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THREE NEW TAXA OF *HYPERICUM* LINN. (HYPERICACEAE) FROM INDIA, NEPAL & BURMA

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ABSTRACT

Three new taxa of *Hypericum* have been described from Indian subcontinent *viz H benghalense* from India (Kalimpong), *H. humifusum* L subsp *suborbiculatum* from India (Darjeeling), Nepal and *H burmanicum* from Burma

1. **Hypericum benghalense** S.N. Biswas sp. nov. Fig. 1(a—e).

H. dyeri Rehder proxime affine, sed differt-follis perfecte sessilibus, basibus subattenuatis, sepalis quam staminibus brevioribus, ovario ovato-oblongo, capsulaque ovato-oblonga.

Holotypus lectus a *S.K. Mukerjee* sub numero 5094, ad locum India, Benghala borealis, Kalimpong, alt. 1060 m die 2.6.1959, et positus in herbario indico nationali (CAL). Isotypi *S.K. Mukerjee* 5094A & 5094B positi in eodem herbario.

Glabrous shrubs, 0.8-1.3 m tall. Stems spreading, stout, terete, reddish brown in colour; branches and branchlets (in young) 4-lined gradually 2-lined to terete. *Leaves* sessile, 1.6-4 × 0.7-1.6 cm, chartaceous, ovate to elliptic-lanceolate, subattenuate at base, acute, rarely subapiculate at apex, entire, glabrous on both surfaces, rarely punctate, venation obscure at the top prominent beneath. *Flowers* showy yellow, in 1-2 (-3)-chotomous corymbose cymes, 1-5 cm across; bracts 9-10 mm long, linear-lanceolate. Sepals 5, 6-7 (-8) mm long, elliptic to elliptic-oblong, acuminate at apex, entire. Petals 5, yellowish 1.9-2.9 cm long, entire, obovate, prominently veined with few black glands. Stamens 5-adelphous, 1.8-2.1 cm long, *c.* 22 in each fascicle, filaments unequal, glabrous. Ovary 6-8 mm long, ovate-oblong. Styles 1.1-1.3 cm long free, gradually divergent; spreading at apex. *Capsules* 1.5-1.6 cm long, ovate-oblong with vittae. Seeds 1-1.1 mm long, apiculate at both ends; testa finely reticulate longitudinally and transversely.

Fls. & Frts.: June to October.

Holotype: India—North Bengal, Kalimpong, alt. 1060m, 2.6.1959, *S. K. Mukerjee* 5094 (CAL). *Isotypes — S. K. Mukerjee* 5094A and 5094B (CAL)

Distribution: Known only from West Bengal—Kalimpong in Darjeeling district.

H. benghalense S.N. Biswas is closely allied to *H. dyeri* Rehder in many characters but differs in having leaves completely sessile with subattenuate leaf base, sepals shorter than stamens, ovate-oblong ovary and capsule.

2. **Hypericum humifusum** L. subsp. **suborbiculatum** S. N. Biswas subsp. nov. Fig. 2(a—e).

H. humifusum L. subsp. *humifuso* proxime affine, sed differt pedicellis 3-5.5 mm longis, foliis 3.5-9 × 3-8 mm, sub-orbicularibus, sepalis 2.5-2.7 × 1.2-1.5 mm,

lanceolatis ad lata lanceolatis, capsulisque ovato-ellipticis, 3.8-5 × 2.5-2.8 mm.

Holotypus lectus a *Stainton, Sykes* et *Williams* ad locum Nepal, prope Jagat, alt. 8500 ped., die 5.7.1954, sub-numero 3374, positus in CAL, isotypus positus in DD. Paratypus lectus a *S. K. Mukerjee et al. sub numero* 645 ad locum Darjeeling, Benghala occidentalis, India positus in CAL.

A glabrous decumbent or procumbent herb, 5-15 cm tall rooting at the base. Stems subterete to 2-lined, unbranched. *Leaves* 3.5-9 × 3-8 mm suborbicular rounded at apex and base, subsessile, petiole up to 1.1 mm long, punctate with black or translucent dots below veins obscure at the top, considerably prominent below but not raised. *Inflorescences* in terminal cymes, 1-3 flowered, 3.8 mm across; bracts leafy, entire with translucent or brown dots; *Flowers* pedicels 3-5.5 mm long. Sepals 2.5-2.7 × 1.2-1.5 mm, lanceolate or broadly so, entire with sessile marginal black glands. Petals 3.2-3.5 mm long, with black dots at the margins or at the apex. Ovary 2.5-2.7 mm long ovoid-elliptic, styles 3, 2-2.5 mm long, free, stigma capitellate. *Capsules* 3.8-5 × 2.5-2.8 mm, ovate-elliptic, longer than sepals. Seeds ± 0.6 mm, oblong, rounded at both ends, testa reticulate-scalariform.

Fls. & Frts.: July-Sept.

Holotype: Nepal—Near Jagat, alt. 8500 ft. (by small stream in grass, flowers yellow), 5.7.1954, *Stainton, Sykes & Williams* 3374 (CAL). *Isotype* in (DD). *Paratype:* India—West Bengal, Darjeeling district, *S. K. Mukerjee & Party* 645 (CAL).

Distribution: India —West Bengal—Darjeeling district & Nepal.

Hypericum humifusum subsp. *suborbiculatum* S.N. Biswas, is easily recognizable having leaves 3.5-9 × 3-8 mm, suborbicular; pedicels 3-5.5 mm long. Sepals 2.5-2.7 × 1.2-1.5 mm, lanceolate to broadly lanceolate with ovate-elliptic capsule, 3.8-5 × 2.5-2.8 mm. Whereas *H. humifusum* L. subsp. *humifusum* is characterised by having leaves 6-14 × 5-10 mm, oblong or obovate to oblanceolate; pedicels 1.6-1.8 mm long; sepals 3-8.4 × 2-2.2 mm, ovate to ovate-lanceolate with globose capsule, 4-4.5 × 3-3.2 mm.

The holotype and the paratype of subsp. *suborbiculatum* S.N. Biswas were misidentified as having affinity with *H. monanthemum* Hook. f. et Thoms. ex Dyer (in *Sched. affin. H. monanthemum*). After a thorough study of the Indian species of the section of *Hypericum,* it can be said without doubt that the subsp. *suborbiculatum* is best suited under the section *Hypericum* and not with the section *Adenosepalum* Spach, in which *H. monanthemum* is generally included by the recent workers, [*cf.* Robson in Bull. Brit. Mus. Nat. Hist. Bot. 5(6) : 335. 1977]. Section *Adenosepalum* has marginal glands or ciliate glands on margins of both sepals and bracts; on the other hand, *H. humifusum* subsp. *suborbiculatum* shows eciliate sepals and bracts throughout.

Subsp. *suborbiculatum* S.N. Biswas is assigned to *H. humifusum* L. as a distinct subspecies as its population is distinctly disjunct in distribution with *H. humifusum* subsp. *humifusum,* the former occurring only in the Eastern and Central parts of Himalayas, whereas subsp. *humifusum* is localized in its distribution in parts of Tamil Nadu and Karnataka regions of India and in Sri Lanka.

3. **Hypericum burmanicum S.N. Biswas sp. nov. Fig. 3 (a-b).**

***H. benghalensi* S.N. Biswas proxime affine, sed statim recognoscenda foliis coriaceis venis obscuris, basibus breviter connatis perfoliatis, staminibus 40-50 in quoque fascicule, bracteis foliaceis ovatisque.**

Holotypus lectus a *H.H. Hilldebrand s. n.* ad locum Shan Colles, fort Stedman

alt. 1215 m mense Augusto anni 1892, et positus in herbario indico nationali (CAL). Paratypus lectus a *A. Long* sub numero *10374* ad locum Shan States, Tanuygyi, die 5.3.1932, et positus in CAL. Frutex erectus, 5-6 ped, altus, floribus flavis.

Fls. & Frts. : Aug.-Dec.

Holotype : Burma : Shan hills, Fort Stedman, alt. 1215 m August 1892, *H.H. Hilldebrand s.n.* (Cal!).

Paratype : Burma : Shan States, An erect shrubs 5-6' ft. with yellow flowers. Common in around Tanuygyi, 5th March 1932, *A. Long* 10374 (CAL!).

Distribution : Known only from Shan States, Burma.

Hypericum burmanicum S.N. Biswas is closely allied to *H. benghalense* S.N. Biswas but is easily recognisable by having coriaceous leaves with obscure veins, shortly connate to form a perfoliate leaf base; stamens 40-50 in each fascicle and with foliaceous ovate bracts.

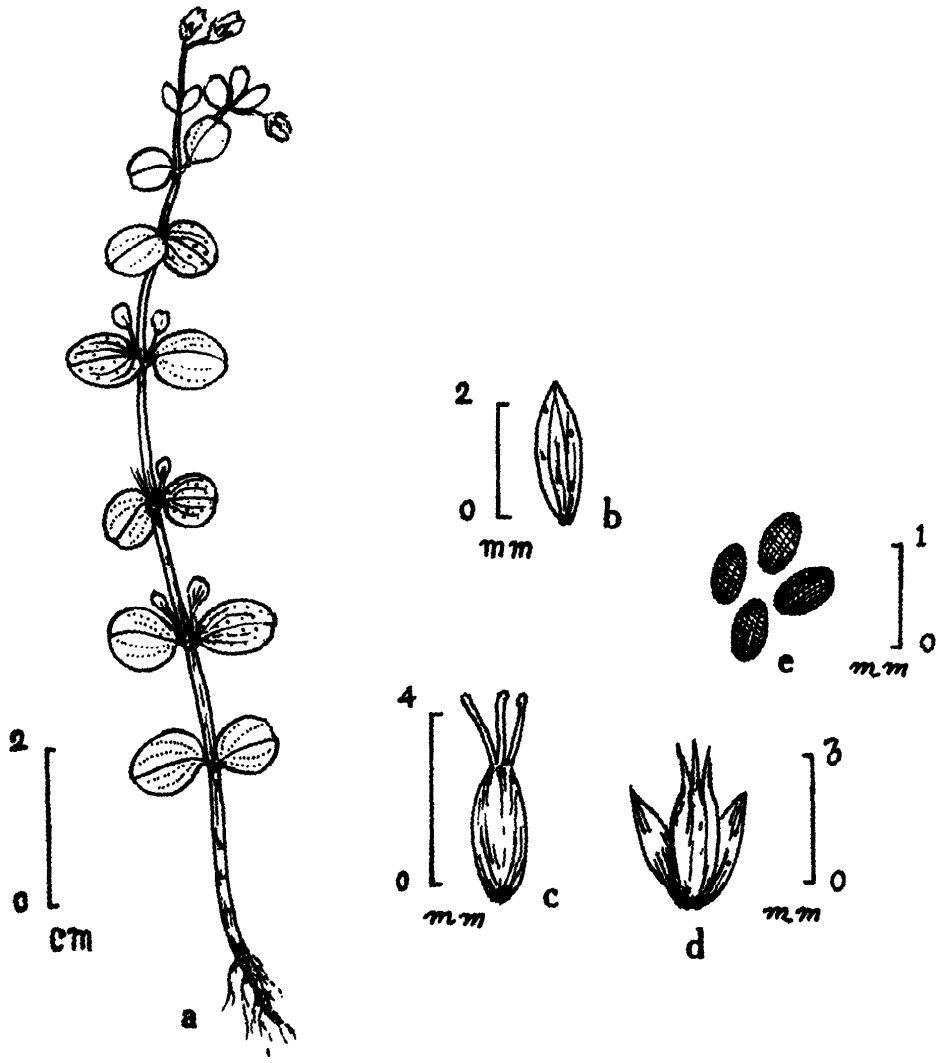
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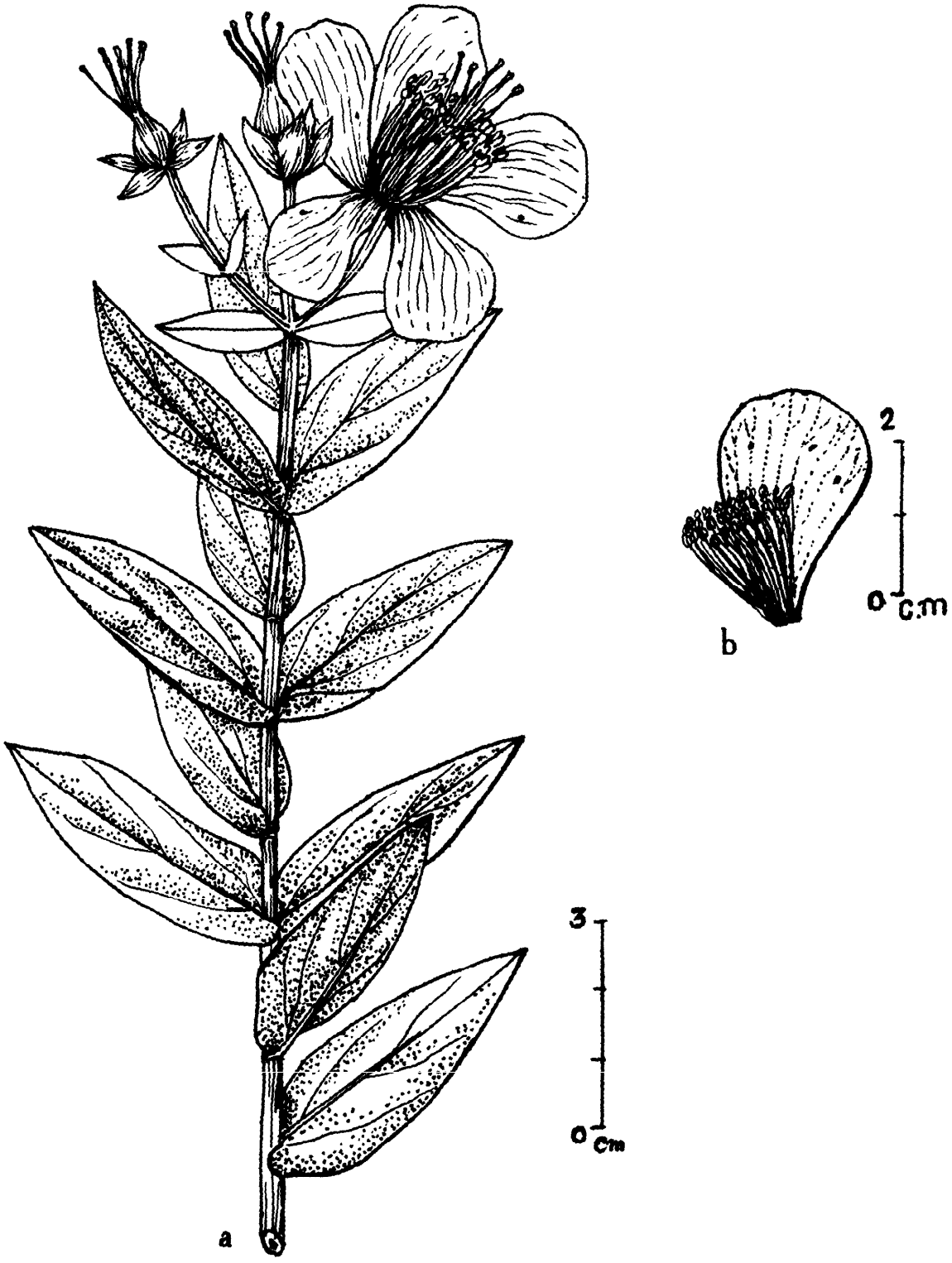


Hypericum benghalense S. N. Biswas, sp. nov.

Fig. 1 (a-e) : a. Habit b. A sepal. c. Stamen fascicles with sepals. d. A stamen fascicle. e. Accrecent pistil with persistent sepals.



Hypericum humifusum subsp. *suborbiculatum* S. N. Biswas subsp. nov.
Fig. 2 (a-e) : a. Habit. b. A Sepal. c. A Pistil. d. A capsule with persistent styles and sepals e. Few seeds.



Hypericum burmanicum S. N. Biswas sp. nov.

Fig. 3 (a-b) a. Habit. b. A petal with stamen fascicle