

A NEW SPECIES AND NOTES ON THE GENUS *CYANANDRIUM* STAPF
(MELASTOMATACEAE)

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ABSTRACT

A new species *Cyanandrium osmanthum* Nayar is described from Borneo with illustrations. Additional notes and illustrations have been given for the first time for the following species: *C. guttatum* Stapf, *C. rufum* Stapf, *C. jacobsonianum* Nayar and *C. glabrum* Nayar. A key to the species so far known is also presented.

***Cyanandrium osmanthum* Nayar sp. nov. (Fig. 1).**

A. ceteris speciebus differt, floribus magnis, calycis tubo dense setoso lobis longioribus.

Herbae subcaules, 15-30 cm altae. *Caulis* brevis, angularis, setosus, setis 6-9 mm longis. *Folia* 3-5, radicalia, petiolata, ovato-elliptica, 10-18 cm longa, 7-12.5 cm lata, basi profunde cordata, apice acuta, margine denticulata, supra glabra vel parce setosa, subtus ad nervos setoso-furfuracea, inter nervos glabra, in sicco pallide viridia, setis 1-2 mm longis, 7-9 nervia, nervis lateralibus prominentibus, reticulata, chartacea; petiolus 7-10 cm longus, setoso-furfuraceus, setis 3-4 mm longis. *Inflorescentia* terminalis, pseudo-umbellata, 5-15 flora; pedunculus 7-8 cm longus, glaber vel parce puberulus. Flores pentameri; pedicellus 3-4 mm longus, dense setosus, setis 3-4 mm longis. *Calycis* tubus late campanulatus, 5-6 mm longus, 5 mm latus, dense setosus, setis 3-4 mm longis; limbus 5-lobatus, lobibus anguste triangularibus, 6-7 mm longis, margine denticulatis. *Petala* oblonga, 15-18 mm longa, 5-6 mm lata. *Stamina* 10, aequalia, filamentis 7-8 mm longis, antheris 5-6 mm longis, acuminatis, 1-poris, connectivo 0.5 mm longo, dorso inappendiculato, in parte ventrali in auriculas breves producto. *Ovarium* 5-coronatum, calycis tubo septis 10 adnatum, 'loculi 10' ultra dimidium ovarii descendentes. *Stylus* filiformis, 12-14 mm longus, glaber, stigmate punctiformi. *Fructus* ignotus.

Typus lectus a Collette ad locum Bukit Bangai, Ulu Lemanak (alt. 800 m) Sarawak, in insula Borneo die 26 octobri 1961 et positus in herbario K sub numero Collette 859.

Herb, subcaulous, 15-30 cm in height. *Stem* short, angular covered with 6-9 mm long hairs. *Leaves* 3-5, petiolate, ovate-elliptic, 10-18 cm long, ovate-elliptic, 10-18 cm long, 7-12.5 cm wide, base distinctly cordate, apex acute, margin denticulate,

upper surface glabrous or sparsely setose, under surface along the nerves hairy and furfuraceous, in between the nerves glabrous, under surface when dry pallidly green, 7-9 nerved, lateral nerves promi-

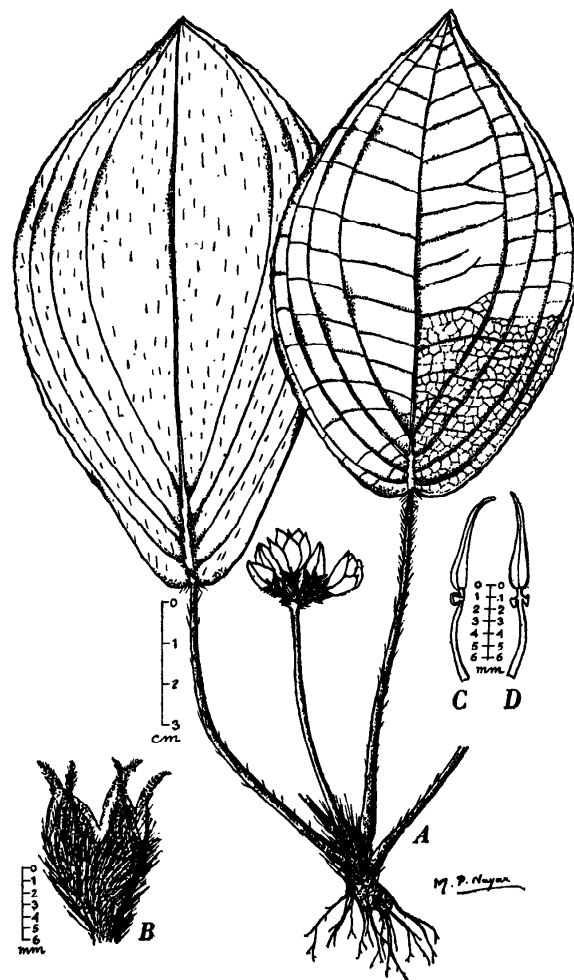


Fig. 1: *Cyanandrium osmanthum* Nayar
A. Habit. B. Calyx. C. Stamen—side view. D. Stamen—ventral view.

nent and reticulate, chartaceous; petiole 7-10 cm long, hairy and furfuraceous, hairs 3-4 mm long. *Inflorescence* terminal, pseudo-umbellate, 5-15 flowers; peduncle 7-8 cm long, glabrous or sparsely puberulous. *Flowers* pentamerous; pedicel 3-4 mm long, densely setose, hairs 3-4 mm long. *Calyx tube* widely campanulate, 5-6 mm long, 5 mm wide, densely setose, hairs 3-4 mm long; limb 5-lobed, lobes narrowly triangular, 6-7 mm long, margin denticulate. *Petals* oblong, 15-18 mm long, 5-6 mm wide. *Stamens* 10, equal, filament 7-8 mm long, dorsally inappendiculate and ventrally biauriculate. *Ovary* conrescent with the calyx tube by 10 septa, extra-ovarial chambers 10, descending beyond the middle of the ovary. *Style* filiform, 12-14 mm long, glabrous, stigma punctiform. *Fruit* not known.

Distribution: BORNEO: Sarawak, Ulu Lemanak, 2nd Div., Bukit Bangai, alt. 800 m, 26 Oct. 1961, Collett 859 (Holotype K).

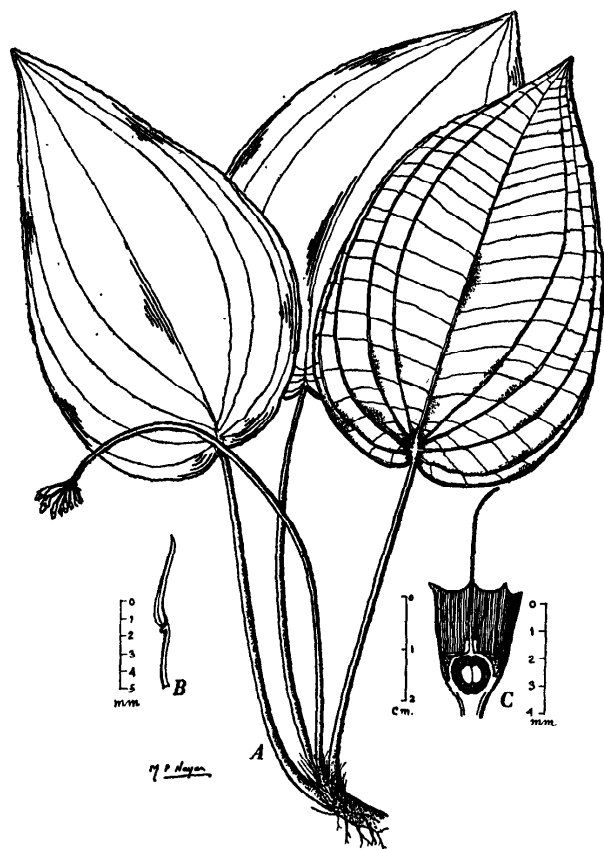


Fig. 2: *Cyanandrium jacobsonianum* Nayar
A. Habit. B. Calyx. C. Petal. D. Stamen—ventral view.
E. Stamen—side view. F. L. S. of calyx tube.

C. osmanthum Nayar has large showy flowers, long calyx lobes and densely setose calyx tube and

on these features it is easily distinguished from other species of *Cyanandrium*. In *C. osmanthum* the calyx is not provided with inter-denticular appendage and in this respect it agrees with *C. rufum* Stapf and *C. glabrum* Nayar. According to the

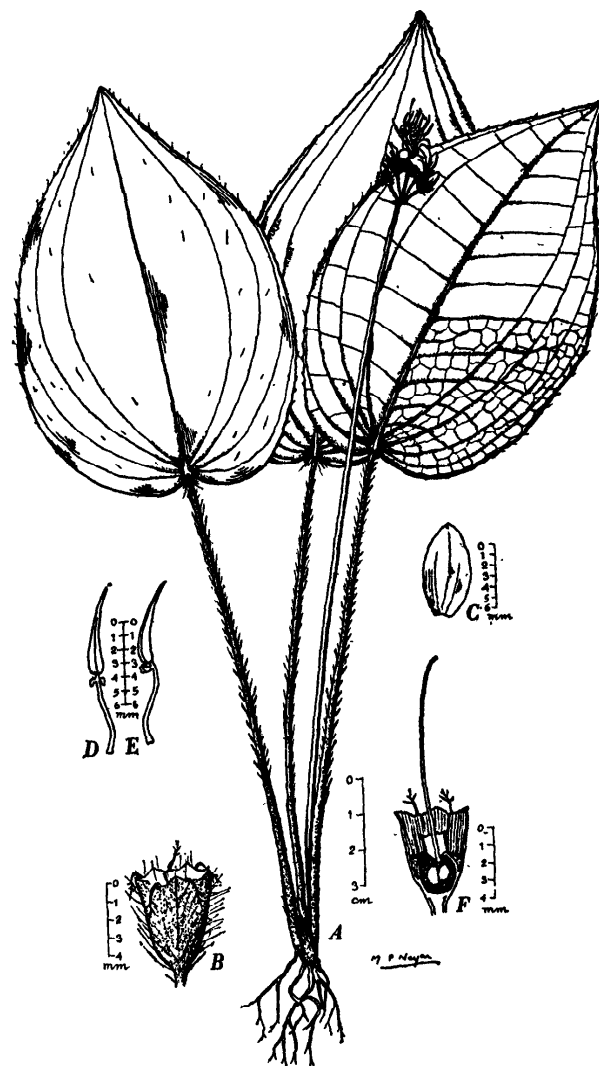


Fig. 3: *Cyanandrium glabrum* Nayar
A. Habit. B. Stamen. C. L. S. of calyx tube.

Collector's field note the flowers are large, beautiful, white, rose-tipped and sweet scented.

Cyanandrium guttatum Stapf in Hook. Ic. Pl. 25:t. 2419, 1895; Gilg in Engl., Pflanzenr. III, 7(1): 265, 1897; Nayar in Kew Bull. 19: 501, 1965. *Type*: Haviland 1549 (Holotype K, isotypes CAL, BM).

Additional material: Borneo: Sarawak, Penrisen, alt. 133 m, May 1910, C. J. Brooks 1044 (BM).

Cyanandrium rufum Stapf in Hook. Ic. Pl. 25: t. 2419, 1895; Gilg in Engl., Pflanzenr. III, 7(1): 265, 1897; Nayar in Kew. Bull. 19: 502, 1965.
Type: Haviland 142 (Holotype K).

Additional material: Borneo: Sarawak, Matang, alt. 500 m, 24 Mar. 1955, *W. M. A. Brooke* 9753 (BM); Ibid., 13th mile, alt. 200 m, 1 Dec. 1954, *W. M. A. Brooke* 9450 (BM); Barumput, alt. 1666 m, 11 May 1954, *W. M. A. Brooke* 8560 (BM, L); sine loc. et sine dat. *Moulton's collector* s.n. (BM).

Cyanandrium jacobsonianum Nayar in Kew Bull. 19: 502, 1965. (Fig. 2).

Type: *M. Jacobs* 5433 (Holotype K, isotype L).

Additional material: Borneo: Sarawak, Giam Pasang, 3rd Div., 9 Sept. 1954, *W. M. A. Brooke* 9248 (BM, L).

The illustration of *C. jacobsonianum* Nayar is given for the first time.

Cyanandrium glabrum Nayar in Kew Bull. 19: 503, 1965. (Fig. 3).

Type: *P. W. Richards* 1448 (Holotype K).

The illustration of *C. glabrum* Nayar is given for the first time.

Stapf in (Hook., Ic. Pl. 25: t. 2419, 1895) erected the genus *Cyanandrium* on the basis of Haviland's collections (Haviland 1549 & 142) from Borneo. The name derives from Greek 'Kyanos' = blue and 'andros' = male, in allusion to the bluish tinged anthers. One of the outstanding features of this genus is its localised geographical distribution entirely restricted to the Sarawak region of Borneo.

A key to the species of *Cyanandrium* is given below for easy identification:

KEY TO THE SPECIES

- A. Under surface of leaf pubescent and petiole villose:
 - B. Calyx lobes long, narrowly triangular or lanceate, 6-7 mm long ... *C. osmanthum*
 - B. Calyx lobes small, widely triangular or dentate, 1 mm long.
 - C. Calyx puberulous or furfuraceous:
 - D. Upper surface of leaf spotted and sparsely setose; petiole densely setose-villose; calyx lobes alternating with setae or appendages ... *C. guttatum*
 - D. Upper surface of leaf not spotted, glabrous or glabrate; petiole rufo-villose; calyx lobes without alternating setae or appendages ... *C. rufum*
 - C. Calyx covered with gland-tipped hairs; calyx lobes alternating with setae or appendages ... *C. jacobsonianum*
- A. Under surface of leaf, petiole and inflorescence glabrous; calyx lobes without alternating setae or appendages ... *C. glabrum*

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