

LENTIBULARIACEAE

Pinguicula alpina L.

Common English name: Alpine butterwort



Pinguicula alpina L.

Description: Perennial herbs, 5-15 cm high, overwintering by a resting bud, bud ovoid, c. 1 cm. Roots 1-2 cm long. Leaves 5-8 in rosette, elliptic-oblong-lanceolate-oblong, 1.3-2.3 x 0.7-1 cm, base broadly cuneate, margins inrolled, apex obtuse to rounded, abaxially glabrous, fleshy, light green to reddish; shortly petiolate. Flowers 1-5, in scape, scape 3-9.5 cm long. Calyx 2-lipped, glabrous, upper lip 3-lobed, c. 3 mm, lobes triangular ovate, lower 2-lobed, c. 2.5 mm, lobes obovate. Corolla funnel shaped, white, with 1 or more yellow spots on palate, 0.9-2 cm; tube shortly funnellform-tubular, 3-7 mm, outside glabrous, inside puberulent; spur yellowish, cylindric, straight, \pm as long as corolla tube, apex

rounded; lobes of lower lip circular to broadly ovate, apex rounded to obtuse; lobes of upper lip broadly ovate to suborbicular, apex obtuse. Filaments curved, 1.4-1.6 mm; anther thecae confluent. Ovary globose, ca. 1.5 mm in diam.; style short but distinct; stigma lower lip circular and ciliate, upper lip deltoid. Capsule ovoid-oblong, 5-7 mm, glabrous. Seeds narrowly ellipsoid, 0.6-0.8 mm; seed coat with small prominent elongate reticulations.

Fl.: May- July; **Fr.** July-September

Habitat: The plant grows in moist places in mountains, on gravelly soil, bogs, rock places nearby waterfall, 3000-5000m.

Chromosome: $2n = 32$ (Murin *et al.*, Folia Geobotnica et Phytotaxonomica p.15. 1980).

Pollens: The grains are suboblate, radially symmetric, isopolar and zonocolporate with (5)–6–7–(8) colpi. Rare anastomoses of colpi apices are visible. The profile of colpus margin is irregular and there are granules on the colpus membrane. The sexine ornamentation is regulate-reticulate with thick curved muri (1.0 μ m thick), irregular narrow lumina (often wider than 1.0 μ m) and rare perforations on the mesocolpium margin. There is usually no differentiation of the sexine towards the poles and/or colpi. (G. Rodondi *et al.*, Review of Paleobotany and Palynology 162: 1-10. 2010).

Distribution: India: Uttarakhand, Jammu & Kashmir, Sikkim.

Medicinal uses: Butterwort species are prescribed for sores, swelling, sciatica, liver diseases, stomach aches, chest pain and respiratory problems in European folk medicine. This is due to presence of cinnamic acid found in the plants. (<http://en.wikipedia.org>).