



Rediscovery of *Chamaesyce sebastinei* (Binojk. & N.P. Balakr.) V.S. Raju (Angiosperms: Euphorbiaceae) a little-known rare species from Andhra Pradesh, India

C. Sudhakar Reddy¹, S.M. Maqsood Javed², Farida Tampal², Chiranjibi Pattanaik³ & V.S. Raju⁴

¹ Forestry and Ecology Division, National Remote Sensing Centre, Hyderabad, Andhra Pradesh 500625, India

² World Wide Fund for Nature-India (WWF), Hyderabad, Andhra Pradesh 500057, India

³ Salim Ali Centre for Ornithology and Natural History, Deccan Regional Station, Hyderabad, Andhra Pradesh 500017, India

⁴ Plant Systematics Laboratory, Department of Botany, Kakatiya University, Warangal, Andhra Pradesh 506009, India
Email: ¹ csreddy_nrsa@rediffmail.com

During botanical studies on the flora of Hussain Sagar and its environs in Hyderabad City, Andhra Pradesh, India, an interesting specimen of *Chamaesyce* S.F. Gray was collected. After the perusal of literature and scrutiny of Indian herbaria, these specimens were identified as *Euphorbia sebastinei* Binojk. & N.P. Balakr. (Binojkumar & Balakrishnan 1993; Balakrishnan & Chakraborty 2007). This species was described based on the collections of K.M. Sebastine (28 June 1958) from Moosi River bank, Hyderabad. So far this species, has not been reported in the Flora of Andhra Pradesh (Babu 1997) and additions to the flora of Andhra Pradesh (Murthy et al. 2008). Raju (2004) transferred this species to the genus

Chamaesyce S.F. Gray (Raju & Rao 1977) of the Linnaean *Euphorbia*. It has been reported as a rare and endemic species from Maharashtra (Anonymous 2006).

Hyderabad is an ever growing metropolis, hardly leaving any natural habitat undisturbed or invaded by exotic ground flora. The populations of this interesting species might have disappeared from many places along the Moosi River banks in the city excepting a small population located now near Hussain Sagar Lake. After sensitization by the authors, the Buddha Purnima Project Authority (BPPA) who is looking after the conservation of Hussain Sagar Lake took immediate actions by preventing the flow of drainage water in these areas. They have also stopped the dumping of wastages in the nearby areas after this species was rediscovered. The plant has been planted in the botanical garden of Environmental Protection Training Research Institute (EPTRI) campus, Hyderabad, which is now developing a botanical garden of rare, endemic and endangered species of Eastern Ghats of India. The authorities of BPPA and Hyderabad Metropolitan Development Authority (HMDA) are taking effective steps to conserve the rare species.

A detailed description (based largely on the original description with the variations currently noted) and an image of the plant (Image 1) are provided to facilitate easy identification and further locating its populations. It is closely allied to *Chamaesyce thymifolia* (L.) Millsp. However, the decumbent habit, 3-6 branches arising from a node, limbs of glands larger than the glands, capsules dehiscent outside the involucre and smooth or obscurely furrowed seeds make *Euphorbia sebastinei* to distinguish from it.

Euphorbia sebastinei

Binojk. & N.P. Balakr. in *Rheedea* 3(1): 26, 1993; *Chamaesyce sebastinei* (Binojk. & N.P. Balakr.) V.S. Raju in *J. Econ. Taxon. Bot.* 28(1): 92, 2004. (Euphorbiaceae).

Specimens examined: 02.viii.2007, Jala Vihar, Hussain Sagar, Hyderabad District, Andhra Pradesh, India (17° 26'00.36"N & 78° 27'59.75"E), coll. C.S. Reddy & S.M.M. Javed, #3214 (WWF-Herbarium, Hyderabad); 09.x.2007, same information as above, C.S. Reddy & S.M.M. Javed, #3322; l.c. 25.x.2007, C.S. Reddy & C. Pattanaik #3408 (Kakatiya University, Herbarium [KUH], Warangal); 26.vi.1958, Moosi River bank, Hyderabad district, coll. K.M. Sebastine #5975 (holotype, CAL; isotypes, MH; 14.vi.1909)

Phenology: Almost throughout the year with a peak between August-October.

Decumbent herbs, 10-25 cm high (Image 1); stems many from root stock; nodes thickened; internodes 1-1.5 cm long. Leaves opposite, sessile, proximate at apex, oblong to elliptic-oblong, base inequilateral, apex acute

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Image 1. *Euphorbia sebastinei* Binojkumar & Balakr.

or apiculate, margins serrate, 5-10 x 3-5 mm, pubescent; nerves obscure; stipules triangular, lacinate, ca. 2mm long. *Cyathia* terminal, one or two; peduncles ca. 1mm long; involucre turbinate, ca. 1 x 1 mm, pubescent; involucre lobes triangular, toothed, exceeding the glands; glands four, minute, orbicular; limbs of glands obovoid, ca. 0.5 x 0.8 mm, irregularly wavy at apical margin, white

or pink. *Staminate* flowers: pedicels ca. 0.5mm long; anthers subglobose, transversely dehiscent; bracteoles filiform, ca. 0.7mm long. *Pistillate* flowers: gynophores ca. 1.5mm long; ovary subglobose, ca. 1 x 1 mm, pubescent; styles three, free from base, ca. 0.4mm long, bifid at apex. *Capsules* ovoid, ca. 1.5 x 1.5 mm, acutely keeled, pubescent only on keels, maturing outside the cyathia. *Seeds* oblong, obtusely tetragonous, ca. 1 x 0.5 mm, smooth or obscurely 2-3 grooved on faces.

Habitat: Rare, in the transitional area of land and water to dry bank in moist gravelly soil. The common associates are: *Eclipta alba*, *Sida acuta*, *Tribulus lanuginosus*, *Euphorbia hirta*, *Euphorbia indica* and invasive neotropical species such as *Ageratum conyzoides*, *Alternanthera ficoidea* and *Parthenium hysterophorus*.

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