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Marathwada region comprising eight districts namely Aurangabad, Beed, Hingoli, Jalna, Latur, Nanded, Osmanabad and Parbhani (70°5′–78°5′N & 17°5′–20°5′E), forms a part of the vast Deccan Plateau of Maharashtra State of India. The plant wealth of the

Marathwada region is known through publications of several researchers (Naik 1966, 1967, 1969, 1970, 1979, 1998a,b; Almeida 1998, 2001, 2003; Singh & Karthikeyan 2000, 2001; Gaikwad et al. 2012a,b). Cooke (1958a,b,c, Repr. ed.) in his 'Flora of the Presidency of Bombay' had not included Marathwada region, as it was under Hyderabad State.

The climate of the Marathwada region supports rich tropical dry deciduous forests and scrub vegetation. During recent floristic exploration, 10 taxa of flowering plants were recorded which are new to the Marathwada region.

Enumeration

Acacia concurrens **Pedley**, Contr. Queensland Herb. 15: 9. 1974. (Mimosaceae) (Images 1,2)

<u>Specimen examined</u>: RDG 499 (Walchand College, Herbarium), 13.xi.2011, near Ter-Dhoki, Osmanabad District, Maharashtra.

<u>Specimens compared</u>: KUG 380 (Walchand College, Herbarium), 24.xii.2010, Dhamangaon, Solapur District, Maharashtra.

Evergreen, glabrous tree. Branchlets 3-angled, stout, brown, scurfy. Phyllodes lanceolate, oblique, narrowly elliptic, 10–17 cm long. Spike in pair, axillary. Flowers 5-merous, yellow. Pods linear, coiled, up to 6cm long. Seeds longitudinal.

NEW PLANT RECORDS FOR THE MARATHWADA REGION OF MAHARASHTRA, INDIA

S.P. Gaikwad¹, R.D. Gore², K.U. Garad³ & S.D. Randive⁴

1-2-3.4 Department of Botany, Walchand College of Arts & Science, Solapur, Maharashtra 413006, India ¹sayajiraog@gmail.com, ²ramdgore@gmail.com (corresponding author), ³garadku@gmail.com, ⁴sonali_dream1@rediffmail.com



Image 1. Acacia concurrens Pedley.

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Image 2. Herbarium of Acacia concurrens Pedley.

Flowering and Fruiting: November–February Localities: Ter-Dhoki (18º19'56.70"E & 76º9'19.50"E, Elevation 677m) in Osmanabad District.

<u>Note</u>: *Acacia concurrens* can be distinguished by its 3-angled branches, paired spikes and linear, coiled pods.

Acacia horrida (L.) Willd. Sp. Pl. 4: 1082. 1806. Mimosa horrida L. Sp. Pl. 521. 1753. (Mimosaceae) (Images 3,4)

<u>Specimen examined</u>: RDG 638 (Walchand College, Herbarium), 15.vii.2011, Naigaon PT, Beed District, Maharashtra.

Specimens compared: 1286 (BSI, Pune), 03.i.1903, Jeur to Wangi road, Solapur District, Maharashtra, coll. R.K. Bhide; 3935 (BSI, Pune), .vii.1926, Gokak, Belgaum District, Karnataka, coll. W.A. Talbot; 129766 (BSI, Pune) 17.ii.1975, Anantpur, Badami tehsil, Karnataka, coll. N.P. Singh; 1242559 (BSI, Pune), 17.i.1976, Tulsagiri, Bagalkot District, Karnataka, coll. N.P. Singh; KUG 507 (Walchand College, Herbarium), 28.vi.2011, Malewadi, Solapur District, Maharashtra.

Shrubs or small trees. Leaves 2- pinnate; main rachis pubescent; leaflets 6–15 pairs. Stipular spines paired,



Image 3. Acacia horrida (L.) Willd



Image 4. Herbarium of Acacia horrida (L.) Willd

unequal; large one conical, hollow inside. Flowers in spikes, white, yellow at maturity. Pods flat, dark brown, 2–5 seeded.

Flowering and Fruiting: June-February.

<u>Localities</u>: Naigaon, PT (18°53'39.15"N & 75°35'9.14"E; elevation 736m) in Beed District.

Note: Acacia horrida (L.) Willd. is easily recognized in the field by its large and hollow spines.

Acacia tomentosa Willd., Sp. Pl. 4: 1087. 1806 (Mimosaceae) (Images 5,6)

<u>Specimen examined</u>: RDG 591 (Walchand College, Herbarium), 08.v.2011, Ramling Wildlife Sanctuary, Osmanabad District, Maharashtra.

<u>Specimen compared</u>: 1292 (BLAT), Jeur, Solapur District, Maharashtra, coll. R.K. Bhide.

Trees; bark greyish-black with large lenticels; young parts tomentose. Leaves crowded on axillary branches, 2-pinnate; leaflets 20–30 pairs. Flowers in globose heads, greenish- white. Pods 10–15 cm long, ligulate-flat, pubescent; seeds 5–10.

Flowering and Fruiting: December-May

<u>Localities</u>: Ramling Wildlife Sanctuary (18°18'9.65"N & 75°55'2.23"E; elevation 615m) in Osmanabad District.

<u>Note</u>: *Acacia tomentosa* Willd. is easily recognized in the field by its ligulate, flat straw-coloured pods.



Image 5. Acacia tomentosa Willd.



Image 6. Herbarium of Acacia tomentosa Willd.

Crotalaria vestita Baker in Hook, f. Fl. Brit. India 2: 67. 1876 (Fabaceae) (Images 7,8)

<u>Specimen examined</u>: RDG 1015 (Walchand College, Herbarium), 26.x.2012, Gad-devdari, Osmanabad District, Maharashtra.

<u>Specimens compared</u>: 108609 (BSI, Pune), 01.v.1966, way to Ramghat, Chaukul, Sindhudurg District, Maharashtra, coll. B.G. Kulkarni; 108871 (BSI, Pune), 16.ix.1966, Markandey hills top, Nasik District, Maharashtra, coll. R.D. Pataskar; 118120 (BSI, Pune), 26.ix.1966, Shivneri Fort-Junnar, Pune district, Maharashtra, coll. K. Hemadri; 166460 (BSI, Pune), 26.xi.1983, Shivgaon Ghat, Satara District, Maharashtra, coll. S.D. Deshpande.

Erect or procumbent herbs, Leaves simple, equal sided at base. Stipule absent. Flowers yellow, 2–5 crowded, in leaf opposed or terminal racemes; bracts foliaceous, ovate-lanceolate. Corolla not exerted. Pods oblong, glabrous; seeds 15–33.

Flowering and Fruiting: September—December
Localities: Gad-devdari (18º15'46.32"N 8
75º59'27.30"E; elevation 651m) in Osmanabad District.

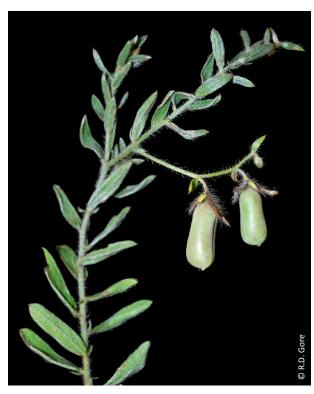


Image 7. Crotalaria vestita Baker.

<u>Note</u>: *Crotalaria vestita* Baker is endemic to Gujarat, Karnataka and Maharashtra (Ansari 2008).

Orthosiphon thymiflorus (Roth.) Sleesen in Reinwardtia 5: 42. 1959. Ocimum thymiflorum Roth, Nov. Pl. Sp. 269. 1821. (Lamiaceae) (Image 9,10)

<u>Specimen examined</u>: RDG 961 (Walchand College, Herbarium), 28.vii.2012, Sautada, Beed District, Maharashtra.

<u>Specimen compared</u>: 4783 (RPRC, Bhubaneswar), 23.iii.1994, Barbara RF, Puri District, Orissa coll. S.C. Jena.

Perennial glabrous herbs, base woody, stem and branches quadrangular. Leaves broadly ovate or ovate elliptic, glabrous above, glandular nigro-punctate beneath, serrate. Flowers in whorled racemes. Corolla tube much longer than calyx; stamens included. Nutlets tuberculate.

Flowering and Fruiting: July–October Localities: Sautada (18º47'34.80"N & 75º20'54.36"E; elevation 636m) in Beed District.



Image 8. Herbarium of Crotalaria vestita Baker.



Image 9. Orthosiphon thymiflorus (Roth.) Sleesen.



Image 10. Herbarium of Orthosiphon thymiflorus (Roth.) Sleesen.

Pseudarthria viscida (L.) Wight & Arn. Prodr. 209. 1834. *Hedysarum viscidum* L. Sp. Pl. 747. 1753. (Fabaceae) (Images 11,12)

<u>Specimen examined</u>: RDG 186 (Walchand College, Herbarium), 20.vii.2010, Papnas, Osmanabad District, Maharashtra.

<u>Specimen compared</u>: 522 (BNHS), Savantwadi, Sindhudurg District, Maharashtra, coll. M.R. Almeida.

Perennial, viscidly pubescent herbs. Leaves trifoliate, stipulate. Flowers pink-purple, in terminal or axillary racemes; stamens diadalphous. Pods indehiscent, flat, not distinctly jointed, hooked hairy, 2–6 seeded

Flowering and Fruiting: August-December

<u>Localities</u>: Papnas ($18^{0}9'22.20"N$ & $76^{0}3'4.26"E$; elevation 631m) in Osmanabad District.

Note: Frequent along stream banks in deciduous forests.

Pueraria montana (Lour.) Merr., Trans. Amer. Philos. Soc., ser. 2, 24(2): 10, 210. 1935. Dolichos montanus Loureiro, Fl. Cochinch. 2: 440. 1790. var. montana (Fabaceae) (Images 13,14)



Image 11. Pseudarthria viscida (L.) Wight & Arn.

<u>Specimen examined</u>: RDG 725 (Walchand College, Herbarium), 11.ix.2011, near Pandhar-Apsinga, Osmanabad District, Maharashtra.

Robust climbers. Leaf ovate, 7–15x5–12 cm, pubescent. Flowers in 15–30 cm long racemes; bracts linear-lanceolate, shorter than bracteoles. Calyx 7–8 mm long, hairy. Stamens diadalphous. Corolla yellow with a purple spot. Style not bearded. Pods elliptic, 2.5–4.5 cm, constricted between seeds, flattened, densely brownish hairy.

Flowering and Fruiting: August-October

<u>Locality</u>: Near Pandhar, Apsinga (18º4'8.40"N & 76º2'0.00"E; elevation 509m) in Osmanabad District.

<u>Note</u>: This species is found in this region with a large climber without tuberous roots and purple flowers. It is frequent on bushes, riverbank and field bunds.

Striga asiatica (L.) Kuntz. Rev. Gen 2: 466. 1891. Buchnera asiatica L. Sp. Pl. 630. 1753. Striga lutea Lour. Fl. Cochinch. 22. 1790. var. lutea (Lour.) Almeida Fl. Maharashtra 3b: 418. 2001. (Scrophulariaceae) (Images 15,16)



Image 12. Herbarium of *Pseudarthria viscida* (L.) Wight & Arn.



Image 13. Pueraria montana (Lour.) Merr.



Image 14. Herbarium of *Pueraria montana* (Lour.) Merr.

<u>Specimen examined</u>: RDG 728 (Walchand College, Herbarium), 18.ix.2011, Apsinga, Osmanabad District, Maharashtra.

<u>Specimens compared</u>: 16700 (FRLHT, Bangalore), 18.vi.1995, Kulasekaram Range, Kanyakumari District, Kerala, coll. S.P. Surramani; 27.vi.1875, Rambai, East Java, Indonesia, C.E.O. Kuntze 5307, (NYBG) (barcode NY0013069).

Scabrous herbs; stem 4-angled, strigose with prickly hairs. Leaves sessile, 2–4 cm long, linear, acute at apex. Flowers axillary, yellow; calyx 10 ribbed, secondary ribs ending at sinus, as long as corolla tube. Seeds cuneate-oblong, minute.

Flowering and Fruiting: August–October

<u>Localities</u>: Apsinga (18°2'36.36"N & 76°2'41.46"E; elevation 643m) in Osmanabad District.

Terminalia muelleri Benth. Fl. Austral. 2: 500. 1864. (Combretaceae) (Images 17, 18)

<u>Specimen examined</u>: RDG 979 (Walchand College, Herbarium), 17.viii.2012, Beed Town, Maharashtra.

Medium sized tree. Leaves alternate, crowded into



Image 15. Striga asiatica (L.) Kunthz. var. lutea (Lour.) Almeid



Image 16. Herbarium of *Striga asiatica* (L.) Kunthz. var. *lutea* (Lour.) Almeid

pseudo whorls at apices of branchlets. Inflorescences axillary, simple, long, slender spikes, 15–20 cm, numerous fragrant flowered. Calyx 5-lobed, glabrous, white with red tinge. Fruits glabrous; pericarp woody, rigid.

<u>Flowering and Fruiting</u>: August–November <u>Localities</u>: Beed Town.

Note: Terminalia muelleri Benth. is similar to *T. catappa* but differs in having small globular-ellipsoid fruits of about 1.5–2x0.8–1.5 cm.

Utricularia scandens Benj. in Linnaea 20: 309. 1847. (Lentibulariaceae) (Images 19, 20)

<u>Specimen examined</u>: RDG 393 (Walchand College, Herbarium), 17.x.2010, Ramling Wildlife Sanctuary, Osmanabad District, Maharashtra.

<u>Specimen compared</u>: 133536 (BSI, Pune), 27.ii.1971, Katejhari plot, Chandrapur District, Maharashtra, coll. B.N. Wadhwa.

Tiny, annual herbs. Racemes 10–20 cm long, twining, rarely erect in smaller one, 1–9 flowered with sterile



Image 17. Terminalia muelleri Benth.

bracts present in between fertile ones. Flowers yellow. Capsules compressed, dehisced margins thickened; fruiting pedicel erect. Seeds ovoid to ellipsoid.

Flowering and Fruiting: August–November
Localities: Ramling Wildlife Sanctuary (18°17'23.64"N
& 75°57'24.54"E; elevation 654m) in Osmanabad



Image 18. Herbarium of Terminalia muelleri Benth.



Image 19. Utricularia scandens Benj.

District.

<u>Note</u>: *Utricularia scandens* Benj. is easily recognized in the field by its twining racemes, yellow flowers and presence of sterile bracts in between fertile ones (Janarthanam & Henry 1991). Earlier workers could not locate this species probably due to its small size and rare occurrence in the Marathwada region.

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Image 20. Herbarium of Utricularia scandens Benj.

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