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Editors

MIEN A. RIFAI  
KUSWATA KARTAWINATA  
N. WULIJARNI-SOETJIPTO

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**A NEW SPECIES OF OPHIORRHIZA (RUBIACEAE) FROM  
GREAT NICOBAR ISLAND, INDIA**

N. P. BALAKRISHNAN

*Botanical Survey of India, Andaman — Nicobar Circle, Port Blair, India*

**ABSTRACT**

*Ophiorrhiza nicobarica* Balakr. is described and illustrated and compared with *Ophiorrhiza trichocarpos* Bl.

**ABSTRAK**

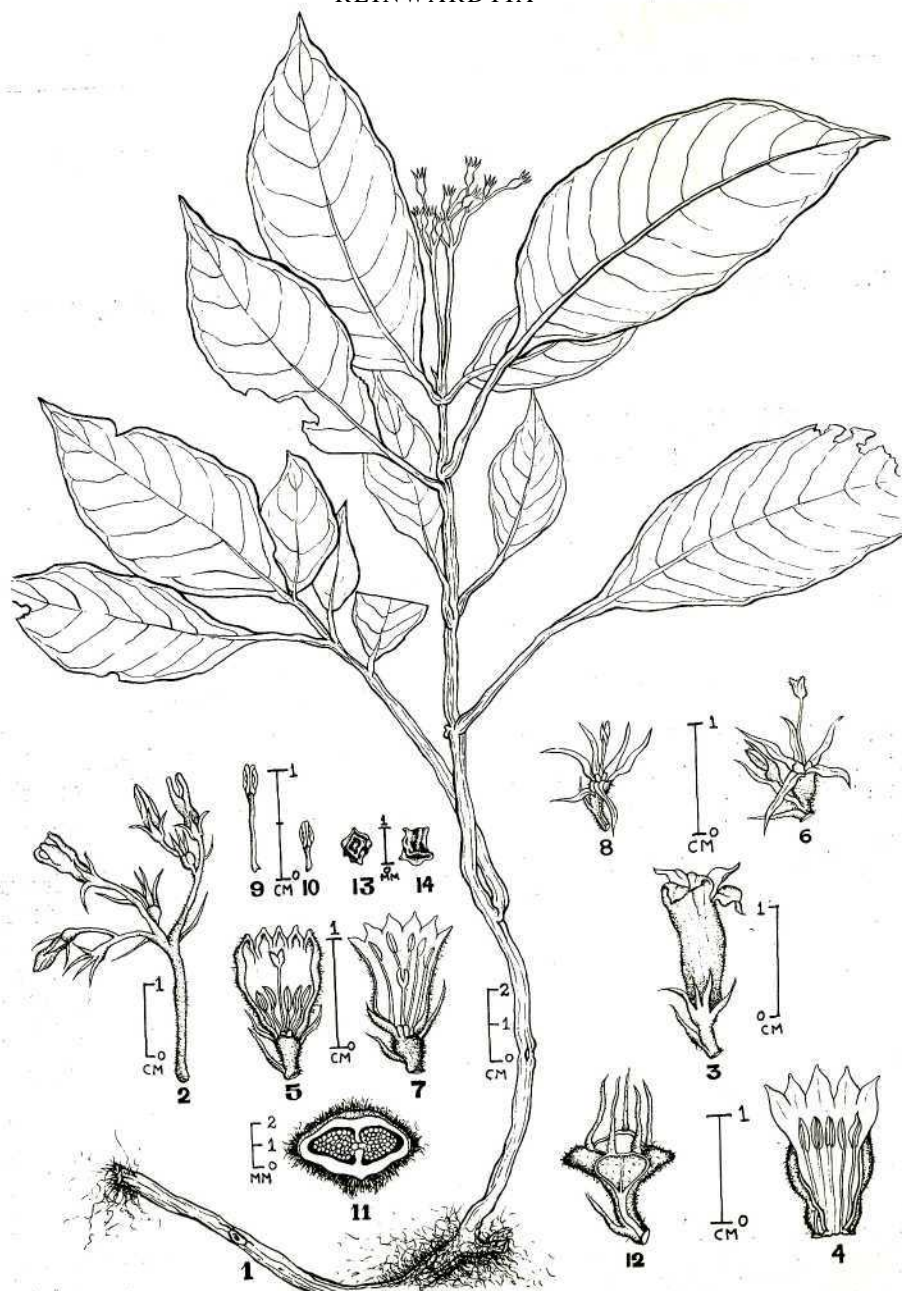
Jenis baru *Ophiorrhiza nicobarica* Balakr. dipertelakan dan dibandingkan dengan *Ophiorrhiza trichocarpos* Bl.

***Ophiorrhiza nicobarica* Balakr., spec. nov. — Fig. 1.**

Differt a *O. trichocarpos* Bl. bracteis conspicuis, lineari-lanceolatis, usque ad 4 mm longas, persistentibus; calycis lobis lineari-lanceolatis usque ad 5 mm longos; antheris longioribus, usque ad 3 mm longas; stylo longiore, usque ad 7.5 mm longum.

Herba, 20—45 cm alta; caulis decumbens, ascendens, ad nodos infra radicantes, 3.5—4.5 mm crassus, saepe semel ramosus, supra pubescentem, infra glabrum. Folia ovato-lanceolata, subaequilatera, oblique-cuneata vel acuta ad bases, brevi-acuminata ad apices, 4—13 cm longa, 2—6 cm lata, supra satis dense pubescentia, infra albida et longe-ciliata on nervis; nervi laterales 10—12 binati, arcuati, sursum infra prominentes; petiolus 0.5—5.5 cm longus, pubescens; stipulae integrae, late ad bases, lineari-lanceolatae, 4—5 mm longae, parce hispidae. Inflorescentia cyma, dichotoma, spiciformis, hirsuta; pedunculus 2—3 cm longus,  $\pm$  2 mm crassus; rami principales 2, 1.5—2 cm longi, saepe cum ramis secundis; pedicelli 0—2 mm longi; bractee lineari-lanceolatae, 3—4 mm longae, hirsutae, persistentes; costa distincta. Calycis tubis cupuliformis, truncatus, connatus ad ovarium,  $\pm$  2 mm longus et latus, externus dense hirsutus; lobi 5, lineari-lanceolati, subaequales,  $\pm$  5 mm longi,  $\pm$  1 mm lati, uninerves, sparse hirsuti, persistentes. Corolla alba, 10—14 mm longa, constricta ad  $\pm$  3 mm ex basi, inflata vel tumida inter basim et constrictionem, cylindrica et gradatim infundibularis ad partem supernam, dense longi-





*Ophiorrhiza nicobarica* Balakr.

1. habit; 2. inflorescence; 3. flower; 4. corolla, style and short stamens; 5. long-styled flower with short style and long stamens; 6. long-styled flower with corolla; 7. long-styled flower with short style and long stamens; 8. long-styled flower with corolla; 9. short style; 10. short stamen; 11. t.s. of ovary; 12. fruit; 13 & 14. see s.

— long with long s.

ciliata ad intra constrictionem, aliter intra glabrum, ciliata on costa exteriora; lobi 5, ovati, oblongi, subacuti,  $\pm 3$  mm longi,  $\pm 2$  mm lati, valvati, reflexi, crassi ad margines, carinati ad costas exteriores, inflexi ad margines in alabastra. Stamina 5, inclusa, dimorpha; filamenta affixa ad basim corollae, 2.5—3.5 et 5.5—6.5 mm longa, gracilia, glabra; antherae lineares, 2—3 mm longae, dorsifixae, introrsae, dehiscentes ad longitudinales rimas. Discus 2-lobatus; lobi plani, rotundati,  $\pm 0.5$  mm longi, glabri, utrinque bases styli. Ovarium 2-cellulare; cellulae multi-ovulatae; stylus heterostylus, filiformis, 3.5—4.5 et 6.5—7.5 mm longus; stigma 2-lobatum; lobi  $\pm 1$  mm longi, clavati, dense lanati. Fructus valde compressus lateralis, transverse oblongo-ellipticus, 9—10 mm latus, 4—5 mm altus, 2—3 mm crassus, pubescens, valde nervosus, calycis lobis persistentibus, dehiscens transversim rima ad apicem; semina numerosa, subglobosa, angulosa, valde porcata,  $\pm 0.5$  mm diam., ferruginea.

HABITAT: ad umbrosos riparios rivulorum in sylvis sempervirentibus collibus.

HOLOTYPE: *Balakrishnan 3027 A* (CAL), isotypi *Balakrishnan 3027 B* (CAL), *3027 C-F* (PBL)\*, *3027 G-H* (L), *3027 I* (BO).

Herb, 20—45 cm high; stem decumbent, ascending, rooting at lower nodes, 3.5—4.5 mm thick, often once branched, pubescent above, glabrous below. Leaves ovate-lanceolate, subequal-sided, obliquely cuneate or acute at base, short acuminate at apex, 4—13 cm long, 2—6 cm wide, fairly densely pubescent above, whitish and long hairy on nerves beneath; lateral nerves 10—12 pairs, arched upwards prominent beneath; petioles 0.5—5.5 cm long, pubescent; stipules entire, broad-based, linear-acuminate, 4—5 mm long, sparingly hispid. Inflorescence cymose, dichotomous, spiciform, hirsute; peduncles 2—3 cm long,  $\pm 2$  mm thick; main branches 2, 1.5—2 cm long, often with secondary branches; pedicels 0—2 mm long; bracts linear-lanceolate, 3—4 mm long, hirsute, persistent; midrib distinct. Calyx-tube cupshaped, truncate, connate to ovary,  $\pm 2$  mm long and wide, densely hirsute outside; lobes 5, linear-lanceolate, subequal,  $\pm 5$  mm long,  $\pm 1$  mm wide, 1-nerved, sparsely hirsute, persistent. Corolla white, 10—14 mm long, constricted at  $\pm 3$  mm above the base, swollen inflated between the base and constriction, cylindrical and gradually funnel-shaped at upper part, densely long ciliate inside at the constriction, otherwise glabrous inside, hairy on nerves outside; lobes 5, ovate, obtuse,  $\pm 3$  mm long,  $\pm 2$  mm wide, valvate, reflexed, thickened at margins, keeled on midrib outside and inflexed at margins in buds. Stamens 5, enclosed in corolla-tube, dimorphous; filaments adnate to base of corolla, 2.5—3.5 and 5.5—6.5 mm long, slender, glabrous; anthers linear, 2—3 mm long, dorsifixed, introrse, dehiscing by longitudinal slits. Disc 2-lobed; lobes flat, rounded,  $\pm 0.5$  mm long, glabrous, on both sides of style base. Ovary 2-celled; cells many-ovuled; style heterostylous, filiform, 3.5—4.5 and

\* Andaman — Nicobar Herbarium, Botanical Survey of India, Port Blair,



6.5—7.5 mm long; stigma 2-lobed; lobes  $\pm$  1 mm long, densely woolly. Fruit strongly laterally compressed, transversely oblong-elliptic, 9—10 mm wide, 4—5 mm high, 2—3 mm thick, pubescent, strongly nerved, with persistent calyx, lobes, dehiscing by transverse slit on top; seeds numerous, subglobose, angular, strongly ridged,  $\pm$  0.5 mm diam., brownish red.

This species differs from *O. trichocarpus* Bl. in bracts being conspicuous, linear-lanceolate, up to 4 mm long, persistent; calyx lobes linear-lanceolate up to 5 mm long; anthers longer, up to 3 mm long; style longer, up to 7.5 mm long. The presence of dimorphous stamens and heterostyly is unusual in the genus. A review of different floras indicate that this has not been reported so far in *Ophiorrhiza*, even though certain other genera in Rubiaceae exhibit this feature.

GREAT NICOBAR ISLAND: 17 km from Campbell Bay to Alexandra River, ca. 75 m. above m.s.l., 21 Aug. 1975, Balakrishnan 3027 A-B (CAL), *ibid.* 3027 C-F (PBL); *ibid.* 3027 G-H (L); *ibid.* 3027 I (BO).

## TYPE STUDIES IN THE CLAVARIOID FUNGI. V. THE TAXA DESCRIBED BY CASPAR VAN OVEREEM

RONALD H. PETERSEN

Department of Botany, University of Tennessee, Knoxville, TN, USA 37916

### ABSTRACT

Type specimens of Javanese clavarioids described by van Overeem — i.e. *Clavaria depokensis*, *Clavaria luteo-tenerrima*, *Clavaria sanguineo-acuta* and *Clavulinopsis sulcata* — are extant and well preserved in Herbarium Bogoriense. These are reexamined and reassigned to their respective genera and infrageneric complexes.

### ABSTRAK

Spesimen tipe jenis-jenis Clavariaceae yang dipertelakan van Overeem dari Jawa — yaitu *Clavaria depokensis*, *Clavaria luteo-tenerrima*, *Clavaria sanguineo-acuta* dan *Clavulinopsis sulcata* — masih ada dan disimpan di Herbarium Bogoriense. Spesimen ini diperiksa kembali dan ditunjukkan marga dan bagian marga yang layak menampungnya.

Although not many, the taxa proposed and illustrated by van Overeem (1923a, b, c) have been important to an understanding of tropical clavarioid fungal relationships. In the only modern works to deal with these taxa (Corner 1950, 1970), they were disposed of equivocally for the types had not been examined, although van Overeem's descriptions and plates were extremely accurate for their day. A recent very brief visit to the Herbarium Bogoriense allowed me to examine the type specimens concerned and therefore to assign them accurately to genera and to infrageneric complexes. It is to that end that this paper offered.

The following items of reliquiae support these specimens: 1) all specimens include fruit bodies fixed in liquid and in excellent condition for analysis; 2) an empty, accessioned packet usually accompanies the specimens in liquid, often bearing collection data not included on the fixed specimen; 3) in one instance dried fruit bodies are in a packet separate from the material in liquid; 4) published illustrations (van Overeem 1923b, c) of fruit bodies and microscopic characters were apparently consistently made from type specimens; and 5) the original



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