

roots; scales lanceolate, subulate, 0.8-1.25 cm $\times$ 0.25-0.5 mm with toothed margin, lateral walls of the cells of scales dark-brown, thick and rugose whereas superficial and marginal walls very thin and translucent; fronds densely tufted, 3-12 cm $\times$ 0.5-1 mm, linear-filiform, shortly acute at apex, uncostate, lateral veins absent; sori narrow, linear-elongate un-interrupted, usually above the middle of the frond borne in vaginiform expansion of costa and dilating the lamina, paraphyses capitate, annular cells 17-19, spores trilete, 28-35 μ in diameter, translucent.

It is apparently a very rare fern in Malaya. Plants are small, grass like in appearance and grow as epiphytes on trees or on rock in damp and shady situations.

Specimens examined: MALAYA: Perak: Larut Range, Feb. 1882, *Kunstler* 2785; *s.l.* 5489, Accession no. 24042 at 3000 ft. elevation. MALAYAN-ARCHIPELAGO-JAVA: *Forbes* s.n., Accession no. 24053; 24055; *Bakhwhthen* 4462; July, 1880, *Kunstler* 339. SRILANKA: Central Province, *Brekett* 110 at 3000-5000 ft. elevation, *s.l.* 1281.

ACKNOWLEDGEMENTS

Grateful thanks are due to the Director, Botanical Survey of India, Howrah for encouragement and interest and also to the Deputy Director, Central National Herbarium, Howrah for lending the herbarium specimens of the family Vittariaceae. Thanks are also due to Shri S. N. Biswas for typing the manuscript.

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NEW AND LITTLE KNOWN TAXA FROM ANAIMUDI AND SURROUNDING REGIONS, DEVICOLAM, KERALA—V: A NEW VARIETY OF *POGOSTEMON TRAVANCORICUS* BEDD.

***Pogostemon travancoricus* Bedd. var. *devicolamensis* Shetty & Vivekananthan, var. nov.**

var. *travancorico* affinis, tamen differens dentibus calycis intus hirsutis; corolla arcte venosa, lobis labii superi extus sparse pubescentibus, labio medio apice acuto.

Suffrutices 1-2 m alti, perpurpurei; caules et ramuli obscure quadrangulares, laeves, glabri. Folia 3.8-18.6 cm longa, 1.3-6 cm lata, opposita, ovata usque elliptica, rotundata vel angustata et basi inaequilateralia, apice acuta, duplicato crenato-serrata, sicco nigrescentia, supra sparsim ciliata; nervi 4-6 utro-

que latere, supra impressi, infra vero prominentes; petioli 0.8-8 cm longi. Racemi usque 33 cm longi, sicco nigrescenties; verticilli approximati; bracteae 1-4 mm longae, lineares; bracteolae 1-2 mm longae, lineares; pedicelli $\pm$ 1 mm longi, gracilli. Calyx 4.5-5.5 mm longus, tubularis, ad basim leviter angustatus; dentes 5, subaequales, basi lati, ad apicem vero angustati, intra hirsuti. Corolla 7-8.5 mm longa, luteo-viridis, subbilabata, arcte venosa; labium superum 3-lobatum, lobi laterales rotundati, sparsim ciliata extus; lobus medius vero acutus, extus pubes-

cens; labium inferum integer, acutum, glabrum. Stamina 4, unumquodque 0.8-1.1 cm longum, exsertum, subaequale; filamenta duorum staminum labio supero, basi capillis albis barbata, affixa; antherae reniformi. Discus subinteger. Ovarium 4-partitum, glandulosum; stylus 0.8-1.3 cm longus, filiformis; stigma bifidum. Semina 4, uterque 0.8-1 mm longum, uno latere rotundatum, altero vero angulatum, niger, glandulis paucis deciduis. (Figs. 1-7).

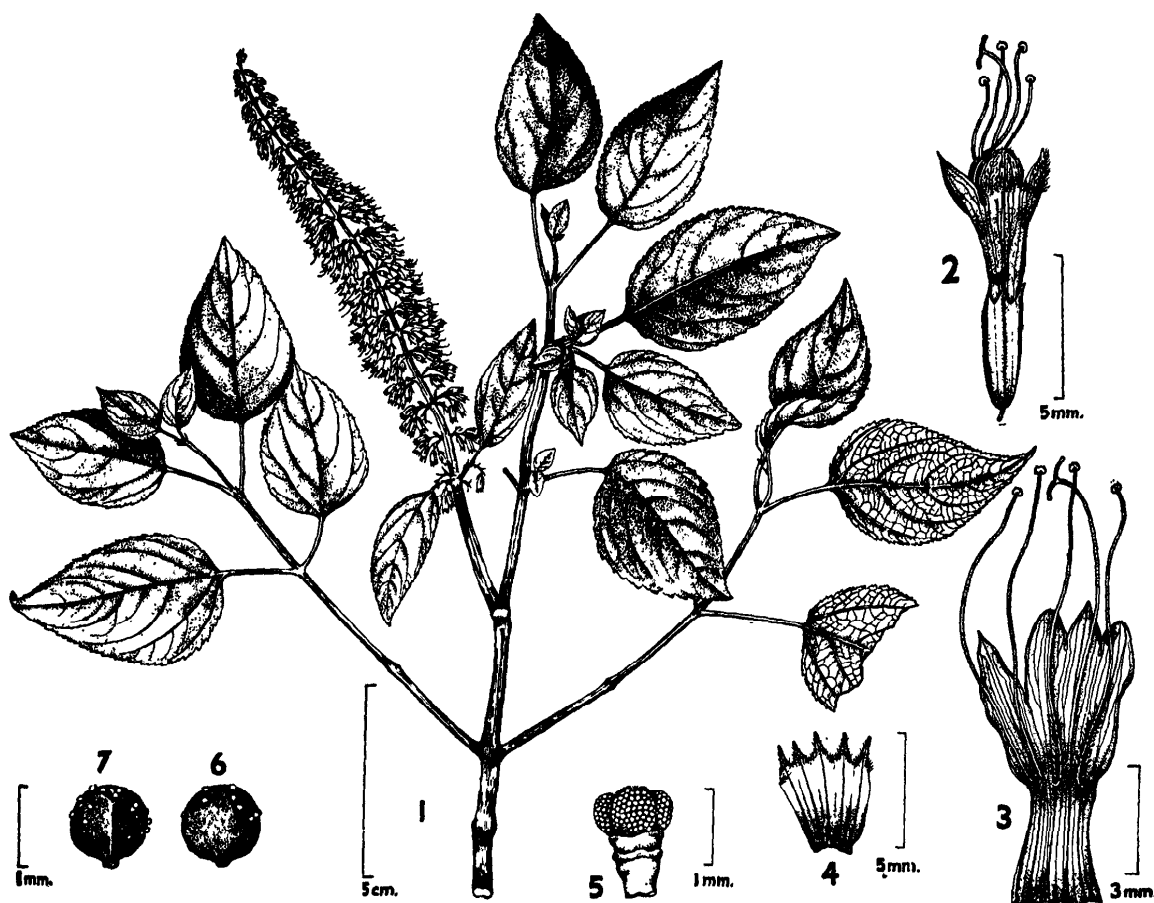
Typus Shetty & Vivekananthan 33420 A (Lower Vagavurrai, Devicolam, Kerala, India meridionali, 1800 m, 5-2-1970), positus in herbario centrali nationali Calcuttensis (CAL); isotypi Shetty & Vivekananthan 33420 B-Z et paratypi Shetty & Vivekananthan 27370 A-F (eodem loco, 25-4-1966) sunt

positi in herbario regionali Bot. Surv. India, apud Coimbatore (MH).

Pogostemon travancoricus Bedd. var. **devicolamensis** Shetty & Vivekananthan, var. nov.

Allied to var. *travancoricus*, but differs in the calyx-teeth being hirsute within; corolla closely veined, lobes of upper lip sparsely pubescent without and the mid-lobe acute at apex.

Undershrubs, 1-2 m tall, pigmented deep purple; stems and branches obscurely 4-angled, smooth, glabrous. Leaves 3.8-18.6 × 1.3-6 cm, opposite, ovate to elliptic, rounded or tapering and inaequilateral at base, acute at apex, doubly crenate-serrate, turning black when dry, sparsely hairy above; secondary nerves 4-6 per side, impressed above,



Pogostemon travancoricus Bedd. var. *devicolamensis* Shetty & Vivek., var. nov.

Figs. 1-7: 1. Flowering branch. 2. Flower. 3. Corolla split open. 4. Calyx split open to show calyx-teeth hirsute within. 5. Disc & ovary. 6 & 7. Two views of nutlets with a few deciduous glands.

raised below; petioles 0.8-8 cm long. Racemes up to 33 cm long, turning black when dry; whorls close; bracts 1-4 mm long, linear; bracteoles 1-2 mm long, linear; pedicels ± 1 mm long, slender. Calyx 4.5-5.5 mm long, tubular, slightly narrowed towards base; teeth 5, subequal, broad at base, narrowed towards the tip, hirsute within. Corolla 7-8.5 mm long, greenish pale yellow, subbilabiate, closely veined; upper lip 3-lobed, lateral lobes rounded, sparsely pubescent without, the middle acute, pubescent without; lower lip entire, acute, glabrous. Stamens 4, each 0.8-1.1 cm long, exserted, subequal; filaments of two stamens attached to the upper lip bearded with white hairs at base; anthers reniform. Disc subentire. Ovary 4-partite, glandular; style 0.8-1.3 cm long, filiform; stigma bifid. Nutlets 4, each 0.8-1 mm long, rounded on one side, angled on the other, black with a few deciduous glands. (Figs. 1-7).

Holotype, *Shetty & Vivekananthan* 33420 A

(Lower Vagavurrai, Devicolam, Kerala, South India, 1800 m, 5-2-1970) has been deposited in the Central National Herbarium, Calcutta (CAL); isotypes *Shetty & Vivekananthan* 33420 B-Z and paratypes *Shetty & Vivekananthan* 27370 A-F (same locality, 25-4-1966) have been deposited in the Regional Herbarium, Botanical Survey of India, Coimbatore (MH).

ACKNOWLEDGEMENTS

The authors wish to express their grateful thanks to Dr. S. K. Mukerjee, former Keeper, Central National Herbarium, Howrah for his valuable opinion on the specimen and to Rev. Fr. K. M. Matthew for translating the description into Latin.

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TWO NEW GRASSES FROM MARATHWADA

During the course of studies on the grass flora of Marathwada region on the Deccan Plateau of India, two species revealed to be new to science. These are described in the present paper.

Isachne bicolor Naik et Patunkar spec. nov.

Herba annua decumbens, 30-45 cm alta; culmus laevis; nodi glabri, pilosi. Folia 35-45 $\times$ 3-7 mm, anguste ovato-lanceolata, utraque facie capillis bullatis tecta; nervi 11-15 utraque costae parte fere distincti; margines integrae vel serrulatae, cartilagineae; vaginae pilosae vel in medio glabrae, superiores vero marginibus exceptis glabrae. Panicula anguste effusa, 2-5 cm longa; rami adscendentes, inferiores 1-1.5 longi. Rami et pedicelli filiformes vittis luteis glandulosis. Spiculae late ovatae, 2.75-3.25 mm. Glumae fere

orbiculares, apiculatae vel non, 2.5-3 mm diam., glabrae vel dorso capillis bullatis, 5-9 nerves. Flosculi similes, lemmata bicolorata, dorso dense pilosa, 2.25-2.5 mm diam., concava. Palea bicarinata, fere complete lemmatibus tecta.

I. kinabaluensi Murr. simillima sed foliis conspicue nervatis et capillis bullatis tectis, spiculis longioribus, glumis pilosis, lemmatibus bicoloratis et omnino pubescentibus differt.

Patunkar 1849A (Typus) et B-E (Isotypi) lectus in Mhaismal plateau, Aurangabad die 8-10-1973, positi in herbario Marathwada University, Aurangabad.

Isachne bicolor Naik et Patunkar spec. nov.

Decumbent annual 30-45 cm tall; culms smooth; nodes glabrous or pilose. Leaves