

Chrysosplenium delavayi (Saxifragaceae): An addition to the Flora of India

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Abstract: *Chrysosplenium delavayi* Franch. (Saxifragaceae) is reported here for the first time from India. A detailed description and color photographs for the species are provided.

Keywords: *Chrysosplenium delavayi*, New record, Sikkim Himalaya.

Introduction

Chrysosplenium L. (Saxifragaceae) is a small perennial genus that comprises c. 80 species (Yang *et al.*, 2023). The species of the genus are widely distributed in temperate and arctic regions of Northern Hemisphere (Soltis *et al.*, 2001). The genus is classified into two distinct subgenera based on alternate or opposite cauline leaves (Soltis *et al.*, 2001; Bhaumik, 2014). In India, the genus is represented by 11 species (Clarke, 1878; Bhaumik, 2014). Grierson (1978) reported eight species of *Chrysosplenium* in Flora of Bhutan, out of which seven species are represented in Sikkim (*C. carnosum* Hook.f. & Thomson, *C. forrestii* Diels, *C. griffithi* Hook.f. & Thomson, *C. griffithi* Hook.f. & Thoms. var. *intermedium* (Hara) J.T.Pan, *C. lanuginosum* Hook.f. & Thomson, *C. nepalense* D.Don and *C. singalilense* Hara).

During floristic exploration in several localities of Gangtok district, Sikkim, in 2022, we encountered a very interesting low lying and fleshy herb growing beneath bamboo thickets along streams in Upper

Chandmari village, near Gangtok. The plant was characterized by conspicuously variegated adaxial leaf surfaces. After a critical examination of the collected specimens and relevant literature (Soltis *et al.* 2001; Pan & Obha 2001), the plant was identified as *Chrysosplenium delavayi* Franchet. It was further revealed that *C. delavayi* had not been previously reported from Sikkim or anywhere in India. A morphological description, photo plate and other relevant details are provided here.

Taxonomic treatment

Chrysosplenium delavayi Franchet, Bull. Soc. Bot. France 32: 7. 1885.

C. pumilum Granck., Pl. Delavay. 1: 249. 1889.

C. subargenteum H.Lev. & Vaniot, Repert. Spec. Nov. Regni Veg. 9: 441. 1991.

C. holochlorum Ohwi, Acta Phytotax. Geobot. 2(3): 152. 1993.

Fig. 1

Low lying herbs, 5–15 cm tall. Sterile branches emerge from proximal cauline leaf axils. Stem subterete, 2–3 mm diameter, glabrous. Cauline leaves with petioles 3–6 mm, glabrescent at axils; leaf blade broadly ovate or sub-orbicular, 0.8–1.5 × 0.5–1.5 cm, abaxially glabrescent or glabrous, adaxially glabrous and most often mottled with silvery patches, rarely lacking mottle, base cuneate to truncate, margins 3–12 crenate, apex obtuse. Flowers solitary or lax cyme, 2–4-flowered; bracts broadly ovate, 2–4 × 2–5 mm, margin entire, apex emarginate, glabrous.

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Fig. 1. *Chrysosplenium delavayi* Franch. in different habitats.

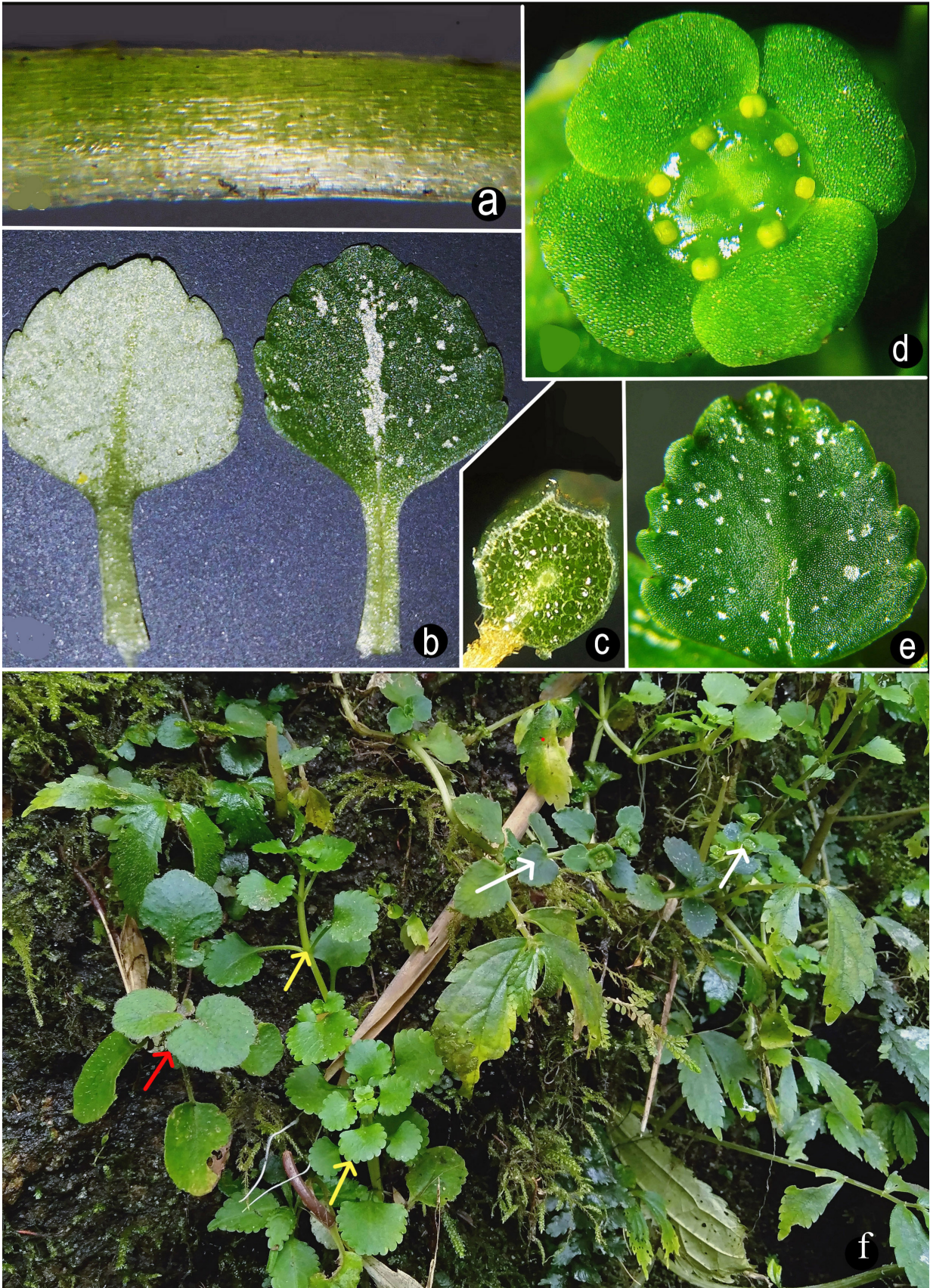


Fig. 2. *Chrysosplenium delavayi* Franch. **a.** Stem; **b.** Leaves showing both surfaces; **c.** Transverse section through stem with root; **d.** Flower; **e.** Leaf showing adaxial surface; **f.** Habitat of *C. delavayi* (marked by white arrows) associated with *C. nepalense* (yellow) and *C. lanuginosum* (red).

Flower green, c. 0.7 cm across; pedicel angular, 0.5–1.2 cm long, glabrous. Sepals broadly sub-orbicular, c. 2 mm across. Stamens 8, sub-spherical, c. 1 mm across, yellow. Ovary sub-inferior; styles c. 0.3 mm long. Disc 8 lobed. Capsules retuse at apex. Seeds ovoid, c. 1 mm across, dark brown. ovoid, 0.7–1 mm, 13–15-sulcate, ridges with transverse lines.

Flowering & fruiting: Flowering and fruiting from November to January.

Habitat: It grows under shrubs or bamboo thickets, primarily along marshy floors. Some plants also thrive on moss-covered rocks and in their wet crevices.

Distribution: China, China-Taiwan, India (Gangtok), Myanmar.

Specimen examined: INDIA, **Sikkim**, Gangtok District, Upper Chandmari, 06.01.2022, P. Rai P0839 (BSHC).

Notes: *Chrysosplenium delavayi* is closely related to *C. nepalense* and found alongside it in populations in Sikkim. However, *C. delavayi* is easily distinguished from *C. nepalense* by the presence of silvery dotted patches on its upper leaf surface.

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