

## 38. ADDITIONS TO THE SCROPHULARIACEAE OF GOA

The flora of Goa is relatively underexplored when compared to the neighbouring states, namely Karnataka and Maharashtra. This is true at least with regard to the seasonal plants, as in the case of the family Scrophulariaceae. The latest work on the region by Rao (Flora of Goa, Diu, Daman, Dadra and Nagarhaveli, 1985-86) records 32 species, out of which only 24 species (including three cultivated) are specifically reported from Goa, whereas 41 species are recorded for the adjacent Savantwadi area (Almeida 1990. The Flora of Savantwadi vol. I) for the family Scrophulariaceae. During our work on the Scrophulariaceae of Goa, we found that the following taxa have not been recorded from Goa by Rao (l.c.).

All the specimens examined are deposited in the herbarium, Department of Botany, Goa University.

1. *Buchnera hispida* Buch.-Ham. ex D. Don, Prodr. Fl. Nep. 91. 1825; Cooke, Fl. Bombay 2: 373. 1967 (repr. ed.).

An erect herb with bluish-pink corolla, growing up to 60 cm high. Grows on dry, laterite slopes amidst grasses during post monsoon season. The specimens dry black.

**Fl. & Fr.:** October-November.

**Exsiccata:** Goa, Verna plateau, 17.10.1993, Rupa 48.

2. *Linnophila aquatica* (Roxb.) Alston, Ann. Roy. Bot. Gard. Paradeniya 11 205. 1929; Cramer in Dassanayake & Fosberg, Rev. Handb. Fl. Ceylon 3: 431. 1981; Kulkarni, Fl. Sindhudurg 298. 1988. *Cyrilla aquatica* Roxb., Pl. Cor. 2: 47, t. 189. 1798. *Linnophila racemosa* Benth., Scroph. Ind. 26. 1835; Cooke, Fl. Bombay 2: 362. 1967 (repr. ed.).

A heterophyllous, aquatic herb; flowers in curved racemes. This distinct species is often treated conspecific with *L. indica* (L.) Druce. Cramer's (l.c.) treatment is followed here.

**Fl. & Fr.:** October-March.

**Exsiccata:** Goa, Pilar, 17.10.1993, Rupa 46.

3. *Linnophila repens* (Benth.) Benth. in DC., Prodr. 10: 387. 1846; Almeida, Fl. Savantwadi 1:

296. 1990. *Stemodia repens* Benth. in Edward's Bot. Reg. 17: sub t. 1470. Sp. 11. 1832. *Linnophila conferta* Benth. in DC., Prodr. 10: 387. 1846; Cooke, Fl. Bombay 2: 361. 1967 (repr. ed.).

An erect or prostrate herb. The absence of dissected leaves distinguishes this from the above species. Common in fallow fields during late and post monsoon.

**Fl. & Fr.:** September-January.

**Exsiccata:** Goa, Benaulim, 13.9.1993, Rupa 43, 45.

4. *Lindernia antipoda* (L.) Alston in Trimen, Handb. Fl. Ceylon 6 (Suppl.): 214. 1931; Philcox in Kew Bull. 17:484. 1964 & 22: 57. 1968; Sivarajan & Mathew in J. Bombay nat. Hist. Soc. 80: 133. 1983; Almeida, Fl. Savantwadi 1: 299. 1990. *Ruellia antipoda* L., Sp. Pl. 635. 1753.

A prostrate herb; common in marshy or wet situations. Though there is no reference to this species by Rao (l.c.), the synonyms of this species, namely *Bonnaya veronicaefolia* and *Ilysanthes veronicaefolia* are cited under *Lindernia anagallis*.

**Fl. & Fr.:** July-January.

**Exsiccata:** Goa, University campus, Taleigao, 8.7.1993, Rupa 4; 30.7.1993, Rupa 31.

5. *Lindernia hyssopioides* (L.) Haines, Bot. Bih. Or. 635. 1922; Philcox in Kew Bull. 22: 50. 1968; Sivarajan & Mathew in J. Bombay nat. Hist. Soc. 80: 136. 1983; Almeida, Fl. Savantwadi 1: 300. 1990. *Gratiola hyssopioides* L., Mant. Pl. 174. 1771. *Ilysanthes hyssopioides* (L.) Benth. in DC. Prodr. 10: 419. 1846; Cooke, Fl. Bombay 2: 368. 1967 (repr. ed.).

An erect herb found growing in moist situations and paddy fields, often occupying larger areas. Flowers violet in colour with white base. Very much similar to *L. parviflora*.

**Fl. & Fr.:** August-January.

**Exsiccata:** Goa, Benaulim, 29.8.1993, Rupa 29.

6. *Lindernia parviflora* (Roxb.) Haines, Bot. Bih. Or. 635. 1922; Sivarajan & Mathew in J. Bombay nat. Hist. Soc. 49: 38. 1950; Rao, Fl. Goa, Diu, Daman,

Dadra & Nagarhaveli 2: 302. 1986; Almeida, Fl. Savantwadi 1: 301. 1990. *Gratiola parviflora* Roxb., Pl. Cor. 3: 3, t. 204. 1811. *Ilysanthes parviflora* (Roxb.) Benth., Scroph. Ind. 34. 1846; Cooke, Fl. Bombay 2: 368. 1967 (repr. ed.).

Grows mostly in shallow ponds, marshy places and paddy fields. Flower colour varies from white to blue. Rao (l.c.) recorded this species from Nagarhaveli but not from Goa region.

**Fl. & Fr.:** July-August.

**Exsiccata:** Goa, University campus, Taleigao, 21.7.1993, Rupa 7; Marcel, 15.8.1993, Rupa 17.

7. *Lindernia rotundifolia* (L.) Alston in Trimen, Handb. Fl. Ceylon 6 (Suppl.): 214. 1931; Sivarajan & Mathew in J. Bombay nat. Hist. Soc. 80: 135. 1983; Almeida, Fl. Savantwadi 1: 301. 1990. *Gratiola rotundifolia* L., Mant. Pl. 274. 1771. *Ilysanthes rotundifolia* (L.) Benth. in DC., Prodr. 10: 420. 1846.

This erect or prostrate herb is strikingly different in its ovate — orbicular, 3-nerved leaves. Common in marshy or moist areas.

**Fl. & Fr.:** August-January.

**Exsiccata:** Goa, Marcel, 15.8.1993, Rupa 21.

8. *Lindernia tenuifolia* (Colsm.) Alston var. *pygmaea* Sivarajan & Mathew in J. Bombay nat. Hist. Soc. 80: 134. 1983.

A tufted herb; similar to *L. tenuifolia* var. *tenuifolia* but for its dwarf size. Specimens show lot of variations especially with regard to their leaf shape and size. Found growing with typical variety in marshy places. Very rare.

**Fl. & Fr.:** August.

**Exsiccata:** Goa, Marcel, 15.8.1993, Rupa 22.

9. *Mecardonia procumbens* (Mill.) Small, Fl. Southeast U.S. 1065 & 1338. 1903. Saldanha in Saldanha & Nicolson, Fl. Hassan 523. 1976. *Erinus procumbens* Mill., Gard. Dict. ed. 8, n.6. 1768.

A small erect or prostrate herb; sepals unequal; corolla yellow. This exotic weed has been recorded sporadically from Peninsular India.

**Fl. & Fr.:** August-September.

**Exsiccata:** Goa, University campus, Taleigao, 21.8.1993, Rupa 27.

10. *Microcarpaea minima* (Koen.) Merr. in Philipp. J. Sci. 7: 100. 1912; Almeida, Fl. Savantwadi 1: 302. 1990. *Paederota minima* Koen. in Retz, Obs. Bot. 5: 10. 1789. *Microcarpaea muscosa* R. Br., Prodr. 436. 1810; Santapau in J. Bombay nat. Hist. Soc. 49: 48. 1950.

A small prostrate herb forming dense mats in moist fallow fields and paddy fields after harvest. Resembles *Dentella* spp. of Rubiaceae.

**Fl. & Fr.:** December-February.

**Exsiccata:** Goa, Taleigao, Rupa 50.

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