Distribution of *Hybanthus puberulus* M.Gilbert. (Violaceae) – A new record for Karnataka

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Abstract

Hybanthus puberulus M. Gilbert, an Ethiopian species, so far known to occur only in Maruthamalai hills of the Southern Western Ghats, Coimbatore district, Tamil Nadu, India is now discovered from Mysore in Karnataka State in India. In the present study, taxonomic description, distribution, and comparison with allied species of this species are provided.

Introduction

The genus *Hybanthus* Jacq. has about 100 species distributed throughout tropics (Mabberley 2008). In India four species were reported; two of them namely, *H. enneaspermus* (L.) F. Muell. and *H. travancoricus* (Bedd.) Melch. were included in the Flora of India (Banerjee & Pramanik 1993). Among the other two, *H. vatsavayii* C.S. Reddy was described as a new species (Reddy 2001) and *H. stellarioides* (Domin) P.I. Forst., was collected from Hyderabad and described as a new distributional record to India by Ramana *et al.* (2011).

Recently, a species of *Hybanthus* was collected during the floristic studies of Karnataka (Mysore), India. On critical examination and perusal of literature concerning the genus *Hybanthus,* it was identified as *Hybanthus puberulus* M. Gilbert, so far known to occur in Ethiopia (Gilbert 1992). Recently *Hybanthus puberulus* M. Gilbert. was reported as a new record to India in Tamil Nadu (Maruthamalai hills, Coimbatore) (Sasi *et al*., 2011). The present collection of *Hybanthus puberulus*, therefore forms a new record for Karnataka.

Systematic treatment

Hybanthus puberulus M. Gilbert in *Nord. J. Bot*. 12 (6): 689 - 693. 1992. Sasi *et al*., in *Zoo's print.* 26 (12). 2011. (Fig 1).

Herbaceous shrubs, much branched, 17–30 cm high; stem green when young, base pinkish woody, hairy. Leaves green above and slightly paler beneath, simple, alternate, clustered at apex, linear to lanceolate, obscurely crenate, mucronate at apex, attenuate at base, hairy, 25 - 35 X 3 – 5 mm; stipules linear - lanceolate, densely hairy, gland tipped, *c* 2 mm long. Flowers pinkish with darker patterns, solitary, axillary inflorescence; peduncle slender, densely short pubescent, 8 – 10 mm long; pedicel short, slender, pubescent, 5 – 7 mm long; bracts triangular, densely pubescent, margins ciliate, *c* 1 mm long; sepals 5, unequal, ovate - lanceolate, pubescent, *c* 2 mm long; petals 5, unequal, upper pale pink, oblong, 4 – 5 mm long, lateral petals pale pink, oblong ending in a sharp acute apex, *c* 3 mm long; lower petals pinkish with darker patterns, enlarged, oblong- elliptic, shortly cuspidate, 10 x 6 – 7 mm along with a limb; stamens 5, filaments free, the anterior 2 filaments with hairy appendages, anthers villous, the posterior 3 filaments and stamens glabrous; pistil 3 mm long, style erect and stigma flat. Capsules 3- angled, short pubescent *c* 6 mm long; seeds pale yellow, ellipsoid, ribbed, glabrous, *c.* 3 mm long.

Fig. 1 *Hybanthus puberulus* M. Gilbert

Flowering and fruiting: July–October.

Distribution: Ethiopia (Sidamo region) and now in India from Tamil Nadu (Maruthamalai hills, Coimbatore)

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and Karnataka (Mysore). The few existing records recommend to *Hybanthus puberulus*, is rare and endangered in India.
Ecology: Growing along the Wild forest, especially under bushes, Infrequently found in chasmoendolithophytic (rock crevices) with some cool areas in hills or hill slopes. Some times *Hybanthus puberulus* living associates with rock moist grassy wetland. Fine particles of soil and rock that fill the space among root and rock conditions make good interaction for water flow.

Uses: The attractive flower structure and fascinating pinkish colour can be recommended to grow as an ornamental plant in residents, park and also in rock gardens.

Specimen examined: Karnataka (Mysore), 23 Sep. 2012. Parthipan, M. & Rajendran. A. 156. (BUH).

Conclusion: *Hybanthus puberulus* grows intermingled with *H. enneaspermus* and gives the similar appearance, probably due to this, it might have been overlooked and could not be listed by the earlier workers (Sasi *et al*., 2011). *Hybanthus puberulus* is closely allied to *H. enneaspermus* but it differs by its dense very short indumentum, which covers all the parts including capsule. In *H. enneaspermus* the indumentum is much laxer, usually longer and the capsule is always glabrous.

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Remembering Francis Day

Francis William Day a world famous ichthyologist of southern Asia was born on 2nd March 1829 at Maresfield in United Kingdom to William and Ann Day. By profession, Day was an assistant surgeon in the then East India Company. In 1852 he was posted to Madras medical service as a surgeon and this marked the beginning of his career in the southern region of the Indian subcontinent. Francis from his early days was very much interested in taxonomical study of fishes and other animals found in India and Indian subcontinent. Day lived for some years in Cochin on the Malabar Coast and this provided him with a unique opportunity to study fishes found along the Malabar Coast. His study really provided an insight into the problems of fisheries and fish supply along the Indian subcontinent. He also travelled extensively and worked on the fishes of Pakistan, Bangladesh, Myanmar and Sri Lanka.

Francis Day contributed immensely to the study of fish taxonomy. In 1864 Francis Day returned to England on leave, carrying sufficient amount of research material. His first research work was published as "The Fishes of Malabar" in 1865. He then returned back to India in 1866 and continued to live in India until 1874. In 1871 he was appointed as Inspector – General of Fisheries in India. Francis Day's publications were followed in 1878 by "The Fishes of India" and then in 1889 with two volumes on fishes as "Fauna of British India". The Fauna of British India contained 1418 fish species taxonomic description in the first volume and about 195 plates of drawing done by him in the second volume. Francis Day was an active member and the president of the Cheltenham Natural Sciences Society. Also the University of Edinburgh awarded Day a honorary LLD. Day retired from British services in 1877. Day was raised to the post of Companion of the Order of the Indian Empire in 1885. He died on 10th July 1889 in Cheltenham from stomach Cancer.
Until Francis Day nobody had ever extensively studied the freshwater and marine fishes found in the Indian subcontinent. Francis Day has been a very able draftsman which is evident through the unique and splendid collection of watercolours and drawings of India fishes by the great ichthyologist Francis Day himself. Even 123 years after his death students of fishery science and ichthyologists still refer to the publications of Francis Day as ready reckoner in laboratory and on the field for identification of fishes. Thus Francis Day has to be considered as a true ichthyologist and taxonomist for his contribution to the study of fishes of the Indian subcontinent.

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