

**OCCURRENCE OF SOLIVA ANTHEMIFOLIA (A. JUSSIEU)
R. BROWN (ASTERACEAE) IN EASTERN UTTAR
PRADESH, INDIA**

Kanchan Lata*

Abstract

Soliva anthemifolia (A. Jussieu) R. Brown (Asteraceae) is first time collected from Gonda, Maharajganj and Gorakhpur district of Eastern Uttar Pradesh. The description and the distribution of the species with illustrations have been provided in the article.

Key words: Soliva anthemifolia; wetland; New record; Eastern Uttar Pradesh

Introduction

The genus *Soliva* Ruiz & Pavon belonging to family Asteraceae of tribe Anthemideae, is represented by eight species distributed mostly in North & South America, Australia and Asia (Mabberley 2005). Only one species of *Soliva* is so far reported from India. *Soliva anthemifolia* (A. Jussieu) R. Brown is a prostrate annual herb with homogenous and sessile capitula is native to Galápagos Islands of San Cristobel and Santiago (Ecuador) of South America (Jirgensen & Len-Yrnez 1999). The occurrence of *Soliva anthemifolia* is first time reported from India from the northern districts of Uttar Pradesh (Bhattacharyya 1963) . It is reported from Dehradun (Babu 1966) and for the Flora of Delhi (Dakshini *et al* 1973 ; Murty & Nautiyal 1976). Later on it is reported from Jammu where it grows at an altitude of 400 – 700 m (Sharma & Kachroo 1981), from Rajasthan (Shetty & Singh 1987). It is also reported from Ranser Island, Patti, Palampur between the altitudinal range of 500 – 1300 m of Himachal Pradesh (Sinha 1992; Guar

* **Assistant Professor, Department of Botany, Deen Dayal Upadhyay Government P. G. College, Saidabad, Allahabad (U.P)**

1999; Om Prakash *et al* 2009; Uniyal *et al* 2010). Further, the extended distribution of this species is restricted to the plains and north Himalayan states of India. Recently, it was reported in Maldah district of Paschimbanga at an altitude of 93 – 95 m (Monoranjan Chowdhury *et al* 2011).

The author observed that *Soliva anthemifolia* is growing in dense mat on moist places, dry ditches and on associated crop field in the Gonda, Maharajganj and Gorakhpur district of eastern Uttar Pradesh. The profusely grown mat of *Soliva anthemifolia* is found in association with *Panicum repens* L., *Eragrostis unioloides* (Retz.) Nees ex Steud, *Cynodon dactylon* (L.) Pers., *Fimbristylis dichotoma* (L.) Vahl, *Cyperus rotundus* L., *Alternanthera sessilis* (L.) R. Br. ex DC., *Glinus lotoides* L., *Glinus oppositifolius* (L.) A. DC., *Grangea maderaspatana* (L.) Poir, *Centella asiatica* (L.) Urb.

The species was collected from the Gonda, Maharajganj and Gorakhpur district of Eastern Uttar Pradesh where it was growing in the periphery of crop fields in which paddy and wheat are cultivated in different seasons.

The present record of *Soliva anthemifolia* from the Gonda, Maharajganj and Gorakhpur district of Eastern Uttar Pradesh is a new generic addition for the Eastern India. The wide range of distribution and uphill shifting from wet areas of gangetic plains with warmer region to the cooler hilly areas is the clear indication of positive response towards global climate change (Uniyal *et al* 2010). The voucher specimens are deposited in Duthie-herbarium, Department of Botany, University of Allahabad, Allahabad. The distribution, diagnostic features and required illustrations (**Figure 1**) are provided.

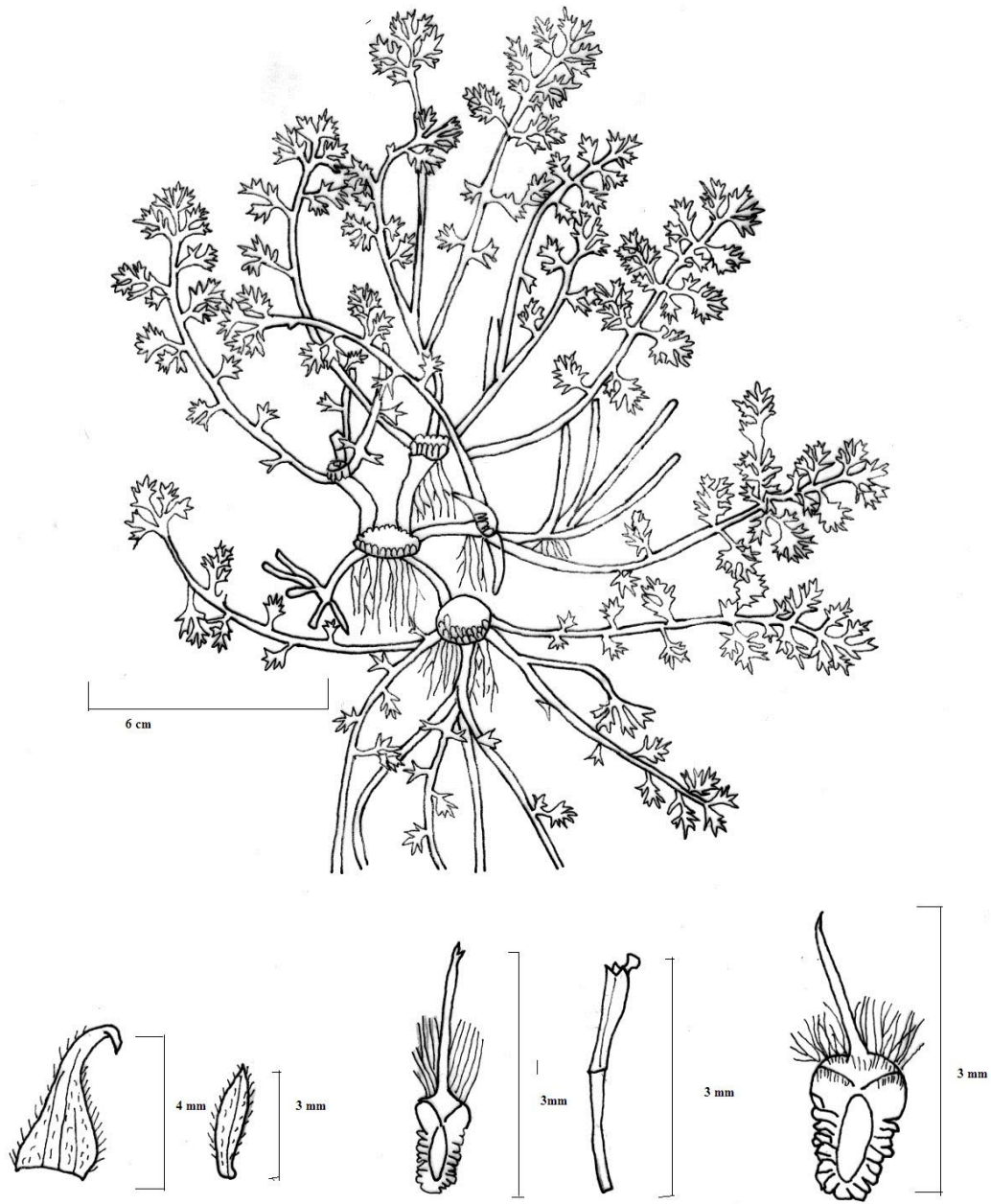


Figure 1. *Soliva anthemifolia* (Juss.) R. Br.
a. Habit; b. Involucre bract; c. Ray floret; d. Disc floret with pistillode; e. Cypsela

Soliva anthemifolia (A. Jussieu) R. Brown in Trans. Linn. Soc. London **12**: 102. 1817; U.C. Bhattacharyya in Bull. Bot. Surv. India **5**: 375 – 376. 1963; B.D. Naithani in Hajra *et al* (eds.) in Fl. India **12**: 57 – 58. 1995; S. Uniyal *et al* in Curr. Sci. **99(7)**: 898 – 899. 2010. *Gymnostyles anthemifolia* A. Jussieu in Ann. Mus. Paris 4: 262, t.61, f.1. 1804.

Prostrate annual stoloniferous herb, fleshy, weak, 2 – 20 cm high; rooting from nodes. Stem solid, green, sometimes reddish at base, pubescent (hairy throughout). Leaves radical, opposite throughout, highly 2 – 3 pinnatisect, 20 – 90 mm x 5 mm, acute, curved, hairy throughout, base sheathing, wide. Capitula clustered in leaf axils, sometimes scattered at base of stem, mature one remain half-embedded in soil, spherical, 7 – 12 mm in diameter; homogamous with numerous disc florets; involucral bracts many in two rows, ovoid, curved, fimbriate, 3.2 mm x 2 mm; several rows of outer florets female and without corolla; disc florets 1.4 – 3 mm long; corolla long, pale yellow, lobes 3; sterile florets with pistillode admixed with fertile males. Stamens 3, syngeneceous, 0.8 mm long, oblong with acute tip and obtuse base; ovary 1 mm long, brown, articulated; style curve, 2.5 mm long, unequally bifid. Cypsela light brown with deep brown centre, oblanceolate to cuneate-oblong, 3 mm long, wings transversely wrinkled, hairy on rounded angles; pappus absent but with numerous white hairs from collar, 1 mm long, unbranched; persistent style spinescent.

Common name: Button Burweed

Flowering & Fruiting: March – August

Habitat: Waste land, moist places, dry ditches, puddles and on the crop fields.

Specimen Examined: INDIA, Gonda, KL-19207; Maharajganj, KL-19309; Gorakhpur, KL-19270.

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