

***Acmella radicans* (Jacquin) R.K. Jansen [Asteraceae] – a new distributional record for Tripura in North East India**

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Abstract

Acmella radicans (Jacquin) R.K. Jansen [Asteraceae] is collected from Agartala, Tripura and is reported as new record for the State and also from North East India. Detailed description, photographs, distributional and ecological details are provided.

Key words: *Acmella radicans*, New Distribution, North East India

INTRODUCTION

The genus *Acmella* of the tribe Heliantheae of Asteraceae was first described by Richard in 1807. Cassini (1822), De Candolle (1836) and Moore (1907) treated it under the genus *Spilanthes*. However, Jansen (1981, 1985) distinguished *Acmella* from *Spilanthes* on the basis of certain morphological characters viz., petiolate leaves, radiate heads and dimorphic achenes without corky margins. While revising the genus *Spilanthes* from India Sivaraman & Remsan (1987) followed Moore's (1907) treatment and kept *Spilanthes* as a more inclusive genus, including *Acmella* in it. In the present paper, however, following www.theplantlist.org and Jansen (1985), the authors preferred to treat *Acmella* Richard as a distinct genus. The genus consists of 30 species and 09 additional infraspecific taxa which are mainly distributed in the tropical and subtropical regions around the world (Jansen 1985; Mabberley 2005; Das 2013). In India, we have two species with rayed heads, viz. *A. ciliata* (Kunth) Cassini and *A. uliginosa* (Swartz) Cassini, and four species with discoid heads viz. *A. paniculata* (Wallich ex DC.) R.K. Jansen, *A. calva* (DC.) R.K. Jansen, *A. radicans* (Jacquin) R.K. Jansen and *A. oleracea* (Linnaeus) R.K. Jansen (Sheela 2010). In addition, two new species is also described from India with ray florets viz., *Spilanthes vazhachalensis* Shella (Shella 2007) and *Spilanthes ghoshinis* Shella (Shella 2010). During the present floristic survey for Asteraceae in Agartala, the capital city for the Indian state of Tripura, an interesting specimen of *Acmella* was collected. After a thorough survey of literature, critical examination and expert opinion, this specimen was determined as *Acmella radicans* (Jacquin) R.K. Jansen, which was, so far, not recorded from North East India by the earlier workers including Kanjilal *et al* (1938), Deb (1983), Chowdhury (2005) and Kar *et al* (2011). The species was earlier described only from few locations of India viz., Kerala, Tamil Nadu (Raja *et al* 2013) and Karnataka (www.efloraofindia.com). A detailed taxonomic description and photographs

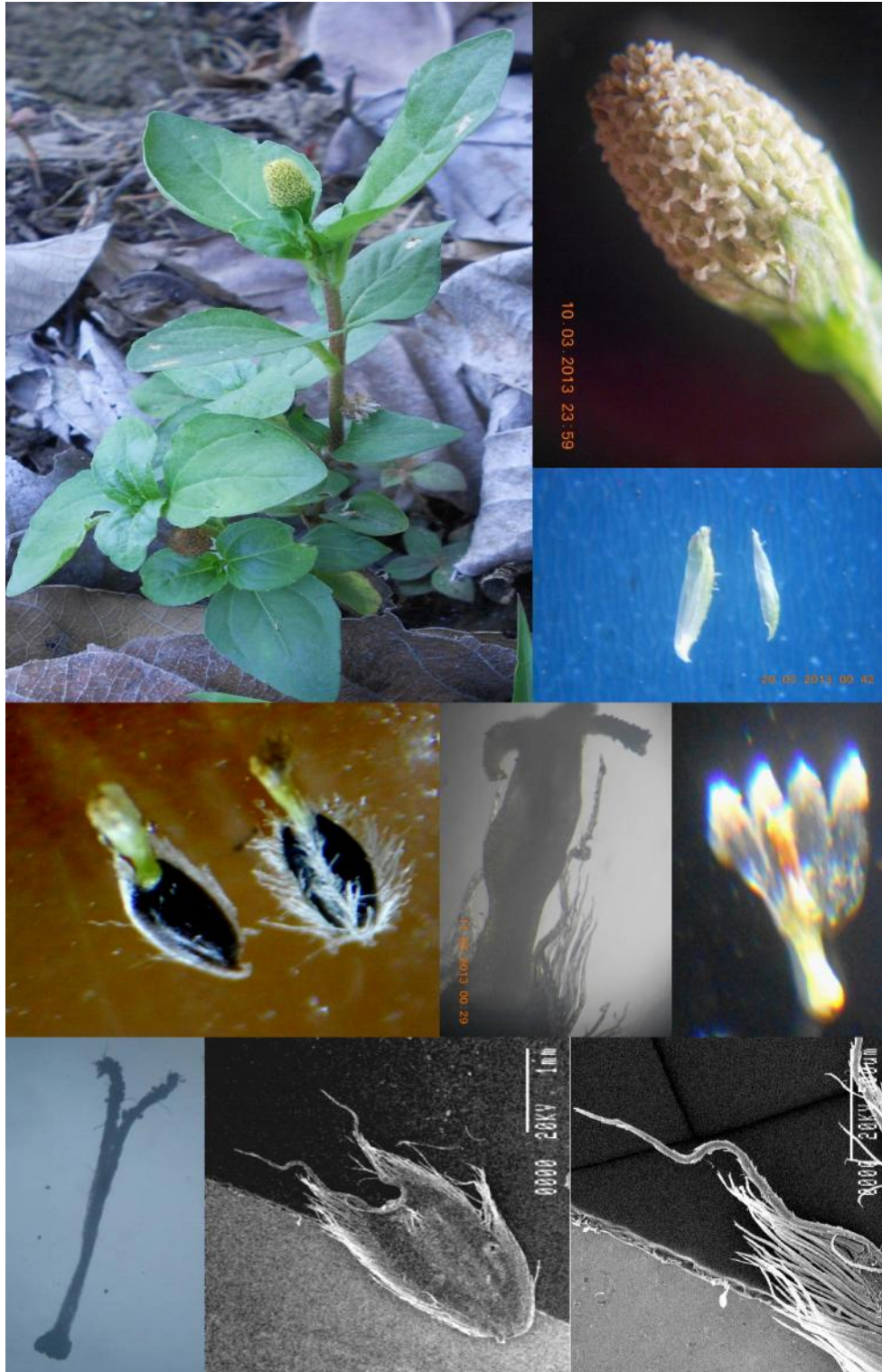


PLATE - I. Photographs of *Acmella radicans* (Jacquin) R.K. Jansen [Asteraceae]: 1. a flowering twig; 2. a capitulum; 3. bract; 4. dimorphic achenes; 5. disc floret; 6. splitted open disc floret; 7. style and stigms; 8. SEM photo of ciliated achene; 9. SEM photo of long tailed pappus

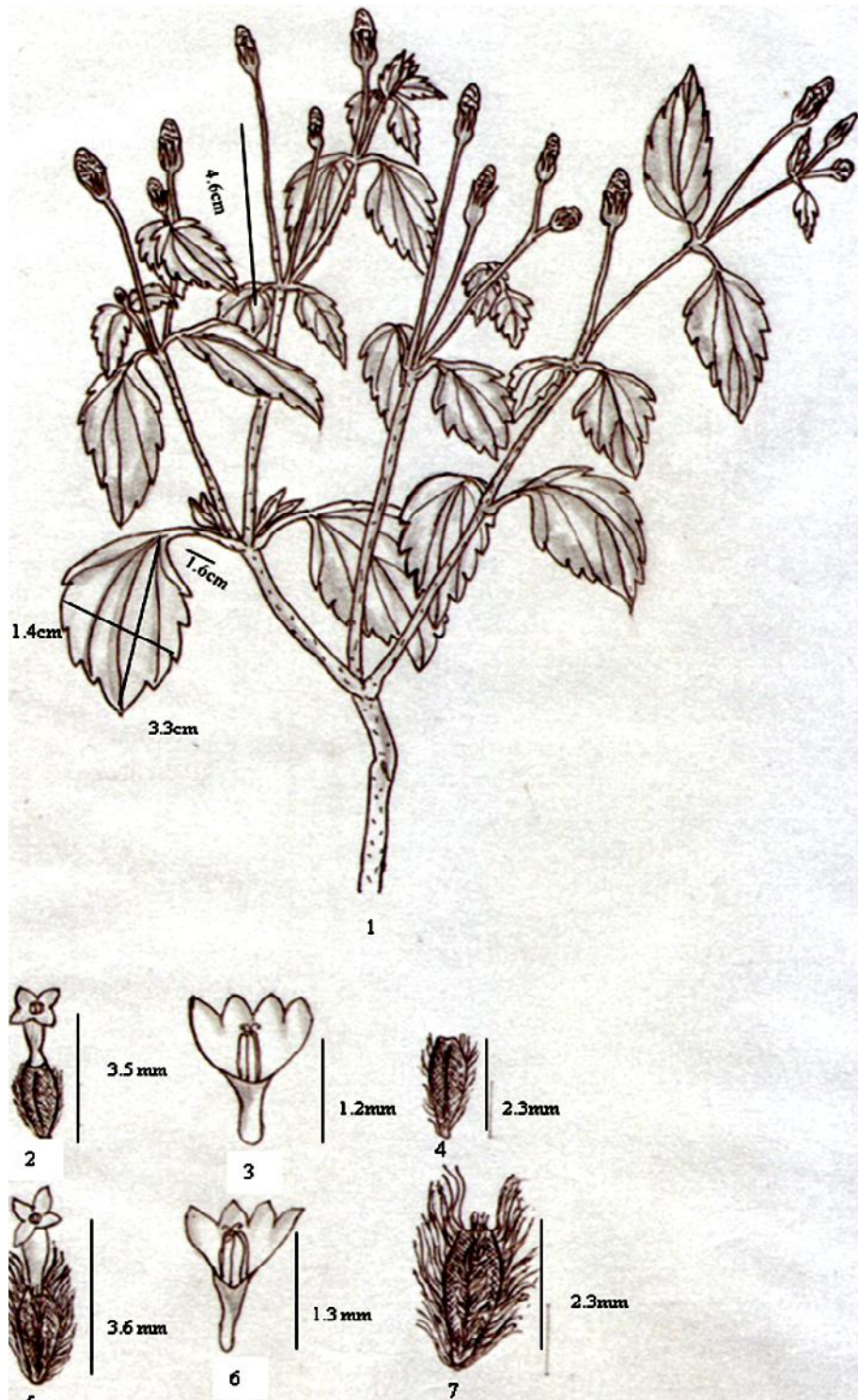


Plate II. *Acmella radicans* (Jacquin) R.K. Jansen [Asteraceae]: **1.** A flowering twig; **2.** Peripheral disc floret; **3.** Dissected ray floret; **4.** Trigonous achene; **5.** Central disc floret; **6.** Dissected disc-floret; **7.** Laterally compressed achene

along with phenology and ecological notes of the same has been provided in the present paper to facilitate its easy identification.

Acmella radicans (Jacquin) R.K. Jansen, Syst. Bot. Monogr. 8: 69. 1985; *Spilanthes radicans* Jacquin, Collect. Bot. Chem. Hist. Nat. 11(3): 1714. 1804; Schrader in DC. Prodr. 5: 624: 1836; Sivarajan & Matthew in Anc. Sci. Life 3: 169. 1984; Raja *et al.*, Int. J. Int sci. Inn. Tech. 2(6): 34 – 35. 2013; *Spilanthes ocymifolia* (Lamarck) A.H. Moore, Proc. Amer. Acad. Sci. 42 (20); 531. 1907.

Erect herbs; stem terete, minutely pubescent. Leaves opposite; lamina ovate, serrulate, acute, obtuse at base, glabrous; petiole ± 1 cm long, puberulous. Heads white, discoid, cone like, axillary and terminal, 9 – 10 mm across; peduncle 4.5 – 7 cm long; receptacle glabrous; involucre bracts oblong, sub-entire, subulate – obtuse, 3-nerved at base, minutely hairy beneath; paleas concave, boat-shaped, 4 mm long, keeled along the back, oblong, acute or obtuse at apex, glabrous; corolla tube 2 mm long, bulbous at base, neck short, 4 – 5 lobed; lobes papillose; anther tip slightly exerted; stigmatic lobes linear, curved. Achenes dimorphic, ellipsoid, obcordate, corky and densely ciliate at margins, marginal ones trigonous, brownish-black, others laterally compressed, flat; pappus of 2 subequal bristles, persistent.

Flowers & Fruits: August – January

Distribution: A native of Central America and Mexico. In India it is recorded from Kerala, Karnataka, Tamil Nadu [Sirumalai areas of Dindigul district, Kolli hills of Namakkal district and Pachchamalai of Tiruchirappalli] and Tripura.

Note: Very few populations of the species are reported from Agartala. The species is not earlier reported from any of the North Eastern states. It can be easily recognized by its erect habit with white florets.

Exsiccatae: Badharghat, *Bhowmik et al.* 521, dated 17.10.2012; Bordowali, *Ghosh & Datta* 16, dated 20.10.2012.

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