NEW NAMES IN INDIAN AND SRI LANKAN ORCHIDS

PAUL ORMEROD1,2 AND C. SATHISH KUMAR3

Abstract. A reinstatement, three new combinations, and one new species are proposed for orchids that occur in India and Sri Lanka. The name that is reinstated is Dendrobium crispum, with D. peguanum treated as a synonym; the new combinations are Cylindrolobus lindleyi, Peristylus caranjensis, and Trichotosia thwaitesi; and Dendrobium turbinatum is proposed as a new species.

Keywords: India, new names, Cylindrolobus, Dendrobium, Peristylus, Trichotosia

Literature and herbarium studies of various Indian and Sri Lankan orchids have revealed the need to update the nomenclature of some entities, especially in tribe Podochilinae. The latter group has been subjected to an extensive molecular study (Ng et al., 2018), which we follow here. The other taxon that bears some discussion is Habenaria caranjensis Dalz.; it had already been treated as an imperfectly known species in the 19th century (Hooker, 1890). However, we believe it can be identified now that Indian orchids are better understood.

Type species: Ceratium compressum Blume.
A genus of subtribe Eriinae with about 80 species distributed from Sri Lanka and India, through Malesia to Papua New Guinea. A synopsis of the Malesian species was published by Ormerod (2014), from where 57 taxa were recorded.

Cylindrolobus lindleyi (Thwaites) Ormerod & C. Sathish Kumar, comb. nov.

Distribution: India, Sri Lanka.
The name Eria lindleyi is the first valid available name for this taxon, which we here transfer to Cylindrolobus following Ng et al. (2018). The earlier Dendrobium bicolor Lindl. is a homonym of the Peruvian D. bicolor (Ruiz & Pav.) Pers., the latter now known as Cyrtochilum bicolor (Ruiz & Pav.) Ormerod.

Type species: Dendrobium moniliforme (L.) Sw. typ. cons.
The sole genus of subtribe Dendrobiinae, with about 1600–1800 species distributed from Sri Lanka and India to Tahiti. The two taxa discussed below belong to section Stachyobium Lindl., a group of about 48 species distributed from Sri Lanka and India to Lombok in central Indonesia. The plants are mostly only a few centimetres tall, but Dendrobium venustum Tejsm. & Binn. may reach to about 50 cm tall. The pseudobulbs vary from ovoid to cylindrical, bearing two to several usually deciduous leaves, with axillary to pseudoterminal inflorescences bearing few to many smallish to midsized (sepals 4–15 mm long) flowers that are colored white to green, often with some purple on the lip; the lip varies from entire to trilobed, usually with a keel between the sidelonges.

Basionym: Dendrobium humile R. Wight, Icon. Pl. Ind. Orient. 5, 1: 4. t. 1643. 1851 nom. illeg. [non (J.E. Sm.) J.E. Sm. 1808]. TYPE: INDIA. Tamil Nadu: Iyamally Hills, July and August, R. Wight s.n. (Holotype: K, image seen), Fig. 1.

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1 P.O. Box 8210, Cairns 4870, Queensland, Australia
2 Corresponding author: wsandave1@bigpond.com
3 Tropical Botanical Garden & Research Institute, Pacha Palode, Trivandrum 695 562, India; sathishkumar_57@rediffmail.com

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*Dendrobium fesselianum* M. Wolff, *Orchidee* (Hamburg) 41, 3: 97. 1990

*TYPE*: THAILAND. Without locality, cult. H. Fessel 90002 [Holotype: D.O.G. (Deutsch Orchideen-Gesellschaft herbarium), not seen].

*Distribution*: India, Nepal, Bhutan, Myanmar, Thailand.

*Specimen examined*: INDIA. “S. India,” D. Ritchie 1413 (GH). Kerala: Paulghautcherry (= Palakkad), November 1849, R. Wight s.n. (K, image seen).

When describing *Dendrobium crispum*, Dalzell said it was the same as *D. humile* R. Wight. Thus *D. crispum* is a superfluous name for *D. humile*, but since the latter is a homonym, the name *D. crispum* becomes its valid substitute. Therefore, the type of *D. humile* is also the type of *D. crispum*. This is important to remember because the description accompanying *D. crispum* applies to another species, which we here describe as *D. turbinatum*.

Wight’s figure of *Dendrobium humile* shows plants that flower either with or without leaves. Those depicted as having leaves during flowering appear to have slightly longer inflorescence peduncles, but this may be artistic licence as one of the leafless plants has a rather long peduncle.

Lindley (1858) declared *Dendrobium crispum* and *D. humile* to be conspecific with *D. microbulbon* A. Rich. He has been followed by all later authors. However, *D. crispum* differs from *D. microbulbon* in having much shorter inflorescence peduncles fully covered by sheaths, a narrowly conical, straight mentum, and a lip with a short, crispate-margined midlobe. The Herbarium Stocks specimen cited by Lindley (1858) as *D. microbulbon* belongs to *D. turbinatum*.

After further study we also find that *Dendrobium peganum* and its synonyms must be reduced to *D. crispum*. There are some slight differences in the apex of the labellum callus of eastern populations (e.g., in Myanmar and Thailand) of *D. crispum*. In the eastern forms the callus is not so retuse apically but can be weakly tridentate or almost truncate.

*Dendrobium crispum* is characterized by having ellipsoid pseudobulbs forming a dense mat or patch, 1–2 apical linear-ligulate leaves, 1–2 apical inflorescences, a short peduncle (to 7 mm long) covered by sheaths, the rachis about 15 mm long with patent floral bracts, the flowers greenish yellow, tipped with pink, the lip pink with darker crimson lines, a narrowly conical, straight, acute mentum, an obtriangular labellum with veins inside the obtuse sidelobes forming low serrulate ridges, a short midlobe with crispate margins that when spread out is transversely oblong (1 x 3 mm), and a bidentate to almost truncate callus.
**Dendrobium turbinatum** Ormerod & C. Sathish Kumar, sp. nov.

**Type:** India. “W. India,” without locality, sine coll., s.n. (Holotype: GH 4646). Fig. 2.


Epiphytic herb. Pseudobulbs caespitose, ovoid to turbinate, 2–3 noded, 2–3 leaved, apically usually leafless at flowering time, to 20 x 10 mm. Leaves linear-ligulate, acute, 20–140 × 3–13 mm. Inflorescences 1–3, apical, 15–100 mm long; peduncle 10–60 mm long; peduncular sheaths up to 3, 2–7 mm long; rachis straight to slightly flexuous, 2 to many flowered, 26–40 mm long; floral bracts oblong-lanceolate, subacute, to 4 × 2 mm. Flowers white, the lip marked with purple. Pedicel with ovary terete, dilated only at apex, 7.5–10.0 mm long. Dorsal sepal oblong, subacute, 3 veined, midvein externally low carinate, 7.20 × 2.75 mm. Lateral sepals obliquely oblong from a wide base, midvein low carinate, 6.5 mm long, 3 mm wide medially, forming with the column foot an infundibuliform, straight, subacute, 6.9–7.0 mm long mentum, front of mentum closed and spur-like for 3–4 mm. Petals obliquely obovate, obtuse, 3 veined, 7.5 × 2.8 mm. Labellum trilobed, 7 mm long; hypochile obdeltate with triangular, truncate side lobes, 5.0 × 6.5 mm; epichile transversely rectangular, broadly retuse, side margins irregular, 2.0 × 4.9 mm; callus a broad, thickened, sulcate medial ridge, terminating below apex of hypochile as two erect teeth. Column relatively slender, semiterete, apically with 2 ovate, apiculate brachia, 1.9–2.0 mm long.

**Distribution:** India.

Additional specimens examined: INDIA. Malabar, 1896, T. Cooke s.n. (K, drawing seen). Without locality, N.A. Dalzell 34 (K, image seen); N.A. Dalzell s.n. (K, image seen); J.S. Law s.n. (K, image seen).

**Etymology:** from the Latin *turbinatus*, cone-shaped, in reference to the shape of the pseudobulbs.

As noted above this species was first described under the name *Dendrobium crispum*, but because of the laws of nomenclature that name must be applied to the homonym *D. humile* R. Wight. Therefore we have described it anew. Unfortunately Lindley (1858) united *D. crispum* and *D. humile* with *D. microbulbon*, a mistake that has been followed ever since.

**Dendrobium turbinatum** may be distinguished from *Dendrobium crispum* by its elongate (vs. abbreviated) inflorescence peduncle that is laxly three-sheathed, larger labellum midlobe (2.0 × 4.9 vs. 1.0 × 3.0 mm), and medial labellum callus that ends in two erect (vs. prostrate) horns.


Type species: *Peristylus grandis* Blume.

A genus of about 100 species related to *Habenaria* Wild. In India and Sri Lanka there are respectively about 18 and 8 species, with four shared between the two nations. The genus is generally distinguished from *Habenaria* by technical details of the flowers, such as the stigmatophores being united (vs. free) to the sides of the labellum.

**Peristylus caranjensis** (Dalz.) Ormerod & C. Sathish Kumar, comb. nov.


Heterotypic synonyms: *Habenaria stocksii* J.D. Hook., Fl. Brit. Ind. 6: 158. 1890 syn. nov. **Type:** INDIA. Mysore, J.E. Stocks 173 (Lectotype, here designated: K 0000387526, image seen); Dronagheree (= Dronagiri), July 1848, “J.E. Stocks” s.n. (Syntype: K 000387524, image seen); Concan, “23. Platanthera,” J.S. Law s.n. (Syntype: K 000974268; Iso syntype: P, images seen); Ram Ghaut, July, D. Ritchie 1398 (Syntype: K 0000387525, image seen).


**Distribution:** India.

*Habenaria caranjensis* has had a troubled and complicated history. It was described by N. A. Dalzell (1817–1878) from a plant he collected near Bombay during his time as a civil servant there. Dalzell sent his manuscripts from Bombay to William Hooker in England, who duly published them. It is possible that during this process a couple of misinterpretations arose. The first is the locality “Insula Carauja,” which doesn’t exist, it is rather the Caranja Peninsula. The incorrect spelling “Carauja” was corrected to Caranja (now Karanja) by Joseph Hooker (1890), who also emended the specific epithet. Hooker treated *Habenaria caranjensis* under the imperfectly known species at the end of the *Habenaria* taxa in the *Flora of British India*. The reason for this is that Dalzell said his taxon had cuneate, truncate labellum side lobes, a rare feature in the genus, so far not found in any Indian member of the genus.
Analysis of the description of Habenaria caranjensis reveals an almost perfect match for the later Habenaria stocksii, except for the cuneate lip sidelobes. Nevertheless, Habenaria caranjensis is the only west Indian species with yellow flowers, a clavate spur, broad semi-ovate petals, and trilobed labellum. Therefore, we think Dalzell made a mistake in his description, which is understandable because the sidelobes can appear cuneate in live material (see photographs in Pande et al., 2010).

Another complicating factor has been the apparent lack of a type specimen of Habenaria caranjensis. We believe it is still extant, but like many other Dalzell types not recognized. The specimen chosen as neotype comes from Dronagheree (now Dronagiri), which is a fort on the Karanja Peninsula south of Bombay (now Mumbai), and which was collected in July 1848 and is probably Dalzell’s type. The collector has noted the plant is yellow-flowered and is undescribed. A study of the handwriting on the original label is needed. A later hand in black ink and smaller writing has added J. E. Stocks as the collector, but we think incorrectly.

Among the syntypes of Habenaria stocksii is a collection by D. Ritchie from Ram Ghaut (= Ram Ghat). There are several places in India with this name, but the one Ritchie is referring to is an area south of Amboli and north of Tinari in Maharashtra State.

Type species: Trichotosia ferox Blume.

This genus of Eriinae contains about 80 species distributed from India and Sri Lanka to Vanuatu in the western Pacific. Most species are found in the Malesian part of the distribution, especially New Guinea where 24 species so far occur. The following taxon requires transfer to the genus, which is done here.

Trichotosia thwaitesii (Trimen) Ormerod & C. Sathish Kumar, comb. nov.


Distribution: Sri Lanka.

This species is clearly a member of the genus Trichotosia since its leaves and sheaths are covered with reddish-brown hairs. It is rather odd though that Trichotosia does not occur nearby in southern India.

Literature Cited


