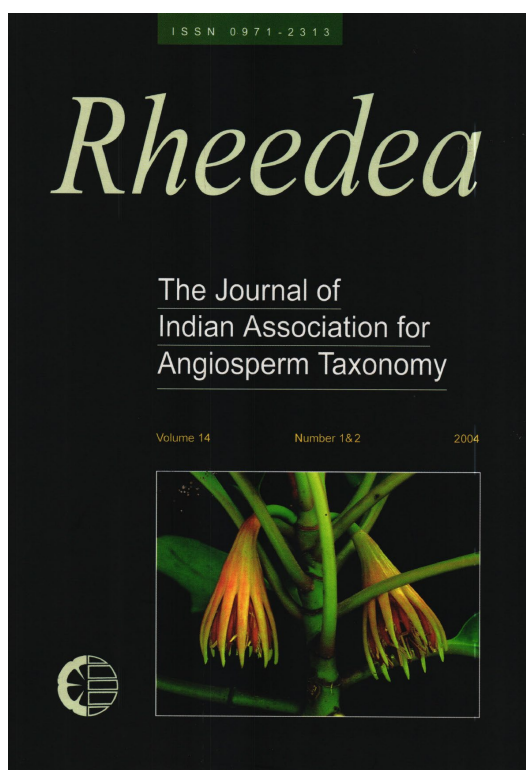




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Waldheimia huegelii (Sch. Bip.) Tzvelev: A New Record for India with a Note on the Nomenclature of the Genus

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Abstract

Waldheimia huegelii (Sch.-Bip.) Tzvelev (Asteraceae - Anthemideae) is reported first time from India. It occurs in Gangotri National Park in Uttarkashi district of Uttaranchal. The species differs from its closely allied *W. glabra* in having dense woolly tomentum on leaves and peduncles and very short pappus with dilated tips.

Keywords: *Waldheimia huegelii*, New record, Western Himalaya, India

Introduction

The genus *Waldheimia* Kar. & Kir. is represented in India by six species, viz. *W. glabra* (Decne.) Regel, *W. nivea* (Hook. f. & Thomson ex C.B. Clarke) Regel, *W. stoliczkae* (C.B. Clarke) Ostenf., *W. tomentosa* (Decne.) Regel, *W. tridactylites* Kar. & Kir. and *W. vestita* (Hook. f. & Thomson ex C.B. Clarke) Pamp. (Clarke, 1876; Hooker, 1881; Naithani, 1995; Ghafoor, 2002). Recent studies on assessment of floristic diversity in Gangotri National Park in Uttarkashi district of Uttaranchal resulted in collection of an interesting *Waldheimia* whose characters were found different from hitherto reported Indian species of the genus. A critical study helped to identify it as *W. huegelii* (Sch. Bip.) Tzvelev, so far known only from China (Tibet). Hooker (1881) regarded it synonymous with *W. glabra* (= *Allardia glabra* Decne.) - a view not supported by subsequent workers (Chu & Gou-xun, 1983; Bremer & Humphries, 1993; Tzvelev, 1995).

Dense woolly tomentum covering leaves and peduncles, white woolly phyllaries with broad wrinkled scarious margins and very short pappus (2-3 mm) with dilated tips help to easily distinguish *W. huegelii* from *W. glabra* which has subglabrous or sparsely wooly leaves, linear to oblong, sub-acute leaf-lobes, phyllaries with lacerated scarious margins and 8 mm long pappus bristles with acute tips.

***Waldheimia huegelii* (Sch. Bip.) Tzvelev** in Flora URSS 26: 271. 1961 (*in nota.*). *Allardia huegelii* Sch. Bip. in *Pollichia* 20-21: 442. 1863. *W. stracheyana* Regel in Acta. Hort. Petrop. 6: 309. 1879. **Fig. 1.**

Perennial herbs, lowly diffuse, aromatic, 2-3 cm high. *Stem* numerous, branched, glabrous. *Leaves* densely white wooly; basal leaves much diminished; upper leaves sessile or subsessile, triangular-cuneiform, 8-12 mm long, 5-8 mm broad, apex dilated, 3-lobed; lobes oblong, 2-3 mm long, entire or lateral ones bifid, obtuse. *Capitula* terminal, solitary (but numerous on the plant), sessile or subsessile, 20 mm in diameter, heterogamous; receptacles moderately convex or flat, naked; phyllaries imbricately arranged in 3-4 irregular rows; outer oblong-lanceolate, 5.5-6 mm long, 2-2.5 mm broad, outer surface white wooly with broad brownish-black wrinkled scarious margins; inner ones oblanceolate, 4.5-5 mm long, 1.5-2 mm broad, outer surface with sparse hairs and a few sessile glands; margins narrow, black scarious. *Ray florets* 10-20, arranged in one row, neuter or rarely female, sterile; tube 2-3 mm long, slightly flattened; limbs pink, oblong, 7-8 mm long, 4-veined, apex 2-3-toothed, lower surface with scattered brown sessile glands. *Disc florets* numerous, tubular, hermaphrodite, yellow, sparsely glandular on outer face; corolla tube 3.5-5.5 mm long, narrow, abruptly



Figure 1. *Waldheimia huegelii* (Sch. Bip.) Tzvelev – a. Habit; b. Outer phyllary; c. Inner phyllary; d. Ray floret; e. Disc floret; f. Achene with pappus.

widening into bell-shaped upper half, 5-toothed; teeth glandular on outer face; anthers 5, shortly auricled at base, apex with lanceolate-blunt appendages; styles 2-furcate. *Achenes* obconical, 1.5-1.75 mm long (without pappus), glandular, sometimes minutely and sparsely hairy above, slightly curved with 10 longitudinal ribs (5 prominent ribs alternating with 5 obscure ones); pappus bristles 2-3 mm long, yellowish with brown inflated tips, margins irregularly cut; those of ray florets absent or reduced.

Flowering & Fruiting: July-August.

Habitat: The plant grows in glacial moraines, rare.

Distribution: India (Western Himalaya); China (Tibet, Xizang).

Specimen Examined: INDIA, Uttarakhand, Gangotri National Park, Kedartal, July 2002, Pusalkar 101826 (BSD).

Note: There are divided opinions over the priority of generic name *Waldheimia* Kar. & Kir. (1842) and *Allardia* Decne. (1844, 1843 or 1841?). One school of thought comprising Clarke (1876), Hooker (1881), Brummitt (1992), Bremer and Humphries (1993), Bremer (1994) and Ghafoor (2002) considers *Allardia* as predating *Waldheimia*. On the other hand, Santapau and Henry (1973), Airy-Shaw (1973), Chu and Gou-xun (1983), Podlech (1986), Mabberley (1997), Tzvelev (1995) and Naithani (1995) accept *Waldheimia* as the legitimate name. At the centre of this controversy lies the uncertainty regarding the date of publication of Decaisne's *Allardia* as there is still no conclusivity about the contents and publication dates of different volumes / parts of Victor Jacquemont's *Voyage dans l'Inde* (Stafleu, 1967). While Sherborn and Woodward (1901), Steenis (1954), and Stafleu and Cowan (1979) give the date of publication of botanical part of Vol 4 of Jacquemont's posthumous work as 1844, Rickett (cf. Steenis, Fl. Males. Bull. 14:642. 1959) considers the volume to have been published in two parts, the first part comprising pages 1-104 in 1843 and the rest in 1844. Zain-ul-Abidin suggested the possibility of pages 1-88 of the botanical part coming out in 1841(?), 89-128 in 1843(?), and 128-183 in 1844, but emphasized on the need for further study (cf. Stafleu & Cowan, 1979).

Interestingly, the recent treatments of the family / genus by Bremer and Humphries (1993), Bremer (1994) and Ghafoor (2002), while accepting *Allardia* Decne. as the correct name for the taxon, have mentioned the date of publication of the genus as 1842-7, 1847 and 1844 respectively. Evidently they are not sure about the exact date of publication of *Allardia*. If Zain-ul-Abidin's (1960) observations are

correct, then no doubt *Allardia* Decne. predates *Waldheimia* Kar. & Kir. and has to be accepted as the correct name of the genus. But he himself has raised doubt about his observations stressing that 'further investigation is needed' (Stafleu & Cowan, 1979), a view further emphasized by Panigrahi (1995). Mabberley (1997) indicated that both *Allardia* and *Waldheimia* be accepted as the 'alternate names' of the genus.

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