A NEW SPECIES OF *AESCHYNANTHUS* (GESNERIACEAE) FROM ARUNACHAL PRADESH, INDIA

Aeschynanthus tirapensis Bhattacharyya sp. nov.

Species affinis *A. micrantho* C. B. Clarke, sed differt foliis brevioribus, plus succulentis, apice acutis ad sub-acutis, infra pilosis, caulibus crassibus cum internodis brevioribus, ramis terminalibus plus foliosis, minute pilosis, corollae tubo longiore latioreque apice abrupte flexo tumido, filaments sparsim pilosis, ovario sessili crassiore glabro, styloque glandul aripiloso.

Holotypus lectus a *G. Panigrahi*, ad locum Tirap F. D., Arunachal Pradesh, subnumero 17015A, die 8 Sept. 1958, et positus in CAL, sub mumero accessionis 18329. Isotypus *G. Panigrahi* 17015B positus in ASSAM.

Herba perennis repens in terra petrosa. Caulis *ca* 1 m longus radicans ad nodos parum tumidos, sublignosus in partibus vetustioribus, 2-4 mm in diam, subsulcatus, internodia 2-4 cm longa cum cortice pallida, rami modice flexuosi et minute strigosi in partibus junioribus. Folia opposita, ovata ad elliptica, crassa, succulenta, 1-3 cm × 0.6-1.0 cm, ad marginem integra, tenuiter cartilaginea et parum revoluta, ad acuta ad subacuta, ad basin cuneata, supra glabra, infra pallida, adpresse strigosa, demum glabrata, folia internodiis breviora, nervi utrinque obscuri, midvena infra prominens, petiolus 2-3 mm, paulo crassus, glaber vel primo sparsim pilosus. Flores sanguinolenti, solitarii, axillares vel terminales in calcari brevi ramificanti, pedicellus gracilis, 1.2-1.4 cm longus, subsulcatus, sparsim glandularipilosis. Calyx 6-8 mm, lobi 5, aequales, lineari- lanceolati, viridis, fere liberi ad basin, acuti ad subacuti, extus pilosi, intus glabri. Corolla 3-3.2 cm, haematina colorata, tubus deorsum late angustatus, abrupte curvatus et leniter tumidus ad 2/3 altitudinem e basi, lobi 5, breviter rotundati, *ca* 2 mm, subaequales, unusquisque lobus cum stria fusca e extremo subterminali, segmenta sub-erecta plusminusve conniventia. Stamina 4, fertilia, didynama, plus quam 1 cm, exserta supra ore corollae, filamenta gracilia, sursum sparsim pilosa, deorsum glabra dilatataque, 1.3 cm supra basin inserta, antherae oblongae, unilateraliter dorsifixae et ad apicem cohaerentes. Gynoecium *ca* 2.3 cm, intra tubus inclusa, sessile in disco cupulari, ovarium lineari-oblongum, glabrum, stylus crassus, abrupte angustatus, ad dimidium ovarii attingens, glandulari- pilosus, stigma capitata, leniter emarginata, glabra. Fructi non visi.

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The species is allied to *A. micranthus* C. B. Clarke but differs in having smaller more succulent, leaves with acute to subacute apex, hairy on lower surface, thicker stems with shorter internodes, more leafy minutely hairy terminal branches, longer wider corolla tube with sharply bent tumid top, sparsely hairy filaments, sessile stouter glabrous ovary and pilosely glandular hairy style.

Holotype : Tirap Frontier Division, Arunachal Pradesh, *G. Panigrahi* 17015A, Sept. 8. 1958 deposited in the CAL bearing Acc. No. 18329 of the ASSAM. The Isotype bearing Coll. No. 17015B is preserved in the ASSAM herbarium. The specific epithet has been attributed to the locality of collection of the species.

Creeping perennial herb on rocky surface. Stem about a metre long, rooting at slightly swollen nodes, subwoody in older parts, 2-4 mm in diam., sub-sulcate, internodes 2-4 cm long with pale flakey bark, branches moderately flexuous and minutely strigose hairy at younger parts. Leaves opposite, ovate to elliptic, thickly succulent 1-3 cm by 0.6-1.0 cm, margin entire thinly cortilaginous and slightly revolute, apex acute to subacute, base cuneate, glabrous above, adpressedly strigose hairy on pale lower surface, finally glabrate, leaves shorter than internodes, nerves obscure on both surfaces, midvein prominently raised beneath, petiole 2-3 mm rather thick, glabrous or sparsely hairy at early stage. Flowers blood-red, solitary,

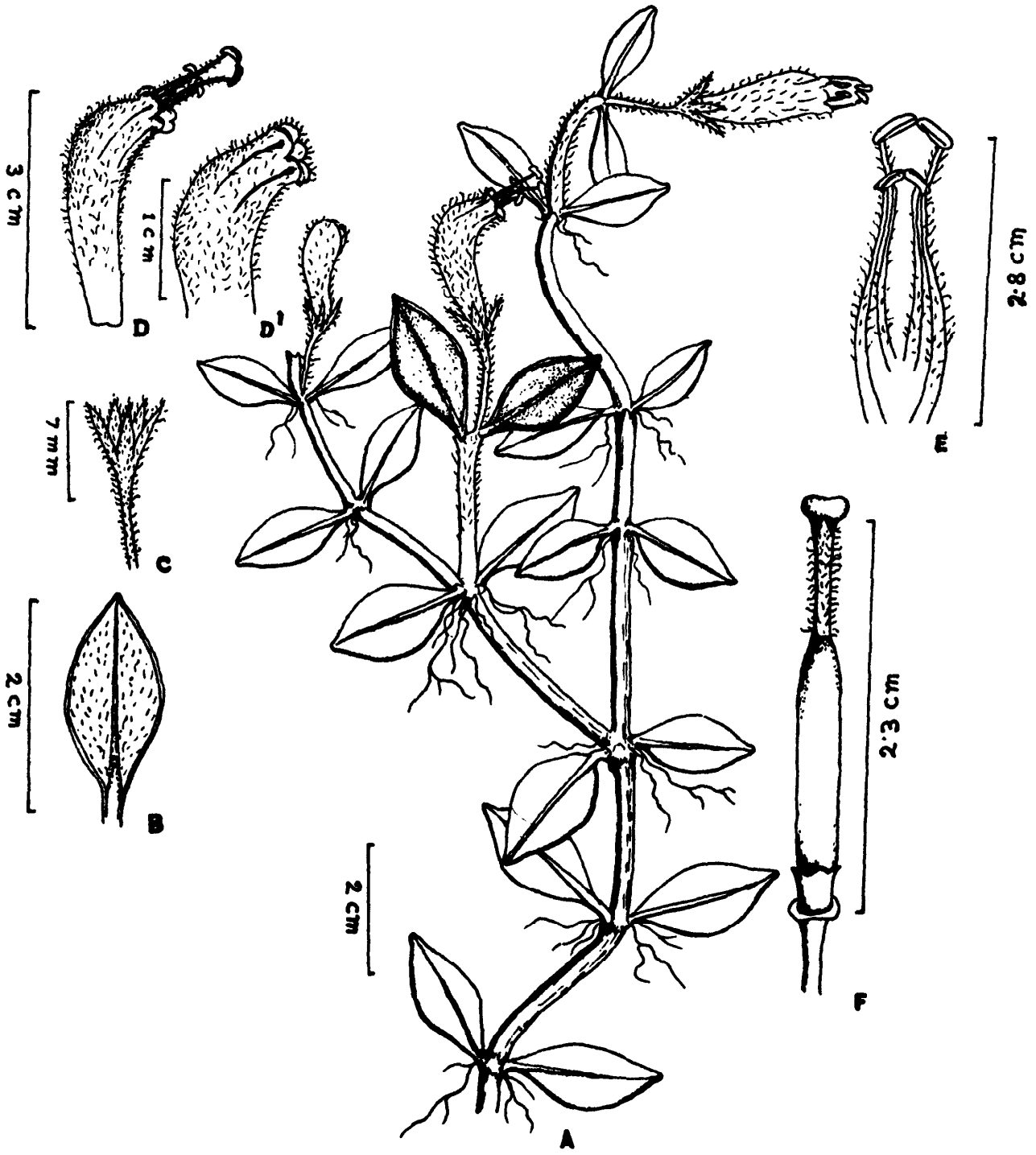


Fig 1. A-F: *Aeschynanthus tirapensis* sp. nov. A Habit; B. Leaf showing lower surface; C. Calyx; D. Corolla with and without stamens; E. Didynamous stamens; F. Overy showing basal disc, style and stigma.

axillary or terminal on short branching spurs, pedicels slender 1.2-1.4 cm long, sub-sulcate, sparsely glandular pilose hairy. Calyx 6-8 mm, lobes 5 equal, linear lanceolate, green, almost free to base, acute to sub-acute, pilose hairy outside, glabrous within. Corolla 3-3.2 cm, blood-red in colour, tube broadly narrowed below, abruptly curved and gently tumid at 2/3 from base, lobes five, short rounded, *ca* 2 mm, sub-equal with a dark streak from sub-terminal end of each lobe, segments sub-erect more or less connivent. Stamens 4 fertile, didynamous, exerted more than 1 cm above corolla mouth, filaments slender and sparsely hairy above, glabrous and dialated below, inserted 1.3 cm above base, anthers oblong, unilaterally dorsifixed and coherent by tips. Gynoecium *ca* 2.3 cm, included within tube, sessile on thin cupular disc, ovary linear oblong glabrous, style thick, abruptly narrowed *ca* 1/2 as long as ovary, glandular pilose, stigma capitate, gently notched, glabrous. Fruits not seen.

Fl. & Fr. : Sept. to (?) Nov.

Distribution : India : Arunachal Pradesh between Rusa to Bimalpur in Tirap Frontier Division.

This rare species is represented by a single collection by Dr. G. Panigrahi from Arunachal Pradesh which is a unique area for speciation of the genus *Aeschynanthus*. In absence of fruits, its sectional attribution is no doubt a matter of assumption but considering its major taxonomical characters most probably the taxon will occupy a position in the Section *Haplotrichium* recognised by C. B. Clarke and B. L. Burtt and others, where seeds are provided with a single hair at each end. Inspite of its collection as early as in 1958 the species remained unnoticed by specialists since no subsequent gathering has been made and the present taxon was identified as *A. masoniae* Kurz. ex C.B.Cl. and housed in the ASSAM herbarium in absence of any comparable specimen. Thanks to Prof. B. L. Burtt of Edinburgh who has been kind enough to send me a checklist of Gesneriaceae of India and neighbouring countries and also an English translation of Prof. T. Wang's key to Chinese Gesneriaceae. Those documents, have asserted to come to the conclusion in describing this interesting taxon as new to science.

ACKNOWLEDGEMENTS

The author is thankful to Dr. P. K. Hajra, Director, Botanical Survey of India, for extending facilities and untiring help and to Dr. N. C. Majumdar for providing latin translation of the text.

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A NEW SPECIES OF FERN GENUS *LOXOGRAMME* PRESL. FROM SOUTH INDIA

During the course of revisionary studies of the genus Loxogramme Presl. (Loxogrammaceae Pic. Ser.) in India, the authors came across two specimens being to an old and a recent collection from the Nilgiri hills in Tamil Nadu. These specimens different entirely from all other known Indian specimens. That prompted us to work out these specimens in detail.

Sledge (1960) reported *L. parallela* Copel., from Sri Lanka and South India is synonymous to *L. lanceolata*. Later he remarked that "the distinctions between this species and *L. lanceolata* (Sw.) Presl. are ill defined" and also expressed that "Nilgiri specimens often have obliquely diverging sori, the distal ends of which half way or more to the frond margin". These remarks led the authors to scrutinise these specimens more critically along with other specimens at CAL and other Regional herbaria of Botanical Survay of India including MH. Sledge (*l.c.*) referred "Commerson and