An Annotated Checklist of the Orchids of Sri Lanka

Samantha Suranjan Fernando and Paul Ormerod

Post Graduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka.
E-mail: sasurh@yahoo.com

1P.O. Box 8210, Cairns 4870, Queensland, Australia.
E-mail: wsandave@bigpond.net.au

Abstract

A general description of Sri Lanka and its bioclimatic zones are presented. The history of the Island’s orchid taxonomy is briefly reviewed. An updated checklist is presented for the country’s orchid flora using recent information. New species, new records and nomenclatural changes from previous lists are annotated with appropriate references. This work lists 188 species belonging to 78 genera with one endemic genus (*Adrorhizon* Hook. f.) and 55 endemic species. A new name, *Bulbophyllum jayaweerae* Fernando et Ormerod, is proposed for *Cirrhopetalum roseum* Jayaweera. Illegitimacy of the name *Saccolabium virescens* Gardner ex Lindl. is discussed and this species is described as a new taxon, *Robiquetia virescens* Ormerod et Fernando.

Keywords: Sri Lanka, Orchids, *Bulbophyllum jayaweerae*, *Robiquetia virescens*, New name, New taxon

Introduction

Sri Lanka is a pear shaped island in the Indian Ocean lying in the southern tip of the Indian Peninsula (Fig. 1). It lies between 5° 55’ - 9° 51’ North latitudes and 79° 41’ - 81° 54’ East longitudes and covers a total area of 65,609.8 km² consisting of 64,453.6 km² of land area and 1,156.2 km² of inland waters. The island has a maximum length of about 435 km and a maximum width of about 225 km. Its natural vegetation is principally determined by the rainfall pattern and elevation.

The Island has three peneplains. The first is from sea level to 900 m. In the north and north-east to the south-east is a large flat lowland that gets low quantities of rain (<2000 mm per year) from the north-east monsoon. This comprises the dry zone. The vegetation principally comprises of drought tolerant hardy species and orchids are not abundant here. The south-western part of this peneplain gets an average 5000 mm of rainfall per year mainly from the south-western monsoon. The rainfall occurs without a dry month in the year, creating an aseasonal wet climate. This area represents the wet zone. The lower area of the wet zone consists of lowland wet forests. Tall forests with several strata are characteristic of this vegetation. Orchid diversity is very high in this area.

Figure 1. Main bioclimatic zones of Sri Lanka.
In between the wet and dry zones, there is a narrow transitional zone called the intermediate zone. The eastern side of the intermediate zone mainly consists of savannah type of forest vegetation.

The second peneplain is from 900 to 1100 m. The submontane zone is found in this altitudinal range. This is a transitional zone between the lowland wet zone and the montane zone. Forests in these areas harbour the country’s richest orchid diversity. The third peneplain continues to the highest mountains, such as Pidurutalagala (2220 m). Montane forests are found in this area (see Fig. 3 a-f).

Orchidaceae is one of the largest families in Sri Lanka. It is distributed in almost all terrestrial vegetation types and occupies various habitats.

**Historical Background**

Sri Lanka has a long history of botanical collections. Many pioneers of botanical literature have cited numerous records from Sri Lanka. Among these species, orchids are an interesting group. Paul Hermann (1646-1695) was a German born Dutch botanist and the first European botanist to make a collection of plants from Sri Lanka. He got employment in the Dutch East India Company as a ship’s Medical Officer and thus reached Sri Lanka where he spent eight years collecting plants and animals during 1670-1677. Here, he made an impressive collection of dried plants and drawings. He joined as Chair of Botany at the University of Leiden in 1679 and in a matter of a few years the Leiden Botanical Garden became the finest one in Europe. He did not publish anything about his Sri Lankan collection which was passed on to Johannes Burman, Carl Linnaeus and others. His premature death in 1695 prevented its availability to the botanists of his time. His collection included two orchids, *Zeuxine strateumatica* (L.) Schltr. and *Peristylus cubitalis* (L.) Kraenzlin, the very first Sri Lankan orchids made known to the outside world. These plants were to wait for scientific naming till 1753 when Linnaeus gave them their binomials. Some of Hermann’s manuscripts were edited by W. Sherard who included a few descriptions and reduced figures of Sri Lankan plants in *Paradisus Batavus* in 1698. Sherard also published a useful booklet on Hermann’s herbarium and illustrations called *Museaum Zeylanicum* (1717). Johannes Burmann (1707-1778), a Dutch physician and botanist at Amsterdam (Fig. 2) and a friend and correspondent of Linnaeus, utilized *Museaum Zeylanicum* and Hermann’s specimens to compile an alphabetical list of Sri Lankan plants called *Thesaurus Zeylanicus* (1737). Linnaeus also helped him in the preparation of this book. In appreciation of Burman’s work, Linnaeus later commemorated him with a genus *Burmannia*.

Hermann’s collection remained unknown till 1744 when the five volume set was sent to Linnaeus who immediately started working on it and produced his *Flora Zeylanica* in 1747. Linnaeus’ binomial nomenclature was not inaugurated at that period and hence, no species in *Flora Zeylanica* were named in the modern sense but they are referred to as the Linnaean genera. Linnaeus gratefully dedicated this work to Günther who sent the Hermann set to him. Hermann was commemorated by the genus *Hermannia* L.

J. G. König (1728-1785), from his travels, cited several specimens of Sri Lankan native orchids, some with their Sinhala names (Seidenfaden, 1995a). He made collections in Sri Lanka in the years 1777, 1780 and 1781. He is commemorated by the genus *Koenigia* L. (Polygonaceae) and many species e.g. *Murraya koenigii*.

During the English colonial period, botanical gardens were established in Sri Lanka and many botanical works began. Alexander Moon (?-1825) made a large number of herbarium collections and wrote *A Catalogue of the Indigenous and Exotic Plants Growing in Ceylon* (1824). He is immortalized by the genus *Moonia* (Asteraceae) and several species like *Vanilla moonii*. James Macrae (?-1830) collected many orchid specimens from the country and sent them...
Figure 3. a. Savannah type vegetation in eastern intermediate zone; b. Dry zone forest; c. Arid zone scrub forest; d. Montane grassland; e. Inside of mountain to montane forest; f. Submontane zone forest (all photographs by S.S. Fernando).
to Lindley (1799-1865) for naming. He is commemorated by *Flickingeria macraei*.

Colonel J. T. Walker and Mrs. A. W. Walker (fl.1830-1840) gathered an extensive collection of orchid specimens and sent them to England. Among these were specimens from Adam’s Peak, one of the country’s richest orchid habitats. The Walkers are suitably remembered by many orchids - *Vanilla walkerae*, *Liparis walkeriae*, *Thrixspermum walkeri* etc.

George Gardner (1812-1849) was a British botanist and explorer who became the superintendent of Peradeniya Botanical Garden. Gardner made an extensive collection of Ceylon plants which included many orchids. Unfortunately, he died at the early age of 37. He is commemorated by the genus *Gardneria* Wall. (Strychnaceae) and many orchids - *Hetaeria gardneri*, *Oberonia gardneriana*, *Peristylus gardneri* etc.

Following Gardner came another British naturalist of immense caliber and energy by the name of George Henry Kendrick Thwaites (1812-1882) (Fig. 4). He spent 31 years in the island and laid a strong foundation for botanical studies and heavily contributed to the science. His *Enumeratio* was a comprehensive flora published in five parts during 1858-1864. All the then orchids (145 species) were treated with his critical comments and observations. He also initiated the series C. P. (Ceylon Plants) numbers most of which are the basis of hundreds of species. He is commemorated by many orchids like *Eria thwaitesii*, *Bulbophyllum thwaitesii*, *Liparis thwaitesii*, *Malaxis thwaitesii*, *Oberonia thwaitesii*, *Vanda thwaitesii* etc.

When Thwaites retired in 1880, Henry Trimen (1843-1896) (Fig. 5) joined Peradeniya Botanic Garden as its next Director. Trimen was amply qualified to adorn the post and made several lasting improvements in the garden. His magnum opus was *Handbook to the Flora of Ceylon* three volumes of which appeared between 1893 and 1895. They are considered as a model for a tropical flora. Paralysis and deafness did not permit him to complete the series. The volume containing Orchidaceae was completed by J. D. Hooker (1898). Trimen is commemorated by the orchids *Bulbophyllum trimenii*, *Liparis trimenii*, *Peristylus trimenii* etc.

While working for the *Flora of British India*, Joseph Dalton Hooker (1817-1911) had already treated the Orchidaceae in detail including materials from Ceylon (1888-1890). Hence, when Trimen was incapacitated Hooker was the natural choice. Hooker dealt with 158 species in 61 genera. Arthus Hugh Garfit Alston (1902-1958) brought out the final volume of the series incorporating changes and additions in 1931. A revision of the entire flora was begun in 1968 in collaboration with the Smithsonian institution. Orchidaceae authored by Don Jayaweera was published in 1982.

Don Martin Arthur Jayaweera (1912-1982) (Fig. 6) was the son of an Ayurvedic physician who instilled in him a keen interest in plants. After formal education,
he went to England for higher education. When he came back in 1945 Jayaweera was appointed Superintendent of the Royal Botanic Gardens, Peradeniya. He made extensive collections from remote areas of Sri Lanka. He sent a large collection of orchids to B. J. Premasuriya, an artist at PDA who illustrated them for publications. He also exchanged herbarium specimens with leading orchidologists like Dr Leslie Garay (AMES) and published many novelties in Sri Lankan orchids. He passed away at the age of 70. He is commemorated by Phreatia jayaweerae, Bulbopyllum jayaweerae, the latter named in this contribution.

Among all these publications (Table 1), Jayaweera’s (1981) work is the major reference currently available in the country. Senaratna (2001) and Fernando et al. (2003) have mainly based their work on Jayaweera’s book with a few changes. Though Jayaweera’s chapter was published in 1981, the manuscript was completed as far back as 1975 (pers. comm., Prof. M. D. Dassanayake, General Editor, Flora of Ceylon project). During this period there were many changes with new information on orchid systematics.

Our modest attempt here is to
1. Solve some nomenclatural problems and species ambiguity existing in previous lists.
2. Include new name changes and species records. We found several distribution records new to Sri Lanka from various literature sources and internet databases but most were doubtful. Thus, we have considered only the precise records with citings of herbarium specimens or live plants, giving notes at relevant places.

3. Find out current endemic species.

At present, the number of endemic species is vastly reduced from that in previous publications, especially with the rapid development of south Indian botanical literature.

In the present work, Sri Lankan orchids are arranged genus wise alphabetically and under each genus, species also alphabetically. Endemics are marked with an * and adventive taxa with #. Literature base for new species and taxonomic and status changes from Jayaweera (1981) and Senaratne (2001) are noted. Under distribution is/are stated the main bioclimatic zone/s of each species.

**Acampe Lindley**
Fol. Orchid. 4:1.1835.


*Distribution:* Lowland wet zone.

Sinhala: Kuda Namba


*Distribution:* Northern and Eastern intermediate zones.

*Distribution*: Lowland wet zone.

Sinhala: Maha Namba

**Acanthephippium** Blume

*Bijdr.* 353. 1825.


*Distribution*: Lowland wet and submontane zones.

*Adrorhizon* Hook. f.


*Distribution*: Submontane and montane zones.

**Aerangis** Rchb. f.

Flora 48: 190. 1865.


*Distribution*: Lowland wet zone.

*Note*: The species has a scattered distribution in tropical east Africa (Kenya, Mozambique, Tanzania) (World Checklist of Monocots, 2007).

**Aerides** Lour.

Fl. Cochinch. 525. 1790.


*Distribution*: Eastern Intermediate zone.

**Agrostophyllum** Blume

*Bijdr.* 368.1825.


*Distribution*: Lowland wet zone.

**Angraecum** Bory

Voy. îles Afrique 1: 359. 1804.


*Distribution*: Lowland wet zone.

*Note*: This species is also recorded from the Seychelles (World Checklist of Monocots, 2007).


*Distribution*: Submontane zone.

*Note*: Ormerod (2004) recorded this Indian species from Sri Lanka after examining a specimen from Sri Lanka (Jayaweera 46, AMES).


*Distribution*: Lowland wet to submontane zone.

Sinhala: Wana raja

*Note*: Correct name for this species is *A. regalis* Blume, an endemic species of Sri Lanka. *A. setaceus* Blume, with which this has often been confused, is found in Java (Comber, 1990).

**Aphyllorchis** Blume

*Bijdr.* t. 16, f. 77. 1825.

**Aphyllorchis montana** Rchb. f., Linnaea 41: 57. 1877.

*Distribution*: Lowland wet zone.

**Apostasia** Blume

*Bijdr.* 423. 1825.

*Note*: Jayaweera treated Apostasiaceae as a separate family. This genus was unknown to Jayaweera when he published his work. **Ancestor of the Orchid**

![Figure 7](https://example.com/figure7.jpg)

*Figure 7*. Discovery of Apostasia in Sinharaja forest as it appeared in Ceylon Observer (1964).
Figure 8. **a.** Acanthephippium bicolor Lindl.; **b.** Adrorhizon purpurascens (Thwaites) Hook. f. ; **c.** Angraecum zeulanicum Lindl.; **d.** Apostasia wallichii R. Br.; **e.** Arundina minor Lindl.; **f.** Aerangis hologlottis (Schltr.) Schltr (photographs: **a** by P. Samaravikrama; **b, d, f** by S.S. Fernando; **c** by Priyadarshana; **e** by P. Anthony).
he accompanied Dr Leslie Garay to Sinharaja forest in 1964, where it was collected and identified as *Apostasia* (see also Fig. 7). Now the consensus is to treat it as a subfamily of Orchidaceae (Dressler, 1993; Chase *et al.*, 2003; World Checklist of Monocots, 2007).

**Apostasia wallichii** R. Br. in Wallich, Pl. Asiat. Rar. 1: 75. 1830.

*Distribution*: Lowland wet zone.

**Arundina** Blume

_Bijdr._ 401. 1825.


_English*: bamboo orchid

*Distribution*: Lowland wet and submontane zones.


*Distribution*: Submontane zone.

*Note*: _A. minor_ Lindl. has been synonymised under _A. graminifolia_ (D. Don) Hochr., a widespread taxon found in disturbed areas (World Checklist of Monocots, 2007). After examining floral, morphological and habitat characters, these two taxa have been clearly distinguished in Sri Lanka as different entities. We prefer to keep them separate.

**Bromheadia** Lindley


*Distribution*: Lowland wet zone.

*Note*: A specimen (Fernando s.n., 04-1977) deposited in Kew collected from Sinharaja forest from Sri Lanka was described as a new species (Kruizinga & de Vogel, 1997).

**Bulbophyllum** Thouars

_Hist. Orchid._ : f. 93-97. 1822, _nom. cons._

*Note*: We have treated _Bulbophyllum_ in the broad sense and therefore, include _Trias_ Lindley and _Cirrhopetalum_ Lindley in it.


*Distribution*: Lowland wet zone.

**Bulbophyllum elegans** Gardner ex Thwaites, _Enum._ Pl. Zeyl. 298. 1861. **Fig. 9a**

*Distribution*: Lowland wet and submontane zones.

*Note*: This species has been recorded from Agasthyamala in Kerala (CSK 1426, 1430 TBGT), India by Sathish and Manilal (1994: 59).

* _Bulbophyllum elliae_ Rchb. f. in Walper’s, _Ann._ Bot. Syst. 6: 263. 1861.

*Distribution*: Montane and submontane zones.


* Distribution*: Submontane zone.

*Note*: This species has been confused with _B. elliae_ Rchb. f. for a long period of time due to the mix of C.P. numbers from PDA and other herbaria. Jayaweera (1963) described this species as _Cirrhopetalum roseum_ and afterwards synonymised it under _B. elliae_ Rchb. f. (Seidenfaden, 1974). But Garay and Romero-Gonzalez (1999) argue, using shapes of the petals, sepals and coloration as distinguishing characters, that this is a valid species.

The name _Bulbophyllum roseum_ Ridl. 1896 [now _Trias rosea_ (Ridl.) Seidenf.] a species from Malaya and Indochina already exists. Therefore, Jayaweera’s _C. roseum_ needs a new name in _Bulbophyllum._

**Bulbophyllum macraei** (Lindl.) Rchb. f. in Walper’s, _Ann._ Bot. Syst. 6: 263. 1861. _Cirrhopetalum macraei_ Lindl., _Gen. Sp. Orch._ Pl. 59.1830. **Fig. 9f**

*Distribution*: Submontane zone.

*Note*: Srinivasan and Chitra (1989) recorded this species from Tamil Nadu, India. Furthermore, it has been recorded as far away as Japan and Taiwan.


*Distribution*: Submontane zone.

*Note*: This species has been recorded from the Western Ghats, India (Muktesh Kumar and Sequiera, 2000).

**Bulbophyllum petiolare** Thwaites, _Enum._ Pl. Zeyl. 298. 1861. **Fig. 9e**

*Distribution*: Submontane zone.

* _Bulbophyllum purpureum_ Thwaites, _Enum._ Pl. Zeyl. 298. 1861.

*Distribution*: Lowland wet and submontane zones.
Figure 9. a. Bulbophyllum elegans Gardner ex Thwaites; b. Bromheadia srilankensis Kruizinga & de Vogel; c. Bulbophyllum wightii Rchb. f.; d. Bulbophyllum thwaitesii Rchb. f.; e. Bulbophyllum petiolare Thwaites; f. Bulbophyllum macraei (Lindl.) Rchb. f. (photographs: a,e,f by P. Samaravikrama; b,c by S.S. Fernando; d by I. Priyadarshana).

Distribution: Lowland wet, submontane to montane zones.


Distribution: Submontane zone.


Distribution: Montane zone.


Distribution: Submontane zone.

Note: The name Calanthe purpurea Lindl. was recently synonymised with the widespread C. sylvatica (Thouars) Lindl. (World Checklist of Monocots, 2007).

Calanthe R. Br.


Distribution: Montane and submontane zones.

Note: The name Calanthe purpurea Lindl. was recently synonymised with the widespread C. sylvatica (Thouars) Lindl. (World Checklist of Monocots, 2007).


Distribution: Montane zone.

* Corymborkis Thouars


Distribution: Lowland wet to submontane zone.

* Cheirostylis Blume

Bijdr. 413. 1825.


Distribution: Submontane and montane zones.

Chiloschista Lindley


Distribution: Lowland wet to submontane zone.

Note: This species was wrongly called Chiloschista pusilla (W.) Schltr. by Schlechter who was influenced by Hooker’s citation of some synonyms, especially Epidendrum pusillum Koen. (= Taeniophyllum pusillum (Willd.) Seidenf. & Ormerod, a Malesian entity) (Seidenfaden, 1995 a). Our species has been confused with the above entity. C. fasciata is restricted to Sri Lanka and Southern Deccan (Seidenfaden, 1995 b).

Chrysoglossum Blume

Bijdr. 337. 1825.


Distribution: Submontane zone.

* Cleisostoma Blume

Bijdr. 362. 1825.


Distribution: Lowland wet zone.

Coelogynse Lindley

Coll. Bot. t. 33. 1821


Distribution: Lowland wet and submontane zones.


Distribution: Montane and submontane zones.

Distribution: Submontane zone.

Note: The plant recorded and figured as *C. uniflora* Lindl. from South India by Joseph (1987) appears to represent *C. zeylanica* (Clayton, 2002).

**Cottonia Wight**


*Distribution: Lowland wet to Northern and Eastern intermediate zones.*

English: Bee orchid

**Crepidium Blume**

Bijd. 387. 1825.


*Distribution: Lowland wet and submontane zones.*

**Cryptostylis R. Br.**

Prodr. 317. 1810.


*Distribution: Submontane and montane zones.*

**Cyclopogon C. Presl**


*Distribution: Locality unknown.*

Note: This is based on a specimen (Jayaweera 3011) deposited in Kew collected from Sri Lanka. This is a native species of neotropical countries but is found as an adventive in Hong Kong, Java, Samoa and Sri Lanka (Cribb & Ormerod, 1999; Ackerman, 2000).

**Cymbidium Swartz**


*Distribution: Lowland intermediate and dry zones.*

Sinhala: Visha duli


*Distribution: Lowland wet zone*

Sinhala: Visha duli


*Distribution: Lowland wet zone.*

**Cyrtosia Blume**

Bijd. 396. 1825.


*Distribution: Submontane zone.*

**Dendrobium Swartz**


*Distribution: Lowland wet, submontane and intermediate zones.*

Sinhala: Poson mal, Kaputu wesak mal

Note: The name has been changed according to Christenson & Wood (2003).

# *Dendrobium crumenatum* Swartz, J. Bot. (Schrader) 2: 237. 1799.

*Distribution: Lowland wet zone.*

English: pigeon orchid, white dove orchid

Sinhala: sudu pareyi mal

Note: An adventive species, not native to Sri Lanka.

**Dendrobium diodon** Rchb. f., Linnaea 41: 89. 1877.

*subsp. diodon* Fig. 10d

*Distribution: Montane and submontane zones.*

Note: This species has been recorded from Kanniyakumari district, Tamil Nadu, India by Gopalan and Henry (1988) with a new subspecies (*D. diodon* subsp. *kodayarensis* Gopalan & Henry, Holotype: Gopalan 81452, CAL).

*Distribution:* Lowland wet and submontane zones.

*Note:* *D. haemoglossum* is closely related to *D. salaccense* and may prove to be a variant of it.


*Distribution:* Montane and submontane zones.

English: primrose orchid

& Dendrobium maccarthiae Thwaites, Bot. Mag. 81: t. 4886. 1855.

*Distribution:* Lowland wet zone.

Sinhala: Wesak mal

*Note:* The description in Lavarack et al. (2000:148) belongs to a different entity, probably a hybrid.


*Distribution:* Montane submontane zones.

*Note:* The name *D. nutans* Lindl. 1830 is homonymised by *D. nutans* Presl 1827, a different species.


*Distribution:* Lowland wet and submontane zones.

*Note:* This subspecies has been recorded from India (Manilal and Sathish, 1985). Later, Gopalan and Henry (1990) described it as a new subspecies endemic to South India (*D. panduratum* Lindl. subsp. *villosum*).

Didymoplexis Griff.


*Distribution:* Lowland wet zone.

*Note:* This is based on a specimen (*D. Chatterjee 505*) deposited in CAL collected from Kankaniya Mullaha in Sri Lanka in 1956 (Misra, 2004). The identity of the specimen requires confirmation. Another two specimens from Peradeniya are deposited at PDA (Coll: K. M. Gunapala, 20 May 1982 and D. S. A. Wijesundara, June 1994).


*Distribution:* Lowland wet zone.

*Note:* This species has been recorded from Sri Lanka by C. S. Kumar and P. Ormerod (C. S. Kumar & K. S. Manilal, 2004).

Dienia Lindley

*Note:* There are several recent revisions of the subtribe Malaxidae, especially on the genus *Malaxis* Sw. At present the above Sri Lankan genus has been segregated into three genera, *Diena* Lindl. 1824, *Crepidium* Blume 1825 and *Seidenfia* Szlach. 2001 (Margonska & Szlachetko, 2001). However, the genus *Seidenfia* is a doubtful concept with erroneous typification. Therefore, we have decided to omit the generic concept *Seidenfia* from the present checklist. It is likely that nearly all the South-East Asian segregations of *Malaxis* will be considered to belong to a broad concept of *Diena*.


*Distribution:* Lowland wet and submontane zones.

Diplocentrum Lindley


*Distribution:* Submontane zone.

Diploprora Hook. f.


*Distribution:* Lowland wet zone.

Disperis Swartz


*Distribution:* Submontane zone.

*Note:* All Asian taxa of the genus *Disperis* were recently synonymised with the widespread *D. neilgherrensis* Wight (Kurzweil, 2005).
Epipogium Gmelin ex Borkhausen
Tent. Disp. Pl. German. 139. 1792.


Distribution: Lowland wet zone.

Eria Lindley
Bot. Reg. 11: t. 904.1825.

Note: The six Sri Lankan species traditionally placed in Eria would, according to a recent phylogenetic treatment (Cribb & Ng in Pridgeon et al. 2005), be placed in at least four genera. We feel that much more samplings are needed before these changes can be accepted. The Sri Lankan species (E. articulata, E. braccata, E. muscicola var. oblonga) would probably be placed in Conchidium Griff. but it seems to us that apart from having a somewhat similar habit that these taxa are not that closely related. Thus, we treat Eria in the traditional sense until a better circumscription of the various resurrected genera becomes available.


Distribution: Lowland wet zone.


Distribution: Montane and submontane zones.

English: Lily of the valley orchid


Distribution: Montane and submontane zones.


Distribution: Lowland wet to montane zone.


Distribution: Lowland wet to montane zone.

Note: The Sri Lankan variation of this species may represent a separate species (Seidenfaden, 1982).


Distribution: Lowland wet and submontane zones.


Distribution: Submontane zone.

Erythrodes Blume
Bijd. 410. 1825.


Distribution: Lowland wet and submontane zones.

Note: This species was confused with E. humilis (Blume) J. J. Sm. and E. blumei (Lindl.) Schltr. which are two closely related Malayan species. By examining the specimens (Sledge 1146, C.P. 598 and Macrae 59) in K and BM, it was distinguished as a new species (Ormerod, 2002).

Eulophia R. Br. ex Lindley


Distribution: Lowland intermediate and dry zones.


Distribution: Lowland intermediate zone.


Distribution: Lowland wet and submontane zones.


Distribution: Lowland wet zone.

Eulophia zollingeri (Rchb. f.) J. J. Sm., Orch. Java.
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Distribution: Lowland wet and submontane zones.

Flickingeria A. D. Hawkes

Distribution: Lowland wet and submontane zones.

Sinhala: Jata makuta

Gastrochilus D. Don
Prodr. Fl. Nepal. 32. 1825.

Distribution: Lowland wet to submontane zone.

Gastrodia R. Br.
Prodr. 330. 1810.

Distribution: Lowland wet zone.

Note: The record from Bangladesh (Khan and Halam, 1989), after examining the detailed drawing, is found similar to a Didymoplexis species, possibly D. pallens Grif. by the following characters: branching habit of stem, lateral sepals deeply separated from petals and dorsal sepal and bilobed lip. Therefore, G. zeylanica is retained as an endemic species. The figure in Jayaweera (1981: 335) and two drawings deposited at PDA are not G. zeylanica but a Didymoplexis species (C.P. 3463).

Geodorum Jackson
Bot. Repos. 10: t. 626. 1811.

Distribution: Lowland wet and submontane zones.


Distribution: Locality unknown.

Note: Two specimens of G. recurvum deposited at Kew collected by Walker from Sri Lanka were without precise locality.

Goodyera R. Br.
in W. T. Aiton, Hortus Kew. 5: 197. 1813.

Distribution: Lowland wet and submontane zones.


Distribution: Submontane zone.


Distribution: Locality unknown.

Note: For quite sometime the only material (C. P. 2739, K) of this taxon had been wrongly called Hetaeria elongata (Lindl.)Hook. f. (now H. finlaysoniana Seidenf.) distributed from Peninsular Malaysia to Thailand, Myanmar and possibly China. A critical study of the material at K convinced the correct generic placement and novelty (Ormerod, 2004).

Habenaria Wild.
Sp. Pl. 4: 44. 1805.

Distribution: Submontane zone.


Distribution: Submontane, montane and eastern intermediate zones.

Note: This species was originally named Ate virens Lindl. Wight (1845) named it as Habenaria barbata nom. nud., by using a separate specimen. Later, Joseph Hooker validated the name H. barbata (1890). Abeywickrama (1959) and P.F. Hunt &
Figure 10. a. Eria thwaitesii Trimen; b. Habenaria acuminata (Thwaites) Trimen; c. Eria tricolor Thwaites; d. Dendrobium diodon Rchb. f.; e. Habenaria barbata Wight ex Hook. f.; f. Eria lindleyi Thwaites (photographs: a-e by S.S. Fernando; f by P. Samarawikrama).
Summerhayes in 1966 independently transferred it as *H. virens* (Seidenfaden in Matthew, 1999). Abeywickrama’s transfer (1959) was illegitimate because of wrong basionym used (Seidenfaden in Matthew, 1999) and P.F. Hunt & Summerhayes’ transfer is a homonym of *H. virens* A. Rich & Galeotti (1845), a Mexican species (World Checklist of Monocots, 2007).


*Distribution*: Lowland wet zone.

Sinhala: Nari Lata


*Distribution*: Dry zone.


*Distribution*: Montane zone.


*Distribution*: Lowland wet, intermediate zone and dry zones.


*Distribution*: Intermediate and dry zones.


*Distribution*: Submontane zone.


*Distribution*: Submontane zone.

Note: This taxon was recently synonymised with the widespread *H. oblongifolia* Blume (Ormerod, 2004).

**Ipsea Lindley**


*Distribution*: Montane an submontane zones.

English: Daffodil orchid

Sinhala: Naga meru ala

**Liparis A. Rich.**


*Distribution*: Montane and submontane zones.


*Distribution*: Submontane zones.

Note: *L. barbata* was described from a solitary specimen sent by Macrae to Lindley, which supposedly had hairs on the lip (Lindley, 1830-1840). But later publications did not mention hairiness on the lip (Trimen 1898, Hooker 1888-1890, Ormerod, 2005a). In Alston (1931: 272) and Jayaweera’s (1981:55) treatments an entirely different species is described as *L. barbata*. Examination of the type (Macrae 6, K-L) proved that the lip lacked hairs and that many entities (including *L. wrayi* Hook. f.) were synonyms. *L. barbata* is a widespread species distributed from Sri Lanka to Samoa (Ormerod, 2005a).


*Distribution*: Submontane zone.


*Distribution*: Lowland wet and submontane zones.

Note: *L. cespitosa* (Lam.) Lindl. is the correct name for...
the taxon based on *Epidendrum cespitosum* Lam. 1783. In Jayaweera (1981) and Senaratne (2001), it is incorrectly cited as *L. caespitosa* (Thouars) Lindl. 1825.

**Liparis elliptica** Wight, Icon. Pl. Ind. Orient. 5: t. 1735. 1851.

*Distribution*: Submontane zone.


*Distribution*: Submontane zone.


*Distribution*: Lowland wet and submontane zones.

Note: This was described as a unifoliate species based on Thwaites, CP 3179 (K). We think this is an error that arose from incomplete vegetative material because the two isotypes at PDA are specimens with two (rarely three) leaves. Furthermore, the flowers have a suborbicular (not late obovate or cuneate-oblong as originally described) lip. The figure called *L. barbata* Lindl. by Jayaweera (1981: 56) represents *L. thwaitesii*. Further studies are required of the type specimens in the *L. wightiana/thwaitesii* complex. However, it seems possible that *L. trimenii* Ridley is not a synonym of *L. wightiana* but an earlier name for *L. thwaitesii*.


*Distribution*: Lowland wet and submontane zones.


*Distribution*: Montane zone.


*Distribution*: Montane and submontane zones.

Note: See notes under *L. thwaitesii* concerning the synonymy of this species.

**Luisia Gaudich.**


Distribution: Northern and Eastern intermediate zones.

Note: This species was first collected from Nilgiris and described as a separate genus *Birchea* by A. Richard (1841). Later, Blume transferred it to its current position (Sathish & Manilal, 2004). Basionym of *L. tenuifolia* (L.) Blume 1848 is *Epidendrum tenuifolium* L. 1753. It is not a true *Luisia* but is now known as *Cleisostoma tenuifolium* (L.) Garay.


*Distribution*: Lowland wet to Submontane zone.

Note: *L. zeylanica* Lindl. was based on Macrae’s collection from Sri Lanka. *L. teretifolia* Gaudich does not occur in Sri Lanka or India.

**Malaxis Swartz**

Prodr. 8.119. 1788.


*Distribution*: Submontane zone.


*Distribution*: Lowland wet zone.


*Distribution*: Lowland wet zone.

1844-45.


* Oberonia zeylanica* Hook. f., Hooker’s Icon. Pl. 18: t. 1782. 1888.

* Octarrhena* Thwaites


* Papilionanthe* Schlechter
Orchis 9: 78. 1915.


* Papilionanthe subulata* (Willd.) Garay 1974 is based on *Epidendrum subulatum* Koenig and
incorrectly used for our species, *P. cylindrica* (Lindl.) Seidenf. (Seidenfaden, 1995a)

**Peristylus** Blume
Bijd. 404. 1825, nom. cons.


*Distribution*: Submontane zone.

*Note*: This species with small undulate leaves was described based on Macrae’s specimen (*Macrae 56*) collected from Peradeniya, Sri Lanka. However, only flower buds of this specimen remain and Lindley’s sketch on the type sheet is not a detailed one (Seidenfaden, 1977). Jayaweera (1981: 370) illustrated a specimen similar to *Macrae 56* with subequal sidelowes and midlobe. Yet another specimen with a much shorter midlobe and much larger leaves (*Kostermann 27104, G*) was also found collected from Kandy, Sri Lanka in 1978. It was identified as *P. gracilis* Blume (Swiss Orchid Foundation, 2007). C.P. 3081(K) was identified as *P. aristatus* Lindl. This species has a much shorter spur and a pair of lobules at the base of the lip (spur of *P. gracilis* is twice as long as the length of the dorsal sepal and does not have lobules at the base of lip). The later entity is clearly different from *P. gracilis* and possibly belongs to a new species, but further materials are needed for confirmation.


*Distribution*: Submontane zone.


*Distribution*: Submontane zone.


*Distribution*: Lowland wet zone.

*Note*: There is a specimen (*Laegard 13962*) deposited in AAU collected from Sinharaya (Sinharaja forest), Sri Lanka (Seidenfaden, 1999).


*Distribution*: Montane zone.


*Distribution*: Submontane zone.


*Distribution*: Submontane zone.


*Distribution*: Eastern intermediate zone.

**Phaius Loureiro**
Fl. Cochinch. 529. 1790.

**Phaius luridus** Thwaites, Enum. Pl. Zeyl. 300. 1861.

*Distribution*: Lowland wet zone.

*Note*: This species is also reported from India (Abraham & Vatsala, 1981; Sathish Kumar & Manilal, 2004).


*Distribution*: Montane and submontane zones.

*English*: Star orchid

*Note*: Both *P. wallchii* Lindl. and *P. tankervilleae* (Banks ex L’Hérit.) Blume were considered one and the same species but were recently discovered to be two different, closely related species. Sri Lankan specimens at K fell under *P. wallchii* Lindl. (Cribb et al. 2004).

**Phalaenopsis** Blume
Bijd. 294. 1825.

*Note*: The genus *Kingidium* P.F. Hunt is now placed under this genus (Christenson, 2002).


*Distribution*: Lowland wet zone.

**Phalaenopsis mysorensis** Saldanha, Ind. For. 100: 571. 1974.
Distribution: Isolated hilltops in intermediate and dry zones.

Note: This species was found on some isolated hills in the intermediate zone of Sri Lanka. Specimens are deposited at PDA (S.S.-2004-1, S.S.-2004-2). Previously, it was considered as endemic to a narrow range in South India (Christenson, 2006).

**Pholidota Lindley ex Hooker**

Exot. Fl. 2: t. 138. 1825.


Distribution: Lowland wet and submontane zones.

English: necklace orchid

Sinhala: Nari ala

**Podochilus Blume**

Bijdr. 295. 1825.


Distribution: Submontane zone.

Sinhala: Maha Patma

**Podochilus malabaricum** Wight, Icon. Pl. Ind. Orient. 5: t. 1748, f. 2. 1851.

Distribution: Lowland wet to submontane zone.

Sinhala: Maha Patma


Distribution: Lowland wet zone.

Sinhala: Kuda Patma

**Phreatia Lindley**


Distribution: Submontane and montane zones.


Distribution: Submontane zone.

Note: A new species endemic to Sri Lanka (Ormerod, 2005).

**Polystachya** Hook.

Exot. Fl. 2: t. 103. 1824, nom. cons.


Distribution: Intermediate, lowland wet, submontane and montane zones.

**Pomatocalpa Breda**


Distribution: Lowland wet zone.

Note: Endemic status of this species has changed because of the recent studies of the genus by Watthana (2006, 2007).


Distribution: Lowland wet zone.

Note: Names and endemic status of this species have changed as a result of the recent studies of the genus by Watthana (2006, 2007).

**Pteroceras Van Hasselt ex Hassk.**

Flora 25 (2 Beibl.): 6. 1842.


Distribution: Submontane and montane zones.

Note: According to Pedersen (1993:55) taxonomic affinity of *P. viridiflorum* (Thwaites) Holttum is unclear, but it has been recognized as an endemic taxon to Sri Lanka. When citing specimens, Jayaweera has confused the above with an Indian taxon, *Loxoma viridiflora* (Dalz.) Pradhan, a clearly different entity.

**Rhynchostylis Blume**

Bijdr. 285. 1825.


Distribution: Eastern Intermediate zone.

English: Batticaloa orchid, Fox-tail orchid

Sinhala: Gurulu Raja

**Robiquetia** Gaudich.

Voy. Uranie; 426. 1829.


Distribution: Montane and submontane zones.

**Distribution:** Submontane zone.


**Distribution:** Submontane zone.

**Note:** This species has been recorded from India (Bhat, 2000), but the plant figure does not match exactly with the Sri Lankan material.

* Robiquetia virescens Ormerod et Fernando, sp. nov.  


Affinis R. brevifolia (Lindl.) Garay sed petalis floribus oblongis ad oblongo-ellipticis (non oblique late obovatis) et ostium labello late obliquus (non brevipatens) differt.

**Type:** Sri Lanka, Kandy district, Rangala, Corbet’s Gap, 1290 m, 29 March 1961, D.M.A. Jayaweera 2048 (holotype with sketch, PDA; isotype: PDA).

**Epiphytic herb. Roots** terete, elongate, emerging from nodes. **Stem** slender, terate, weakly flexuous, laxly 5-8-leaved, 5-12 cm long, 0.2-0.3 cm thick; internodes covered by shallowly ribbed, coriaceous, tubular sheaths. **Leaves** oblong-ligulate to linear-ligulate, apex equally to inequally, obtusely bilobed, thinly coriaceous, 4-7 cm long, 0.4-1.0 cm wide. **Inflorescence** emerging from nodes opposite to leaf lamina, 2.7-6.8 cm long, peduncle slender, terete, with 3-5 brown sheathing bracts, 2-4 cm long; rachis subdensely 12-14 flowered, 1.5-3.2 cm long; floral bracts broadly triangular, acute, 0.8 mm long. **Flowers** with pale green to green sepals and petals, lip with green midlobe and edges of spur mouth, rest of spur white to pale green, column pale green to green, anther cap purple-red; dorsal sepal oblong to oblong-elliptic, obtuse to shortly truncate, 3.9 mm long, 2.1 mm wide; lateral sepals obliquely oblong, subacute, 3.8 mm long, 1.8 mm wide; petals oblong to oblong-elliptic, subacute to shortly truncate, 3.8 mm long, 1.7 mm wide; labellum infundibuliform, apex subacute to obtuse, 9.8 mm long; mouth of labellum oblique, 3.8 mm wide from base of column to midlobe; midlobe fleshy, deltate, c. 0.7 mm long; column semicylindric-clavate, 2.1 mm long.

**Distribution:** Sri Lanka.


**Habitat:** On trees of submontane forests.

**Note:** Lindley mentioned Gardner’s manuscript name Saccolabium virescens in the synonymy of S. brevifolium Lindl. Jayaweera (1981) provided an English description and a figure of the former entity which he transferred to Robiquetia. However, the name Saccolabium virescens was never validly published and consequently the name Robiquetia virescens is until now invalid. We, therefore, have validated the name R. virescens for this checklist.

Robiquetia virescens is related to R. brevifolia (Lindl.) Garay but differs from it by having longer (4-7 vs. 1.5-2.0 cm) leaves, flowers with pale green to green (not deep purple red) sepals and petals, oblong to elliptic (not obliquely late obovate) petals and much broader entrance to the lip.

Jayaweera (1981) mentions that there is a white-
flowered form of *R. virescens*. His observation was based on Bernardi 15769 (PDA) which has shorter and more coriaceous leaves than *R. virescens*. We are unsure of the identity of this collection and thus have excluded it from this list.

**Satyrium Swartz**
nom. cons.


*Distribution*: Montane zone.

**Schoenorchis** Reinw. ex Blume
Bijdr. 361. 1825.


*Distribution*: Lowland wet and submontane zones.

*Note*: Gopalan and Henry (1989) have recorded this species from India.


*Distribution*: Submontane zone.

**Seidenfadeniella** Sath. Kumar


*Distribution*: Montane zone.

*Note*: Sathish Kumar (Sathish Kumar & Manilal, 1994) erected this genus with two species distributed in India and Sri Lanka. Later, the name of *S. chrysantha* (Alston) Sath. Kumar was changed using an earlier available basionym to *Saccolabium filiforme* Rchb. f. 1864 by Christenson & Ormerod (Seidenfaden in Matthew, 1256: 1999).

**Sirhookera Kuntze**


*Distribution*: Lowland wet, submontane and montane zones.


*Distribution*: Submontane and montane zones.

**Spathoglottis** Blume
Bijdr. 400. 1825.

# *Spathoglottis plicata* Blume, Bijdr. 401. 1825.

*Distribution*: Lowland wet and submontane zones.

*Note*: This adventive species is now recorded from many areas in wet and mid elevation zone in Sri Lanka, especially near waterways. This is a common garden plant in most parts of Sri Lanka.

**Spiranthes** Rich.
De Orchid. Eur. 28. 1817.


*Distribution*: Lowland wet and submontane zone.

**Stichorkis** Thouars


*Distribution*: Montane and submontane zones.

*Note*: *Liparis gibbosa* Finet is now placed under this genus (Pridgeon et al., 2005). This species has been identified as *Liparis disticha* Lindl. and *L. gibbosa* Finet. The identity of the Sri Lankan material is not wholly certain, so we have taken a conservative approach and used the oldest available name.

**Tainia** Blume
Bijdr. 354. 1825.


*Distribution*: Submontane zone.
**Taeniophyllum Blume**

*Bijdr. 355. 1825.*


*Distribution:* Submontane and montane zones.


*Distribution:* Lowland wet zone.

**Taprobanea Christenson**


*Distribution:* Intermediate and dry zones.

**Thrixspermum Loureiro**

*Fl. Cochinch.* 519. 1790.


*Distribution:* Intermediate and dry zones.


*Distribution:* Lowland wet zone.

*Note:* This species was recorded by Manilal and Sathish (1986) from Palode, Trivandrum district in India (CU36969, CALI and Sathish Kumar 501, TBGT). It is a member of the difficult *T. hystrix* (Blume) Rchb. f. complex.


*Distribution:* Lowland wet zone.

*Note:* The Sri Lankan species was incorrectly identified as *T. complanatum* (J. G. König) Schlechter based on *Epidendrum complanatum* Koen. 1791 from Thailand.

**Trichoglottis Blume**

*Bijdr. 359. 1825.*


*Distribution:* Submontane and montane zones.

**Tropidia Lindley**


*Distribution:* Lowland wet zone.

*Note:* *T. bambusifolia* (Thwaites) Trimen is an endemic plant synonymised under *T. thwaitesii* Hook. f. in World Checklist of Monocots (2007). No flowering material has been deposited in Kew (Pers. comm., J. J. Wood). When flowering and morphological characters of the two taxa are compared, they can be distinguished clearly as separate species.


*Distribution:* Lowland wet to dry zone.

*Note:* This species has been recorded from India (Rao, 1989).

**Vanda Jones ex R. Br.**


*Distribution:* Intermediate and dry zones.

*English:* Anuradhapura orchid, grey orchid

*Sinhala:* Rassana, Retta


*Distribution:* Lowland wet, intermediate and dry zones.


*Distribution:* Lowland intermediate zone.

*Note:* This species was recently recorded in India (C. S. Kumar and P. C. S. Kumar, 1998). It was originally
Figure 13. Selected colour varieties of Vanda tessellata (Roxb.) Hook. ex G. Don (all photographs by S. Gunasekara).
An Annotated Checklist of the Orchids of Sri Lanka described by J.D. Hooker (1898) from Sri Lanka using two paintings at PDA and Thwaites’ description (1864) but the original specimen (C.P. 3378) is believed to be lost. It was originally recorded from Hunnasgiriya area in Central Province. Since it is not found from Sri Lanka it is believed to be extinct in the Island (Jayaweera, 1981).

The appearance of this species can easily be confused with the widespread V. tessellata (Roxb.) Hook. ex G. Don which has a wide range of flower colorations and shapes. Yet, since the type locality has a considerable amount of forest cover and habitat for Vandaceous plants, we decided not to omit it from the list.


*Distribution:* Not known

*Note:* This species was rediscovered after 150 years from Karnataka and Kerala, India (Sathish Kumar et al. 2007). There is one specimen from Reichenbach herbarium, Thwaites C.P. 2346 at W collected from Sri Lanka.

This species can easily be confused with the widespread *V. tessellata* (Roxb.) Hook. ex G. Don.

**Vanilla** Plum. ex Miller


*Distribution:* Cultivated in lowland wet zone.


*Distribution:* Lowland wet zone.


*Distribution:* Intermediate and dry zones.

**Zeuxine** Lindley


*Distribution:* Submontane zone.


*Distribution:* Submontane zone.


*Distribution:* Submontane zone.


*Fig. 11f*

*Distribution:* Lowland wet zone.


*Distribution:* Lowland wet, submontane and eastern intermediate zone.

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