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Cover: Green Bee-eater with colour pencils and watercolor wash by Elakshi Mahika Molur.



***Cyrtosia falconeri* (Hook.f.) Aver. (Orchidaceae): an addition to the flora of Jammu & Kashmir, India**

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The genus *Cyrtosia* Blume consists of six species mainly found in Asia, up to southern China, Japan, and Madagascar (Govaerts et al. 2022). In India, the genus is represented by four species namely, *cathcartii* Hook.f., *falconeri* (Hook.f.) Aver., *lindleyana* (Hook.f. & Thomson) Rchb.f., and *nudifolia* Lour. (Singh et al. 2019), out of which two species—*Lindleyana* and *falconeri*—occur in western Himalaya. During the present biodiversity exploration visit in the forest of Koteranka of Rajouri district in Jammu & Kashmir (J&K), the first author found an interesting mycoheterotrophic orchid growing in an evergreen mature oak forest. After proper morphological study in the field, the plant was collected for the herbarium specimen (Image 1). Collected specimen was submitted to the herbarium of Department of Botany, KL DAV PG College Roorkee. After a comprehensive literature study, it was identified as *Cyrtosia falconeri* (Hooker 1890; King & Pantling 1898; Deva & Naithani 1986; Pearce & Cribb 2002; Misra 2007; Akhtar et al. 2011; Jalal & Jayanthi 2013, 2015). Rai et al. (2017) reported this orchid for the first time from western Himalaya in Uttarakhand. However, the present report extends its distribution further west to Jammu & Kashmir, which consists of a total of 48 species of orchids (Akhtar et al. 2011), and current report also marks the new generic record of the genus *Cyrtosia* for the state. Taxonomic description, photo plate, and herbarium

specimen are provided in the manuscript.

***Cyrtosia falconeri* (Hook.f.) Aver.** Turczaninowia 14(2): 38 (2011); *Galeola falconeri* Hook.f., Fl. Brit. India 6: 88. 1890; King & Pantl., Ann. Roy. Bot. Gard. (Calcutta) 8: 265, t. 353. 1898; Duthie in Ann. Roy. Bot. Gard. (Calcutta) 9(2): 156. 1906; Raizada, Naithani & Saxena, Orch. Mussoorie: 46. 1981; Seidenf. & Arora in Nord. J. Bot. 2: 17. 1982; Deva & Naithani, Orch. Fl. N.W. Himalaya: 47, t.15. 1986; Chowdhery, Orch. Arunachal Pradesh 405, t. 243. 1998; Pearce & Cribb, Orch. Bhutan 64. 2002; Lucksom, Orch. Sikkim North East Himalaya: 59, t. 40. 2007; Chowdhery & Agrawala, Cen.W. Himalayan Orch.: 212, t.74. 2013. 2–3.

Type: India, Gharwal, Falconer s.n. (syntype, K).

Plants 1–3 m, in height. Rhizome branched, 3–5 cm in diam., covered with triangular scales at nodes, 2.0–4.2 cm in diam. in size. Stem brownish, glabrous lower part, while upper sparsely & short rusty hairs, dull brownish to reddish, erect, covered with some lanceolate to ovate scales sizing 2.5–4.5 cm. Inflorescence raceme, 5–33 cm, peduncle, and rachis shortly tomentose. Floral bracts narrowly elliptic or ovate, 1.1–3.5 mm, found vertical to rachis, abaxially shortly rusty tomentose. Pedicel and ovary, densely rusty tomentose, 1– 3.5 cm long. Flowers 4–5 cm in diameter, bright yellow. Sepals elliptic to oblong, densely rusty tomentose and smooth outside, 2–3 cm in length and 1–1.6 cm in width. Petals

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Image 1. *Cyrtosia falconeri* herbarium specimen.

are slightly narrower than sepals but as long as sepals. Lip cup-shaped, entire, ovate to orbicular, ca. 2.5 cm in diameter, basal part loosely embracing column, a small basal sac formed with transversal fold, inner side densely papillose, and margins fimbriate. Column erect, stout, slightly curved forward, 2.5–3.5 mm long, basal portions consist of two tufts of long papillae, anther cap nearly glabrous or papillose. Fruit oblong, red to purple, cylindric, 20–25 cm long, 3 cm in diameter, surface finely verruculose. Seeds dark brown, 1–2 mm in diameter, with a narrow-encircled wing (Image 2).

Specimen examined: KL DAV 092197, 10.iv.2021, India. Jammu & Kashmir, Rajouri, Koteranka, Kalyan forests, coll. Mushtaq Ahmed & Manjul Dhiman.

Habitat: Terrestrial, grows in humus-rich soil in evergreen oak forests at an elevation of 1,765 m, 33.351°N & 74.535°E.

Phenology: May–June.

Distribution: Globally it is distributed in Vietnam, Bhutan, India, China, and Thailand. In India, it was mainly reported from eastern Himalaya ranging from West Bengal to Arunachal Pradesh. However, this species was



Image 2. *Cyrtosia falconeri*: A,B—Habitat | C—Plant with fruits | D—Inflorescence | E—Collection in the field | F—Close up of inflorescence | G,H—Single branches of inflorescence | I–L—Different views of the flower | M—Fruits | N—Dissected fruit | O—Flower bud | P—Sepals and petals | Q,R—Dorsal and ventral views of the lip | S—Sepal | T—Floral bract | U—Column | V—Pedicel | W—Scale | X—Rhizome. © Mushtaq Ahmed.

also reported from Uttarakhand of the eastern Himalaya.

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