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## ***Acmella radicans* (Jacquin) R.K. Jansen (Asteraceae) – A new distributional plant record for Jharkhand State (India)**

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### ABSTRACT

*Acmella radicans* (Jacquin) R.K. Jansen of Asteraceae family was collected from Hisra Village of Chainpur Block of Palamu District and Betla National Park of Latehar District of Jharkhand State during an ethno botanical survey in January 2018. After going through the literature as well as herbarium specimens the *Acmella radicans* (Jacquin) R.K. Jansen is found to be new record for Flora of Jharkhand State, India. A brief description with coloured photograph, phenological data, current nomenclature, notes on distribution are provided here.

**Key words:** *Acmella radicans*, Asteraceae, new record, Jharkhand State, India.

### INTRODUCTION

*Spilanthes* genus was first described by Jacquin (1760) with two species *Spilanthes incipida* and *S. urens*. Richard (1807) described the genus *Acmella* of the tribe Heliantheae of Asteraceae. *Acmella* genus treated under the genus *Spilanthes* by Cassini (1822), De Candolle (1836) and Moore (1907). Jansen (1981) separated *Acmella* and *Spilanthes* as distinct genera based on morphological, chromosomal and molecular evidences. *Acmella* differs from *Spilanthes*. *Acmella* possess the characters like soft pappus bristles, dimorphic achenes, petiolate leaves, radiate and discoid heads and usually orange-yellow to yellow or occasionally white corolla. Jansen (1985) transferred some of the taxa from *Spilanthes* to *Acmella* and finally recognized 30 species and 9 infraspecific taxa in *Acmella*.

Sivarajan & Ramesan (1987) while revising the genus *Spilanthes* from India followed Moore's

(1907) treatment and kept *Spilanthes* as a more inclusive genus, including *Acmella* in it. In the present paper the authors preferred to *Acmella* Richard as a distinct genus following Jansen (1985) and [www.theplantlist.org](http://www.theplantlist.org).

In India, we have total nine species and two varieties of *Acmella*, with rayed heads five species, viz. *A. ciliata* (Kunth) Cassini, *A. uliginosa* (Swartz) Cassini, *A. vazhachalensis* (Sheela) Reshmi & Rajalakshmi, *A. ghoshinis* (Sheela) Reshmi & Rajalakshmi, *A. tetralobata* (Reshmi & Rajalakshmi) Reshmi & Rajalakshmi, and with discoid heads four species 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. (Sivarajan & Philip 1984; Sivarajan & Ramesan 1987; Sheela 2007, 2010; Reshmi & Rajalakshmi 2014, 2016). Two varieties namely *A. uliginosa* Sw. var. *pentamera* Reshmi & Rajalakshmi (Reshmi and

Rajalakshmi, 2016 a) and *A. radicans* var. *debilis* (H.B.K.) Jansen (Jagtap and Bachulkar 2015).

*A. radicans* previously known from few locations of India viz Kerala (Sivarajan and Mathew 1984), Maharashtra State (Bachulkar and Awale 2009); Central India (Mujaffar *et.al.* 2013); Tamil Nadu (Raja *et al.* 2013), Tripura (Somnath Bhowmik *et al.* 2013) and Uttar Pradesh (Vaishya *et al.* 2013). Andaman and Nicobar Islands (Naik *et al.* 2014), Gujrat State (Patel *et al.* 2015), West Bengal (Maity *et al.* 2017) and Karnataka ([www.efloraofindia.com](http://www.efloraofindia.com)).

## MATERIALS AND METHODS

During an ethno botanical plant investigation an interesting specimen of *Acmella* was collected from two locations namely Hisra Village (Nawadih), Block Chainpur District Palamu and Betla Nataional Park, District Latehar (Commissionary Palamu). After a thorough survey of literature, critical examination and expert opinion, this specimen was determined as *A. radicans*, it is so far, not recorded from Jharkhand State by the earlier workers including Haines (1910,1925); Mooney (1950); Bressers (1951); Ghosh(1971); Maheshwari and Paul (1975); Sarma and Sarkar (2002) and Bagga Jasbir (2016,2017,2018). The present report of the occurrence of *Acmella radicans*, as new distributional record for the Jharkhand State, India.

A brief description with coloured photograph, phenological data, current nomenclature, notes on distribution are provided

for the easy identification of the taxa in the field and the processed specimens (Voucher No. 0120) of the plant are deposited in the Dept. of Botany, N.P. University, Medininagar, Jharkhand .

## RESULT AND DISCUSSION

**Taxonomic Description :** *Acmella radicans* (Jacquin) R.K. Jansen, Syst. Bot. Monogr. 8: 69. 1985; *Spilanthes radicans* Jacq. Collect. Bot. Chem. Hist. Nat. 11(3): 1714. 1804; Sivaraj & Matthew in Anc.Sci. Life 3: 169. 1984; Schrad. in DC. Prodr. 5: 624: 1836. *S. ocyimifolia* (Lam.) A. H. Moore, Proc. Amer. Acad. Sci. 42 (20); 531. 1907.

Erect herbs; stem terete, minutely pubescent. Leaves opposite, ovate, obtuse at base, serrulate at margin, acute at apex, glabrous, 5-7 pairs; petiole 1 cm long, hairy; puberulous. Head white, discoid, conlike, axillary and terminal, 8 – 10 mm across; peduncle 4 – 7 cm long; peduncle 4 – 7 cm long. Receptacle glabrous; Involucral bracts oblong, subentire at margin, subulate-obtuse at apex, 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, with short neck, 4 – 5 lobed; lobes papillose. Achenes dimorphic, ellipsoid, obcordate, with corky and densely ciliate at margins, marginal ones trigonous, brownish-black, laterally compressed, pappus 2 subequal bristles, persistent (Fig. 1).



**Fig. 1.** *Acmella radicans* (Jacquin) R.K. Jansen. (Asteraceae) in wild habitat.

**Flowering & Fruiting:** August – February.

**Native:** Central America and Mexico.

**Distribution:** India; Andaman and Nicobar Islands, Kerala Karnataka Tamil Nadu; Tripura ,Uttar Pradesh. Maharashtra State ,Central India , Gujrat State and West Bengal.

**Specimens Examined:** India. Jharkhand State .Palamu District ,Block Chainpur ,Hisra village (Nawadih), 23<sup>o</sup>57'26.7"N ,83<sup>o</sup>59'22.3"E, and Betla National Park District Latehar, Commissioner Palamu . 23<sup>o</sup>52'36.2"N ,84<sup>o</sup>11'13.1"E. Collected by Jasbir Bagga on dated 05 and 07 Jan 2018. Voucher No.-0120.

**Note:** This species is easily identified by its discoid white florets and erect habit. This species is an Alien American Weed invaded in two localities of Jharkhand State. It is the first report of this plant species in this region.

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