

RARE AND ENDEMIC SPECIES OF *IXORA* L. (RUBIACEAE) IN INDIA

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Abstract

Fourteen rare and endemic Indian species of *Ixora* L. are listed in the present communication. The distribution, rarity and endemism of each taxon inferred after the scrutiny of specimens from different herbaria is also discussed.

Introduction

Ixora L. is a genus of small trees, shrubs and subshrubs, comprising about 400 taxa, largely pantropic in distribution and with the greatest diversity of species seen in south-east Asia.

During the revisionary study of the genus *Ixora*, authors have recognised 43 species from the Indian region. Besides the enumeration of various species of *Ixora* in Hooker's Flora Brit. India (1880) as well as several regional floras and subsequent account of some new species and check lists, Bremekamp (1937a, 1937b, 1938, 1959) and Corner (1941) have dealt with effectively, various taxa of the genus, but their studies are mainly confined to the Malaysian elements. However, Balakrishnan and Vasudeva Rao (1983) have recently listed at least six such taxa from the Andaman and Nicobar Islands, which have not been collected again after the type or original collection. The present paper is infact a critical assessment of only rare and endemic *Ixora*—based chiefly on the scrutiny of the specimens from Indian as well as important foreign herbaria during the revisionary treatment of the Indian taxa.

Of the total 43 *Ixora* species occurring in India fourteen are endemic—seven confined to South India, as many as six to the Andaman & Nicobar Islands alone and only one to the north-eastern India. As revealed by our studies, most of the endemic taxa are rare and even threatened to some extent as evidently these taxa are so far known only through the type collections

or still remain very poorly represented in the herbaria.

Rare and endemic taxa

1. *Ixora andamensis* Brem., J. Bot. 75 : 260. 1937.

Distribution—India : Endemic to Andaman and Nicobar Islands.

The species is so far known only from its type collection.

Representative specimen—Andaman and Nicobar Islands : C. E. Parkinson s.n., Andamans, Havelock Islands (type, DD).

2. *Ixora anthreantha* Brem., Indian For. 85(7) : 372-373, 1959.

Distribution—India : Probably endemic only to West Bengal and Assam.

Apparently it has not been collected again during the last 50 years but its distribution is likely to extend further to the adjoining forests along the Indo-Burma border.

Representative specimens—West Bengal : M. V. Laurie s.n., Sukna, May, 1940 (type, DD); Assam (Burma border) : D. E. Bernard 21, Ledo, April, 1935 (BM).

3. *Ixora beddomei* Husain & Paul, Candollea 41 : 87-88. f. 1: 1-5; f. 4: A-B, 1986.
Distribution—India : Endemic to South India (Kerala).

This recently described species is so far

- known only from its type locality.
Representative specimens—South India : Kerala : R. H. Beddome 3909, Mally Dist., Wynaad (holotype, BM; isotype, K).
4. *Ixora brunnescens* Kurz, *J. Asiat. Soc. Bengal* **41** : 317, 1872; Kurz, *Contr. Burma. Fl.* 147, 1875.
- Distribution*—India: Endemic to Andaman and Nicobar Islands.
Representative specimens—Though endemic but well represented in several herbaria, viz., PBL, DD, CAL, MH, BM & L.
5. *Ixora capituliflora* Brem., *J. Bot.* **75** : 297, 1937.
- Distribution*—India : Endemic to Andaman and Nicobar Islands.
 Apparently a rare endemic species but apart from its type locality also known through one more collection.
Representative specimens—Andaman and Nicobar Islands : C. E. Parkinson 1198, Andamans, 1916 (type, DD); J. H. Lace 2818, South Andaman Islands, 25 April, 1905 (DD).
6. *Ixora hymenophylla* Brem., *J. Bot.* **75** : 323, 1937.
- Distribution*—India : Endemic to Andaman and Nicobar Islands.
 It is so far known only through the type collection.
Representative specimen—Andaman and Nicobar Islands : M. C. Bonig 198, Great Nicobar, 1914 (type, DD).
7. *Ixora johnsoni* Hook. f., *Fl. Brit. India* **3** : 139, 1880.
- Distribution*—India : Endemic to South India (Kerala).
 Besides the type, the species is known through two more collections made by C. G. Calder in 1915 and G. S. Puri in 1957.
Representative specimens—South India : Kerala : Johnson 1066, Near Wenna Mala, Cochin, 13 Feb., 1865 (type, K); G. S. Puri 15324, Peermade, 18 Feb., 1957 (BSI); C. G. Calder 1563, Travancore, Koni, 45 m, 29 March, 1915 (CAL).
8. *Ixora katchalensis* Husain & Paul, *Blumea* **30** : 153-156, 1984.
- Distribution*—India : Endemic to Andaman and Nicobar Islands
 The species has been recently described by the authors from North Andamans.
Representative specimens—Andaman and Nicobar Islands: North Nicobars: P. Chakraborty 1134, Katchal Islands, sea level, 22 April, 1974 (holotype, PBL); N. Bhargava 5031, Kamorta Islands, \pm 15 m, 22 May, 1977; N. P. Balakrishnan 5325, Lamia Bay to Ramnagar, sea level, 29 March, 1977; P. Chakraborty 5305, Katchal Islands, Kapanga, 27 Feb., 1977 (PBL).
9. *Ixora lawsoni* Gamble, *Kew Bull.* 1920: 247, 1920; Gamble, *Fl. Madras* 2(4) : 630 ("repr." 445), 1921.
- Distribution*—India : Endemic to South India (Kerala).
 A very rare species and so far known only through its type collection.
Representative specimen—South India : Kerala : M. A. Lawson 43, Wynaad, Manantoddy, 1000 m, Jan., 1884 (type, MH).
10. *Ixora mercaraica* Husain & Paul, *Candollea* **41** : 83. f. 1: 6-10; f. 4: C-D, 1986.
- Distribution*—India : Endemic to South India (Karnataka).
 Recently described by the authors and so far known through its only type collection.
Representative specimens—South India : Karnataka : Hohenacker 439a, Mercara, 1847 (holotype, BM; isotype, K).
11. *Ixora monticola* Gamble, *Kew Bull.* 1920; Gamble, *Fl. Madras* 2(4) : 631 ("repr." 445), 1921; Husain, *Taxon* **38**(2) : 296, 1989.
- Distribution*—India : Endemic to South India (Kerala & Tamil Nadu).
Representative specimens—The species is known through several specimens in MH & CAL.
12. *Ixora notoniana* Wall. ex G. Don, *Gen. Syst.* **3** : 571, 1834.
- Distribution*—India : Endemic to South

India (Karnataka, Kerala & Tamil Nadu).

Representative specimens—It is well represented through several specimens in MH, DD, CAL, BSI and L.

13. *Ixora saulierei* Gamble, Kew Bull. 1920: 247. 1920; Gamble, Fl Madras 2(4): 630 ("repr." 445). 1921; Husain, *Taxon* 38(2): 296, 1989.

Distribution—India : Endemic to South India (Tamil Nadu).

A rare species and hitherto known only by three old gatherings from Pulney Hills and Nilgiris.

Representative specimens—South India : Tamil Nadu : *A. Sauliere* 684, Madurai Dt., Pulney Hills, 1914 (lectotype, MH; isotype, K); *A. Sauliere* 637, Pulney Hills, 1914 (syntype, K); *M. A. Lawson* s.n., Nilgiris, 1800 m, 1885 (MH).

14. *Ixora tenuifolia* Brem, *Indian For.* 85(7): 374, 1959.

Distribution—India : Endemic to Andaman and Nicobar Islands.

A very rare species known so far only through its type collection.

Representative specimen—Andaman and Nicobar Islands : *B. Subramanyam* 23049, Great Nicobar, Galathea Bay (type, DD).

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References

- BALAKRISHNAN, N. P. & VASUDEVA RAO, M. K. (1983). The dwindling plant species of Andaman and Nicobar Islands. In : Jain, S. K. & Rao, R. R. (eds) *An assessment of threatened plants of India*, pp. 186-201, Botanical Survey of India, Howrah.
- BREMEKAMP, G. E. B. (1937a). The Malaysian species of the genus *Ixora* (Rub.) *Bull. Du. Jard. Bot. Buitenzorg*, 14 : 197-367.
- BREMEKAMP, G. E. B. (1937b). The *Ixora* species of Burma and the Andaman Islands. *J. Bot.*, 75 : 108-326.
- BREMEKAMP, G. E. B. (1938). The *Ixora* species of Burma and the Andaman Islands—Additions and emendations. *J. Bot.*, 76 : 330-336.
- BREMEKAMP, G. E. B. (1959). New *Ixora* species from Bengal, Burma and the Nicobar Islands. *Indian Forest.*, 85 : 371-375.
- GORNER, E. J. H. (1941). Notes on the systematics and distribution of Malayan phanerogams IV : *Ixora*. *Gard. Bull. Singapore*, 11 : 177-235.
- HOOKE, J. D. (1880). Rubiaceae. In : *Flora of British India*, 3, pp. 137-149. L. Reeve & Co., London.