

name, citing Hortus Bengalensis (Prodr. 1: 448. 1824). He included Willdenow's name also with a question mark. Specimen of *H. furcatus* have been examined. The microfiche of Willdenow's type as also Roxburgh Icones No. 1582 (CAL) of his *H. furcatus* have been studied and find that the two are different. The former has cuneate leaf base and short peduncle less than 1 cm while the latter shows subcordate leaf base and longer peduncle greater than 1 cm. Menzel and Wilson (Brittonia 21: 96. 1969) have also stated that the two are different entities. Willdenow's name is validly published, with a description and Roxburgh's *H. furcatus* as a later homonym (Art. 64. ICBN. 1978) has to be rejected, and given a different name. Incidentally, Roxburgh has also described (Fl. Ind. 3: 206. 1832) *Hibiscus aculeatus* which we find is conspecific with his *H. furcatus*. The name *Hibiscus*

aculeatus available and hence the nomenclature and synonymy are as follows.

Hibiscus aculeatus Roxb. Fl. Ind. 3: 206. 1832.

Hibiscus furcatus Roxb. [Hort. Beng. 51. 1814—*nomen nudum*] ex DC. Prod. 1: 449. 1824, non Willd. 1809: Roxb., Fl. Ind. ed. Carey 3: 204. 1832; Masters in Hook. f., Fl. Brit. Ind. 1: 335. 1874; Prain, Beng. Pl. 1: 267. 1903; Gamble, Fl. Pres. Madr. 1: 97. 1915; Haines, Bot. Bih. Or. 2: 67. 1921; Sensus Rakshit *et* Kundu in Bull. Bot. Surv. Ind. 12: 161. 1972 (non Willd.); Sensus Saldanha & Nicolson. Fl. Hassan Dist. 151. 1976 (non Willd.)

ACKNOWLEDGEMENT

We are thankful to Director, Botanical Survey of India for all facilities.

T. K. PAUL AND M. P. NAYAR

Botanical Survey of India, Howrah

NOMENCLATURAL NOTES ON *JUSTICIA SIMPLEX* D. DON

Justicia procumbens L. (1753) the type of the genus *Rostellularia* Reichenb. (1837) [= *Rostellaria* Nees (1832) non Gaertn. (1807)] is based on, (i) the specimen, LINN. 28.14 (see Savage, p. 3, 1945), collected by Hermann from Sri Lanka (Ceylon), and referred to by Linnaeus (1747) in his *Flora Zeylanica*, p. 7, and (ii) Plukenet's (1691) illustration, fig. 3 in *Opera Omnia Botanica*, 3 (Phytographia): 142, tab. 56. Plukenet (*op. cit.*) had described the taxon thus: "Euphrasia Alsines angustiore folio, Rubiae modo spicata", the same having been quoted by Linnaeus (*op. cit.*)

The study of the microfiche, LINN. 28.14 and the protologue of *Justicia procumbens* L. reveals that the species is delimited by the following characters: the plant is either procumbent or erect; inflorescences terminal, calyx, bracts and bracteoles narrowly

laciniate with scarcely visible membranous margin, and being hirsute; capsules almost glabrous but for a few hairs at top.

Farr *et al.* (1979) have given *Rostellularia procumbens* (L.) Nees as the Lectotype species of the genus, *Rostellularia* Reichenb. (= *Rostellaria* Nees). Nees (1847) cites *Justicia simplex* D. Don under the var. γ of *R. procumbens* (L.) Nees characterising it by "caule simplici ramosove erecto" whereas he treats *Justicia japonica* Thunberg (1784) characterised by "caule procumbente" as a synonym under var. β of *R. procumbens* (L.) Nees. Thunberg (*op. cit.*) had circumscribed it thus: "...caule patulo ...caulis subdecumbens ... species terminalibus ... bracteae setaceae, ciliatae."

D. Don (1825, p. 118) delineates *J. simplex* as: "...caulis simplicissimus ... spicis terminalis, ...undique pilose; calyx segmentis line-

arilanceolatis, ...margine membranaceis, bracteis consimilibus..." The most significant character, however, is the shape of bracts and bracteoles in being broadly ovate, softly pubescent, with prominent scarious margin, and capsules being puberulous [Wall. Cat. 2441, cf. BSI Neg. No. 7366 a at CAL]. Interestingly these characters are also seen in

J. japonica Thunberg, as is evident from a study of the microfiches of Thunberg Herb. [C. P. Thunberg Herb. 1036: Uppsala Inst. Bot. Micro. Nos. 386, 388] and of the varieties, ϵ and β of Nees [Herb. de Candolle, IDC. Micro. ed. No. 55. 1961].

The diagnostic characters of all the three taxa concerned are as follows:

<i>J. japonica</i> Thunberg	<i>J. simplex</i> D. Don	<i>J. procumbens</i> L.
1. Stems subdecumbent or erect, spreading.	Stems erect or decumbent, spreading or not.	Stems erect or decumbent, spreading or not.
2. Leaves ovate, acute, subserrate or entire.	Leaves ovate, obtuse or linear, entire.	Leaves ovate, linear-lanceolate, entire.
3. Bracts and bracteoles broadly ovate, prominently scarious-margined, softly hairy.	Bracts and bracteoles broadly ovate, prominently scarious-margined, softly hairy.	Bracts and bracteoles narrowly scarious-margined, hirsutely hairy.
4. Capsules faintly a few haired at top or pubescent throughout.	Capsules faintly a few haired at top or pubescent throughout.	Capsules mostly a few haired at top or glabrous.

From the analyses given above I infer that *Justicia japonica* Thunberg and *J. simplex* D. Don are conspecific, and the former needs to be transferred to *Rostellularia* Reichenb. citing it thus:

Rostellularia japonica (Thunberg) Ellis, *comb. nov.* *Justicia japonica* Thunberg, Fl. Jap. 20. 1784. *J. simplex* D. Don, Prodr. Fl. Nep. 118. 1825, *syn. nov.*; C.B.Cl. in Hook. f. Fl. Brit. Ind. 4: 539. 1885; Collett, Fl. Simlensis, 375. 1902; Cooke, Fl. Pres. Bombay, 2: 411. 1904; Gamble, Fl. Pres. Madras, 1080. 1924; Santapau in Univ. Bombay bot. Mem. 2: 69. 1961. *J. procumbens* L. var. *simplex* (D. Don) Yamazaki in Hara, Fl. East. Himalaya, 302. 1966. *J. procumbens* auct. non Linn.: *sensu* T. Anderson in Journ. Linn. Soc. 9: 511. 1867, excl. *syn. Rostellularia hedyotifolia* Nees & *R. crinita* Nees. *Rostellularia procumbens* (L.) Nees var. β in DC. Prodr. 11: 372. 1847.

Selected exsiccatae: JAPAN: Yokohama, *Japonica*, 1862, *Maximowicz s. n.*; CHINA: Grassy hills near Shanghai, October 1860, *Maingay* 653! FORMOSA: Formosa, 1892, *Dr. A. Henry* 1169 (=2045)! INDIA: Tujia, 28-3-1896, *King's Collector* 1832! Courtallam, Tamil Nadu, Aug. 1835, *Herb. Wt.* 651! Khasia, date ?, *Herb. Griffith* 6156 & 6157! Saigar, Mysore, Oct. 1908, *A. Meebold* 9493! 'Nepal', *Wallich Cat. No.* 2445! South Kuma, 26-8-1942, *Polunin, Sykes & Williams* 509! BURMA: Maymyo Plateau, 23-7-1908, *J. H. Lace* 4127 et 30-8-1908, *J. H. Lace* 4252! Pangealap, 1-1-1903, *Lt. H. Wood s. n.*!

Rostellularia mollissima (Nees) Nees, based on *Rostellaria mollissima* Nees is distinguished from *R. procumbens* (L.) Nees by larger, elongate stems covered with dense yellowish hirsute hairs. But *R. mollissima* var. *extenuata* Nees (1847), based on a number of syntypes, however, comprises discordant elements of which *Wallich* 2445 is iden-

tified by me as *J. simplex* D. Don. In this context, C. R. Babu's (1977) treatment of *J. simplex* D. Don as conspecific with and synonymous to *R. mollissima* (Nees) Nees cannot be maintained, even though Wight (1850) in describing *R. procumbens* Nees had remarked (*op. cit.* vol. 4: 6, no. 1539), "A common and variable plant, very liable to be confounded with *R. diffusa*, also with *R. mollissima*, with the characters of which last, the figure so much accords, that I feel doubtful whether I ought not rather to have referred it to that species."

Again, R. B. Majumdar's (in Bull. Bot. Soc. Bengal 25: 75. 1971) treatment of *J. simplex* D. Don as conspecific with and synonymous to *Rostellularia pumila* Hochst. which Nees (*op. cit.* p. 372) had treated only as a synonym of *R. abyssinica* Nees cannot stand.

ACKNOWLEDGEMENT

I am thankful to Dr. R. S. Raghavan, Regional Botanist, Kew, for the Protologue and Photograph of *Justicia japonica* Thunberg.

J. L. ELLIS

Botanical Survey of India, Howrah

REFERENCES

- FARR, E. R. *et al.* Index Nominum Generiicorum (Plantarum), vol. 3, p. 1731. 1979.
 LINNAEUS, C. Flora Zeylanica, p. 7. 1747.
 ——— Species Plantarum, p. 15. 1753.
 NEES IN WALLICH, N. Plantarum, Asiaticae Rariores, vol. 3. p. 101. 1832.
 NEES IN DE CANDOLLE. Prodrum Systematis Univrsalis Regni Vegetabilis, vol. 11 : p. 372. 1847.
 PLUKENET, L. Opera Omnia Botanist, vol. 3. *Phytographia*, p. 142, Tab. 56, f. 3. 1696.
 SAVAGE, S. A catalogue of the Linnean Herbarium, p. 3. 1845.
 THUNBERG, C. P. Flora Japonica, p. 20. 1784.
 WIGHT, R. Icones Plantarum Indiae Orientalis, vol. iv. 1850.

NOTES ON *HIBISCUS HIRTUS* L. AND *H. TALBOTII* (RAKSHIT) T. K. PAUL ET NAYAR (MALVACEAE)

Linnaeus (Sp. Pl. 634. 1753) described the species *Hibiscus hirtus* L. from India based on the type '875.18 *H. hirtus* 6 sadda sonbagon' of LINN Herb, Type photo (CAL!). The species is distributed widely in India and Malesia. Rakshit (Sci. & Cult. 27: 193. 1961) described a variety *Hibiscus hirtus* L. var. *talbotii* Rakshit based on Talbot's collection from N. Canara [Holotype: N. Canara, W. A. Talbot, 68 (CAL!)]. This taxon is characterised by its larger, lobed, ovate-lanceolate basal leaves (8-14 × 3-8 cm. Plate I.1) longer petiole, larger petals while in *H. hirtus* L. the basal leaves are ovate, lobed

or unlobed in nature (3.5-6 × 1.5-3 cm. Plate I.2), smaller petiole and comparatively smaller petals. In *H. hirtus* L., there is a gland on the midrib in the lower surface of leaf near to the base whereas it is absent in var. *talbotii*. Besides in *H. hirtus* the peduncles are articulated at or below middle whereas in *H. hirtus* var. *talbotii* Rakshit peduncles are articulated above the middle. It is also seen that in respect of L-W ratio of the leaves and the length of inner involucral bracts they fall in two distinct groups (Plate II).