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11. *CORTIELLA CAESPITOSA* SHAN & SHEH (APIACEAE) — A NEW ENTRANT TO INDIA

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The genus *Cortiella* Norman was established by Norman (in *J. Bot.* 75: 94. 1937) with the single species *Cortiella hookeri* (C.B. Clarke) Norman based on *Cortia hookeri* C.B. Clarke, distributed in the Sikkim Himalaya, India. The genus *Cortiella* was segregated from *Cortia* DC., mainly based on the characters of rays and the morphology of fruits. Another species, *Cortiella caespitosa* Shan & Sheh (in *Acta Phytotax. Sin.* 18: 376. 1980) has been described from Xizang area of Tibet (China) and considered as endemic to China (Menglan and Watson 2005). Watson added a third species *C. cortioides* (Norman) Watson (in Edinburgh *J. Bot.* 53: 130. 1996) based on *Selinum cortioides* Norman. Presently, all the three species are known to occur in the Eastern Himalayas from Nepal, India (Sikkim), Bhutan to China (Tibet). Mukherjee and Constance (1993) in their revision of the Family Umbelliferae (Apiaceae) of India had maintained two species, *Cortiella hookeri* (C.B. Clarke) Norman and *C. cortioides* (Norman) Watson (as *Selinum cortioides* Norman).

During the floristic studies of Sikkim Himalayas I came across a few gatherings of *Cortiella* in the herbaria of Botanical Survey of India, Sikkim Himalayan Circle, Gangtok, Sikkim (BSHC), and Central National Herbarium (CAL), which had been collected from the Sikkim Himalaya, and identified as *Cortiella hookeri*. The small caespitose habit along with uni- to sub-bipinnate leaves and collar-like expanded pedicel tip clearly revealed that all these specimens are truly *Cortiella caespitosa* Shan & Sheh, but not *C. hookeri* as identified earlier. Further, the identity of the specimens was also confirmed by comparison with the protologue and the other literature as Flora of China (Menglan and Watson 2005). Thus, its presence is a new record for India from the Sikkim Himalaya.

A detailed description along with illustrations and a key to the species of *Cortiella* are presented in order to facilitate its identity.

KEY TO THE SPECIES OF *CORTIELLA* NORMAN

1. Plant smaller, less than 5 cm diam.; leaves 1- (2-) pinnate; pedicels dilated at tip, collar-like ..... *C. caespitosa*
— Plants larger, more than 7 cm diam.; leaves 2- (3-) pinnate; pedicels never dilated at tip 2
2. Ultimate leaf segments longer, more than 4 mm; wings on fruits convoluted ..... *C. cortioides*
— Ultimate leaf segments smaller, less than 4 mm; wings on fruits not convoluted ..... *C. hookeri*

Cortiella caespitosa R.H. Shan & M.L. Sheh, Acta Phytotax. Sin. 18: 376. 1980; Menglan & Watson, Fl. China 14:154.2005 (Fig. 1).

Stemless, caespitose, perennial herb, 3.5-5.0 cm in diam. *Leaves* few, rosulate, oblong in outline, 1.5-2.5 cm long, uni- to sub-bipinnate; leaflets to 5 mm long; ultimate segments obovate-elliptic or linear, *c.* 2x1 mm, simple or 2- (3-) lobed, thick, glabrous; petioles sheathing at base, sparsely puberulous. *Inflorescence* a compound umbel; umbellule several (*c.* 10), crowded, unequal to equal, 0.5-1.5 cm long, glabrous, *c.* 10-flowered; bracteoles simple, linear-oblong (-elliptic), *c.* 3-4x0.5-1 mm, puberulous along margin. *Flowers* bluish-green, white- or purple-tinged; pedicels 2-5 mm long, dilated above, glabrous; receptacle annular; petals subequal, obovate-elliptic, *c.* 1.5x0.8 mm, apex strongly inflexed, apiculate; midvein thinly winged, purplish; stamens subequal, *c.* 2 mm long; filaments 1.2-1.5 mm long, often with a constriction towards apex, vein lateral; ovary oblongoid-obovoid, *c.* 1.5x1 mm, winged; wings unequal, thin; styles

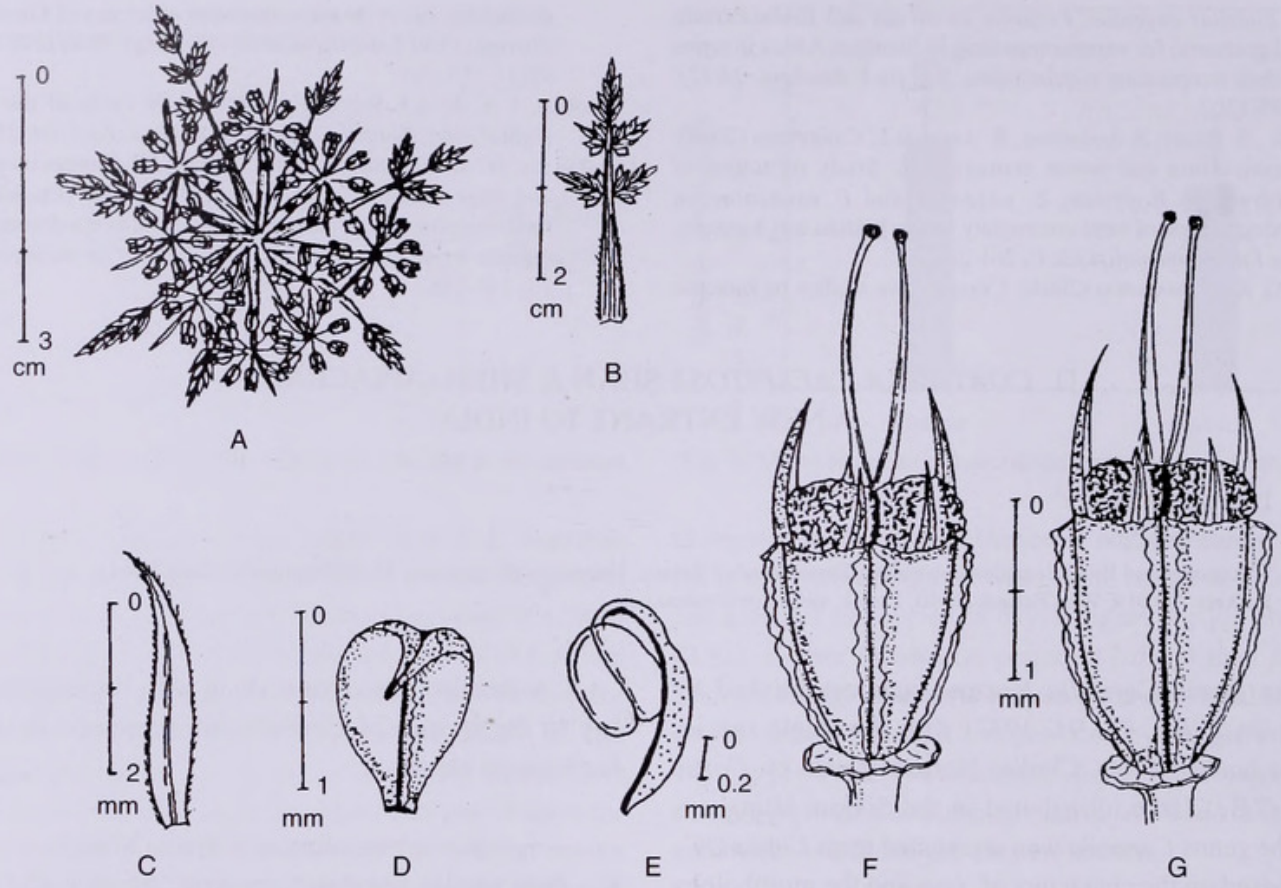


Fig.1: *Cortiella caespitosa*: A – Habit with inflorescence; B – Leaf; C – Bracteole; D – Petal; E – Stamen; F – Ovary with annular receptacle; G – Fruit (immature) with persistent sepals and styles

c. 1.5 mm long, subequal. *Fruits* immature, oblongoid-obovoid, *ca* 1.7x1 mm, dorsally compressed; ridges winged.

Flowering & Fruiting: June-October.

Grows on gravelly slopes in open alpine grassy meadows; 4,500-5,200 m.

Distribution: India (Sikkim), Bhutan (?); China (Tibet).

Specimens Examined: INDIA: Sikkim, North district, Teesta-Khangsee-Khungrona La, 6 Aug. 1987, *Singh* 8155; Dorjee La, 7 Aug. 1987, *Singh* 8185 (all at BSHC); Nattong, July 12, 1877, *King* 4347; Without any precise locality, *s.d.*, *Cave* 306; TIBET: without any precise locality (probably Chumbi), 1882, *King's collector* 116, acc. nos.189820/21 (all at CAL).

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