

TAYLORIOPHYTON: A NEW MALAYSIAN GENUS OF MELASTOMATACEAE

M. P. NAYAR

Botanical Survey of India, Calcutta

ABSTRACT

A new genus *Tayloriophyton* based on *Tayloriophyton glabrum* Nayar and *T. longisetosum* (Ridl.) Nayar is described with illustrations. A new variety *T. glabrum* var. *sessilifolium* is also proposed.

INTRODUCTION

During a study of unidentified specimens of Melastomataceae of Malaysia in the Herbarium, Royal Botanic Gardens, Kew it is found that the specimens *Richards* 1279 and *Richards* 2329 collected by the Oxford University Expedition to Sarawak in 1932, could not be assigned to any known genera as they have the characteristic widely campanulate calyx tube, minute petals and ovate-oblong or oblong anthers which are inappendiculate. It is also seen that the above cited specimens are closely allied to *Allomorphia longisetosa* Ridl. a species described from Johore, Malaya on the basis of *Holtum* 15050. While describing the type of *A. longisetosa* Ridley (1926) commented that "the stamens, however, are short and the anther bluntly oblong, not beaked as in most *Allomorphias*." Besides the shape of the calyx tube in *Allomorphia* is fusiform, whereas in *A. longisetosa* the calyx tube is widely campanulate. In the present study a new genus *Tayloriophyton* is proposed for the above mentioned taxa. These represent a homogenous group of undershrubs with oblanceolate or elliptic-lanceolate leaves, small flowered paniced inflorescence, widely campanulate calyx tube with eight ribs and ovate-oblong or oblong anthers which are inappendiculate both dorsally and ventrally.

The genus comprises two species: i. *Tayloriophyton glabrum* Nayar, endemic to Borneo; ii. *T. longisetosum* (Ridl.) Nayar, endemic to Malaya. The name *Tayloriophyton* is given in honour of Sir George Taylor, Director, Royal Botanic Gardens, Kew.

Tayloriophyton Nayar gen. nov. Pertinet ad Oxysporeas Triana, affinisque *Allomorphiae* Blume, a qua tamen differt, calycis tubo late campanulato, antheris ovato-oblongis vel oblongis, connectivo inappendiculato, capsula globosa. Suffrutex ad 1-2 m altus. Ramis teretibus juniori-

bus subangulatis. Folia opposita, oblanceolata vel elliptico-lanceolata, ad basin cuneata, ad apicem acuminate vel abrupte acuminate, 3-5 nervia, venulis transversis distinctis et prominentibus, petiolata vel sessilia. Petiolus glaber vel longe setosus. Flores minuti in cymas paniculatas axillares dispositi. Calycis tubus late campanulatus, glaber vel puberulus, 8-costatus, limbus 4-lobatus. Petala 4, minuta, ovato-lanceolata vel lanceolata. Stamina 8, aequalia, filamentis brevibus filiformibus, antheris ovato-oblongis vel oblongis, apice obtusis, connectivo non producto basi inappendiculato. Ovarium 4-loculare. calycis tubo septis 8 adnatum, apice glabrum. Stylus filiformis, glaber, stigmate punctiformi. Capsula globosa, parva. Semina minuta, cuneata.

Typus: Tayloriophyton glabrum Nayar

Tayloriophyton Nayar gen. nov. Belongs to the tribe Oxysporeae Triana and is related to the genus *Allomorphia* Blume, but differs in having widely campanulate calyx tube, ovate-oblong or oblong anthers, inappendiculate connective and globose capsule.

Undershrub, about 1-2 m high. Branches terete, subangulate when young. Leaves opposite, oblanceolate or elliptic-lanceolate, cuneate at the base, acuminate or abruptly acuminate at the apex, 3-5 nerved, transverse venules distinct and prominent, petiolate or sessile. Petiole glabrous or setose. Flowers minute, in axillary paniculate cymes. Calyx tube widely campanulate, glabrous or puberulous, 8-ribbed, 4-lobed. Petals 4, minute, ovate lanceolate or lanceolate. Stamens 8, equal, filaments short and filiform, anthers ovate-oblong or oblong apex obtuse, connective not produced and basally inappendiculate. Ovary 4-chambered, adnate with the calyx tube with 8 septa, apex glabrous. Style filiform, glabrous, stigma punctiform. Capsule globose, small. Seeds minute, cuneate.

Type of the genus: Tayloriophyton glabrum Nayar.

KEY TO THE SPECIES OF *TAYLORIOPHYTON*

1. Leaves glabrous, petiolate or sessile,
petiole glabrous, anther ovate-
oblong, 1.2 mm long ... *T. glabrum*
2. Leaves petiolate, petiole 1.6-
2 cm long ... *T. glabrum* var. *glabrum*

2. Leaves sessile ... *T. glabrum* var. *sessilifolium*

1. Leaves setose and puberulous, long
petiolate, petiole 4.5-6 cm long,
petiole long setose, anther oblong
2.2 mm long. ... *T. longisetosum*

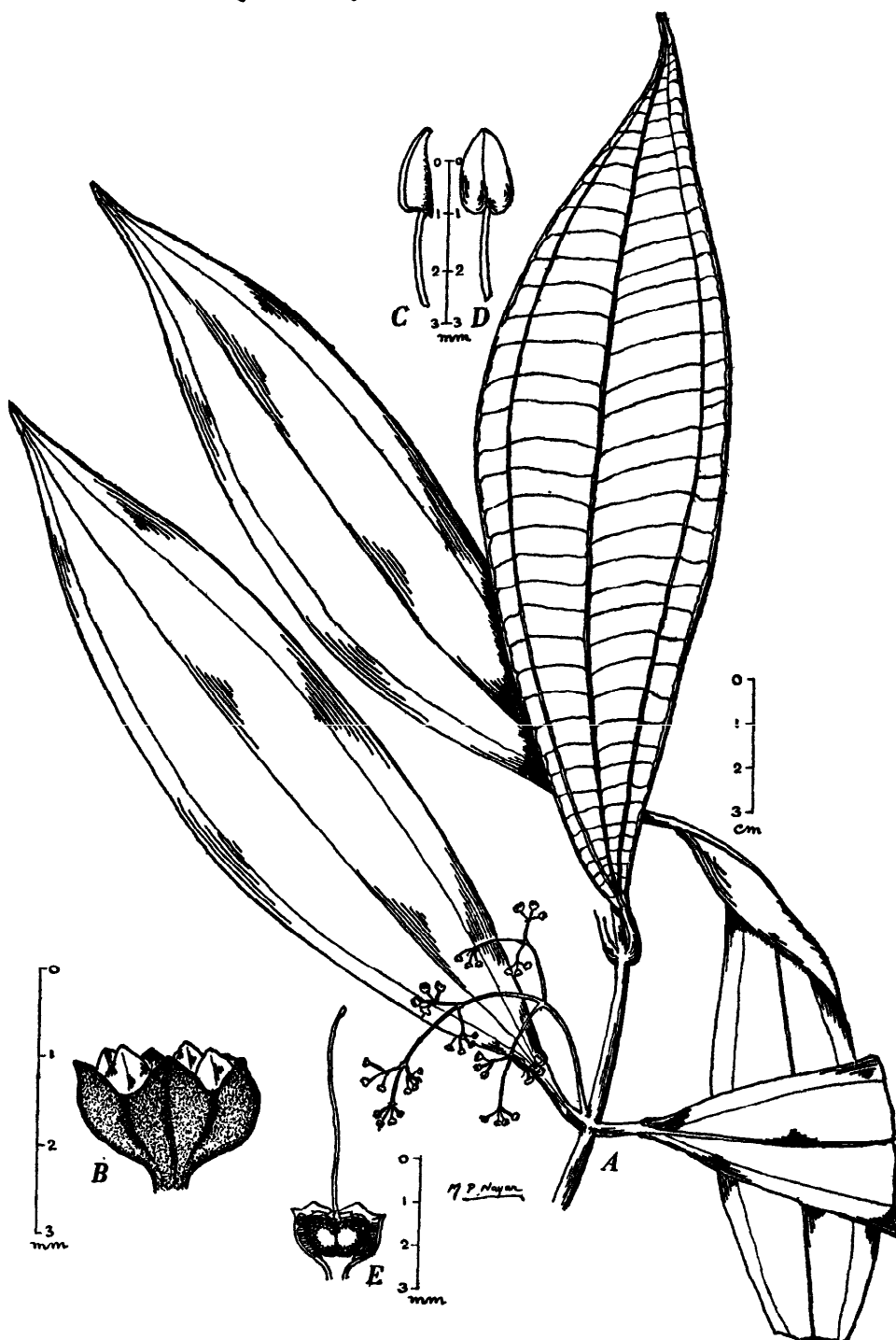


Fig. 1 : *Tayloriophyton glabrum* Nayar sp. nov.
A. Habit. B. Calyx tube with petals. C. Stamen—side view. D. Stamen—ventral
view. E. L, S, of calyx tube,

Tayloriophyton glabrum Nayar sp. nov. (Fig. 1.)
affine *T. longisetosum* (Ridl.) Nayar; sed ramis et
foliis glabris, petiolis minoribus, antheris ovato-
oblongis minoribus differt.

Suffrutex c. 1 m altus. Ramis teretibus, junioribus irregulariter angulatis, glabris. Folia lanceolata vel elliptico-lanceolata, 20-30 cm longa, 6-8 cm lata, ad basin cuneata, ad apicem acuminata, ad margines integra, glabra in utraque pagina, 3-5 nervia, venulis transversis distinctis, subcoriacea. Petiolus 16-20 mm longus, glaber. Inflorescentia axillaris, laxely paniculata, ad 7 cm longa, minute puberula. Pedicellus 3.5 mm longus. Calycis tubus late campanulatus 1 mm longus, 4-dentatus, dentis late triangularibus 0.3 mm longis. Petala 4, minuta, ovata 0.5-0.8 mm longa. Stamina 8, aequalia, filamentis filiformibus 1.8-2 mm longis, antheris ovato-oblongis 1-1.2 mm longis, apice obtusis, connectivo non producto, basi inappendiculato. Ovarium calycis tubo septis 8-adnatum, apice glabrum. Stylus filiformis, 5 mm longus, penitus glaber, stigmate punctiformi.

Holotypus: Richards 2329 (K).

Undershrub, about 1 m high. Branches terete, irregularly angulate when young, glabrous. Leaves lanceolate or elliptic-lanceolate, 20-30 cm long, 6-8 cm wide, cuneate at the base, acuminate at the apex, margins entire, glabrous on both the surfaces, 3-5 nerved, transverse venules distinct, subcoriaceous. Petiole 16-20 mm long, glabrous. Inflorescence axillary, laxely paniculate, about 7 cm long, minutely puberulous. Pedicel 3.5 mm long. Calyx tube widely campanulate, 1 mm long, 4-dentate, lobes widely triangular 0.3 mm long. Petals 4, minute, ovate, 0.5-0.8 mm long. Stamens 8, equal, filaments filiform, 1.8-2 mm long, anther ovate-oblong 1-1.2 mm long, apex obtuse, connective not produced, inappendiculate basally. Ovary adnate to the calyx tube by 8 septa, apex glabrous. Style filiform, 5 mm long, glabrous throughout, stigma punctiform.

Distribution: BORNEO: Sarawak, near Long Kapa, Mt. Dulit, alt. under 300 m, 26 Oct. 1932, Richards 2329 (Holotype K); *Ibid.*, 15 Aug. 1932, Richards 1279 (K, L); Left bank of Batang Tinjar, near Long Palau, IVth Div., 7 Aug. 1963, Fuchs 21221 (K, L).

T. glabrum Nayar is characteristic in having glabrous branches and leaves. It differs from *T. longisetosum* (Ridl.) Nayar in having smaller (1.2 mm long) ovate-oblong anthers and shortly petiolate leaves (1.6-2 cm long petiole). Whereas in *T. longisetosum* the leaves and petioles are pub-

erulous and setose, petioles are longer (4.5-6 cm long) and the anthers are longer (2.2 mm long) and oblong.

A variety 'sessilifolium' is proposed for the material from W. Koetai (Ender 2824) having sessile leaves.

var. **sessilifolium** Nayar var. nov. a typo foliis sessilibus differt.

Typus: Ender 2824 (Holotypus K; Isotypus L).

Distribution: BORNEO: Indonesian Borneo, W. Koetai, No. 24/25, near L. Iboet, alt. c. 250 m, 23 Aug. 1925, Ender 2824 (Holotype K; Isotype L); *Ibid.*, No. 36, near L. Petah, alt. 800 m, 12 Sept. 1925, Ender 3196 (K, L); Sarawak, Bilengki Bakelalan, 17 Aug. 1955, W. M. A. Brooke 10444 (BM, L).

Tayloriophyton longisetosum (Ridl.) Nayar comb. nov. (Fig. 2).

Allomorpha longisetosa Ridley in Kew Bull. 471, 1926.

Subshrub. Stem minutely puberulous. Leaves oblanceolate, 16-30 cm long, 4-8 cm wide, base obtuse or cuneate, apex abruptly acuminate, upper surface sparsely setose, under surface along the nerves and cross-venules setose, undersurface usually yellowish green when dry, 5-nerved, 30-40 distinct parallel cross-venules present, membranous. Petiole 4.5-6 cm long, densely long setose, bristles 1-2 cm long. Inflorescence axillary, 8-15 cm long, glabrous. Pedicel 5-6 mm long. Calyx tube widely campanulate, 1 mm long, 8-ribbed, limb 4-lobed. Petals 4, minute, ovate-lanceolate, 0.5-0.8 mm long. Stamens 8, filament 1-1.4 mm long, anther oblong 2.2 mm long, inappendiculate dorsally and ventrally. Ovary concrescent with the calyx tube by 8 septa, extra-ovarial chambers 8, chambers all descending to the base of the ovary. Style filiform, 6-7 mm long, glabrous, stigma punctiform. Capsule globose, 2.5 mm long.

Distribution: Endemic to Malaya. MALAYA: Johore, Gunong Pantai, *Holttum* 15050 (Holotype K); *Ibid.*, Kota Tinggi water fall, alt. 33 m, 2 Feb. 1959, Md. Shah MS. 453 (K); *Ibid.*, Pantai West P.R., 6 Mar. 1939, *Symington* 35771 (K); *Ibid.*, Gunong Pantai, alt. 333 m, *Holttum* 19861 (BM); Gunong Pantai West, North of Kota Tinggi, alt. 533 m, 6 May 1963, L. F. H. Merton 5005 (K); Rotan susor, alt. 100 m, 4 Mar. 1928, Md. Nur SFN 19991 (BM).

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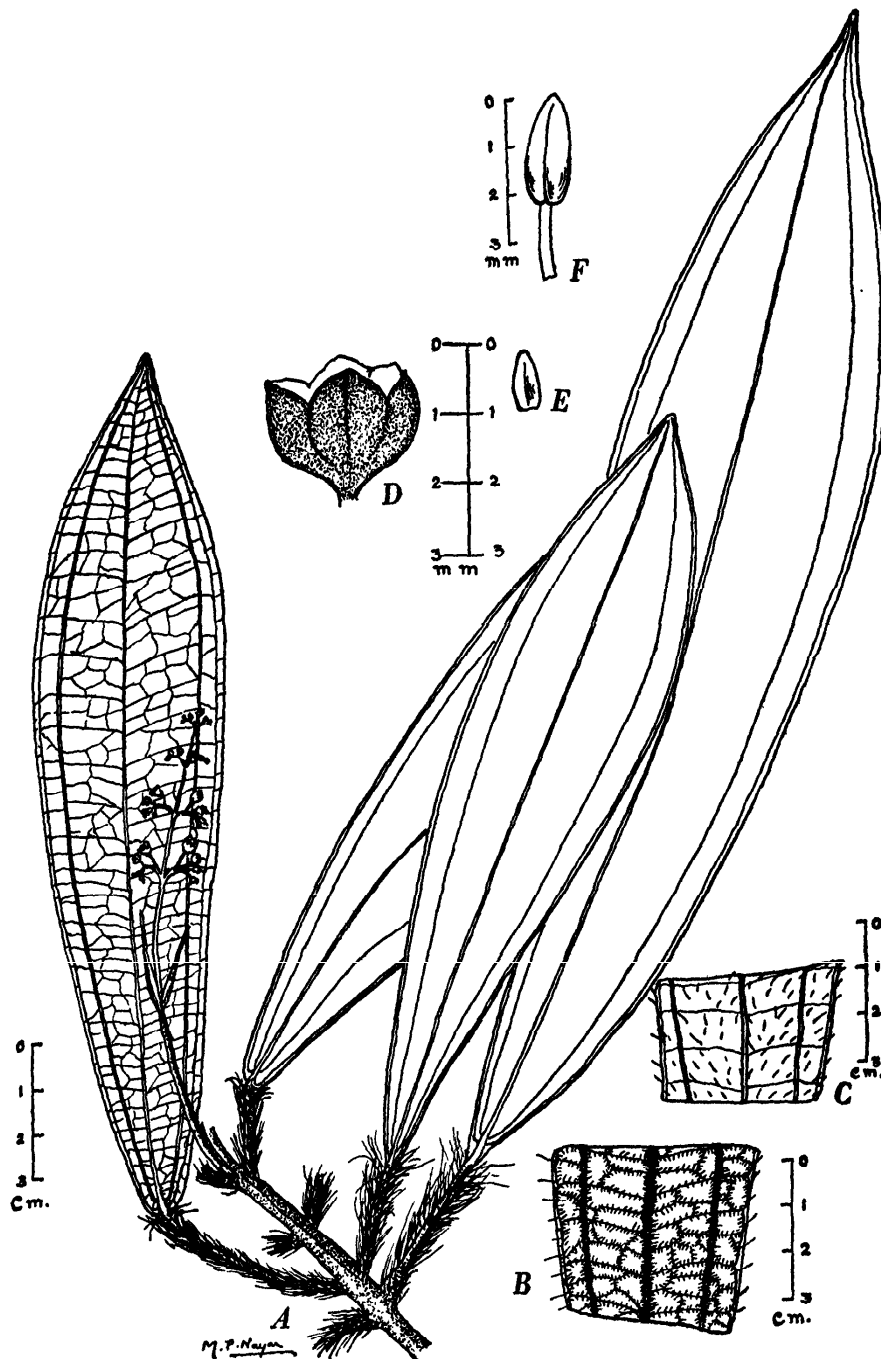


Fig. 2 : *Tayloriophyton longisetum* (Ridl.) Nayar comb. nov.
A. Habit. B. Portion of lower surface of leaf. C. Portion of upper surface of leaf.
D. Calyx tube. E. Petal. F. Stamen.