

Addition of some non-indigenous elements to the flora of Marathwada regions, Maharashtra, India.

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Abstract

During our field survey, many taxa were collected from the Marathwada region. Specimens were brought to laboratory and processed for herbarium specimens with standard procedures. Majority of the specimens satisfactory identified by using pertinent literature. After critical investigations, authors found that six taxa are not earlier reported from the region. So present paper deals new records of six species with its correct and updated citation, short description and note on its phenology is depicted for each taxon followed by a note on ecology and images of all for easy identification.

Keywords: Non-Indigenous, Addition, Marathwada.

INTRODUCTION

Marathwada region comprising seven districts (7005'–7805'N & 1705'–2005'E) forms a part of the vast Deccan Plateau of Maharashtra, India. The plant wealth of the Marathwada region is known through publications of several researchers (Naik 1966, 1967, 1969, 1970, 1979, 1998; Lakshminarasimhan 1996; Almeida 1998, 2001, 2003, 2009; Singh & Karthikeyan 2000, 2001). Cooke (1958 a, b, c reprint edition) in his 'Flora of Bombay Presidency' had not included Marathwada region, as it was then under Hyderabad State.

Publication of 'flora of Marathwada' by Naik (1998) created interest in researchers of the region as well as outside the region. Number of workers such as Sonje *et. al.* (2007), Kare *et.al.* (2008), Rathor (2006, 2008), Rathor and Chavan (2002), Rathor *et. al.* (2007, 2009), Survase and Sardesai (2008), Wadood khan and Solanke (2008), Bhuktar and Sardesai (2009), Chavan *et.al.* (2009), Shinde and Waghmare (2009) and Wadood khan *et. al.* (2009) have added 74 taxa of flowering plants to the region updated flora of the region reports 1719 species and 73 intraspecific categories belonging to 779 genera and 159 Families.

As a Continuation of such explorations during our field survey, many taxa were collected from the region. Specimens were brought to laboratory and processed for herbarium specimens with standard procedures. Majority of the specimens satisfactory identified by using pertinent literature. After critical investigations, authors found that six taxa are not earlier reported from the region. Correct and updated citation short description and note on its phenology is depicted for each taxon followed by a note on ecology. The voucher specimens are deposited in Department of Botany, Pratishtan Mahavidyalaya, Paithan, Dist - Aurangabad (M.S.) India.

Enumeration

Family – Fabaceae

Glycyrrhiza glabra L. Sp. Pl. 2: 742. 1753; *Glycyrrhiza violacea* Boiss, Diagn. Pl. Or. Nov. 3(2): 23. 1854. *Glycyrrhiza glabra* var. *violacea* (Boiss) Boiss., Fl. Or.2: 202.1872.Type: Franconia, Gallia, Hispania, Italica (LINN- Image)

Herbs, perennial. Stem 50–150 cm tall, woody at base, Leaves 5–14 cm, 11–17 – foliolate; leaflets ovate – oblong, oblong – lanceolate, or elliptic, 1.7–4 × 0.8–2 cm, abaxially densely yellow scaly glandular punctate and pubescent on veins, adaxially glabrescent or pilose, base rounded, apex rounded or retuse and with mucro. Racemes much and densely flowered; rachis densely brown scaly glandular punctate, white villous and tomentose; bracts lanceolate, ca. 2 mm, membranous. Calyx campanulate, 5–7 mm, sparsely yellow glandular punctate and pubescent, 5 – toothed; upper 2 teeth mostly joined. Corolla purple or light purple, 9–12 mm; standard ovate or oblong, 1–1.1 cm, base clawed, apex retuse; wings 8–9 mm; keel straight, 7–8 mm. Ovary glabrous. Legume oblong, flat, 17–35 × 4.5–7 mm, rarely constricted between seeds, glabrous or sparsely hairy, Seeds 2–8, dark green, ca. 2 mm in diam., smooth.

Fls and Frts: May–June.

Locality: Botanical Garden, Pratishtan College, Paithan, Aurangabad.

Note: It is found along Margins of farms, roadsides, saline areas of Paithan.

Indigofera oblongifolia Forssk. Fl Aed. - Arab. 137. 1775; Sanj. Legumes of India 193.1991 & in Hajra *et.al.* Fasc. Fl. India 21: 108. 1995. *I. paucifolia* Delile, Fl.'d' Egypt 103, t. 37, f. 37.1813; Baker in Hook. f. Fl. Brit. India 2: 97. 1876; Cooke, Fl.Pres Bombay 1: 334. 1958 (Repr.); Kothari in Singh *et. al.* Fl. Maharashtra St. Dicot.1: 709.2000.

Shrub, up to 100 cm tall, Much branched, argenteo – canescent. Leaflets 3-5, 1.2-2.5x0.6-1.2 cm, elliptic – oblong or oblanceolate, white pubescent, apex obtuse, base acute. Flowers red, 20-50 in spicate racemes. Pod torulose, slightly curved. Seeds tetragonus, truncate at one ends.

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Fls. & Frts.: September.

Locality: Sant Eknath Tomb, Paithan

Distrib.: Rare.

Family – Myrtceae

***Syzygium aromaticum* (L) Merr. & Perry** in Mem Amer. Acad. Arts. 18: 196.1939; Bennet, Name Changes Flower. Pl. India & Adj.Reg. 549.1987. *Caryophyllus aramaticus* L.Sp. Pl. 515.1753; Kulkarni in Singh et.al. Fl. Maharashtra St. Dicot.2: 21. 2001.

Tree, 10 m tall. Leaves 6-12 x 3-5 cm, ovate-oblong, tapering at base, acute at apex, Leaves glabrous, with numerous oil glands on lower surface. Flowers pale purple, 0.5-0.6 mm across, small in terminal cymose clusters, peduncle bears 3-4 stalked flowers at the end. Sepals minute triangular projections. Fruit olive-shaped, 1-seeded, popularly referred to as 'mother of clove'.

Fls & Frts: Feb – Apr.

Locality: Botanical Garden, Pratishtan College, Paithan, Aurangabad.

Note: Bud when dried in sun, furnish clove of commerce.

Family- Bignoniaceae

***Fernandoa adenophylla* (Wall. ex G.Don) Steenis** *Blumea* 23(1): 135 (1976). *Haplanophragma adenophylla* (Wall.) P. Dop. In Bull. Soc. Bot. France 72:890.1925.; Prasanna in Singh et. al. Fl. Maharashtra St. Dicot.2: 581.2001. *Bignonia adenophylla* Wall Cat. 6502, 1832 nom. Nud.; P. Dop. l.c. 72:889.1925. *Heterophragma adenophylla* (DC) Seem. Ex. Bent. & Hook f.Gen. Pl. 2:1047.1876; C.B.Cl. in Hook f. Fl.Brit. India 4: 381.1884'; Cooke, Fl.Pres. Bombay 2: 410.1958 (Repr.)

A deciduous tree, 10-15 m tall. Leaves opposite, 20-30 cm long; pinnae rusty tomentose; leaflets 5-7, lateral, elliptic-oblong, 6-18 x 6-15 cm, entire, acute; rusty tomentose – brown (especially on the undersurface). Calyx 3-5 lobed, 20-25 mm long, rusty tomentose. Corolla tube 35 mm long, tomentose on the outside, lobes subequal, obtuse. Style 3.5 cm long. Stigma elliptic, 5 mm long. Capsule not seen.

Fls & Frts: September-April

Locality: Botanical Garden, Pratishtan College, Paithan, Aurangabad.

Note: Native of Burma cultivated as ornamental in Garden.

Family - Costaceae

***Costus speciosus* (Koen.) J.E. Sm.** in Trans. Linn.soc.1:249.1800; Baker in Hook. f. Fl. Brit. India 6: 249.1892; Cooke, Fl. Pres. Bombay 3:243.1958 (Repr. ed) Holtt. In Gard. Bull. Singapore 13:242, f. 31 & 32.1950; Burt & R.M. Smith in Notes Roy. Bot.3:75.1783. *Costus speciosus* var. *nipalensis* (Rosc.) Baker in Hook f.op.cit.250.; Lakshmi in Sharma et. al. Fl. Maharashtra St. Monocot. 70.1996 .

Perennial herb, root stalk tuberous, Leaves 15 - 25x 2.5 - 6 cm: subsessile, oblong or oblanceolate, often cuspidate, acuminate, glabrous above & silky pubescent beneath, base rounded. Flowers: in, dense spikes; lip sub orbicular; corolla white. Capsules: globosely 3 – gonous, red. Seeds: black, aril white. Frequent on hill slopes.

Fls. & Frts. : Aug. – Feb.

Localities: Botanical Garden, Pratishtan College, Paithan, Aurangabad.

Family – Arecaceae (Palmae)

***Areca catechu* L.** Sp.Pl.1189.1753; Becc. & Hook. f. in Hook. f. Fl.Brit. India 6:405. 1892; Cooke, Fl. Pres.Bombay 3:319.1958 (Repr.ed.); Blatt. Palmes Brit. Ind. & ceyl. 471, t. 92. 1978(Repr.ed.) 'Supari'

Trunk solitary, straight, 12-20 m high, ca 40 cm in circumference, uniformly thick. Leaves 1.2-1.8 m long; Leaflets numerous, 25-50 cm long, upper confluent. Spathes double, compressed. Spadix much branched, bearing male and female flowers, Male flowers numerous, sessile; female flowers solitary, or 2-3, sessile. Fruits 3.5-4 cm long, smooth, orange or scarlet, supported by persistent perianth. Seeds in upper part.

Fls & Frts.: Throught the year.

Locality: Botanical Garden, Pratishtan College, Paithan, Aurangabad.



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