Acmella radicans var. debilis (Asteraceae): A new varietal record for Asia

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Abstract

Acmella radicans var. debilis (H.B.K.) Jansen, is reported first time for Asia from the Western Ghats of Maharashtra and Karnataka State, India. Detailed description, photo plates and illustrations of the variety are provided here.

Keywords: Acmella radicans var. debilis, India, Karnataka, Maharashtra, new record

Introduction

The genus Spilanthes Jacq. (Asteraceae–Heliantheae) has been divided into two sections, Spilanthes Jacq. and Acmella Rich. by Cassini (1822). Later, he improved the characterization of section Acmella Rich. and concluded that Acmella differs from Spilanthes only in having radiate heads and transferred many radiate species of Spilanthes into Acmella (Cassini, 1834). DeCandolle (1836) followed these suggestions and also described many new species in both sections Spilanthes and Acmella. Moore (1907) followed DeCandolle by assigning sectional status to Acmella. Recent studies (Jansen & Stuessy, 1980; Jansen, 1981) provided convincing morphological and chromosomal evidences for the recognition of Acmella and Spilanthes as distinct genera. Jansen (1981) has sought to resurrect Acmella Rich. as a distinct genus and to exclude Spilanthes Jacq. from most of the Old World areas including India.

Key to genera

1a. Pappus of stiff awns; achenes monomorphic, rhombic in cross-section, with a massive, stramineous, cork-like margin at maturity; leaves sessile; heads discoid ........... Spilanthes

1b. Pappus of soft bristles or lacking; achenes dimorphic with the outer series 3-angled and inner series 2-angled in cross-section, without massive, stramineous, cork-like margin at maturity, leaves petiolate; heads radiate .................................................. Acmella

Key to the varieties of Acmella radicans

1a. Heads discoid; achenes lack corky margin at maturity; erect to ascending annuals .......... ........................................................... var. radicans.

1b. Heads radiate; achenes with an evident cork-like margin; erect annuals .......... var. debilis.
Fig. 1. *Acmella radicans* var. *debilis* (H.B.K.) Jansen: a. A portion of twig; b. Single head; c. V.S. of head; d. Outer involucral bract; e. Inner involucral bract; f. Ray floret; g. Carpel of ray floret; h. Palea; i. Disc floret; j. Anther; k. Carpel of disc floret; l. Achenes of ray floret; m. Achenes of disc floret.
Note: Intermediate forms between ray and disc corollas are known in *A. radicans* var. *radicans*. This suggest that the ray corollas of *A. radicans* var. *debilis* may have been secondarily derived from the outer series of disc corollas of var. *radicans* (Jansen, 1985)


Type: Not traceable.

![Fig. 2. Acmella radicans var. debilis (H.B.K.) Jansen: a. Habit; b. Stamens; c. Outer involucral bract; d. Single head; e. Ray florets; f. Achene of disc floret; g. Achenes of ray floret.](image-url)
Annual herbs, c. 30 to 90 cm tall; stems terete, minutely pubescent. Leaves simple, opposite, triangular-ovate, acute, base obtuse, dentate or serrate, minutely ciliate, 2–7 × 0.5–3.5 cm, 3-nerved, sparsely pubescent on both surface; petiole c. 1 cm long, densely hairy. Heads white, radiate, subglobose, 4–5 × 8–9 mm, turning elongate-ovoid at maturity, axillary or terminal, borne on c. 5.5 cm long peduncles. Receptacles columnar, c. 5.5 mm long, paleaceous; palea conduplicate, embracing the florets, 4 mm long, glabrous, slightly ciliate at the apex. Involucral bracts 2-seriate; 6 outer broadly ovate, 4–5 mm long, tapering, ciliate at margins; 4–5 inner linear, 3–4 mm long, 3-nerved, scabrid, ciliate at margins. Ray florets 5–6, female, usually shorter or only slightly exceeding the bracts; corollas 2.5–3 mm long, white to greenish white; corolla limb with 3 rounded lobes at apex, 2–2.5 mm long; corolla tube 1–1.5 mm long, densely hairy. Style arms short, truncate. Disc florets many, bisexual; corollas funnel-shaped, 1.5–2 mm long, white to greenish white; distinctly 4-lobed, lobes papillose, base bulbous. Anthers 4, lobes 0.5 mm long, sagittate, with a terminal appendage. Style arms short, densely, papillose c. 2 mm long. Achenes black 1.5–2 × 0.7–1 mm, dimorphic; achenes of rayed florets trigonous, 1.5–2 mm long, densely ciliate with straight-tipped hairs, with an evident cork-like margin; pappus with 2–3 subequal awns; achenes of disc florets flattened, ellipsoid, obcordate, 1.5–2 mm long, extensively ciliate with an evident cork-like margin; pappus of 2 subequal awns.

Flowering & Fruiting: September – January.

Habitat: In moist habitats along streams, roadside, in open and shady conditions.

Distribution: Hispaniola, the Lesser Antilles, Trinidad, throughout Venezuela (especially common in the Federal District), Colombia, Peru, and southwestern Bolivia, India (Maharashtra & Karnataka).


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Literature Cited


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