

NEW RECORDS FOR MAHARASHTRA¹

S. M. ALMEIDA² AND M. R. ALMEIDA³

POLYGALACEAE

1. **Salomonina oblongifolia** DC. Prodro. 2: 354, 1825; FBI 1: 207, 1874. *S. sessilifolia* Ham. in Don Prodr. Fl. Nep. 201; 1825. *S. obovata* Wight, Ill. t. 228, 1840. *Figure*: Wight, l.c.

Rare herb among grasses.

Flowering & Fruiting: August-September.

Localities: Charatha, Bhedsi, Majgaon-Savantwadi. *Exsiccata*: SMA — 305, 2549, 2964.

Note: Kartikeyan *et al.* in the Chapter on "additions to Cooke's Flora" in the records of the Botanical Survey of India, Vol. 21 (2): 158, 1981 mention the occurrence of this species from North Kanara. Blatter Herbarium has a few herbarium sheets of this species from Sampkhand, Sidharpur (N. Kanara) collected by Hall. & McCann (No. 35146, 35083) and from Karwar by L. J. Sedgwick (No. 6656).

MALVACEAE

2. **Abutilon hirtum** (Lamk.) Sweet. Hort. Brit. 53, 1826; Meeuse, Exell. & Wild. Fl. Zamb. 1: 487, t. 93, f.f. 1-2, 1957. *Sida hirta* Lamk. Encycl. 1: 7, 1783. *Sida graveolens* Roxb. ex Hornem. suppl. Hort. Bot. Hafn. 77, 1819. *Abutilon graveolens* (Roxb. ex Hornem.) Wt. & Arn. Wight, Cat. Pl. 13, 1833; Prodr. 56, 1834; Cooke, 1: 97 (103), 1901. *A. graveolens* Wt. & Arn. var. *hirtum* Masters. Fl. Brit. Ind.

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1: 327, 1874. *Figure*: Meeuse, l.c.

Rare herb of waste-lands.

Flowering: January. *Localities*: Burdikolgaon, Banda-Satarda-Savantwadi, Nagpur, Ahmednagar. *Exsiccata*: SMA — 4182, 4343.

Note: T. Cooke in 'The Flora of Bombay Presidency' mentioned the occurrence of this species from Sind.

There are few herbarium specimens of this species (No. 1912, 2115, 3609) in Blatter Herbarium collected from Dharwar by E. J. Sedgwick & from Nellore Cuddapah, A. P. collected by S. K. Wagh (6760, 6606, 7564). These localities are not within the limits of Maharashtra. There are 2 specimens collected from Maharashtra; one from Nagpur collected by M. Mirashi (242) and the other from Ahmednagar collected by R. D. Acland (53).

STERCULIACEAE

3. **Pterospermum acerifolium** Willd. Sp. Pl. 3: 729, 1800; Graham Cat. 20, 1839; FBI 1: 368, 1874; K. Schum in Engl. & Prantl. Pflanzenf. 3(5): 93, f. 48 H, 1890; Dalgado, 23, 1898; Cooke, 1: 129 (37), 1901. *Figure*: K. Schum. l.c.

A common tree in evergreen patches of forests.

Flowering: December-March. *Localities*: Amboli, Bhedsi, Malgaon-Savantwadi. *Exsiccata*: SMA — 4057; BGK — 119485-C; MRA — 2382A (ALC).

Note: T. Cooke in 'Flora of the Presidency of Bombay', comments about this species as an extensively planted but of doubtful occurrence in nature; Stocks gives konkan as its habitat without any specific locality. John Graham and R. H. Beddome mentioned it as being grown

in gardens. We have collected the species from evergreen forests at Amboli and Malgaon, from Sindhudurg district.

TILIACEAE

4. **Grewia heterotricha** Masters, in Flora Brit. Ind. 1: 385, 1874; Cooke, 1: 139 (148), 1901.

A scandent shrub, rare in forest area.

Flowering: November. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 196.

Note: T. Cooke in 'Flora of Bombay Presidency' mentioned Kanara as the locality for this species. There is no earlier report of this species from Maharashtra.

RUTACEAE

5. **Clausena indica** (Dalzell) Oliver, J. Linn. Soc. Bot. 5 (suppl. 2): 36, 1860; FBI 1: 505, 1875; Cooke, 1: 184 (194), 1901. *Piptostylis indica* Dalzell, Kew Journ. Bot. 3: 33, t. 2, 1851. *Figure*: Dalzell, l.c.

Rare tree at Amboli.

Flowering: March-May. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 4743; MRA — 586, 988 (ALC).

Note: This species has been reported from N. Kanara by T. Cooke.

CELASTRACEAE

6. **Cassine paniculata** (Wight & Arn.) Ramamoorthy, in Fl. Hassan Dist. 318, 1976. *Elaeodendron paniculatum* Wight & Arn. Prodr. 157, 1834; FBI 1: 609, 1878.

Large tree. Leaves ovate-lanceolate, acuminate, crenate, turns black when dry. Flowers in axillary, dichotomously branched cymes with solitary flower at the fork of the dichotomies. Fruit drupe, fleshy, globose.

A common tree on the Plateau and along the ghats.

Flowering: April-May. *Localities*: Amboli, Chaukul, Ramghat-Savantwadi. *Exsiccata*: SMA — 3202, 3973, 4062; Cherian — 102270 (BSI); Pataskar — 105284 (BSI); MRA — 469 (ALC). *Note*: This is the first report of this species from Maharashtra and this species is also an addition to Cooke's Flora.

7. **Euonymus indicus** Heyne ex Roxb. Fl. Ind. 2: 409, 1824; FBI 1: 608, 1875; Cooke 1: 228 (242), 1902. *E. gaughii* Wight, Icon. t. 215, 1839; III, 178, 1850; Dalz. & Gibs. 47, 1861. *Figure*: Wight, l.c.

Common tree at Amboli near Hiranyakeshi and in the evergreen forests.

Flowering: December-February. *Localities*: Amboli, Ramghat, Chaukul, Bhedsi, Hiranyakeshi-Savantwadi. *Exsiccata*: SMA — 1330, 4117; BGK — 10860, 119186 (BSI); MRA — 442 (ALC).

Note: T. Cooke mentions Kanara as the locality for this species.

8. **Ampelocissus tomentosa** (Roth.) Planch. in Journ. Vigne Amer. 375, 1884; Gamble. Fl. Madras, 230 (165), 1915. *Vitis tomentosa* Heyne ex Roth. Nov. Pl. Sp. 157, 1821; FBI 1: 650, 1875; Cooke, 1: 252 (268), 1902.

A rare climber among hedges.

Flowering & Fruiting: March-August. *Local name*: Shendvel. *Locality*: Aronda-Savantwadi. *Exsiccata*: SMA — 618.

Note: T. Cooke reported this species from Belgaum, Dharwar and North Kanara.

FABACEAE

9. **Centrosema pubescens** Benth. in Ann. Wien. Mus. 2: 119, 1838; Van Steenis & Jacobs, in Fl. Mal. Bull. No. 18, 1089, 1963. *C. virginianum* Sensus, Subramanyam, in Bull. Bot. Surv. India, 3(2): 201-203,

t. 1, 1961 [(non Linn.) Benth. 1937].

Figure: Subramanyam, l.c.

A twiner, along the margins of forests. Rare.

Flowering & Fruiting: July-August. *Localities*: Amboli, Charatha-Savantwadi. *Exsiccata*: SMA — 2371, 4139, 4479.

Note: Subramanyam has reported this species from Tenmalai Forest in Kerala State. This is the first report of this species from Maharashtra and the species is an addition to Cooke's Flora.

10. **Crotalaria prostrata** Rottl. in Willd. Enum. Hort. Berol. 744, 1809; FBI 2: 67, 1876; Cooke, 1: 293 (312), 1902.

Common herb among the grasses.

Flowering & Fruiting: October-December. *Localities*: Insuli, Amboli, Aronda, Burdi, Sonurli-Banda, Madkhol-Savantwadi. *Exsiccata*: SMA — 1021, 1202, 1248, 3374, 4294, 4489; BGK — 119329 (BSI).

Note: T. Cooke reported this species from Dharwar & Kanara.

11. **Derris benthamii** (Thwaites) Thwaites, Enum. Pl. Zeyl. 413, 1864; Thothathri, in Bull. Bot. Surv. India, 3: 186, 1961. *Brachypterum benthamii* (Thwaites, Ibid. 93, 1859. *D. paniculata* Benth. in Journ. Linn. Soc. 4: suppl. 105, 1860; FBI 2: 242, 1878.

A rare climber in forest areas.

Flowering & Fruiting: April-September. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 733.

Note: This species has been reported from South India by Thothathri.

12. **Derris canarensis** (Dalzell) Baker, in Fl. Brit. Ind. 2: 246, 1878; Thothathri, in Bull. Bot. Surv. Ind. 3: 190, 1960; Cooke, 1: 406 (433), 1902. *Pongamia canarensis* Dalzell, in Hook., Journ. Bot. 2: 37, 1850.

Brachypterum canarensis Dalz. & Gibs. Bombay Fl. 76, 1861. *Derris oblonga* Bth. in J. Linn. Soc. 4 (suppl.) 112, 1859; FBI 2: 242, 1878.

Climbing shrub in forest areas.

Flowering & Fruiting: February-May. *Localities*: Amboli, Insuli-paga, Danoli, Bhedsai-Ainoda-Savantwadi. *Exsiccata*: SMA-1505, 1579, 1631, 4188, 4210, 4544, 4787; BGK — 129373 (BSI); MRA — 998, 2001 (ALC).

Note: T. Cooke mentioned Kanara as the locality for this species.

13. **Derris macrocarpa** Thothathri, Bull. Bot. Surv. Ind. 3 (2): 192-3, t. 9, 1961. *Figure*: Thothathri, l.c.

Shrubby climber, rare in forest areas.

Fruiting: April-May. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 1538.

Note: Thothathri has reported this species from Uttar Pradesh.

14. **Desmodium heterophyllum** (Willd.) DC. Prodr. 2: 334, 1825; FBI 2: 173, 1876. *Hedysarum heterophyllum* Willd. Sp. Pl. 3: 201, 1800. *D. triflorum* var. *major* Wight & Arn. Prodr. 229, 1834; Wight, Icon. t. 291, 1840. *Figure*: Wight, l.c.

Copiously branched, procumbent, pubescent herb. Leaves trifoliate, Corolla pink. Pods on slender stalk, indented on one suture, 2-6 jointed, black when dry.

A rare herb. Grows on sloping walls in shade near waterfalls.

Flowering & Fruiting: September-December. *Locality*: Otavane-Savantwadi. *Exsiccata*: SMA — 3221, 3577, 3909.

Note: This species is an addition to Cooke's Flora. In the Blatter Herbarium there are a few sheets of this species collected from Karwar by Hallberg & McCann (No. 34232, 34237) and from Dharwar collected by L. J. Sedgwick (4470).

MELASTOMATACEAE

15. **Memecylon heyneanum** Benth [in Wall. Cat. No. 4102, 1828 (nom. nudum) ex Wight & Arn. Prodr. 319, 1834; FBI 2: 560, 1879; Gamble, Fl. Madras 1: 503 (355), 1915. *M. jambosides* Wight, Icon. t. 277, 1840. *Figure*: Wight, l.c.

A rare tree of forest areas. Leaves lanceolate, acuminate. Umbels on older branches below the leaves. Flowers blue. Berry spherical.

Flowering & Fruiting: September-November.

Locality: Virdi-Telekhol-Savantwadi. *Exsiccata*: SMA — 4917.

Note: This species is an addition to Cooke's Flora.

16. **Memecylon randeriana** nom. nov. *Memecylon malabaricum* Cogn. in DC. Monog. Phan. 7: 148, 1891 (non Kostel, 1834); Cooke, 1: 503 (535), 1903. *M. amplexicaule* Roxb. var. *malabarica* Wight, Icon. t. 279, 1840; FBI 2: 559, 1879. *Figure*: Wight, l.c.

A rare plant, of evergreen forests.

Flowering & Fruiting: March-May. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 3873, 4073.

Name: The name accepted for this species by earlier authors *Memecylon malabaricum* Cogn. (1891) is the later homonym of *M. malabaricum* Kostel (1834). Therefore the new name is proposed here after Dr. (Mrs.) A. R. Daruwalla (*nee* Aban Randeria) for her monographic contributions to the genus *Blumea* DC.

T. Cooke reported N. Kanara as the locality for this species.

LYTHRACEAE

17. **Rotala decussata** DC. Prodr. 3: 76, 1828; Hiern, in Oliv. Fl. Trop. Africa 2: 467, 1868. *R. illecebroides* Koehne, Bot. Jahrab.

1: 161, 1880; Pflanzen Luth. 34, 1903; Gamble, Fl. Madras 1: 508 (358), 1911. *Ammannia pentandra* var. *illecebroides* Arn. ex Clerke, in Fl. Brit. Ind. 2: 569, 1879.

Scarcely branched slender herb. Leaves ovate-cordate, single nerved. Flowers small, sessile in compactly arranged, bracteate, terminal spikes. Calyx lobes transparent, appendiculate, long-acuminate. Capsule 4-valved.

A rare herb in moist places and in water-logged areas.

Flowering: September-October. *Locality*: Chaukul-Savantwadi. *Exsiccata*: SMA — 1978, 3200.

Note: This species is an addition to Cooke's Flora.

18. **Rotala fimbriata** Wight, Icon. t. 217, 1839; Koehne, in Engl. Bot. Jahrab. 1: 166, 1880; Pflanzen. Luth. 37, 1903; Gamble, Fl. Madras 1: 508 (359), 1911. *Ammannia pentandra* var. *fimbriata* Clarke, in Fl. Brit. Ind. 2: 568, 1879. *Figure*: Wight, l.c.

A rare herb in rice-fields.

Flowering: September-October. *Locality*: Usap-Savantwadi. *Exsiccata*: SMA — 1930, 3512, 3885, 4951, 4660; MRA — 838 (ALC).

Note: Kartikeyan *et al.* in records of Botanical Survey of India, mentioned Goa and N. Kanara as localities for this species.

19. **Mollugo cerviana** (Linn.) Ser. in DC. Prodr. 1: 392, 1824; FBI 2: 663, 1879; Cooke, 1: 559 (594), 1903. *Pharnaceum cerviana* Linn. Sp. Pl. 272, 1753.

Rare herb of cultivated fields.

Flowering: September-November. *Locality*: Aronda-Savantwadi. *Exsiccata*: SMA — 3351.

Note: T. Cooke mentioned Gujarat as the locality for this species.

20. **Alangium salvifolium** (Linn. f.) Wangerin, ssp. *hexapetalum* (Lamk.) Wangerin, in Engl. Pflanzen. 4(2206): 9, 1910; Blocmb.

in *Blumea* 1(2): 250, 1935. *A. hexapetalum* Lamk. *Encycl. Meth. Bot.* 1: 175, 1783. *A. sundarum* Miq. *Fl. Ind. Bot.* 1 (1): 774, 1856. *A. glandulosum* Thw. *Enum.* 133, 1859. *A. lamarkii* var. *glandulosum* (Thw.) Clarke, in *Fl. Brit. Ind.* 2: 742, 1879; Mukerjee, in *Bull. Bot. Surv. Ind.* 10: 330-31, 1968.

Scandent shrub. Leaves oblanceolate, 3 nerved from base. Flowers axillary, solitary, white, scented.

In forested areas. Rare.

Flowering & Fruiting: April-May. *Locality*: Malgaon-Savantwadi. *Exsiccata*: SMA — 2748, 4268, 4429, 4937, 4947.

Note: This sub-species is an addition to Cooke's Flora.

21. ***Borreria ocymoides*** (Burm. f.) DC. *Prodr.* 4: 544, 1830; Gandhi, in *Fl. Hassan Dist.* 574, 1976. *Spermacoce ocymoides* Burm. f., *Fl. Ind.* 34, t. 13, f. 1, 1768; FBI 3: 200, 1881. *Figure*: Burm. f., l.c.

Erect, branched herb. Leaves elliptic-ovate, decurrent at base. Flowers tiny, clustered within the axil of stipular cup.

Quite common herb in open places.

Flowering: August-September. *Localities*: Charatha, Amboli-Savantwadi. *Exsiccata*: SMA — 316, 354, 2811, 3117, 3424.

Note: This species is an addition to Cooke's Flora.

22. ***Neanotis monosperma*** (Wall. ex Wight & Arn.) W. H. Lewis, in *Ann. Missouri, Bot. Gard.* 53: 39, 1966. *Hedyotis monosperma* Wall. ex Wight & Arn. *Prodr.* 410, 1834. *Oldenlandia mysorensis* Wall. ex G. Don, *Gen. Syst. Gard. Bot.* 3: 531, 1834. *Anotis monosperma* (Wall. ex Wight & Arn.) Hook. f. *Fl. Brit. Ind.* 3: 75, 1880.

An erect, sparingly branched, glabrous herb.

Leaves ovate, acuminate. Flowers in terminal compound cyme.

A common herb of road-sides and along the margins of forests.

Flowering & Fruiting: September. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 724, 1951, 3052.

Note: This species is an addition to Cooke's Flora.

23. ***Oldenlandia diffusa*** (Willd.) Roxb. *Hort. Bengal*, 11, 1814 (nom. nud.) *Fl. Ind.* 1: 423, 1820; FBI 3: 65, 1880; Cooke, 1: 589 (2: 16), 1903; Blatter & McCann in *Journ. Bombay nat. Hist. Soc.* 36(4): 784, 1933. *Hedyotis diffusa* Willd. *Sp. Pl.* 1: 566, 1798.

A diffuse prostrate herb. Leaves simple, opposite, sub-sessile, linear or linear-lanceolate, acute, glabrous. Flowers solitary, white. Capsule globose. Seeds angular.

A common plant in rice-field, in wet soils and along river-banks.

Flowering: April-December. *Localities*: Charatha, Insuli, Otavane, Amboli, Danoli-Savantwadi. *Exsiccata*: SMA — 145, 297, 1427, 1852, 1917, 1952, 3783, 3813, 4286.

Note: T. Cooke reported this species from S. M. Country, Belgaum & Kanara. Blatter & McCann l.c. eventhough they included this species did not give a locality.

24. ***Phyllocephalum ritchiei*** (Hook. f.) Almeida *comb. nov.* *Centratherum ritchiei* Hook. f. in *Fl. Brit. Ind.* 3: 228, 1881; Cooke, 2: 7(62), 1904.

A common herb among undergrowth in shade.

Flowering & Fruiting: September-January. *Localities*: Charatha, Amboli-Savantwadi. *Exsiccata*: SMA — 972, 1419, 1174, 2321, 4871; MRA — 964 (ALC).

Note: T. Cooke mentioned S. M. Country,

Londa & Kanara as the localities for this species.

25. **Launea obtusatus** (DC.) Mundhe et Almeida comb. nov. *Brachyramphus obtusus* DC. Prodr. 7: 177, 1838 & in delessert. l.c. Sci. Pl. 4: 41, t. 96, 1840. *L. nudicaulis* Sensus auct. Plur (India), non *L. nudicaulis* L. Mant. 273, 1767. *L. procumbens* (Roxb.) Rammayya & Rajagopal, in Kew Bull. 23: 465, 1969 (non Amin 1956). *Prenanthes procumbens* Roxb. Fl. Ind. 3: 404, 1832. *Figure*: DC., l.c.

Procumbent herb, rooting at nodes.
In sandy soils. Rare.

Flowering: November-December. *Locality*: Aronda-Savantwadi. *Exsiccata*: SMA — 4270 A; MRA — 600 (ALC).

Note: Ramayya & Rajgopal (l.c.) proposed a new combination for this taxon. But the combination proposed had been used already.

OLEACEAE

26. **Jasminum angustifolium** (Linn.) Vahl Enum. 1: 29, 1804; Wight, Icon t. 1843; FBI 3: 598, 1882. *Nyctanthes angustifolia* Linn. Sp. Pl. 8, 1753. *Figure*: Wight, l.c.

Wiry climbing shrub. Leaves opposite, ovate-lanceolate, glabrous, entire, Flowers white, 1-3 on slender, pedicels on terminal cyme. Corolla lobes lanceolate, acuminate. Fruit ellipsoid.

Common twiner in semi-shaded forest areas.

Flowering: September-December. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 2658.

Note: This species is an addition to Cooke's Flora.

27. **Jasminum ritchiei** C. B. Clarke, in Hook. f. Fl. Brit. Ind. 3: 598, 1882; Woodrow, in Journ. Bombay nat. Hist. Soc. 12: 164, 1898; Cooke, 2: 113 (174), 1904.

Common twiner of semi-shaded forest areas.

Flowering: August-October. *Localities*:

Amboli, Hiranyakeshi, Nangartas-Savantwadi. *Exsiccata*: SMA — 4114; MRA — 1274, 2569 (ALC); BGK — 108683 (BSI).

Note: T. Cooke reported this species from S. M. Country. There are a few sheets of this species in Blatter Herbarium from North Kanara collected by H. Santapau (18754-5); & Sedgwick (3238).

GENTIANACEAE

28. **Exacum axillare** Thw. Enum. Pl. Zeyl. 203, 1860; FBI 4: 96, 1883.

Procumbent or erect herb. Leaves ovate-lanceolate, long-petioled, 3-nerved. Flowers solitary on axillary peduncles.

Rare herb of open grasslands.

Flowering: September-October. *Locality*: Zolambe-Savantwadi. *Exsiccata*: SMA — 3468. *Note*: This species is an addition to Cooke's Flora.

29. **Exacum sessile** Linn. Sp. Pl. 112, 1753; Wight, Icon. t. 1324 (1), 1848; FBI 4: 98, 1883; Ramamoorthy, in Fl. Hassan Dist. 426, 1976. *Figure*: Wight, l.c.

Slender, erect herb. Leaves small, sessile, ovate. Flowers solitary in axillary and terminal peduncles.

Herb among grasses. Rare.

Flowering: October-November. *Localities*: Malgaon, Charatha-Savantwadi. *Exsiccata*: SMA — 3199, 3868, 3949.

Note: This species is an addition to Cooke's Flora.

30. **Hoppea fastigiata** (Griseb.) C. B. Clarke in J. Hooker, Fl. Brit. Ind. 4: 100, 1883; Gamble, Fl. Madras 2: 877 (616), 1923; Ramamoorthy, in Fl. Hassan Dist. 456, 1976. *Cicendia fastigiata* Griseb. Gentia 158, 1839; DC. Prodr. 9: 62, 1846.

Small erect herb upto 10 cm high. Stem

4-winged. Leaves ovate, subsessile. Flowers axillary and terminal; peduncles clustered.

Among grasses. Rare.

Flowering: October-November. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 5072; MRA — 1624 (ALC).

Note: This is the first report of the species from Maharashtra.

CONVOLVULACEAE

31. *Ipomoea trichosperma* Blume, Bijid. 710, 1825; FBI 4: 198, 1883. *Calonyction trichospermum* Choisy, Convolv. 60, 1834; DC. Prodr. 10: 346, 1846.

Rare, woody twiner. Noticed only at one spot along the forest border and among bushes near a river bank.

Flowering & Fruiting: March-April. *Locality*: Banda, Satarda-Savantwadi. *Exsiccata*: SMA — 4194.

Note: This species is an addition to Cooke's Flora. There are a few herbarium sheets of the species in Blatter Herbarium from N. Kanara (1686-9) and (1871-6) collected by V. M. Patel and McCann, respectively.

32. *Lindernia pusilla* (Willd.) Bolding, Zakfl. Landbowster, Java, 165, 1916; Philcox, Kew Bull. 22: 41, 1968; Saldanha, Fl. Hassan Dist. 523, 1976. *Gratiola pusilla* Willd. Sp. Pl. 1: 105, 1797. *Torenia hirta* Cham. & Schlecht. Linnaea 2: 511, 1827. *Lindernia hirta* (Cham. & Schl.) Pennell, Journ. Arn. Arbor. 24: 250, 1943; Mukerjee, Journ. Ind. Bot. Soc. 24: 131, 1945.

Prostrate hirsute herbs. Leaves sessile, ovate-orbicular, serrate. Flowers axillary, solitary or in terminal racemes. Corolla white with yellow upper lip.

Common in partially shaded wet places.

Flowering: May-July. *Localities*: Charatha-Savantwadi. *Exsiccata*: SMA — 141, 147, 2380, 4669; MRA — 1150 (BLAT).

Note: This species is an addition to Cooke's Flora.

33. *Lindernia rotundifolia* Alston var. *concanensis* Saldanha, Taxonomic Rev. Scroph. Western Peninsul. Ind. 1: 184, 1963 (in-
edit).

Differs from the typical variety by its tiny flowers which never exceed 4 mm in length.

Rare weed of wet soils.

Flowering: August. *Locality*: Charatha-Savantwadi. *Exsiccata*: SMA --- 346.

Note: In Blatter Herbarium there are a few herbarium sheets of this species collected from Katta-Ratnagiri (6967-69, 7097-98); Ratnagiri (7140-42); Malvan (6989-94) by C. Saldanha.

34. *Lindernia tenuifolia* (Colsm.) Alston, in Trimen. Hand-Bk. F. Cey. 6: 214, 1931; Mukerjee in Journ. Ind. Bot. Soc. 24: 134, 1945. *Gratiola tenuifolia* Colem. Prodr. Descrip. Grab. 8, 1793; Vahl Enum. Pl. 1: 95, 1805. *Bonnaya tenuifolia* Spreng. Syst. 1: 42, 1825; FBI 4: 286, 1884. *B. pusilla* Griff. Notul. 4: 107, 1854 [non *Lindernia pusilla* (Willd.) Boldingh. 1916]. *Figure*: Matthew, Fl. Tamil Carn. 2: t. 500, 1982.

Rare herb. Grows among grasses.

Flowering: August. *Locality*: Aronda-Savantwadi. *Exsiccata*: SMA — 566; MRA — 613 (BLAT).

Note: This species is an addition to Cooke's flora. In Blatter Herbarium there are a number of herbarium specimens collected from various parts of Bombay and outside Bombay. [(Madh-Island-Saldanha (1361, 5745-48, 6617-20), Santapau (21301, 23509), Shah (7122-23, 7375, 7971); Ratnagiri-Malvan: Saldanha (7767); Thane-Mumbra: Shenoy — (390)].

35. *Microcarpaea minima* (Koenig) Merrill, in Philipp. Journ. Sc. Bot. 7: 100, 1912;

Fischer, in Kew Bull. 1932: 6, 1933. *Paederota minima* Koenig, in Retz. Obs. 5: 10, 1789. *M. alterniflora* Blume, Bijdr. 744, 1825. *M. muscosa* R. Br. Prodr. 436, 1810. *Figure*: Matthew, Fl. Tamil. Carn. 2: t. 502, 1982.

Common herb of drying rice-fields and of marshes.

Flowering: May. *Locality*: Otavane-Savantwadi. *Exsiccata*: SMA — 28, 4610, 4612.

Note: Kartikeyan *et al.* in Rec. Bot. Surv. India 21(2): 1981 mentioned North Kanara as the locality for this species. In Blatter Herbarium there are a few sheets of this species from Ratnagiri, collected by Saldanha (6970); from Malvan by Saldanha (6998-99); Satara-Mahableshwar, by Santapau (23432-33).

36. ***Torenia lindernioides*** Saldanha, in Bull. Bot. Surv. Ind. 8: 129, t. 4, 1966 & Fl. Hassan Dist. 527, 1976. *Figure*: Saldanha, l.c.

Common herb of open grasslands and laterite soils.

Flowering: May-August. *Localities*: Aronda, Charatha-Savantwadi. *Exsiccata*: SMA — 43, 388, 627-A.

Note: This species has been reported from N. Kanara by C. J. Saldanha.

37. ***Torenia thouarsii*** (Cham. & Schlecht.) U. Kuntze, Rev. Gen. Pl. 2: 468, 1891. *Nortonia thouarsii* Cham & Schlecht. in Linnaea 3: 18, 1828. *Torenia parviflora* Buch.-Ham. ex Bth., Scroph. Ind. 39, 1835 & in DC. Prodr. 10: 419, 1846; FBI 4: 278, 1884.

Rare herb. Grows in wet fields.

Flowering: September-October. *Localities*: Charatha, Majgaon-Savantwadi. *Exsiccata*: SMA — 2050, 3804.

Note: Kartikeyan *et al.* in Rec. Bot. Surv. Ind. 21(2): 1981, have mentioned North Kanara, as the locality for the species.

38. ***Torenia vagans*** Roxb. Fl. Ind. 3: 96, 1824; FBI 4: 277, 1884; Gamble, Fl. Madras 2: 671, 1956. *T. diffusa* Don Prodr. 86, 1925. *T. hians* Roxb. Fl. Ind. 3: 96, 1874.

Diffuse trailing and rooting herb. Stem 4-sided. Flowers axillary, solitary on long peduncles.

Fairly common herb in wet soils in shady places.

Flowering: May-September. *Localities*: Malgaon, Danoli, Mardongri Sateli, Hiranyakeshi-Savantwadi. *Exsiccata*: SMA — 749, 1547, 2444, 2581, 3088.

Note: This species is an addition to Cooke's Flora.

ACANTHACEAE

39. ***Nilgirianthus membranaceus*** (Talbot) Bremekamp, in Mat. Mon. Strobil. 280, 1944; Santapau, Bot. Mem. Univ. Bombay No. 2, 43, 1951. *Strobilanthes membranaceus* Talbot, Trees and Shrubs of Bombay (ed. 2), 261, 1902; Cooke, 2: 372 (449), 1905. *Figure*: Talbot, Forest Fl. 2: 327, t. 444, 1911.

An undershrub in forest areas.

Flowering: October-December. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 1214.

Note: T. Cooke has included this species on authority of Talbot; Talbot mentions Kanara as the locality. In Blatter Herbarium there are a few herbarium sheets of this species collected from Matheran by N. A. Irani (2748, 2777-8, 2882-4).

LABIATAE

40. ***Leucas cephalates*** (Roxb. ex Roth), Spr. Syst. 2: 743, 1825; Graham, Cat. 153, 1839; Wight, Icon. t. 337, 1840; Dalz. & Gibs. 211, 1861; FBI 4: 689, 1885; Cooke, 2: 466 (549), 1905. *Phlomis cephalotes* Roxb. Hort. Bengal, 46, 1814 (nom. nud.) ex

Roth. Nov. Pl. Sp. 262, 1821. *Figure:* Wight, l.c.

Rare herb of waste lands.

Flowering: October-December. *Localities:* Charatha, Amboli, Otavane, Chaukul-Savantwadi. *Exsiccata:* SMA — 3197, 4410, 4602.

Note: This species has been reported from Gujarat by Dalzell and Gibson and from Ahmedabad by Law ex Graham.

41. **Plectranthus striatus** Benth. in Wall. Pl. As Rar. 2: 17, 1831 & in DC. Prodr. 12: 56, 1848; FBI 4: 618, 1885; Mukerjee 43, 1940. *P. gerardiana* Benth. in Wall. Pl. As Rar. 2: 17, 1831 & in DC. Prodr. 12: 56, 1848. *P. gerardianus* var. *brachyantha* Hook. f. Fl. Brit. Ind. 4: 618, 1885.

An erect, branched herb. Flowers small, purple-white in terminal, slender panicles.

A rare plant noticed only at one spot along the border of a forest.

Flowering: September-October. *Locality:* Amboli, Hiranyakeshi-Savantwadi. *Exsiccata:* SMA — 3037, 5075.

Note: This species is an addition to Cooke's Flora.

POLYGONACEAE

42. **Polygonum minus** Huds. Fl. Angl. (ed. 1) 148, 1762; FBI 5: 36, 1886; Steward, Polygoneae East Asia 63, 1930. *P. strictum* Allioni, Fl. Pedem. 2: 207, t. 68, f. 2, 1785; Wight, Icon. t. 1800, 1852. *Figures:* Wight, l.c.; Allioni, l.c.

Rare herb of water-logged areas.

Flowering: October-November. *Locality:* Amboli-Hiranyakeshi-Savantwadi. *Exsiccata:* SMA — 3053; BGK — 121594 (BSI).

Note: This is an addition to Cooke's Flora.

PIPERACEAE

43. **Piper longum** Linn. Sp. Pl. 29, 1753; Graham, Cat. 199, 1839; Dalz. & Gibs.

suppl. 84, 1861; FBI 5: 83, 1886; Dalgado, 158, 1898; Cooke, 2: 528 (3: 20), 1905. *Chavica roxburghii* Miq. Syst. Pip. 239, 1843-44; Wight, Icon. t. 1928, 1853. *Figure:* Wight, l.c.

Perennial; grows as undergrowth in shade along forest borders. Common in certain localities only.

Flowering: October-December. *Local name:* Pipli. *Localities:* Sherle, Sonurli, Otavane-Savantwadi. *Exsiccata:* SMA — 244, 992-A, 2122, 3000, 3128, 4478, 4608.

Note: T. Cooke, mentioned it as not indigenous in Bombay Presidency. We have seen it growing wild abundantly in forests at certain localities.

LORANTHACEAE

44. **Dendrophthoe memecylifolius** (Wight & Arn.) Danser, in Bull. Jard. Bot. Buitenz. Ser. 3, 10: 291, 1929. *Loranthus memecylifolius* Wight & Arn. Prodr. 383, 1834; FBI 5: 217, 1886.

Stout glabrous parasite. Leaves oblong or elliptic, dark brown. Flowers scarlet, in umbels on short, stout axillary peduncles.

Partial parasite on forest trees. Rare.

Flowering: October-December. *Locality:* Sonurli-Banda-Savantwadi. *Exsiccata:* SMA — 442.

Note: This species is an addition to Cooke's Flora.

45. **Dendrophthoe neelgherrensis** (Wight & Arn.) Van Tiegh, in Bull. Soc. Bot. Fr. 42, 1895. *Loranthus neelgherrensis* Wight & Arn. Prodr. 383, 1834; Wight Icon. t. 1020, 1845; FBI 5: 216, 1886. *Figure:* Wight, l.c.; Bidie, Neilgherry Loranth. Para. Pl. 4 & 5, 1874.

Stout parasite. Leaves orbicular, narrowed into the petiole. Flowers in fascicles on the nodes of the axils, sessile. Corolla lobes reflex-

ed above the middle; anthers long. Fruit oblong.

Rare. Partial parasite noticed only at one place in a forest.

Flowering: October-December. *Localities:* Charatha, Burdi-Savantwadi. *Exsiccata:* SMA-4333.

Note: This species is an addition to Cooke's Flora.

46. **Taxillus tomentosus** (Roth.) Van Tieghen, Bull. Soc. Bot. France, 42: 256, 1895; Johri & Bhatnagar, Bot. Monog. No. 8, Loranthaceae, 13, 1972. Ramamoorthy, in Fl. Hassan Dist. 31, 1976. *Loranthus tomentosus* Roth. Nov. Pl. Sp. Pl. 191, 1821; Talb. List of trees, 171, 1894 (non Heyne 1821).

Large shrub with pendent branches. Leaves ovate-obtuse, rusty-tomentose beneath. Flowers in axillary fascicles of 1-5, tomentose.

In forest areas. Rare.

Flowering: October-March. *Locality:* Mor-dongri-Savantwadi. *Exsiccata:* SMA — 2456.

Note: This species is an addition to Cooke's Flora.

47. **Drypetes sepiaria** (Wight & Arn.) Pax. & Hoffm. in Engl. Pflanzenf. 81: 271, 1922. *Hemicyclea sepiaria* Wight & Arn. in Edinb. New Phil. Journ. 14: 297, 1833; Wight, Icon. t. 1872, 1852; Dalz. & Gibs. 229, 1861; FBI 5: 337, 1887; Cooke, 2: 590 (3: 87), 1906. *Figures:* Wight, l.c.; Matthew, Fl. Tamil Carn. 2: t. 635, 1982.

Tree of forest areas. Rare.

Fruiting: March-May. *Locality:* Amboli. *Exsiccata:* MRA — 208, 350 (ALC).

Note: This species is included by T. Cooke in 'Bombay Flora' on Talbot's report from North Kanara.

EUPHORBIACEAE

48. **Euphorbia granulata** Forsk. Fl. Aegypt. Arb. 94, 1775; FBI 5: 252, 1887; Cooke, 2: 569 (3: 65), 1906.

Profusely branched, prostrate herb; growing in abundance in rice field after harvest, noticed only at one place.

Flowering: May. *Locality:* Banda, Satarda-Savantwadi. *Exsiccata:* SMA — 4223.

Note: T. Cooke reported this species from Sind.

49. **Glochidion ellipticum** Wight, Icon. 5 (2): 29, t. 1906, 1852; FBI 5: 321, 1887; Cooke, 2: 579 (3: 75), 1906. *Figures:* Wight, l.c.; Matthew, Fl. Tamil Carn. 2: t. 640, 1982. Common tree of forest areas.

Flowering: December-February. *Localities:* Amboli, Ambegaon-Savantwadi. *Exsiccata:* SMA — 93, 1102, 1482, 2750, 3463.

Note: T. Cooke reported this species from Kanara.

50. **Phyllanthus debilis** Klein, ex Willd. Sp. Pl. 4: 582, 1904; FBI 5: 299, 1887; Cooke, 2: 588 (3: 84), 1906.

Erect herb, woody at base.

Common among grasses and in cultivated lands.

Flowering: September-November. *Localities:* Charatha, Malgaon, Insuli-Savantwadi. *Exsiccata:* SMA — 287, 792, 1372, 1612, 1784, 2192, 3416; MRA — 399 (ALC).

Note: T. Cooke reported this species from Sind.

URTICACEAE

51. **Debregeasia ceylanica** Hook. f. Fl. Brît. Ind. 5: 592, 1885; Gamble, Fl. Madras 2: 1379 (3: 972), 1925.

Tree. Leaves simple, long-petioled, broadly rotund-ovate, round at base, white tomentose beneath, 3-nerved from base. Flowers sessile, unisexual, in axillary, branched, cymose, globose head.

Tree of ghat areas. Rare.

Flowering: September-October. *Locality*: Amboli-Savantwadi. *Exsiccata*: SMA — 1996, 2667.

Note: This species is an addition to Cooke's Flora.

52. **Elatostema sessile** Forst. var. **cuspidata** Wedd. Monogr. 294, 1856; FBI 5: 564, 1888; Gamble, Fl. Madras 3: 963, 1967. *E. cuspidatus* Wight, Icon. t. 1983, 1853. *Figure*: Wight, l.c.

Small herb. Leaves oblanceolate, sessile, membranous, inequilateral, Flowers small, sessile, axillary.

Herb of old walls. Rare.

Flowering: August-October. *Locality*: Aronda-Savantwadi. *Exsiccata*: SMA — 541.

Note: This species is an addition to Cooke's Flora.

53. **Ficus beddomei** King, Ann. Roy. Bot. Gard. Calcutta, 1: 26, t. 24 & 81, 1887; FBI 5: 502, 1888; Gamble, Fl. Madras, 3: 954, 1956; Corner, Gard. Bull. Straits. Settlm. Ser. 4, 21: 12, 1955; Matthew, Fl. Tamilnadu, Carnatic 3: 1516, 1983. *Figures*: King, l.c.; Matthew, Fl. Tamil Carn. 3(2): 110b, 1983.

Large tree. Leaves ovate-rotund, long-petioled, broad at base, shortly acuminate, 3-nerved. Receptacle in axillary pairs, ovoid.

Tree of ghat areas. Rare.

Flowering: April-May. *Locality*: Ambegaon-Kaleli-Savantwadi. *Exsiccata*: SMA — 2777.

Note: This species is an addition to Cooke's Flora.

54. **Ficus callosa** Willd., in Mem. Acad. Berol. 102, 1798; FBI 5: 576, 1888; King, in Annales Royal Bot. Gard. Calcutta, 1: 64, t. 85, t. 84, f. 4, 1887; Cooke, 2: 651 (3: 152), 1907. Talbot, For. Fl. Bombay Pres. & Sind. 2: 521, 1911. *Figure*: King, l.c.

Fairly common tree of forest areas.

Flowering: May-July. *Localities*: Amboli, Otavane, Danoli-Savantwadi. *Exsiccata*: SMA — 1571, 2174, 4756.

Note: Cooke mentioned Kanara as the locality for this species.

55. **Ficus tjakela** Burm. f. Fl. Ind. 227, 1768; King, Ann. Roy. Bot. Gard. Calcutta, 1: 57, t. 70 & 84, f. x, 1887-88; FBI 5: 514, 1888; Cooke, 2: 650 (3: 150), 1907. *Figure*: King, l.c.

Large deciduous tree of ghat areas.

Flowering: April-May. *Locality*: Bhedsi-Ramghat-Savantwadi. *Exsiccata*: SMA — 2777.

Note: T. Cooke mentioned N. Kanara, as the locality for this species.

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