

UTRICULARIA KHASIANA (LENTIBULARIACEAE) — AN INTERESTING NEW SPECIES AND INSECTIVOROUS PLANT FROM SHILLONG, KHASI HILLS, MEGHALAYA, INDIA

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Utricularia khasiana Joseph et Mani sp. nov. est rara, sine flore, haud se obtrudens, fibrosa, libere, natans alga similis herbis in massis intricatis absque rhizoides, in aqua non profunda secundum margines aquae dulcis lacus (Ward lake, Shillong) sese propagans (ad modum plantae) vegetative per fragmentationem.

Haec nova "Taxon" similis est *U. cymbantha* Oliver [ut relatum est ex S. Africa, P. Taylor in Kew Bull. 18(1) : 209-212. 1964.] sed distincta in sequentibus proprietatibus vegetativis.

Internodia multo longiora (usque ad 10 mm), folium nonaequaliter sed semper inaequaliter bifurcum, ac segmenta foliorum non nuda sed spinosis squamis praedita; traps non centro fissurae sed subtenti super longius segmentum folii; pili traps prominenter multicellulosi ac pili medii labii inferioris non aequales sed longiores quam laterales; adsunt adiecti (5-8) pili secundum oram labii superioris inter antennae laterales loco nullius, principales antennae lateralis labii superioris bis longiores quam trap ac ramificate ultra medium et cum pluribus (3-5) pilis lateralibus ex una parte tantum dispositis.

Holotypus Joseph 76944 A (CAL) ac *Isotypi* Joseph 76944 B — E; [Joseph 76944 B — C (ASSAM), Joseph 76944 D (MH), Joseph 76944 E Rapinat Herbarium, Tiruchirapalli] sed 1-10-1980 in via Shillong (alt. ca 1496 m), Khasi Hills, Meghalaya, India. *Paratypi* Joseph 76947 (ASSAM) sed 6-10-1980

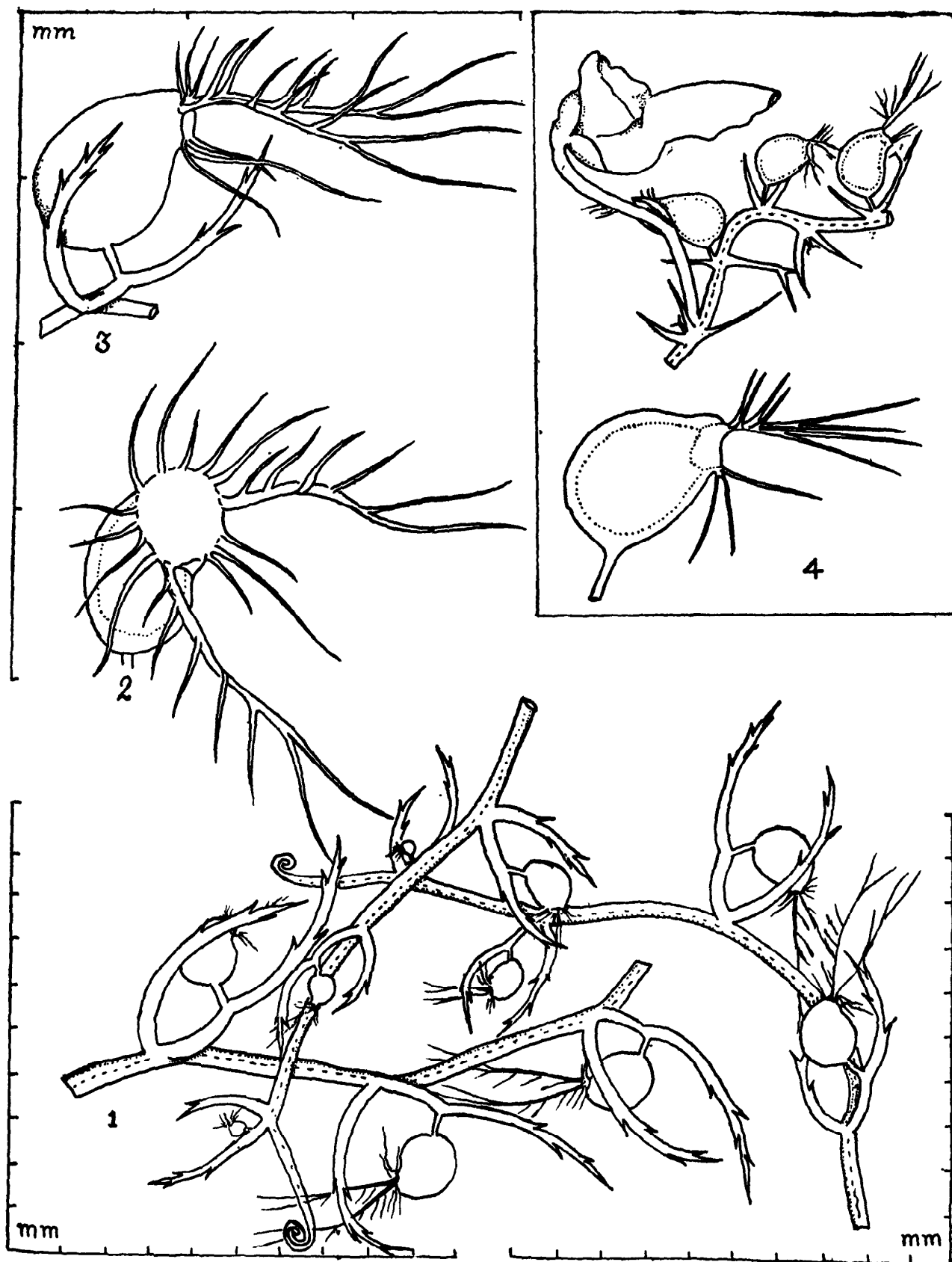
in via Shillong, (alt. ca 1496 m), Khasi Hills, Meghalaya, India.

Utricularia khasiana Joseph et Mani sp. nov. is a rare flowerless, rhizoidless, unobtrusive, filamentous, free floating, algae like herb in entangled masses, in shallow water along the margins of a fresh water lake, (Ward lake, Shillong), propagating only vegetatively by fragmentation.

This is allied to *U. cymbantha* Oliver [reported from S. Africa, P. Taylor in Kew Bull. 18(1) : 209-212. 1964.] but distinct in following vegetative characters.

Internodes much longer (up to 10 mm), leaf always unequally forked, and the segments of the leaves beset with spiny scales instead of bare; traps subtended in the longer segment of the leaf instead of from the centre of the cleft; hairs of the trap prominently multicellular and the mid hair of the lower lip longer than the lateral ones instead of equal; presence of additional (5-8) hairs along the rim of the upper lip in between the lateral antennae instead of none, main lateral antennae of the upper lip twice longer than the trap and branched beyond the middle and with more (3-5) second lateral hairs.

Holotype Joseph 76944A (CAL) and *Isotypes* Joseph 76944 B — E; [Joseph 76944 B — C (ASSAM), Joseph 76944 D (MH), Joseph 76944 E (Rapinat Herbarium, Tiruchirapalli)] on 1-10-1980 from Shillong (alt. ca 1496 m), Khasi Hills, Meghalaya, India.



Utricularia khasiana Joseph et Mani sp. nov.
 Figs. 1-4: 1. Habit. 2. Trap front view. 3. Trap lateral view (Joseph 76944).
 4. *U. cymbantha* Oliver (after Taylor).

Paratype Joseph 76947 (ASSAM) on 6-10-1980 from Shillong, (alt. *ca* 1496 m), Khasi Hills, Meghalaya, India.

This interesting species of *Utricularia* had been accidentally discovered by the senior author from the Ward Lake (hardly 23800 sq. m), Shillong, alt *ca* 1496 m in the year 1964 February. Eversince then it has been kept under observation for its flowering. In all this long period it has not flowered. Not withstanding the absence of flowers and its continued vegetative multiplication, it is clear that this is a distinctive species.

P. Taylor (1964) has suggested some temperate species of *Utricularia* rely mainly on vegetative reproduction. *U. khasiana* is a typical example of a vegetatively multiplying species. However, it is similar to *U. cymbantha* Oliver reported from southern hemisphere (Congo to Transval and Madagascar) in the general morphology of the plant body, but distinct in many characters as given above.

The specific epithet is after the geographical area — The Khasi hills.

U. khasiana Joseph et Mani sp. nov.

Stolons *ca* 0.2 mm thick, capillary, profusely branching, circinate at tip. *Leaves* 1.0-5.0 mm long, acicular, at long intervals (up to 10 mm) forked from the base, very unequal, slightly incurved, beset with spiny scales, bearing solitary traps. *Traps* *ca* 1.0 × 1.0 mm, subtended on the longer leaf-segment,

pyriform, shortly stalked laterally; stalk *ca* 0.3 mm long; mouth oblique with obscure upper and lower lips; hairs on the rim of the mouth multicellular; lower lip with 3 diverging hairs of which the mid one is longer; upper lip with 3-8 short hairs along the rim in between the lateral antenna like hairs; antenna filiform, twice longer (*ca* 2 mm) than the trap, branched beyond the middle and with usually 5 (3 or 4) simple lateral second hairs. Flowering not noticed.

The production of *turion* (resting bud) also has not been noticed in this. The water in this small lake, though very cold in winter, never freezes. These plants seem to prefer the marginal still waters along with *Polygonum laccidum* Meissn. and other aquatic grasses, as also *Nelumbium* sp.

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