

Gymnanthemum amygdalinum (Asteraceae) - A New Addition to the Flora of Peninsular India.

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ABSTRACT

Gymnanthemum amygdalinum is reported here as a new addition to the Flora of Peninsular India collected from Warangal district of Telangana State, India. The detail description and colour plates are provided for easy identification.

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Introduction:

The genus *Gymnanthemum* was described by Cassini in 1817 and was transferred to *Vernonia* by Candolle in 1836. Many of the taxonomists viz., Bentham (1873), C.B. Clarke (1876), Hook.f. (1881) and Gamble (1921) followed the Candolle treatment since 1986. Later, Robinson and Kahn (1986) and Robinson (1999) resurrected the genus based on the studies of pollen grains, chromosome numbers and chemical compounds. At present the genus is distributed in sub-Saharan Africa, Madagascar, Southern Asia with more than 43 species (Robinson & Funk 2014). Of which 2 species viz., *G. extensum* (Wall. ex DC.) Steetz and *G. pectiniforme* (DC.) H. Rob. are distributed in India.

During a short visit to the Sriramagiri forests of Warangal district, the authors have collected a *Gymnanthemum* species in flowering and fruiting, which was later identified as *G. amygdalinum*. Scrutiny of literatures revealed that this species has been so far reported from Bihar, Madhya Pradesh, Odisha and West Bengal of North India (Bhattacharjee et al. 2013) and not from South India. Hence, it is reported here as a new addition to the flora of Peninsular India. A detailed description, notes and

colour photographs are provided to facilitate identification.

Gymnanthemum amygdalinum (Delile) Sch. Bip. ex Walp., Repert. Bot. Syst. (Walpers) 2: 948. 1843. *Vernonia amygdalina* Delile, Cent. Pl. Afr. Voy. Meroe: 41. 1826; Bhattacharjee et al., Zoo's Print 28(5): 18. 2013. *Keringa amygdalina* (Delile) Raf. Sylva Tellur. 144. 1838.

Large shrubs or small trees to 3-5 m high; branches terete, densely glandular pubescent. Leaves alternate, elliptic, elliptic-lanceolate, ovate, obovate, highly variable, 5-20 x 2-6 cm, cuneately attenuate at base, acuminate, mucronulate rarely obtuse at apex, serrate or entire along margins, adaxial surface dark green when dry, sparsely puberulent; abaxial surface pale green, glandular, densely puberulent and hairy along veins; lateral veins 5-15 pairs, slightly curved; petioles up to 4.5 cm long, densely puberulent. Inflorescence terminal corymbose panicles, 20 x 15 cm; peduncles densely puberulent and glandular. Heads homogamous, many, 13 x 11 mm; bracteoles 1 or 2, densely puberulent. Involucre campanulate, 6-7 x 6 mm; phyllaries imbricate, 5-seriate, yellowish green with purple tip, concave, 1.2-4 x 0.6-1.2 mm, outer most very short, the inner ones longest, elliptic-oblong, obtuse or rounded at apex, hairy along margins, puberulent above, glabrous-

puberulent beneath. Receptacle 2 x 2 mm, flat, foveolate, brown. Florets 16-17 in each capitulum, up to 2 cm long. Corolla creamy-white, 7- 8.5 x 1-1.2 mm, tubular, 5-lobed; lobes 3 x 0.8 mm, rounded at apex. Stamens 5, 5 mm long; filaments glabrous, 2 mm long; anthers 3 x 0.2 mm, sagittate at base, rounded to subacute at apex. Gynoecium 10.5 mm long; ovary 1.5-1.8 x 0.2-0.4 mm, hairy; style 5 mm long, glabrous at base, hairy at apex; stigma subulate, unequal, 3-3.5 mm long, hairy. Achenes 3 mm long, oblong, slightly cuneate at base, 10-ribbed, glandular between the ribs, numerous spreading hairs on the ribs; pappus in 2-series of bristles, white, persistent, outer ones few, c. 2 mm long, inner ones c. 7 mm long.



Figure: 1. *Gymnanthemum amygdalinum*. A. Habit. B. Branch. C-D. Flowering twigs. E- F. Inflorescence.

Flowering & Fruiting:

December-March.

Distribution:

India (Bihar, Madhya Pradesh, Odisha, West Bengal and Telangana); Tropical Africa (Yemen, Ethiopia, South Uganda, Kenya and Tanzania.), Brazil, Madagascar, Southern Asia and also introduced to Australia.

Specimen examined:

India: **Telangana**, Nellikudur, Sriramagiri (17° 59'14.66" N & 79° 83' 20.16" E), 208.7 m, 18th January, 2015, J. Swamy & Prabhakar 002971 (BSID).

Ethnomedicinal uses:

Two spoons of leaf powder in one glass of milk orally taken for the treatment of diabetes.

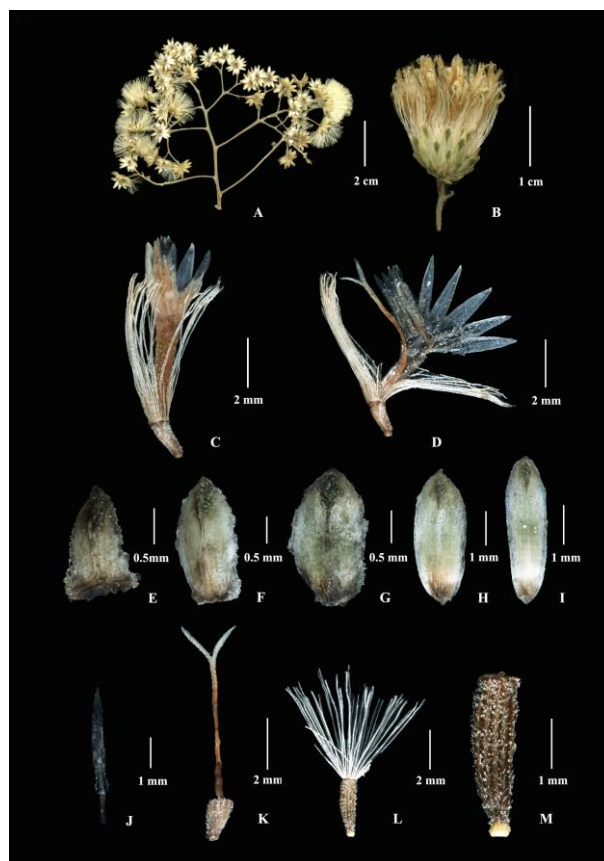


Figure: 2. *Gymnanthemum amygdalinum*. A. Inflorescence. B. Head. C- D. Floret. E-I. Phyllaries. J. Stamen. K. Gynoecium. L. Cypsela. M. Achene.

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