

A NEW *STELLARIA* LINN. (CARYOPHYLLACEAE) FROM THE CENTRAL HIMALAYA¹

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Stellaria nepalensis Majumdar and Vartak, sp. nov. fig 1a-f.—Accedit *S. sikkimensis* Hook. f., sed pilis albis adpressis partium vegetativarum, cymis paucifloris, floris majoribus, bracteis glabris, late scarioso-marginatis, sepalis glabris, petala acquantibus, capsulis 6-valvis recedit.

Herbae perennes caespitosae, 5–10 (–15) cm. altae. Caules repentes, ad nodos radicanes infra, ascendentes vel suberecti sursum, ad basin multo ramosi, teretes, nitidi, glabrati vel laxe hirsuti pilis albis longis infra, dense hirsuti pilis similes sursum; nodis inflatis. Folia subsessilia, paribus aequalibus oppositis, ad bases parum connata, ovata basibus rotundatis, ad apices acuta, integra, initio hirsuta pilis albis longis, ultimo infra glabra vel rare ciliata; infra albida, aliquantum carnosae, costa singulari prominenti, supra depressa, 0.5–1 × 0.3–0.5 cm. Inflorescentiae 2-3-chotome cymosae, pedunculatae, pauciflorae, terminales et axillares; pedunculi rare hirsuti, 1–2 cm. longi, pedicelli gracilissimi, hirsuti, 0.8–1 cm. longi; bractee lanceolatae, acutae, late scarioso-marginatae, glabrae, ca. 0.5 cm. longae. Sepala 5, integra, fere ad basin libera, lanceolata, acuta, scarioso-marginata, e basi trinervia, glabra, (0.4–) 0.5–0.7 ×

(0.12–) 0.15–0.17 cm. Petala 5, alba, obovata, glabra, 0.5–0.7 cm. longa, calycem fere aequantia, penitus bipartita, segmentis oblanceolatis, obtusis, 0.4–0.6 cm. longis. Stamina 10; filamenta linearia, basi dilatata, glabra, 0.4–0.5 cm. longa; antherae oblongae, ferruginae, 0.08–0.1 cm. longae. Ovarium sessile, ovoideo-ellipsoideum, glabrum, 0.16–0.19 cm. longum; styli terni, filiformes, 0.15–0.2 cm. longi. Capsulae juvenes 6-valvis.

Tufted perennial herbs, 5–10 (–15) cm. tall. Stems creeping and rooting at the nodes below, ascending or suberect upwards, much branched at base, terete, glossy, glabrate or laxly long white-hairy downwards, densely hirsute with similar hairs upwards; with swollen nodes. Leaves in opposite, equal pairs, subsessile, slightly connate at base, ovate with a rounded base, acute at apex, entire, hirsute with long white hairs at first, glabrous or thinly hairy beneath finally, whitish beneath, somewhat fleshy, with one prominent nerve, midrib depressed above, 0.5–1 × 0.3–0.5 cm. Inflorescences terminal and axillary, peduncled, few-flowered, 2-3-chotomous cymes; peduncles thinly hirsute, 1–2 cm. long; pedicels very slender, hirsute, 0.8–1 cm. long; bracts lanceolate, acute, broadly scarious-margined, glabrous, ca 0.5 cm.

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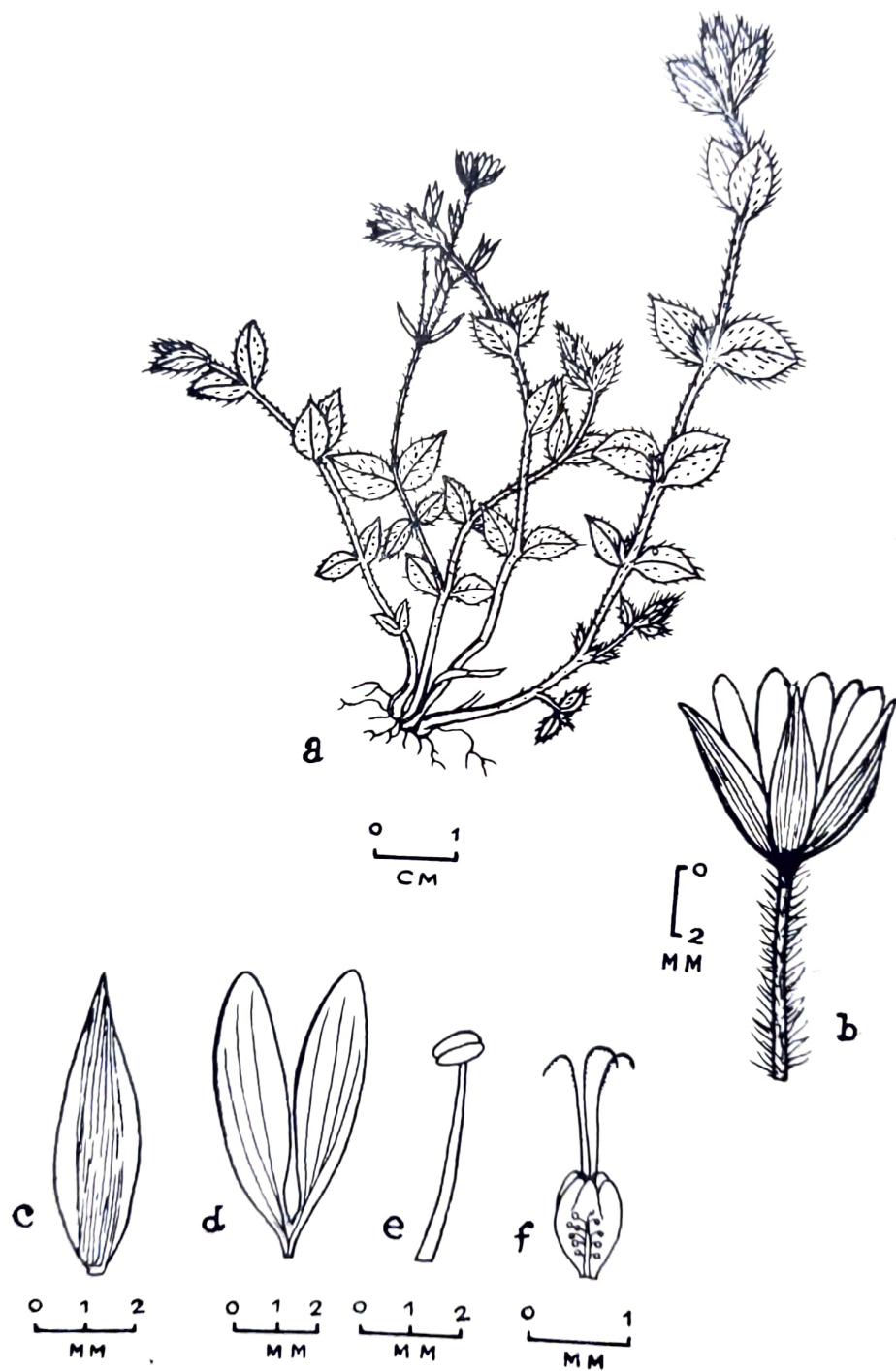


FIG. 1a-f. a. Habit. b. Flower. c. Sepal. d. Petal. e. Stamen. f. Pistil.

long. Sepals 5, entire, free near to the base, lanceolate, acute, scarious margined, 3-nerved from the base, glabrous, (0.4—) 0.5—0.7 × (0.12—) 0.15—0.17 cm. Petals 5, white, obovate, glabrous, 0.5—0.7 cm. long, nearly as long as the calyx, deeply 2-partite, segments oblanceolate, obtuse, 0.4—0.6 cm. long. Stamens 10; filaments linear, dilated at base, glabrous, 0.4—0.5 cm. long; anthers oblong, rusty-brown, 0.08—0.1 cm. long. Ovary sessile, ovoid-ellipsoid, glabrous, 0.16—0.19 cm. long; styles 3, filiform, 0.15—0.2 cm. long. Young capsules 6-valved.

Nepal: W. Nepal, Pokhra, alt. 970m., 25.5.68, *Vartak* 462 (Holotype-CAL).

Distribution.—Known only from Nepal Himalaya.

Closely allied to *Stellaria sikkimensis* Hook. f., but is easily recognizable by white appressed hairs of the vegetative parts, few-flowered cymes, larger flowers, broadly scarious margined glabrous bracts, glabrous sepals as long as petals, and 6-valved capsules.

A specimen, *Vartak* 692 (CAL), from Ghodepani in Nepal, may be referable to this species, although it has nearly glabrous stems with elongated internodes, much larger glabrate or thinly hairy leaves, and longer pedicels which are dilated at the top.

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MORPHOLOGICAL STUDIES IN THE FAMILY CONVOLVULACEAE

III. ZONATION IN THE SHOOT APEX AND LEAF INITIATION¹

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ABSTRACT

The apical summit organisation and leaf histogenesis of *Ipomoea batatas* Lamk., *I. purpurea* Roth., *I. pes-caprae* Linn. and *I. quamoclit* Linn. have been studied. Tunica is two layered in all except *I. quamoclit* when it is 3 or 4 layered. Zones of tunica and corpus initials, flank meristem and rib meristem are well marked. Initiation of leaf starts with the periclinal divisions in cells of the second and third layer of the tunica. In cases where tunica layers are more than two the corpus cells

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