTIC CHARACTERS: Branches usually armed with spines formed from modified lateral branchlets; flowers 1-2 (-3) together, terminating opposite pairs of very much abbreviated leafy lateral shoots; corolla tube with a ring of hairs within: ovary bilocular, placenta attached to the septum which divides the seed masses in fruit; pollen grains single.


*G. spinosa* Linn. f. Suppl. 164, 1781.

*For a lengthy synonymy of this plant, see Keay (loc. cit.).


R. spinosa (Thunb.) Poir. loc. cit.; Blume, Bijdr. 981, 1825.


Xeromphis retzii Rafin. Sylva Tellur. 21, 1838.

Randia brandisii Gamble, Fl. Madras 616, 1921.

This is the plant listed in Indian floras under the name of Randia dumetorum (Retz.) Poir. Keay has shown that the complex group of plants generally included under Randia dumetorum (Retz.) Poir. should be called Xeromphis spinosa (Thunb.) Keay. Gamble in his Flora of Madras has split this group into several species. However, an examination of the material collected from India, South China and neighbouring islands has revealed that there is a good deal of variation in the amount of indumentum on the ovary and calyx, and that only one species is involved.

The type material of Gardenia spinosa Thunb. the basionym of this species, was collected at Macao, South China, by P. J. Bladh. Gardenia dumetorum Retz. and G. spinosa Linn. f. both described in 1781, were based on specimens (possibly duplicates of the same material) collected in Madras by J. G. Koernig. It was believed for a long time that Bladh's specimens from Macao and Koernig's specimens from Madras, represented two different species (cf. Aiton, Hort. Kew. 1: 295, 1789; Willdenow, Sp. Pl. 1: 1229, 1798; Poir in Lamarck, Encyc. Méth. Bot. Suppl. 2: 829, 1811) and, therefore, the name Randia dumetorum (Retz.) Poir. became firmly established for the Indian plant. However, it is now accepted that Randia spinosa (Thunb.) Poir. and Randia dumetorum (Retz.) Poir. are conspecific (Merrill, Lingnan Sci. J. 5: 174, 1924 et in Trans. Amer. Phil. Soc. N. S. 24: 367, 1935; Keay, loc. cit.). The earliest validly published name for this plant is, therefore, Thunberg's Gardenia spinosa, of 1780, on the basis of which the above combination was made by Keay.
TYPE LOCALITY: Macao, South China (P. J. Bladh).

 DISTRIBUTION: India; Ceylon; Burma, S. Kurz; Malay Peninsula, B. Scorzecchini 95; South China, P. J. Bladh; Trop. E. and W. Africa, R. W. J. Keay. 


(2) Xeromphis uliginosa (Retz.) Maheshwari, comb. nov.


*Posoqueria uliginosa* Roxb. Fl. Ind. 1: 712, 1832.

In our flora the name of this plant is given as *Randia uliginosa* Roxb. The oldest validly published name for this plant is that of Retzius, *Gardenia uliginosa*, of 1781. As this specific epithet is only the valid one, the above new combination is made for the species, in accordance with the provisions of Article 55 of the Code.

TYPE: Koening s. n. (India).

 DISTRIBUTION: India; Burma, S. Kurz; Nepal, Iravat.


Erythrina monosperma Lam. Encyc. 2: 391, 1790.

*Butea frondosa* Koening ex Roxb. in Asiat. Res. 3: 469, 1792; Pl. Corom. 1: 21, t. 21, 1795; Fl. Ind. 3: 244, 1832; auct. innc.


This characteristic Indian tree has for a long time been referred to as *Butea frondosa* Koening ex Roxb. The oldest published name for this plant is that of Lamark, *Erythrina monosperma*, of 1790. As the specific epithet is only the valid one, Taubert made the combination *Butea monosperma* (Lam.) Taubert, loc. cit., which is now accepted as the correct name of this plant. However, in checking the authorship of this name, it appears from the literature that the new combination is often wrongly attributed to Otto Kuntze (Rev. Gen. Pl. 202, 1891), who cited this name merely as a synonym of *Plaso monosperma*. According to the rules, this method of publication is not valid and, therefore, the authorship of *Butea monosperma* must be attributed to Taubert.

VAR. 1. monosperma

TYPE LOCALITY: Malabar (India).

 DISTRIBUTION: India; Ceylon; Burma, S. Kurz.


VAR. 2. lutea (Witt) Maheshwari, comb. nov.


*Butea lutea* Sargérya, Indian For. 65: 560, 1939.

Differs from the typical form in flowers yellow, canary-yellow or pale yellow.

TYPE LOCALITY: Kharbi, Yootmal Division, M. P. (C. G. Rogers).

 DISTRIBUTION: India; Kinwat Reserve, M.P., D. O. Witt; Burhanpur-Amraoti Road, M.P., K. P. Sargérya; Nagpur, M.P., C. E. Luard; Amravati, Berar, D. U. Morris;
Maytenus H. B. et K. OR Maytenus Molina?

In Indian floras the genus Maytenus (Celastraceae) goes under the name of Gymnosporia Bentham & Hook. f. (Gen. Pl. 1: 365, 1862). Modern authors have united the latter genus with Maytenus sensu lato (Exell 1952; Blakelock, 1956; Cufodontis, 1958). It appears from the literature that the correct authorship of Maytenus has for long remained a debatable point. The two publications of Maytenus, namely Maytenus Molina (Saggi. Stor. Nat. Chili. ed. 1, 1777 and 1782) and Maytenus H. B. et K. (Nov. Gen. et Sp. Pl. 7: 64-65, 1828) apply to the same taxon. Blakelock (1956) proposed under number 4626 that the generic name Maytenus H.B. et K. should be treated as a "nomen conservandum" over Maytenus Molina and Haenkea Ruiz et Pavon (Fl. Peruv. Chil. Prodr. 36, t. 6. 1794 et Syst. Veg. 65. 1798). The reasons for this proposed conservation are: (1) Molina's original description is an error, (2) Molina corrects this in his second edition where Maytenus is treated as a synonym of Celastrus. (3) established custom regards Maytenus as a member of the Celastraceae; Molina treats it under Oleaceae. The proposer stated further that Humboldt, Bonpland and Kunth were the first to give a correct diagnosis of the generic characters, but Bosc (Jide Rickett in Taxon 9: 15, 1960) in 1803 had already emended Molina's genus. In a recent report of the Committee for Spermatophyta, Conservation of Generic Names (Rickett in Taxon 9: 15, 1960), it has been recommended that an erroneous generic description is in itself no sufficient reason for conservation of a later publication. Further, there is no doubt of the identity of Maytenus Molina. The genus Maytenus, therefore, must be ascribed to Molina as emended by Bosc (1803), without legislation. Haenkea Ruiz et Pavon is, then, a later synonym. Maytenus boaria Molina is the type species of the genus.


Celastrus senegalensis Lam. Encyc. 1: 661, 1783.
C. decolor Del. Voy. Méroë, 100, t. 64, f. 6. 1826.
C. europaeus Boiss. Elench. 29, 1838.
C. senegalensis (Lam.) Webb. Fragm. Fl. Aethiop. 61, 1854.


G. senegalensis (Lam.) Loes. in Bull. Herb. Boiss. 4: 430, 1893.

The nomenclature of this plant is rather complicated. It is known in Indian floras under the name of Gymnosporia montana Bentham; some systematists consider that the proper name of the plant ought to be Gymnosporia senegalensis (Lam.) Loes. (based on Celastrus senegalensis Lam.), or Gymnosporia spinosa Fiori (based on Catha spinosa Forsk.). It has been stated earlier that the genus Gymnosporia Bentham et Hk. f. (Gen. Pl. 1: 365, 1862) has been partially united with Maytenus Mol. emend. Bosc, by Loesener (in Engler et Prantl, Nat. Pflanzenfam. 2 ed. 20 B, 1942) and fully united with it by Exell and, following him, Blakelock (Kew Bull. 240, 1956) and Cufodontis (Bull. Jard. Bot. Etat Brux. Suppl. 28: 477-481, 1958). Furthermore, Blakelock has shown that Catha spinosa Forsk. is to be classified as a variety of Gymnosporia ovata Lawson ex Hook. f. (Fl. Brit. Ind. 1: 619, 1875), and becomes Maytenus ovatus Loes. var. kurmacius Blakelock. It may be noted that the combination Maytenus spinosus is pre-occupied by a South American plant—Maytenus spinosus (Griseb.) Lourt et O'Donnell (based on Myoa spinosa Griseb.). The correct name for Gymnosporia montana Bentham. is Maytenus senegalensis (Lam.) Exell (B. L. Burtt in litt.)

TYPE: Adanson (Senegal), cult. in Horto Parisiensi.

DISTRIBUTION: India; Burma. C. G. Rogers 340. A. M. Mathew 1787; Afghanistan. Herb. Griffith 1909; Baluchistan, J. H. Lace 3617; Trop. Africa; Arabia; Ethiopia; S.-W. Europe; Malaya; Australia.


(5) Maytenus ovatus (Wall. ex Wt. & Arn.) Loesener var. ovatus forma ovatus

Celastrus ovatus Wall. ex Wt. & Arn. Prodr. 159, 1834.
G. serrata (Hochst.) Loes. var. niuansica Loes. loc. cit.

In Indian floras this plant is listed under Gymnosporia ovata (Wall. ex Wt. & Arn.) Lawson ex Hook. f. Loesener (in Engler et Prantl, Nat. Pflanzenfam. 20 B: 140, 1942) proposed the new combination, Maytenus ovatus Loes. based on Celastrus ovatus Wall. ex Wt. et Arn. He was followed by Blakelock (Kew Bull. 239, 1956) and Cufodontis (Bull. Jard. Bot. Etat Brux. Suppl. 28: 478, 1958) who, however, reduced the Indian species to Maytenus ovatus Loes. var. ovatus forma ovatus. The close relatives of the Indian form, namely Maytenus ovatus Loes. var. ovatus forma pubescens (Schwef.) Blakelock (Kew Bull. 240, 1956), M. ovatus Loes. var. argutus (Loes.) Blakelock (241) and M. ovatus Loes. var. kurmaiicus Blakelock (242) are known to occur in Tropical Africa, Arabia and Ethiopia. The distinguishing characters are: “Leaves usually coriaceous or subcoriaceous, 5-12 nerves prominent on both surfaces, apex obtuse to rounded, margin serrate or crenate-serrate. Inflorescence, glabrous, 0.5-3.5 cm. long. Capsule 4-10 mm. long.” The only clear character which distinguishes this plant from forma pubescens is the glabrous inflorescence. Blakelock has, therefore, preferred to regard the Indian plant as a form of Maytenus ovatus Loes., rather than a variety with the same status as vars. argutus and kurmaiicus.


TYPE: Noton ex Herb. Wallich 4308 (Nilgiris, India).

DISTRIBUTION: India; Central Africa, Kondi 10; Trop. Africa, fide Cufodontis; Ethiopia, Schimper 129, Steudner 660, Matsey 39, Mooney 3042; Uganda, Sangster 414, Thomas 3647, Eggeling 591; Kenya, Ralfs 6720, Munro 1363, James. Fries 1494; Abyssinia, Ellenbeck 1864.

INDIA: Western Ghats, in the Nilgiri and Pulney Hills, 90 to 180 m. and perhaps elsewhere.

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