

thick, stout, pale brown to stramineous in colour, sparingly provided with a few pale brown caducous scales, left with basal attachment only; pinnae/pinnules glabrous, distinctly stalked, stalk 4.5 mm long and adnate towards the apical part only, ovate to ovate-lanceolate,  $9.14.5 \times 2.2.5$  cm, usually alternate, sometimes sub-opposite, subcordate to roundly truncate at base, margins distinctly serrate except at the very base, acuminate or cuspidate at apex, acumen more coarsely serrate, 2.5-3.2 cm long, the terminal pinnule not much enlarged in comparison of the lateral ones, texture membranaceous, veins free, forked above the base and usually again forked towards the apical part, ending into hydathodes. Sori linear, forked extending to little over half way to the margins, spores yellow, trilete,  $32-35 \mu$  in a diameter with verrucoid protuberances on the exine (Figs. 1-5).

*Specimens examined*: SIKKIM: 18.9.1857, s. l. s. n., Accession no. 24185 (CAL); s. l. s. n., Accession no. 24186 (CAL). WEST BENGAL: Darjeeling: Tong'u, 3056 m, 24.9.74, Dixit 52384 A; 52384 B (CAL); Rambh, 1900 m, 21.2.76, Dixit 50279 (CAL).

NEPAL: Baglung, 8000 ft, Dec. 1963, *Eleminige* 1757, specimen numbered 1 (DD). *Iso-type*: PHILIPPINE ISLANDS: Davao: Todaya (Mount Apo) distributed by A. D. E. Elmer 11484 collected in Aug. 1909 (CAL).

*Earlier records*: PHILIPPINE ISLANDS: Mindanao; Mount Apo; Luzon (cf. Hieronymus 1916; Rosenburgh 1916).

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### TRIFOLIUM CERNUUM BROT.—A NEW ENTRANT TO INDIAN FLORA

The mountainous plateau of the Nilgiris—the meeting ground of the Western, Eastern and Southern Hill ranges in peninsular India has been a hospitable place for alien plant entrants; thus this emigrant—an interesting member of the Fabaceae was collected from the Nilgiris at an altitude of 2200 m. As the plant could not be identified with any known taxa from India, it was sent to the Kew Herbarium (K) for identification where it was identified as *Trifolium cernuum* Brot.—a native of Morocco and Spain.

Locating this taxon for the first time from

an area easily accessible and frequently visited by botanists indicates the possibility of its entry into India recently through some food grains or some other source. However, it would be interesting to locate it in other places if available on the basis of this data. As this plant is an interesting new record for India and no description nor diagrams are readily available for it, a detailed description of the plant with a few relevant diagrams to help in identification of the plant are given below (Figs. 1-6).

**Trifolium cernuum** Brot. Phyt. Luisit. ed. 3, 1: 150. 1816; Heywood & Ball. in Tutin *et al.* Fl. Europaea 2: 164. 1968.

Herbs prostrate, diffuse; branches running up to 50 cm long, subterete, faintly striate, glabrous; roots fibrous. Leaves 1-14 cm long, trifoliate; petioles 1-12 cm long; stipules 0.4-1 cm long, scarious, bifid, caudate-acuminate, turning away, adnate to petioles at base encircling peduncles and stems; leaflets 0.5-1.9 × 0.4-1.2 cm, subsessile, ovate-oblong or obovate-oblong, sometimes emarginate, prominently apiculate, acute at base, serrate or denticulate, serratures rather incurved; lateral nerves about 15 pairs, paral-

lel, prominent, often branched once near the margin, each projecting beyond the serrature. Flowers pale pink, 0.5 × 0.1 cm, drooping or recurved, bracteate, many, in globose heads 1 cm across; pedicels 0.2 cm long; bracts 0.1 cm long, acuminate, scarious; calyx campanulate, teeth 0.15 cm long, subequal, caudate-acuminate, falcate, 3-nerved; tube 0.2 cm long, nerves prominent, parallel; petals pale pink, 0.5 cm long, standard and keel retuse, wings ovate-spathulate, all scarious, prominently veined, clawed at base; stamens 10, united at base with wing petals; ovary with a few hairs, style and stigma glabrous. Legumes 3 × 1 cm, flattened, 2-3-seeded; seeds 0.1-0.1 cm, finely muriculate.

*Specimen examined*: PENINSULAR INDIA—Staircase Shola, near Windcap Road, Nilgiris, 1-11-1972, Ellis MH 43452.

Gamble (Fl. Pres. Madras 2: 302. 1918) has recorded 3 species of *Trifolium* Linn. from the Nilgiris, viz. *dubium* Sibth., *pratense* Linn., and *repens* Linn. All the four species can be differentiated thus:

1. Flowering heads up to 1 cm across :
  2. Petioles 4 to 14 cm long; peduncles less than 1 cm long ... *T. cernuum*
  - 2'. Petioles up to 1.5 cm long; peduncles up to 2.5 cm long ... *T. dubium*
- 1'. Flowering heads about 2.5 cm across :
  3. Leaflets obcordate; flowering heads not subtended by leaves ... *T. repens*
  - 3'. Leaflets ovate to elliptic-ovate; flowering heads subtended by leaves ... *T. pratense*

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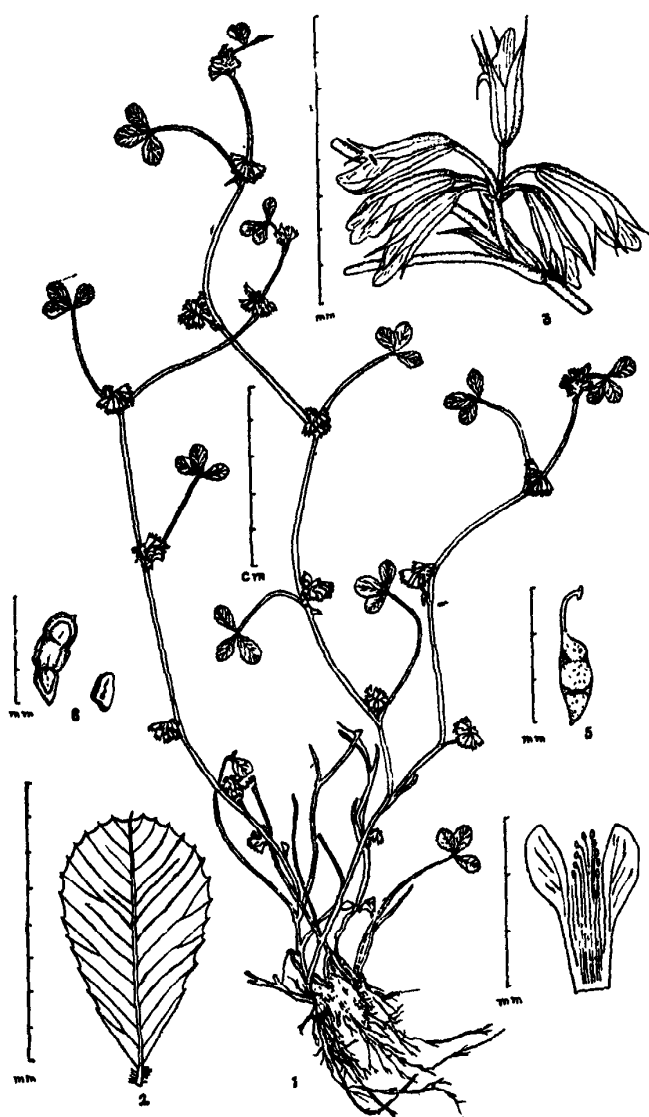
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*Trifolium cernuum* Brot.

Figs. 1-6 : 1. Habit. 2. Leaflet. 3. Inflorescence. 4. Stamens and wing petals. 5. Ovary. 6. Legume and a seed.