

An annotated checklist of the Orchidaceae of Laos

André Schuiteman, Pierre Bonnet, Bouakhaykhone Svengsuksa and Daniel Barthélémy

A. Schuiteman (schuiteman@nhn.leidenuniv.nl), Nationaal Herbarium Nederland, Univ. Leiden, PO Box 9514, NL-2300 RA Leiden, the Netherlands. – P. Bonnet, CIRAD and UM2, UMR AMAP, FR-34000 Montpellier, France. – B. Svengsuksa, National Univ. of Lao PDR, Faculty of Science, Dept of Biologie, PO Box 7322, Vientiane, Laos PDR. – D. Barthélémy, INRA, UMR AMAP, FR-34000 Montpellier, France.

A checklist is presented of the orchid flora of Laos, enumerating 485 species in 108 genera. An estimate is given of the expected size of the orchid flora of Laos. Notes on habitat, global and local distribution, endemism, conservation, phenology, as well as a systematic overview complement the checklist.

Origin of the checklist

The checklist presented below grew out of a UNESCO project (reference no. 27213102 LAO) and the ORCHIS project (<<http://www.orchisasia.org/>>). The first, entitled ‘Systematic study of the wild orchids in Lao P.D.R. and their conservation’, was conducted during the year 2005 by Bouakhaykhone Svengsuksa. Some 700 living orchid specimens, collected in various localities in Laos, formed the basis for the first orchid collection at the National University of Laos (NUOL) in Vientiane. The ORCHIS project, which was carried out during the years 2006–2008 (Acknowledgements), had the objective to develop an identification tool for a significant part of the orchid flora of Laos. Among the main goals was to facilitate monitoring and regulating the trade in these plants. To achieve these aims it was mandatory to get a better insight into the distribution and ecology of orchids in Laos. During thirty field trips about 1400 carefully selected living plants were collected, which were subsequently cultivated in the greenhouses at NUOL. In this way species that were not encountered during anthesis could be studied and identified as they flowered in cultivation.

The following localities have been visited in the course of the ORCHIS project:

- The tropical lowland forest of the Xe Pian NBCA (National Biodiversity Conservation Area), Champasak province.
- Various localities on the margin of the Bolovens plateau, Champasak and Attapu provinces.
- The Dong Ampham NBCA, Attapu province.
- The karst formations of the Phou Hin Boun NBCA, Khammouan province.
- The Nakai plateau in the Nakai-Nam Theun NBCA, Khammouan province.

- The karst formations and montane forests in the Lak Xao district, Bolikhamxai province.
- Various sites in the Phou Khao Khouay NBCA, Vientiane and Bolikhamxai provinces.
- The Phou Phanang NBCA, Vientiane prefecture.
- The Louangphrabang district, Louangphrabang province.
- The Oudomxai district, Oudomxai province.
- The Nam Ha NBCA and the districts of Xieng Kok and Muang Sing, Louang Namtha province.
- The districts of Ou Tai and Phongsali and the Phou Den Dinh NBCA, Phongsali province.

Field trips by staff members of the National University of Laos, as well as specimens assembled during the Darwin project directed by Dr M. Newman and during the Biotik project directed by Dr P. Grard, also enriched the living collection.

As a result of these collecting activities, much of it performed in areas never visited by botanists before, about 145 species and 19 genera of Orchidaceae could be added to the orchid flora of Laos as described by Seidenfaden (1992). In addition, for many species already known from Laos new provincial records could be established.

An unfortunate omission in Seidenfaden’s otherwise admirable publication is the complete lack of information on such data as habitat, altitude and phenology. Where this information was available it is incorporated in the present checklist. For many species, however, even the most basic ecological data are still wanting.

Work on our checklist commenced while the Darwin project, which resulted in a checklist of the vascular plant flora of Laos (Newman et al. 2007), was nearing its completion. A preliminary version of our checklist was published on the internet. This was (and at the time of writing still is) regularly updated as new species records

came to light. With our consent this preliminary list (in its February 2007 state) was incorporated in Newman et al. (2007). However, since that time many more orchid species have been identified as new for Laos. Moreover, our data on collections, distribution, ecology and phenology were not included in Newman et al. (2007). This, in our opinion, justifies the publication of the present checklist, even though many of our results were inevitably anticipated in Newman et al. (2007). Since the section on Orchidaceae in the latter is not only based on our preliminary list but on other sources as well it contains a number of additional species and province records. We have collected in the last part of this paper those species records which in our opinion require confirmation (see List of synonyms and questionable records in Newman et al. 2007). There we also list a number of cases where our views on nomenclature and synonymy are at variance.

The aim of our checklist is thus to present an overview of all orchid species currently recorded from Laos, combining results from the ORCHIS project and previous studies, including information on species distribution, habitat and phenology. Apart from the obvious functions that such a checklist fulfils we consider the fact that our work clearly outlines the still considerable gaps in our knowledge another useful property. We hope it will stimulate scientific exploration and botanical research in Laos.

Estimated size of the Lao orchid flora

The flora of Laos has so far received much less attention from botanists than some of the neighbouring countries, such as Thailand or Vietnam (Newman et al. 2007). As a result, the orchid flora in particular is still very poorly known (Schuiteman and de Vogel 2000). The most recent critical overview of the orchid flora of Laos is contained in a major work on the Orchidaceae of Indochina (Seidenfaden 1992). In that publication 335 species of Orchidaceae are recorded from Laos. Even if we take into account the smaller surface area of Laos compared to Thailand and Vietnam it is obvious that this figure must be a gross underestimate of the actual number of orchid species occurring naturally in this country (Table 1, based on figures from Schuiteman and de Vogel 2000 and Averyanov 2003).

Assuming that the orchid diversity of Laos is comparable to that of Vietnam (in terms of number of species per 100 km²) and taking into account that according to Averyanov (2003) at most 80% of the species of that country have been recorded, we can deduce from this table that the actual number of orchid species in Laos should be close to 800.

Table 1. Comparison between the Orchid flora of Laos, as presently known, and that of neighbouring countries.

Country	Surface area (km ²)	Orchid species	Species per 100 km ²
Laos	236 800	485	0.2048
Thailand	514 000	1100	0.2140
Vietnam	330 991	897	0.2710

An alternative way to estimate the orchid diversity of Laos is to take the number of species currently recorded (485 according to our checklist) and to add the number of species that may be expected to occur in Laos based on an analysis of distributional and ecological data. In this way we arrive at an estimate of 831 species. Since these two estimates are very similar they may contain more than a grain of truth, even though they are not completely independent.

Another indication that our current checklist is still far from complete is the fact that for several provinces there are hardly any records at all (see Local distribution). It is also worth pointing out that Laos contains the largest part of the central Indochina limestone belt (Rundel 1999). Schmid (1974) suggests that this area is rich in endemic species, but poorly known at present. Furthermore, this habitat type is already recognized in the neighbouring countries as being a particularly rich one (Shui and Chen 2006), especially in orchids (Averyanov et al. 2003). Many new records in our checklist, for example of rare species like *Eparmatostigma dives* (Rchb. f.) Garay (Schuiteman and Bonnet 2008) and *Thaia saprophytica* Seidenf. (Schuiteman et al. in press), are due to field trips conducted at the margin of this largely unexplored and almost impenetrable area.

It may be of interest to note that the following genera, according to our analyses, are expected to occur in Laos, although they are absent from the checklist: *Acanthephippium*, *Adenoncos*, *Amitostigma*, *Armadorum* (but see List of synonyms and questionable records in Newman et al. 2007), *Cremastra*, *Cryptochilus*, *Cryptostylis*, *Didymoplexiella*, *Didymoplexiopsis*, *Didymoplexis*, *Diglyphosa*, *Diplomeris*, *Dipodium*, *Eriodes*, *Erythroides*, *Galeola*, *Grosourdyia*, *Hemipilia*, *Herminium*, *Herpysma*, *Lecanorchis*, *Ludisia*, *Macropodanthus*, *Microsaccus*, *Neuwiedia*, *Phreatia*, *Platanthera*, *Rhomboda*, *Stereochilus* (recently one as yet unidentified and possibly undescribed species from Laos came to our notice; see Endemism), *Stereosandra*, *Thecopus*, *Tuberolabium*, *Vrydagzynea*, and *Yoania*.

Local distribution

At the province level it becomes even more apparent that Laos is still severely underexplored botanically. Our findings confirm the pattern shown by Newman et al. (2007), who demonstrated that for some provinces there are hardly any floristic data available. Especially the four northern provinces (Bokeo, Louang Namtha, Oudomxai and Phongsali) are very poorly represented in their checklist of the vascular plants of Laos, while the same applies to Xekong in the south and to the central province of Xaisomboun. This is of course a mere artifact of collecting and in no way reflects a lower diversity of these 'neglected' provinces. The validity of this statement is easily demonstrated by the fact that during a few short excursions to the Phongsali Province the present authors and their co-workers were able to record about 85 orchid species. In the checklist of Newman et al. (2007) the whole known vascular plant flora of Phongsali, which has an area of 16 270 km², amounted to 66 species, including only 7 species of Orchidaceae. Our map (Fig. 1), analogous to the map in Newman et al. (2007), shows the provincial subdivisions of Laos and the number of orchid

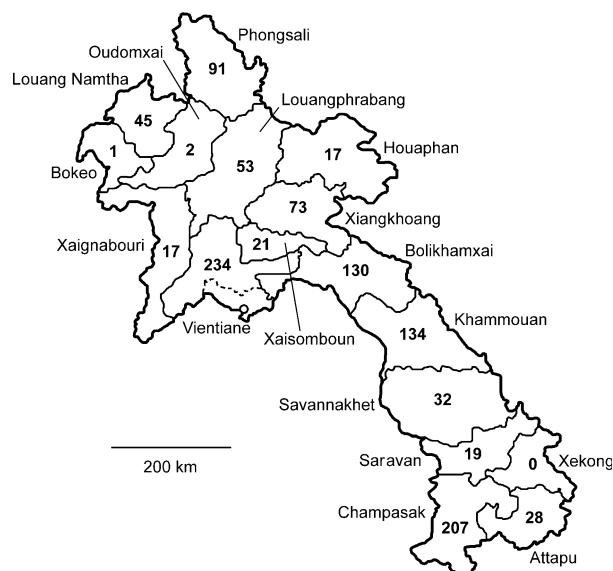


Figure 1. Map of Laos, showing number of orchid species known from each province.

species known from each province according to our checklist. For the purpose of this checklist we have combined the two administrative regions Vientiane Province and Vientiane Municipality (on the map separated by a dotted line) into a single province. This is mainly to avoid the problem that for older records it is often difficult to decide in which present day administrative region they belong. Evidently, much basic exploration work still needs to be done in Laos. This also includes the provinces from which a relatively larger number of species have been recorded.

Endemism

The number of endemic orchid species in Laos is surprisingly low when we compare for example the orchid flora of Vietnam (158 endemic species or 17.6%, based on data from Averyanov and Averyanova 2003). Only 11 species (2.3%) are so far exclusively known from Laos (Table 2).

It is likely that exploration of remote areas, especially those at higher altitudes, will lead to the discovery of additional endemic orchid species. During our own field work (see Origin of the checklist) we have collected a number of species that appear to be undescribed. This includes 1 species of

Biermannia, 3 of *Bulbophyllum*, 1 of *Cleisostoma*, 1 of *Eria*, 1 of *Habenaria*, 1 of *Holcoglossum* (Schuiteman and Bonnet in press), 2 of *Liparis*, 1 of *Robiquetia*, 1 of *Stereochilus* and 1 of *Vanilla*. Pending further evidence we must consider these as endemic. They would raise the number of endemic species to 24.

Conservation

When seen from space Laos is easily recognised as an elongated patch of green surrounded by the browns and yellows of cultivated and deforested land in the neighbouring countries. Due to the low population density the destruction of nature in Laos is less obvious than in most other countries in southeast Asia. Nevertheless, even here much wildlife is severely threatened. Most of Laos (including nature reserves) is now covered with young secondary forest where hardly any orchids can be found. Primeval, or at least old growth, forest is hard to find, except in the most inaccessible places, and it is rapidly being destroyed for timber or simply to clear the land for farming. Due to the strongly seasonal climate of most parts of Laos, orchid populations are often highly localised in relatively small spots where the microclimate is favourable for these plants (hilltops with cloud formation, the surroundings of waterfalls, stream banks, etc.). This makes orchids particularly vulnerable to another threat: overcollecting.

Orchids are collected on a massive scale by members of the local population, who often make some extra income by selling orchids to collectors from Thailand and Vietnam. This explains, for example, how one of the few endemic orchid species of Laos, the red-flowered *Dendrobium lamyaiae*, could be 'discovered' first in a nursery in Thailand. As far as we can tell, this species only occurs in the Phou Khao Khouay reserve not far from the capital Vientiane. Another endemic, the recently described *Coelogyne sudora*, likewise was found in a batch of plants from a Thai nursery that originated from Laos. In this case we do not even know in which province it occurs in the wild. On more than one occasion villagers have told us, when we came looking for orchids near their village, that we should have come a few years earlier, before all the orchids were collected!

A different kind of trade, perhaps even more damaging, is the large-scale collecting of certain species of *Dendrobium* (e.g. *D. chrysotoxum*, *D. pulchellum*, *D. nobile*, *D. gratiosissimum*, *D. aphyllum* and related species) for the Chinese medicine industry. We have reliable information that a particular exporter in central Laos sent more than 100 000 kg of dried *Dendrobium* stems of plants taken from the wild to China in a single year. This must have been only a fraction of what was actually collected and discarded. These are clearly unsustainable practices, which have become illegal since the Lao PDR joined CITES in 2005. However, enforcement is still a problem, and CITES is powerless against habitat destruction and collecting for the local market. The need for a better knowledge of the Lao orchid flora, for the implementation of sound management policies and for effective protection is therefore apparent. The protection of the remaining old growth forests is especially urgent and we would like to plea for a policy

Table 2. Endemic Orchidaceae of Laos.

<i>Brachycorythis thorelii</i> (Gagnep.) Summerh.
<i>Bulbophyllum coveniorum</i> J. J. Verm. & P. O'Byrne
<i>Bulbophyllum laoticum</i> Gagnep.
<i>Bulbophyllum sanguineopunctatum</i> Seidenf. & Kerr
<i>Bulbophyllum seidenfadenii</i> Kerr
<i>Bulbophyllum violaceolabellum</i> Seidenf.
<i>Cephalanthera exigua</i> Seidenf.
<i>Coelogyne sudora</i> Schuit. & de Vogel
<i>Dendrobium lamyaiae</i> Seidenf.
<i>Liparis brunneolobata</i> Kerr
<i>Oberonia delacourii</i> Gagnep.

under which in every logging area representative patches of the forest, to be chosen by conservationists, should remain untouched as a sanctuary for biodiversity.

Phenology

Most of Laos has a strongly seasonal climate, with a rainy season lasting from May to October and a dry season lasting from November to April. The dry season can be subdivided into a cool dry period, from October to February, and a hot dry period, during March and April. The phenology of orchids in Laos reflects this seasonality. Most species possess a definite flowering period, usually lasting about one or two months. Individual specimens normally have a much shorter flowering span. It is interesting to note that different genera may display different phenological patterns (Table 3). For example, *Dendrobium* clearly has a peak during March, April and May, which corresponds with the hot dry period. *Bulbophyllum*, on the other hand, has its peak during the cool dry period, October to January. There can be little doubt that these patterns are directly related to the availability of pollinators. In this respect *Bulbophyllum* and *Dendrobium* are clearly differentiated, with *Dendrobium* mainly showing adaptations to bee pollination (Lavarack et al. 2000, Wood 2006), while *Bulbophyllum* is in many cases evidently adapted to fly pollination (Dressler 1993). In both genera the flowers usually do not offer any reward. This is an important observation, since it implies that the presence of pollinators (co-)determines the seasonality of flowering, not the other way around, as could be the case when flowers offer a reward. It may be hypothesised that *Dendrobium* species tend to flower just before the main food sources of the bees come into flower. In this way they could attract inexperienced young bees that probe every flower, even deceptive ones. *Bulbophyllum* species, on the other hand, should flower when flies are present in large numbers. We can imagine that during the cool dry season the fly populations are relatively high since in this season more animals die (due to drought and lack of food) than during the rainy season. As a result, it would be an optimal strategy for *Bulbophyllum* species to flower during the cool dry season. It should be noted that for most orchid species in Laos the pollinators are still unknown.

Unfortunately, for 26% of the orchid species we currently have no records of flowering months in Laos. Nevertheless,

Table 3. Number of species recorded in flower, in Laos, per month.

Month	All orchids	<i>Dendrobium</i>	<i>Bulbophyllum</i>
January	47	8	12
February	56	17	8
March	62	29	3
April	75	27	3
May	77	21	4
June	76	14	7
July	79	18	4
August	72	14	11
September	50	8	5
October	64	8	11
November	63	8	15
December	46	6	14

it is fairly clear that the period from April to August, largely in the rainy season, contains the months with the highest number of flowering orchid species. In July around 22% of the species have been found in flower. December and January, as well as September, respectively in the middle of the cool dry season and towards the end of the rainy season, are the months with the lowest number of flowering orchid species recorded. The dip during December and January is perhaps not surprising, since this falls more or less in the middle of the dry season, when both physiological conditions and reduced availability of pollinators would be less favourable for flowering (with exceptions like *Bulbophyllum*). On the other hand, it is somewhat puzzling that in September only about 13% of the species have been found in flower. This could just be a case of collectors' bias: accessibility of orchid habitats may well be especially difficult during September, after months of heavy rain. If the phenomenon is real, however, it would be interesting to find an explanation.

These figures show that single collecting expeditions, during which only flowering plants are collected and preserved, will typically miss at least 80% of the orchid species present.

Information on phenology in the checklist is based on observations made in the field or in the greenhouses at the National University in Vientiane. In most cases for which this could be ascertained, flowering in Vientiane occurs in the same months as in the wild. As a matter of fact, even in cultivation in Europe many orchids from Laos still flower during the same months as their wild counterparts. Additional records were also taken from the literature (Kerr 1933, 1969, 1971).

Systematic overview

The 108 orchid genera currently known from Laos are here classified according to the system proposed by Chase et al. (2003), also applied in Pridgeon et al. (1999, 2001, 2003, 2005).

The number of species known from Laos (including unidentified and/or possibly undescribed species that are not listed in the checklist) and the total number of species in the genus are indicated between brackets. Tribes are only shown when they are not subdivided into subtribes. A question mark indicates genera of uncertain systematic position.

Subfamily **Apostasioideae**

Genus: *Apostasia* (2/8)

Subfamily **Cypripedioideae**

Genus: *Paphiopedilum* (10/70)

Subfamily **Vanilloideae**

Subtribe: Vanillininae

Genera: *Cyrtosia* (1/7) *Erythrorchis* (1/4), *Vanilla* (3/100)

Subfamily **Orchidoideae**

Subtribe: Orchidinae

Genera: *Brachycorythis* (4/32), *Habenaria* (21/600),
Pecteilis (3/8), *Peristylus* (3/70)

Subtribe: Goodyerinae
Genera: *Anoectochilus* (3/40), *Cheirostylis* (3/22),
Goodyera (1/50), *Myrmechis* (1/12), *Zeuxine*
(3/50)

Subtribe: Spiranthinae
Genus: *Spiranthes* (1/30)

Subfamily **Epidendroideae**
Tribe: Tropicidae
Genera: *Corymborkis* (1/8), *Tropidia* (3/35)

Tribe: Neottieae
Genera: *Aphyllorchis* (1/15), *Cephalanthera*
(1/14), ?*Thaia* (1/1)

Tribe: Nervilieae
Genera: *Nervilia* (4/65), ?*Epipogium* (1/2)

Tribe: Gastrodieae
Genus: *Gastrodia* (1/16)

Tribe: Malaxideae
Genera: *Liparis* (15/250), *Malaxis* (8/300),
Oberonia (11/300)

Subtribe: Arethusinae
Genera: *Anthogonium* (1/1), *Arundina* (2/2)

Subtribe: Coelogykinae
Genera: *Coelogyne* (18/190), *Neogyna* (1/1), *Otochilus*
(1/4), *Panisea* (2/7), *Pholidota* (7/28), *Pleione*
(1/15), *Thunia* (1/5)

Subtribe: Collabiinae
Genera: *Calanthe* (6/150), *Chrysoglossum* (1/4),
Collabium (1/11), *Mischobulbum* (2/8),
Nephelaphyllum (1/12), *Pachystoma* (1/8),
Phaius (5/45), *Plocoglottis* (1/40),
Spathoglottis (4/37), *Tainia* (3/14)

Subtribe: Eulophiinae
Genera: *Acriopsis* (2/6), *Eulophia* (8/250), *Geodorum*
(1/8), *Thecostele* (1/1)

Subtribe: Cymbidiinae
Genera: *Cymbidium* (10/45), *Grammatophyllum*
(1/10)

Subtribe: Bromheadiinae
Genus: *Bromheadia* (2/28)

Subtribe: Eriinae
Genera: *Ceratostylis* (3/100), *Eria* (27/375), *Porpax*
(3/18), *Trichotomia* (3/77)

Subtribe: Podochilinae
Genera: *Appendicula* (2/100), *Podochilus* (1/60)

Subtribe: Thelasiinae
Genus: *Thelasis* (1/20)

Subtribe: Agrostophyllinae
Genus: *Agrostophyllum* (2/85)

Subtribe: Polystachyinae
Genus: *Polystachya* (1/150)

Subtribe: Dendrobiinae
Genera: *Bulbophyllum* (68/1900),
Dendrobium (85/1100), *Drymoda* (2/2),
Epigeneium (2/40), *Flickingeria* (2/60),
Sunipia (2/18), *Trias* (3/11)

Subtribe: Aeridinae
Genera: *Acampe* (3/5), *Aerides* (6/20),
Arachnis (1/13), *Ascocentrum* (2/12),
Ascolabium (1/2), *Biermannia* (1/9),
Brachypeza (1/7), *Chiloschista* (2/15),
Cleisomeria (2/2), *Cleisostoma* (10/90),
Cryptopylos (1/1), *Diploprora* (1/2),
Eparmatostigma (1/1), *Gastrochilus* (2/38),
Holcoglossum (3/12), *Hygrochilus* (1/1),
Luisia (8/30), *Malleola* (1/20),
Micropera (1/12), *Ornithochilus* (1/3),
Papilionanthe (1/10), *Pelatanthera* (2/5),
Phalaenopsis (4/60), *Pomatocalpa* (5/35),
Pteroceras (1/25), *Renanthera* (1/15),
Rhynchostylis (3/4), *Robiquetia* (3/40),
Sarcoglyphis (2/10), *Schoenorchis* (1/20),
Seidenfadenia (1/1), *Smitinandia* (2/3),
Stereochilus (1/6); *Taeniophyllum* (1/170),
Thrixspermum (6/140),
Trichoglottis (6/60), *Vanda* (8/45),
Vandopsis (2/4)

Sources

This checklist is based on the following sources:

1. Collections at the National University of Laos. This includes all numbers in the OL and PB series cited. These refer to living plants, mainly but not exclusively collected for the ORCHIS project, that were photographed and of which floral parts were preserved in alcohol at NUOL. At a late stage during the project, owing to CITES registration of NUOL, duplicates of part of the spirit material could be sent to the National Herbarium of the Netherlands at Leiden (L). In some cases only photographs taken in the field were available. Digital copies of most of the photographs taken by P. Bonnet, A. Schuiteman and V. Vannachak are available at NUOL, CIRAD and L.
2. Seidenfaden (1992).

3. Newman et al. (2007).
4. Recent literature containing either taxonomic revisions or descriptions of new taxa.
5. Reliably identified material from cultivated origin.

Checklist

Records in this checklist consist of the following data:

1. Accepted taxon name and author(s), with indication of section name for the genera *Bulbophyllum*, *Coelogyne*, *Dendrobium* and *Eria*. For the sectional classification of *Bulbophyllum* we follow Vermeulen (pers. comm.; in Vermeulen's classification section *Cirrhopetalum* will be split up in a number of smaller sections, but since this has yet to be published we here retain this section in the broad sense).
2. Synonyms (where applicable).
3. Global distribution.
4. Distribution in Laos at the province level, with citations of material not listed by Seidenfaden (1992) or Newman et al. (2007). For collections already listed by Seidenfaden, here cited with 'S', we only indicate the province, as far as we were able to ascertain. Several localities listed by Seidenfaden are ambiguous or could not be found. These are cited between quotes (e.g. 'Bolovens', which can be either in Champasak or in Attapu province – most records are probably in Champasak). In Laos many provincial capitals carry the same name as the province they belong to. In the checklist these names always refer to the province. We follow the spelling of names of provinces adopted by Newman et al. (2007), except for Louang Namtha. Province records absent from Seidenfaden (1992) but present in Newman et al. (2007) are here cited with 'N'.
5. Habitat in Laos (if known).
6. Altitudinal range in Laos (if known).
7. Flowering months in Laos (if known).
8. Notes (where applicable).

More accurate locality data than are presented here are kept in a database, with copies at NUOL, CIRAD and the National Herbarium of the Netherlands.

We have not followed the recent taxonomic changes in the genera *Malaxis* and *Eria* as proposed in Pridgeon et al. (2005), since the required combinations under the relevant generic names are not all available yet. Moreover, especially in the case of *Eria* we feel that more research is needed in order to establish a stable classification.

Acampe ochracea (Lindl.) Hochr.

Acampe dentata Lindl.; *Saccolabium lineolatum* Thwaites; *Saccolabium ochraceum* Lindl.

Sri Lanka, India (NE, Deccan), Bhutan, Burma, Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB417; S); Champasak (NUOL cult. OL237 [B. Svengsuksa et al.]); Khammouan

(NUOL cult. OL300 [B. Svengsuksa et al.]); Louangphrabang (S); Vientiane (S).

Epiphyte in humid evergreen forest, often growing in the shade near a stream or waterfall, 170–1077 m a.s.l. January, November, December.

Acampe papillosa (Lindl.) Lindl.

Acampe carinata (Griff.) Panigrahi; *Saccolabium carinatum* Griff.; *Saccolabium papillosum* Lindl.

India, Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL221 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL351 [S. Sopraseuth]; S). Lowlands. January, November, December.

Acampe rigida (Buch.-Ham. ex Sm.) P. F. Hunt

Acampe intermedia Rehb. f.; *Acampe longifolia* (Lindl.) Lindl.; *Acampe multiflora* (Lindl.) Lindl.; *Acampe penangiana* Ridl.; *Acampe wightiana* (Wight) Lindl. var. *longepedunculata* Trimen; *Aerides rigida* Buch.-Ham. ex Sm.; *Cymbidium praemorsum* Buch.-Ham. ex Wall.; *Gastrochilus longifolius* (Lindl.) Kuntze; *Saccolabium longifolium* (Lindl.) Hook. f.; *Vanda longifolia* Lindl.; *Vanda multiflora* Lindl.; *Vanda viminea* Guillaumin.

Southern and east Africa, Sri Lanka, India, Burma, China, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Attapu (NUOL cult. OL313 [V. Lamxay et al.]); Bolikhamxai (sight record [A. Schuiteman, S. Luang Aphay; photo]); Champasak (NUOL cult. OL82 [B. Svengsuksa et al.]; N); Houaphan (N); Khammouan (sight record [P. Bonnet, A. Schuiteman, V. Vannachak; photo]; S); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB219); Savannakhet (S); Vientiane (NUOL cult. OL1082 [P. Bonnet, K. Nanthavong, B. Svengsuksa]; P. Bonnet PB474; S); Xaignabouri (S).

Epiphyte on tree trunks or large branches in riverine and secondary forest, also lithophytic on the summit of limestone hills, often in exposed positions, 210–737 m a.s.l. September–November.

Acriopsis indica Wight

India (NE), Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Java, Borneo, lesser Sunda Is., Philippines. Laos: Khammouan (NUOL cult. OL814 [B. Svengsuksa et al.]; N); Vientiane (NUOL cult. OL381 [B. Svengsuksa et al.]; S). 1500 m a.s.l. February.

Acriopsis liliifolia (J. Koenig) Ormerod

Acriopsis annamica Finet; *Acriopsis floribunda* Ames; *Acriopsis griffithii* Rehb. f.; *Acriopsis harai* Tuyama; *Acriopsis insularisilvatica* Fukuy.; *Acriopsis javanica* Reinw. ex Blume; *Acriopsis javanica* Reinw. ex Blume var. *floribunda* (Ames) Minderh. & de Vogel; *Acriopsis javanica* Reinw. ex Blume var. *nelsoniana* (F. M. Bailey) J. J. Sm.; *Acriopsis nelsoniana* F. M. Bailey; *Acriopsis nelsoniana* F. M. Bailey var. *pallidiflora* Schltr.; *Acriopsis papuana*

Kraenzl.; *Acriopsis philippinensis* Ames; *Acriopsis picta* Lindl.; *Epidendrum liliifolium* J. Koenig; *Spathoglottis trivalvis* Lindl.

?India (NE), ?Burma, Thailand, ?Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, Lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Solomon Is. Laos: Attapu (sight record [P. Bonnet; photo]); Champasak (S).

Epiphyte. January, February, December.

***Aerides crassifolia* Parish ex Burb.**

Aerides crassifolia Parish & Rchb. f.

Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL167 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL697 [B. Svengsuksa et al.]); Saravan (NUOL cult. OL218 [V. Lamxay et al.]); Vientiane (NUOL cult. OL1052 [S. Sopraseuth]; S).

Epiphyte in lowland dipterocarp forest. March–May.

***Aerides falcata* Lindl.**

Aerides larpentae Hort. ex Rchb. f.; *Aerides mendelii* Hort. ex E. Morren; *Aerides retrofracta* Wall. ex Hook. f.; *Aerides siamensis* Kluge.

India (NE), Burma, Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (P. Bonnet, T. Keokene PB200; N); Champasak (NUOL cult. OL311 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL908 [M. Newman et al.]); S); Louangphrabang (S); Vientiane (NUOL cult. OL1125 [P. Bonnet]; S); Xaisomboun (NUOL cult. OL366 [V. Lamxay et al.]).

Epiphyte on small trees in secondary forest, 170–300 m a.s.l. March–June.

***Aerides houletiana* Rchb. f.**

?Burma, Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL1023 [V. Lamxay et al.]); Saravan (NUOL cult. OL253 [V. Lamxay et al.]); Vientiane (S).

700 m a.s.l. March–May.

***Aerides multiflora* Roxb.**

Aerides affinis Wall. ex Lindl.; *Aerides godefroyana* Rchb. f.; *Aerides lobbii* Hort. ex Lem.; *Cleisostoma vacherotiana* Guillaumin; *Epidendrum geniculatum* Buch.-Ham. ex Lindl.

India, Nepal, Bhutan, Burma, Andaman Is., Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL68 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL298 [V. Lamxay et al.]); Saravan (NUOL cult. OL209

[V. Lamxay et al.]); Savannakhet (NUOL cult. OL304 [B. Svengsuksa et al.]; S); Vientiane (NUOL cult. OL345 [S. Sopraseuth]; S).

Epiphyte in lowland dipterocarp forest. May.

***Aerides odorata* Lour.**

Aeridium odorum Salisb.; *Aerides ballantianiana* Rchb. f.; *Aerides cornuta* Roxb.; *Aerides dayana* Hort. ex Guillaumin; *Aerides duquesnei* Regnier ex Constantin; *Aerides flavida* Lindl.; *Aerides jucunda* Rchb. f.; *Aerides latifolia* (Thunb. ex Sw.) Sw.; *Aerides nicholitzii* Rolfe; *Aerides nobilis* R. Warner; *Aerides odorata* Lour. var. *annamensis* Constantin; *Aerides odorata* Lour. var. *celebica* J. J. Sm.; *Aerides odorata* Lour. var. *pallida* Guillaumin; *Aerides reichenbachii* Linden ex Rchb. f.; *Aerides reichenbachii* Linden ex Rchb. f. var. *cochinchinensis* Hort. ex Rchb. f.; *Aerides rohaniana* Rchb. f.; *Aerides suaveolens* Blume; *Aerides suavissima* Lindl.; *Aerides suavissima* Lindl. var. *ballantineana* (Rchb. f.) Veitch; *Aerides virens* Lindl.; *Aerides wilsoniana* Hort.; *Epidendrum aerides* Raesch.; *Epidendrum cornutum* Raesch.; *Epidendrum odoratum* Poir.; *Epidendrum spathulatum* J. Koenig; *Limodorum latifolium* Thunb. ex Sw.; *Orexera cornuta* (Roxb.) Raf.; *Polytoma odorifera* Lour. ex B. A. Gomes.

India, Nepal, Bhutan, Burma, Andaman Is., Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, Philippines. Laos: Attapu (NUOL cult. OL282 [B. Svengsuksa et al.]); Champasak (NUOL cult. OL126 [B. Svengsuksa et al.]); NUOL cult. OL1379 [B. Svengsuksa et al.]); Houaphan (NUOL cult. OL672 [Toulavanh]); Savannakhet (NUOL cult. OL307 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL349 [S. Sopraseuth]; S).

Epiphyte in (secondary) lowland (dipterocarp) forest, also lithophytic on large boulders among spiny *Euphorbia* species. April–July.

***Aerides rosea* Lodd.**

Aerides feldingii Lodd. ex E. Morren.

India (NE), Bhutan, Burma, China (Yunnan), Thailand, Vietnam. Laos: Louangphrabang (S).

***Agrostophyllum brevipes* King & Pantl.**

India (NE), Nepal, Bhutan, Burma, China (Yunnan, Hainan), Thailand, Vietnam. Laos: Vientiane (S).

***Agrostophyllum planicaule* (Wall. ex Lindl.) Rchb. f.**

Agrostophyllum hasseltii Rchb. f.; *Agrostophyllum khasianum* Griff.; *Appendicula hasseltii* auct. non Blume: Wight; *Eria planicaulis* Wall. ex Lindl.

India (NE), Nepal, Bhutan, Burma, Andaman Is., Thailand, Cambodia, Vietnam. Laos: Attapu (NUOL cult. OL289 [V. Lamxay et al.]); Bolikhamxai (NUOL cult.

OL1094 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]; Champasak (P. Bonnet PB525; S); Louangphrabang (S); Phongsali (NUOL cult. OL468 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL1193 [P. Bonnet]; S).

Epiphyte in humid secondary and riverine forest growing in the shade, 169–759 m a.s.l. July–September.

***Anoectochilus burmannicus* Rolfe**

Burma, Thailand, Peninsular Malaysia. Laos: Xiangkhoang (S).

***Anoectochilus roxburghii* (Wall.) Lindl.**

Anoectochilus latomaculatus Hort. ex Blume; *Anoectochilus lobbianus* Planch.; *Anoectochilus setaceuspictus* Hort. ex C. Koch & Lauche; *Anoectochilus xanthophyllus* Hort. ex Rolfe; *Chrysobaphus roxburghii* Wall.; *Zeuxine roxburghii* (Lindl.) Hiroe.

India (NE), Nepal, Bhutan, Burma, China (Zhejiang, Guangdong, Hainan), Thailand, Vietnam. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB617); Khammouan (S).

Terrestrial in dense humid evergreen forest close to a large river, 1245 m a.s.l. November.

***Anoectochilus tortus* (King & Pantl.) King & Pantl.**

Anoectochilus duplex Holttum; *Anoectochilus repens* (Downie) Seidenf. & Smitinand; *Odontochilus repens* Downie; *Odontochilus tortus* King & Pantl.; *Pristiglottis torta* (King & Pantl.) Aver.

Bhutan, Thailand. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB614).

Terrestrial in humid evergreen forest in deep shade, 1245 m a.s.l. November, December.

***Anthogonium gracile* Wall. ex Lindl.**

Anthogonium corydaloides Schltr.; *Anthogonium griffithii* Rchb. f.

Nepal, Burma, China, Thailand, Cambodia, Vietnam. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB593); Houaphan (S); Saravan (S).

Terrestrial on open moss-covered rocky plateau surrounded by wet evergreen forest, 1245 m a.s.l. October, November.

***Aphyllorchis evrardii* Gagnep.**

Thailand, Vietnam. Laos: Khammouan (sight record [B. Svengsuksa; photo]).

***Apostasia odorata* Blume**

Apostasia platystylis J. J. Sm.; *Apostasia selebica* J. J. Sm.; *Apostasia thorelii* Gagnep.; *Mesodactylis odorata* (Blume) Endl.

India, China (Yunnan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas. Laos: Xaignabouri (S).

***Apostasia wallichii* R. Br.**

Apostasia alba Rolfe; *Apostasia curvata* J. J. Sm.; *Apostasia gracilis* Rolfe; *Apostasia lucida* Blume ex Siebe; *Apostasia nipponica* Masam.; *Apostasia papuana* Schltr.; *Apostasia stylidioides* (F. Muell.) Rchb. f.; *Apostasia wallichii* R. Br. var. *nipponica* (Masam.) Masam.; *Apostasia wallichii* R. Br. subsp. *nipponica* (Masam.) Masam.; *Apostasia wallichii* R. Br. var. *seraweiensis* J. J. Sm.; *Mesodactylis deflexa* Wall.; *Mesodactylis wallichii* (R. Br.) Endl.; *Niemeyera stylidioides* F. Muell.

Sri Lanka, India, Nepal, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea, Philippines, Australia. Laos: Bolikhamxai (NUOL cult. OL1096 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Champasak (N); Louangphrabang (N); unspecified (S).

Terrestrial in moist humus-rich soil in dense secondary evergreen forest on a plain, 169 m a.s.l. May.

***Appendicula cornuta* Blume**

Appendicula bifaria Lindl. ex Benth.; *Appendicula brachiata* (Schltr.) Schltr.; *Appendicula cyclopetala* (Schltr.) Schltr.; *Appendicula manilensis* (Schauer) Miq.; *Appendicula manilensis* (Schauer) Rchb. f.; *Appendicula reduplicata* Parish & Rchb. f.; *Dendrobium manilense* Schauer; *Dendrobium pseudorevolutum* Guillaumin; *Podochilus brachiatus* Schltr.; *Podochilus cornutus* (Blume) Schltr.; *Podochilus cyclopetalus* Schltr.

India (NE), Burma, China (Hongkong, Hainan), Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Vientiane (NUOL cult. OL1215 [P. Bonnet]).

Lithophyte on an overgrown rock near a small stream in dense evergreen gallery forest, 790 m a.s.l. July, October.

***Appendicula torta* Blume**

Appendicula rhodiola Rchb. f.; *Appendicula torta* Blume var. *alba* J. J. Sm.; *Podochilus tortus* (Blume) Schltr.

Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhom, A. Schuiteman PB93).

Epiphyte in secondary forest at the base of a steep limestone hill, 342 m a.s.l. June.

***Arachnis labrosa* (Lindl. & Paxton) Rchb. f.**

Arachnanthe bilinguis (Rchb. f.) Benth.; *Arachnis bilinguis* (Rchb. f.) Ho; *Armodorum labrosum* (Lindl. & Paxton) Schltr.; *Arrhynchium labrosum* Lindl. & Paxton; *Renanthera bilinguis* Rchb. f.; *Renanthera labrosa* (Lindl. & Paxton) Rchb. f.

India (NE), Bhutan, Burma, China, Taiwan, Ryukyu Is., Thailand, Vietnam. Laos: Champasak (NUOL cult. OL195 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL1211 [P. Bonnet]). July, August.

***Arundina caespitosa* Aver.**

Vietnam. Laos: Bolikhamxai (NUOL cult. OL1100 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Khammouan (NUOL cult. OL299 [V. Lamxay et al.]); P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB11); Vientiane (NUOL cult. OL1222 [P. Bonnet]).

Lithophyte (rheophyte) on rocks in and along stream beds in secondary forest; also terrestrial on sandy soil in deciduous dipterocarp forest, 307–770 m a.s.l. August–November.

***Arundina graminifolia* (D. Don) Hochr.**

Arundina affinis Griff.; *Arundina bambusifolia* Lindl.; *Arundina chinensis* Blume; *Arundina chinensis* Blume var. *major* S. Y. Hu; *Arundina densa* Lindl.; *Arundina graminifolia* (D. Don) Hochr. var. *chinensis* (Blume) S. S. Ying; *Arundina graminifolia* (D. Don) Hochr. var. *revoluta* (Hook. f.) A. L. Lamb; *Arundina kanehirae* Yamam.; *Arundina maculata* J. J. Sm.; *Arundina meyenii* (Schauer) Rchb. f.; *Arundina minor* Lindl.; *Arundina philippii* Rchb. f.; *Arundina pulchella* Teijsm. & Binn.; *Arundina pulchra* Miq.; *Arundina revoluta* Hook. f.; *Arundina revoluta* Hook. f. var. *borneensis* J. J. Sm.; *Arundina sanderiana* Kraenzl.; *Arundina speciosa* Blume; *Arundina speciosa* Blume var. *sarasinorum* Schltr.; *Arundina stenopetala* Gagnep.; *Arundina tahitensis* Nadeaud; *Bletia graminifolia* D. Don; *Corymbis angustifolia* Miq.; *Cymbidium bambusifolium* Roxb.; *Cymbidium meyenii* Schauer; *Donacopsis laotica* Gagnep.; *Limodorum graminifolium* (D. Don) Buch.-Ham. ex Hook. f.; *Ophrys arundinacea* Noronha.

Sri Lanka, India, Nepal, Bhutan, Burma, China, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is. Laos: Champasak (S); Houaphan (S); Phongsali (sight record [P. Bonnet, A. Schuiteman, V. Lamxay]); Xiangkhoang (S).

Terrestrial in open roadside vegetation.

Note: some of Seidenfaden's records may be referable to the recently described *A. caespitosa* Aver.

***Ascocentrum ampullaceum* (Roxb.) Schltr.**

Aerides ampullacea Roxb.; *Gastrochilus ampullaceus* (Roxb.) Kuntze; *Oeceoclades ampullacea* (Roxb.) Lindl. ex Voigt; *Saccolabium ampullaceum* (Roxb.) Lindl.; *Saccolabium rubrum* Lindl.

India (NW and NE), Nepal, Bhutan, Burma, China, Andaman Is., Thailand. Laos: Vientiane (S). Lowlands. April.

***Ascocentrum miniatum* (Lindl.) Schltr.**

Ascocentrum garayi Christenson; *Gastrochilus miniatus* (Lindl.) Kuntze; *Saccolabium miniatum* Lindl.; *Saccolabium miniatum* Lindl. var. *citrinum* Rchb. f.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java. Laos: Champasak (NUOL cult. OL190 [B. Svengsuksa et al.]); Vientiane (sight record [B. Svengsuksa et al.]; S). Epiphyte in lowland dipterocarp forest. February–April.

***Ascolabium pusillum* (Aver.) Aver.**

Ascocentropsis pusilla (Aver.) Senghas & K. Schildh.; *Ascocentrum pusillum* Aver.

Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL1439); 'Bolovens' (S). January, December.

***Biermannia aff. calcarata* Aver.**

Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB265).

Epiphyte on twigs in the canopy of humid evergreen montane forest along a small river. 907 m a.s.l. May, June.

Note: probably an undescribed species. The type of *B. calcarata* is from Vietnam.

***Brachycorythis acuta* (Rchb. f.) Summerh.**

Gymnadenia acuta Rchb. f.

India (NE), Thailand, Cambodia. Laos: Khammouan (N); Xiangkhoang (S).

***Brachycorythis helferi* (Rchb. f.) Summerh.**

Gymnadenia helferi Rchb. f.

India (NE), Burma, Thailand. Laos: Vientiane (S). 700 m a.s.l. July.

***Brachycorythis laotica* (Gagnep.) Summerh.**

Habenaria laotica Gagnep.

Cambodia, Vietnam. Laos: Champasak (S).

***Brachycorythis thorelii* (Gagnep.) Summerh.**

Habenaria thorelii Gagnep.; *Phyllomphax thorelii* (Gagnep.) Tang & F. T. Wang.

Laos: Champasak (S).

***Brachypeza laotica* (Seidenf.) Seidenf.**

Pteroceras laoticum Seidenf.

Thailand, Vietnam. Laos: Champasak (P. Bonnet PB519); Louangphrabang (S); Vientiane (S).

Lowlands. May–July.

***Bromheadia aporoides* Rchb.f.**

Burma, Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Borneo. Laos: Bolikhamxai (NUOL cult. OL660 [Savieng]); Champasak (P. Bonnet PB512); Khammouan (NUOL cult. OL1173 [M. Newman et al.]); Vientiane (S).

170–1600 m a.s.l. March–July.

***Bromheadia finlaysonianana* (Lindl.) Miq.**

Bromheadia palustris Lindl.; *Bromheadia palustris* Lindl. var. *papuana* J. J.Sm.; *Bromheadia palustris* Lindl. var. *sylvestris* (Ridl.) Holttum; *Bromheadia pulchra* Schltr.; *Bromheadia sylvestris* Ridl.; *Bromheadia venusta* T. E. Hunt; *Coelogyne caulescens* Griff.; *Grammatophyllum finlaysonianum* Lindl.; *Pleione caulescens* (Griff.) Kuntze.

Thailand, Cambodia, Vietnam, Burma, Peninsular Malaysia, Singapore, Sumatra, Borneo, Moluccas, New Guinea, Australia. Laos: ‘Semmoun’ (S; probably Champasak).

***Bulbophyllum abbrevilabium* Carr (*Epicriantes*)**

Epicriantes abbrevilabia (Carr) Garay & W. Kittr.; *Epicriantes annamensis* Guillaumin.

Thailand, Vietnam, Peninsular Malaysia. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3553, det. J. J. Vermeulen).

***Bulbophyllum affine* Lindl. (*Sestochilus*)**

Phyllorchis affinis (Lindl.) Kuntze; *Sarcopodium affine* Lindl. & Paxton.

India (NE), Bhutan, China, Thailand, Cambodia, Vietnam, Nepal, Ryukyu Archipelago. Laos: Bolikhamxai (N); Khammouan (NUOL cult. OL1156 [M. Newman et al.]; N); Louang Namtha (P. Bonnet, V. Lamxay PB326); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB237; P. Bonnet, S. Lanorsavanh, C. Loinheuang PB579); Vientiane (NUOL cult. OL387 [B. Svengsuksa et al.]; S); ‘Bolovents’ (S).

Epiphyte in mixed deciduous hill forest and in (secondary) evergreen montane forest dominated by Fagaceae, 874–1500 m a.s.l. May–August.

Note: one of the most frequent epiphytic orchids in northern Laos.

***Bulbophyllum allenkerrii* Seidenf. (*Anisopetalon*)**

Thailand. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélémy, E. Hoogendijk; photo]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB20); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB249); Vientiane (S).

Epiphyte on tree trunks in mixed deciduous forest and in secondary dry evergreen forest dominated by Fagaceae, 538–1300 m a.s.l. August–October.

***Bulbophyllum angusteovatum* Seidenf. (*Monanthes*)**

Thailand. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 1609 and 3552, det. J. J. Vermeulen).

***Bulbophyllum averyanovii* Seidenf. (*Lemniscatae*)**

Thailand, Vietnam. Laos: Champasak (photos seen). December.

***Bulbophyllum blepharistes* Rchb. f. (*Blepharistes*)**

Bulbophyllum malayanum J. J. Sm.; *Cirrhopetalum blepharistes* (Rchb. f.) Hook. f.; *Cirrhopetalum longescapum* Teijsm. & Binn.; *Cirrhopetalum spicatum* Gagnep.; *Phyllorchis blepharistes* (Rchb. f.) Kuntze; *Phyllorchis longescapa* (Teijsm. & Binn.) Kuntze; *Tripudianthes blepharistes* (Rchb. f.) Szlach. & Kras.

India (NE), Burma, Thailand, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (NUOL cult. OL1134 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]; S); Champasak (NUOL cult. OL587 [B. Svengsuksa et al.]; S); Khammouan (NUOL cult. OL1254 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL488 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL1063 [S. Soprseuth]; NUOL cult. OL1225 [P. Bonnet]; S); ‘Bolovents’ (S).

Epiphyte or lithophyte in rather open secondary humid evergreen forest near a large stream, on tree trunks in secondary *Pinus* woodland, also lithophytic on bare exposed rock faces, 169–781 m a.s.l. January, August–December.

***Bulbophyllum capillipes* Parish & Rchb. f. (*Sestochilus*)**

Drymoda latisejala Seidenf.; *Phyllorchis capillipes* (Parish & Rchb. f.) Kuntze.

India, Burma, Thailand. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 2188, det. J. J. Vermeulen).

***Bulbophyllum careyanum* (Hook.) Spreng. (*Anisopetalon*)**

Anisopetalum careyanum Hook.; *Bulbophyllum careyanum* (Hook.) Spreng. var. *ochraceum* Hook. f.; *Bulbophyllum cupreum* Hook.; *Phyllorchis purpurea* (D. Don) Kuntze; *Pleurothallis purpurea* D. Don; *Tribrachia purpurea* (D. Don) Lindl.

India (NE), Nepal, Bhutan, Burma, Thailand, Vietnam. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhom, A. Schuiteman PB120); Khammouan (NUOL cult. OL888 [M. Newman et al.]); Vientiane (D. Barthélemy, P. Bonnet, A. Schuiteman PB74).

Epiphyte on tree trunks in dense primary humid evergreen forest, also lithophytic at the top of a small cliff near a stream, 805–863 m a.s.l. October–December.

***Bulbophyllum clandestinum* Lindl. (Oxysepalum)**

Bulbophyllum bolovenense Guillaumin; *Bulbophyllum myrianthum* Schltr.; *Bulbophyllum ovalifolium* (Wight) Parish; *Bulbophyllum profusum* Ames; *Bulbophyllum sessile* (J. Koenig) J. J. Sm.; *Bulbophyllum sparsifolium* Schltr.; *Bulbophyllum trisetosum* Griff.; *Epidendrum sessile* J. Koenig; *Oxysepalum ovalifolium* Wight; *Phyllorchis sessilis* (J. Koenig) Kuntze.

Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea, Philippines, Solomon Is., Fiji. Laos: Bolikhamxai (sight record [P. Bonnet, A. Schuiteman, D. Barthélemy; photo]); Champasak (NUOL cult. OL547 [B. Svengsuksa]; N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB176); Vientiane (S); ‘Bankoum’ (S); ‘Bolovens’ (S).

Epiphyte in mixed deciduous primary forest and in rather open secondary forest near a stream, 170–550 m a.s.l. June–August.

***Bulbophyllum coveniorum* J. J. Verm. & P. O’Byrne (Sestochilus)**

Laos: Champasak (NUOL cult. OL594 [B. Svengsuksa]; P. Bonnet PB_Vo_02); unknown (Singapore cult. SBG-O 3622, type of *B. coveniorum*).

January–March, October, December.

***Bulbophyllum depressum* King & Pantl. (Monanthes)**

Bulbophyllum acutum J. J. Sm.; *Bulbophyllum hastatum* Tang & F. T. Wang; *Diphyes bicolor* Blume.

India, China, Thailand, Sumatra, Java, Borneo. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB303).

Epiphyte on the lower branches of a solitary garden tree along the Mekong river, 441 m a.s.l. August.

***Bulbophyllum dissitiflorum* Seidenf. (Anisopetalon)**

Thailand. Laos: Champasak (NUOL cult. OL1004 [V. Lamxay et al.]); Vientiane (S).

700–1100 m a.s.l. January, February, November.

***Bulbophyllum flabellumveneris* (J. Koenig) Seidenf. & Ormerod ex Aver. (Cirrhopetalum)**

Bulbophyllum andersonii Kurz; *Bulbophyllum gamosepalum* (Griff.) J. J. Sm.; *Bulbophyllum griffithianum* Parish & Rchb. f.; *Bulbophyllum lepidum* (Blume) J. J. Sm.; *Bulbophyllum lepidum* (Blume) J. J. Sm. var. *angustum* Ridl.; *Bulbophyllum lepidum* (Blume) J. J. Sm. var. *insigne* J. J. Sm.; *Bulbophyllum rolfeanum* Seidenf. & Smitinand; *Bulbophyllum stramineum* Ames var. *purpureum* (Gagnep.) Guillaumin; *Bulbophyllum viscidum* J. J. Sm.; *Cirrhopetalum andersonii* Kurz; *Cirrhopetalum ciliatum* Klinge; *Cirrhopetalum flabellumveneris* (J. Koenig) Seidenf. & Ormerod; *Cirrhopetalum gagnepainii* Guillaumin; *Cirrhopetalum gamosepalum* Griff.; *Cirrhopetalum lepidum* (Blume) Schltr.; *Cirrhopetalum siamense* Rolfe ex Downie; *Cirrhopetalum stramineum* (Ames) Gagnep. var. *purpureum* Gagnep.; *Cirrhopetalum viscidum* (J. J. Sm.) Garay, Hamer & Siegerist; *Ephippium lepidum* Blume; *Epidendrum flabellumveneris* J. Koenig; *Hippoglossum umbellatum* Breda; *Phyllorchis gamosepala* (Griff.) Kuntze.

Burma, Andaman Is., Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, Moluccas. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélemy, E. Hoogendijk; photo]); Champasak (NUOL cult. OL42 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB19); Vientiane (NUOL cult. OL441 [B. Svengsuksa et al.]; S); ‘Semmon’ (S; probably Champasak).

Epiphyte on tree trunks in mixed deciduous forest, also lithophytic on cliffs along a stream, 170–569 m a.s.l. June–October.

***Bulbophyllum gymnopus* Hook. f. (Altisceptrum)**

Drymoda gymnopus (Hook. f.) Garay, Hamer & Siegerist; *Monomeria gymnopus* (Hook. f.) Aver.; *Phyllorchis gymnopus* (Hook. f.) Kuntze.

India (NE), Bhutan, Thailand. Laos: Champasak (D. Barthélemy, P. Bonnet, M. Coutaud PB629).

Lithophytic and epiphytic in dense humid evergreen forest, 1245 m a.s.l. January, December.

***Bulbophyllum haniffii* Carr (Epicranthes)**

Epicranthes haniffii (Carr) Garay & W. Kittr.

Thailand, Burma (Tenasserim), Peninsular Malaysia. Laos: Bolikhamxai (sight record [P. Bonnet, A. Schuiteman, D. Barthélemy; not in flower; photo]); Vientiane (S).

Pendulous epiphyte on thin branches in rather open semi-deciduous forest close to a river, with ground cover of mosses and ferns, 307–750 m a.s.l.

***Bulbophyllum helenae* (Kuntze) J. J. Sm. (Cirrhopetalum)**

Bulbophyllum cornutum (Lindl.) Rchb. f.; *Cirrhopetalum cornutum* Lindl.; *Phyllorchis cornuta* (Lindl.) Kuntze; *Phyllorchis helenae*

Kuntze; *Rhytionanthos cornutum* (Lindl.) Garay, Hamer & Siegerist.

India (NE), Nepal, Burma, Thailand. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB384); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB278).

Epiphyte in secondary evergreen forest on limestone and in humid evergreen montane forest, 907–1236 m a.s.l. June, August, September.

***Bulbophyllum hirtum* (Sm.) Lindl. (*Lemniscatae*)**

Bulbophyllum kerrii Rolfe; *Phyllorchis hirta* (Sm.) Kuntze; *Stelis hirta* Sm.; *Tribrachia hirta* (Sm.) Lindl.

India (NE), Nepal, Burma, Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB373).

Epiphyte in secondary montane forest, 1236 m a.s.l. November, December.

***Bulbophyllum intricatum* Seidenf. (*Anisopetalon*)**

Thailand. Laos: Phongsali (NUOL cult. OL753 [P. Sengsomphou]).

October, November.

***Bulbophyllum kanburiense* Seidenf. (*Tripudianthes*)**

Tripudianthes kanburiense (Seidenf.) Szlach. & Kras.

Burma, Thailand, Vietnam. Laos: Vientiane (D. Barthélemy, P. Bonnet, A. Schuiteman PB72).

Lithophytic on rocks in open montane pine woodland with undergrowth of grasses, 805 m a.s.l. February.

***Bulbophyllum lanuginosum* J. J. Verm. (*Hirtula*)**

Thailand. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3557, det. J. J. Vermeulen).

***Bulbophyllum laoticum* Gagnep. (*Anisopetalon*)**

Laos: Savannakhet (S).

***Bulbophyllum lasiochilum* Parish & Rchb. f. (*Sestochilus*)**

Bulbophyllum breviscapum (Rolfe) J. J. Sm.; *Bulbophyllum breviscapum* (Rolfe) Ridl.; *Cirrhopetalum breviscapum* Rolfe; *Cirrhopetalum lasiochilum* (Parish & Rchb. f.) Hook. f.; *Phyllorchis lasiochila* (Parish & Rchb. f.) Kuntze.

Burma, Thailand, Peninsular Malaysia. Laos: Khammouan (NUOL cult. OL1167 [M. Newman et al.]).

February, October.

***Bulbophyllum laxiflorum* (Blume) Lindl. (*Desmosanthes*)**

Bulbophyllum laxiflorum (Blume) Lindl. var. *taluae* J. J. Sm.; *Bulbophyllum luzonense* Ames; *Bulbophyllum pedicellatum* Ridl.; *Bulbophyllum radiatum* Lindl.; *Bulbophyllum syllectum* Kraenzl.; *Bulbophyllum taluae* (J. J. Sm.) Carr; *Diphyes laxiflora* Blume; *Phyllorchis laxiflora* (Blume) Kuntze; *Phyllorchis radiata* (Lindl.) Kuntze.

Burma, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Bolikhamxai (NUOL cult. OL1107 [D. Barthélemy, P. Bonnet, K. Chanthavongsa]; N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB34; N); Phongsali (NUOL cult. OL744 [P. Sengsomphou]); Vientiane (NUOL cult. OL1197 [P. Bonnet]; S).

Epiphyte in deciduous dipterocarp forest, also in gallery forest and lithophytic on moss-covered rocks near a large stream in the shade, 307–759 m a.s.l. January, June–August, December.

***Bulbophyllum lemniscatoides* Rolfe (*Lemniscatae*)**

Hordeanthos lemniscatoides (Rolfe) Szlach.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Champasak (NUOL cult. OL89 [B. Svengsuksa et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB251).

Epiphyte in evergreen montane forest dominated by Fagaceae, also on trees in coffee plantations; 1240 m a.s.l. February.

***Bulbophyllum leopardinum* (Wall.) Lindl. (*Leopardinae*)**

Dendrobium leopardinum Wall.; *Phyllorchis leopardina* (Wall.) Kuntze; *Sarcopodium leopardinum* (Wall.) Lindl.

India (NE), Nepal, China. Laos: Phongsali (NUOL cult. OL478 [B. Svengsuksa et al.]). July.

***Bulbophyllum levinei* Schltr. (*Eublepharon*)**

Bulbophyllum insulsum (Gagnep.) Seidenf., syn. nov.; *Cirrhopetalum insulsum* Gagnep. syn. nov.

China, Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3627, det. J. J. Vermeulen).

Note: synonymy according to J. J. Vermeulen (pers. comm.).

***Bulbophyllum lobbii* Lindl. (*Sestochilus*)**

Bulbophyllum claptonense Rolfe; *Bulbophyllum benshallii* Hort.; *Bulbophyllum oretopetalum* Garay, Hamer & Siegerist; *Bulbophyllum polystictum* Ridl.; *Bulbophyllum siamense* Rchb. f.; *Phyllorchis lobbii* (Lindl.) Kuntze; *Sarcopodium lobbii* (Lindl.) Lindl.; *Sestochilos uniflorum* Breda.

India (NE), Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, lesser Sunda Is., Philippines. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB632).

Lithophyte in humid evergreen montane forest on a mountain summit. January, February, December.

***Bulbophyllum macrocoleum* Seidenf. (*Anisopetalon*)**

Bulbophyllum longibracteatum Seidenf. syn. nov.

Thailand, Vietnam. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB108; D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB464); Champasak (NUOL cult. OL64 [B. Svengsuksa et al.]; NUOL cult. OL1356 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL925 [B. Svengsuksa et al.]); Louang Namtha (P. Bonnet, A. Schuiteman PB339); Vientiane (NUOL cult. OL292 [B. Svengsuksa et al.]; NUOL cult. OL392 [B. Svengsuksa et al.]).

Lithophytic on a steep limestone cliff in open semi-deciduous forest; also on large branches of isolated trees, 457 m a.s.l. October, November.

Note: this is a common species in Laos. We are unable to distinguish *B. longibracteatum* from *B. macrocoleum*, which according to Seidenfaden (1979) differs mainly in the shape of the petal tips. Specimens we have seen were often intermediate between the two in this respect. *Bulbophyllum rufinum* is very similar but seems to differ in the much laxer and more erect inflorescence. It is possible, however, that *B. macrocoleum* is merely a form of *B. rufinum*.

***Bulbophyllum microtepalum* Rchb. f. (*Anisopetalon*)**

Phyllorchis microtepala (Rchb. f.) Kuntze.

Burma, Thailand. Laos: Champasak (NUOL cult. OL582 [B. Svengsuksa et al.]).

November, December.

***Bulbophyllum monanthos* Ridl. (*Sestochilus*)**

Thailand. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3605, det. J. J. Vermeulen).

***Bulbophyllum moniliforme* Parish & Rchb.f. (*Macrocaulia*)**

Phyllorchis moniliformis (Parish & Rchb. f.) Kuntze.

India (NE), Burma, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL1654 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB4; NUOL cult. OL623, NUOL cult. OL902

[M. Newman et al.], NUOL cult. OL825, NUOL cult. OL1257, NUOL cult. OL1288 [B. Svengsuksa et al.]; N); Vientiane (S; sight record).

Epiphyte in deciduous dipterocarp forest, 554 m a.s.l. October.

***Bulbophyllum morphologorum* Kraenzl. (*Anisopetalon*)**

Bulbophyllum dixonii Rolfe.

Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, V. Lamxay PB319).

Epiphyte on large branches in secondary mixed deciduous forest, 874 m a.s.l. January–March.

***Bulbophyllum nigrescens* Rolfe. (*Hirtula*)**

Bulbophyllum angusteellipticum Seidenf.

Thailand, Vietnam. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB239); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB567).

Epiphyte in mixed deciduous forest, also lithophytic on exposed boulders in mixed semi-deciduous montane forest, 1240 m a.s.l. April.

***Bulbophyllum nigripetalum* Rolfe (*Hirtula*)**

China (Yunnan), Thailand. Laos: Louang Namtha (P. Bonnet, V. Lamxay PB324).

Epiphyte in secondary mixed deciduous forest, 874 m a.s.l. April–June.

***Bulbophyllum odoratissimum* (Sm.) Lindl. (*Desmosanthes*)**

Phyllorchis odoratissima (Sm.) Kuntze; *Stelis caudata* D. Don; *Stelis odoratissima* Sm.; *Tribrachia odoratissima* (Sm.) Lindl.

India (NE), Nepal, Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB407); Khammouan (NUOL cult. OL1310 [B. Svengsuksa et al.]); Louang Namtha (P. Bonnet, A. Schuiteman PB329; P. Bonnet, A. Schuiteman, V. Lamxay PB347); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB204); Xiangkhoang (S).

Epiphyte in dense humid evergreen forest near a waterfall, in dry evergreen forest near a waterfall, in mixed deciduous forest, and in humid evergreen forest on a steep limestone hill. 307–1150 m a.s.l. May, June.

***Bulbophyllum orientale* Seidenf. (*Anisopetalon*)**

Thailand, Vietnam. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB140).

Epiphytic and lithophytic in humid evergreen forest on the flank of a steep limestone hill, 648 m a.s.l. October, November.

***Bulbophyllum parviflorum* Parish & Rchb. f. (*Hirtula*)**

Bulbophyllum thomsonii Hook. f.; *Phyllorchis parviflora* (Parish & Rchb. f.) Kuntze; *Phyllorchis thomsonii* (Hook. f.) Kuntze.

India (NE), Bhutan, Burma, Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL1713 [P. Bonnet]); Vientiane (sight record [B. Svengsuksa & B. Laville]).

Lithophytic on small rocks near stream in secondary evergreen forest, 300 m a.s.l. November, December.

***Bulbophyllum pectenvenenis* (Gagnep.) Seidenf. (*Cirrhopetalum*)**

Bulbophyllum flaviflorum (T. S. Liu & H. J. Su) Seidenf.; *Bulbophyllum tingabarinum* Garay, Hamer & Siegerist; *Cirrhopetalum flaviflorum* T. S. Liu & H. J. Su; *Cirrhopetalum miniatum* Rolfe; *Cirrhopetalum pectenvenenis* Gagnep.

China (Fujian, Hainan), Taiwan, Vietnam. Laos: unspecified (S).

***Bulbophyllum polyrhizum* Lindl. (*Desmosanthes*)**

India (NE), Nepal, Burma, Thailand. Laos: Phongsali (NUOL cult. OL736 [P. Sengsomphou]).

Epiphyte on tree trunks in evergreen forest, 1000–1700 m a.s.l. March.

***Bulbophyllum proboscideum* (Gagnep.) Seidenf. & Smitinand (*Cirrhopetalum*)**

Cirrhopetalum proboscideum Gagnep.; *Mastigion proboscideum* (Gagnep.) Garay, Hamer & Siegerist.

Thailand. Laos: Champasak (S).

***Bulbophyllum psittacoglossum* Rchb. f. (*Sestochilus*)**

Bulbophyllum psittacoglossum Rchb. f. ex Hook.; *Sarcopodium psittacoglossum* (Rchb. f.) Hook.

Burma, China (Yunnan), Thailand, Vietnam. Laos: Bolikhamxai (sight record of a plant in a private garden in Paksan, collected in the province, D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB400).

***Bulbophyllum pumilio* Parish & Rchb. f. (*Cirrhopetalum*)**

Cirrhopetalum pumilio (Parish & Rchb. f.) Hook. f.

Burma, Thailand, Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3621, det. J. J. Vermeulen).

***Bulbophyllum putidum* (Teijsm. & Binn.) J. J. Sm. (*Cirrhopetalum*)**

Cirrhopetalum putidum Teijsm. & Binn.; *Mastigion putidum* (Teijsm. & Binn.) Garay, Hamer & Siegerist.

India, Bhutan, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Borneo, Philippines. Laos: Attapu (S); Bolikhamxai (photos seen); Champasak (NUOL cult. OL1421).

Epiphyte on rather thin branches in semi-deciduous forest, 307 m a.s.l. January, November, December.

***Bulbophyllum refractum* (Zoll.) Rchb. f. (*Tripudianthes*)**

Cirrhopetalum refractum Zoll.; *Phyllorchis refracta* (Zoll.) Kuntze; *Tripudianthes refractum* (Zoll.) Szlach. & Kras.

Vietnam, Peninsular Malaysia, Sumatra, Java. Laos: Champasak (NUOL cult. OL1635 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL1252 [B. Svengsuksa et al.]).

Epiphyte in open forest on thin branches, 106 m a.s.l. January, February, December.

***Bulbophyllum repens* Griff. (*Brachystachyae*)**

Phyllorchis repens (Griff.) Kuntze.

India (NE), Burma, Thailand. Laos: Champasak (D. Barthélémy, P. Bonnet, V. Lamxay PB462).

Lithophyte in a dry limestone area with many xerophytic plants. January.

***Bulbophyllum reptans* (Lindl.) Lindl. (*Desmosanthes*)**

Bulbophyllum ombrophilum Gagnep.; *Ione racemosa* (Sm.) Seidenf.; *Phyllorchis reptans* (Lindl.) Kuntze; *Stelis racemosa* Sm.; *Sunipia racemosa* (Sm.) Tang & F. T. Wang; *Tribrachia reptans* Lindl.

Nepal, Burma, China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1636 [B. Svengsuksa et al.]). January.

***Bulbophyllum retusiusculum* Rchb. f. (*Cirrhopetalum*)**

Bulbophyllum langbianense Seidenf. & Smitinand; *Bulbophyllum nicholitzii* (Rolfe) J. J. Sm.; *Bulbophyllum nicholitzii* (Rolfe) Seidenf. & Smitinand; *Bulbophyllum skeatianum* Ridl., syn. nov.; *Bulbophyllum touranense* (Gagnep.) Ho; *Cirrhopetalum confusum* Garay, Hamer & Siegerist; *Cirrhopetalum nicholitzii* Rolfe;

Cirrhopetalum retusiusculum (Rchb. f.) Hemsl.; *Cirrhopetalum retusiusculum* Rchb. f.; *Cirrhopetalum skeatianum* (Ridl.) Garay, Hamer & Siegerist, syn. nov.; *Cirrhopetalum touranense* Gagnep.; *Phyllorchis retusiuscula* (Rchb. f.) Kuntze.

India (NE), Nepal, Bhutan, Burma, China (Hainan), Taiwan, Thailand, Vietnam, Peninsular Malaysia. Laos: Champasak (P. Bonnet PB_Vo_01; S); Xiengkhoang (S); 'Bolovens' (S); 'Phu Hua Sua' (S).

Epiphyte in evergreen montane forest, 1300–1700 m a.s.l. January, April.

Note: according to Seidenfaden (1973), *Bulbophyllum skeatianum* differs from *B. retusiusculum* in the long, slender and curved, as opposed to rather small and insignificant, usually triangular stelidia. Seidenfaden's own illustrations of these two taxa show hardly any difference in the shape and size of the stelidia, or any other difference for that matter, and we consider them conspecific.

***Bulbophyllum rufilabrum* Parish ex Hook. f. (*Anisopetalon*)**

Bulbophyllum limbatum Parish & Rchb. f.; *Phyllorchis rufilabra* (Parish) Kuntze.

Burma, Thailand. Laos: Bolikhamxai (P. Bonnet PB_Vo_03); Khammouan (NUOL cult. OL1283 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL418 [B. Svengsuksa et al.]).

Epiphytic and lithophytic in riverine forest and in secondary evergreen forest, 300 m a.s.l. November, December.

***Bulbophyllum rufinum* Rchb. f. (*Anisopetalon*)**

Phyllorchis rufina (Rchb. f.) Kuntze.

Burma, Thailand, Cambodia, Vietnam. Laos: Vientiane (S). Lowlands. November.

Note: Seidenfaden's records may turn out to be referable to *B. macrocoleum*, if this is really distinct from *B. rufinum*. While *B. macrocoleum* is quite common in Laos we have not yet met with the true *B. rufinum* there.

***Bulbophyllum sanguineopunctatum* Seidenf. & Kerr (*Cirrhopetalum*)**

Laos: Vientiane (S).
500 m a.s.l. November.

***Bulbophyllum secundum* Hook.f. (*Hirtula*)**

Bulbophyllum subparviflorum Z. H. Tsi & S. C. Chen; *Phyllorchis secunda* (Hook. f.) Kuntze.

India (NE), Nepal, Burma, China (Yunnan), Thailand, Vietnam. Laos: unspecified, probably Bolikhamxai (S).

Note: Tixier's record, referred to by Seidenfaden (1992), requires confirmation since this species may have been confused with *B. nigrescens* or *B. nigripetalum*, both known to occur in Laos. As Vermeulen (2002) pointed out, Seidenfaden (1979) wrongly considered *B. nigripetalum* synonymous with *B. secundum*, while he illustrated *B. nigrescens* with a drawing of the then undescribed *B. scaphiforme* J. J. Verm.

***Bulbophyllum seidenfadenii* Kerr (*Cirrhopetalum*)**

Laos: Vientiane (S).

***Bulbophyllum sigaldiae* Guillaumin (*Acrochaene*)**

Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 2189, det. J. J. Vermeulen).

***Bulbophyllum spathulatum* (Rolfe ex E. Cooper) Seidenf. (*Cirrhopetalum*)**

Cirrhopetalum spathulatum Rolfe ex E. Cooper; *Rhytionanthos spathulatum* (Rolfe ex E. Cooper) Garay, Hamer & Siegerist.

India (NE), Burma, Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL449 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL446 [B. Svengsuksa et al.]; S).

Epiphytic in riverine forest and in secondary evergreen forest, 300 m a.s.l. October, November.

***Bulbophyllum stenobulbon* Parish & Rchb. f. (*Desmosanthes*)**

Phyllorchis stenobulbon (Parish & Rchb. f.) Kuntze.

Burma, Thailand, Vietnam, ?Laos: Vientiane (S).
Dense forest, 1000 m a.s.l.

Note: record based on sterile specimens; requires confirmation.

***Bulbophyllum sutepense* (Rolfe) Seidenf. & Smitinand (*Desmosanthes*)**

Cirrhopetalum sutepense Rolfe ex Downie.

China, Thailand. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB208); 'Bolovens' (S).

Epiphyte in mixed deciduous forest, 900–1000 m a.s.l. April, May.

***Bulbophyllum taeniophyllum* Parish & Rchb. f. (*Cirrhopetalum*)**

Bulbophyllum fenestratum J. J. Sm.; *Bulbophyllum mundulum* (W. Bull) J. J. Sm.; *Bulbophyllum punctatissimum* Rolfe ex Ridl.; *Bulbophyllum rupicolium* Ridl.; *Bulbophyllum simillinum* Parish &

Rchb. f.; *Cirrhopetalum fenestratum* (J. J. Sm.) Garay, Hamer & Siegerist; *Cirrhopetalum mundulum* W. Bull; *Cirrhopetalum punctatissimum* Rolfe ex Ridl.; *Cirrhopetalum simillimum* Parish & Rchb. f.; *Cirrhopetalum taeniophyllum* (Parish & Rchb. f.) Hook. f.; *Phyllorchis simillima* (Parish & Rchb. f.) Kuntze; *Phyllorchis taeniophylla* (Parish & Rchb. f.) Kuntze.

Burma, Thailand, Vietnam, Peninsular Malaysia. Laos: Vientiane (S).
June, August.

***Bulbophyllum thaiorum* J. J. Sm. (*Cirrhopetalum*)**

Thailand, Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3556, det. J. J. Vermeulen).

***Bulbophyllum tortuosum* (Blume) Lindl. (*Monanthes*)**

Bulbophyllum indragiriense Schltr.; *Bulbophyllum listeri* King & Pantl.; *Diphyes tortuosa* Blume; *Phyllorchis tortuosa* (Blume) Kuntze.

Thailand, Vietnam, Bhutan, Peninsular Malaysia, Sumatra, Java, Borneo, Philippines. Laos: Khammouan (NUOL cult. OL1732 [V. Lamxay et al.]); Vientiane (S).
Lowlands. August–October.

***Bulbophyllum tricorne* Seidenf. & Smitinand (*Anisopetalon*)**

India (NE), Thailand, Cambodia. Laos: Champasak (NUOL cult. P1 [P. Bonnet]); Vientiane (NUOL cult. OL1220 [P. Bonnet]).

Epiphyte in humid evergreen forest and in gallery forest, 208–770 m a.s.l. August, September.

***Bulbophyllum* cf. *tricornoides* Seidenf. (*Anisopetalon*)**

Thailand. Laos: Bolikhamxai (NUOL cult. OL1098 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Khammouan (NUOL cult. OL925 [M. Newman et al.]).

Epiphyte on tree trunks in secondary humid evergreen lowland forest, also in riverine forest, 169 m a.s.l. November, December.

Note: we are uncertain of our identification, since the differences between *B. tricorne* and *B. tricornoides* seem very slight: in *B. tricorne* the petals should be about as long as the column, while in *B. tricornoides* they are about half as long as the column. The specimens cited here are intermediate in this respect. NUOL cult. OL1098 has long, slender and rather lax inflorescences much like *B. dissitiflorum*, while *B. tricornoides* should have a dense inflorescence. However, in other respects OL1098 is indistinguishable from OL925, of which the inflorescence agrees well with Seidenfaden's description. Both collections cited possess a lip with a distinctly papillose margin; this detail is lacking in Seidenfaden's description and illustrations of this species.

***Bulbophyllum tripudians* Parish & Rchb. f. (*Tripudianthes*)**

Tripudianthes tripudians (Parish & Rchb. f.) Szlach. & Kras.

Burma Thailand, Vietnam. Laos: Vientiane (S).
Open montane forest, 1800 m a.s.l.

***Bulbophyllum violaceolabellum* Seidenf. (*Cirrhopetalum*)**

Laos: Louangphrabang (S).

***Bulbophyllum wendlandianum* (Kraenzl.) J. J. Sm. (*Cirrhopetalum*)**

Cirrhopetalum wendlandianum Kraenzl.

Burma, Thailand. Laos: Champasak (NUOL cult. OL1710).
April.

***Bulbophyllum xylophyllum* Parish & Rchb. f. (*Brachystachyae*)**

Phyllorchis xylophylla (Parish & Rchb. f.) Kuntze.

India (NE), Bhutan, Burma, Thailand, Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3687, det. J. J. Vermeulen).

***Calanthe cardioglossa* Schltr.**

Thailand, Vietnam. Laos: Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB39); Saravan (S); Vientiane (S).

Terrestrial on rocky ground in dense humid evergreen forest, 600–659 m a.s.l. January, October.

***Calanthe lyroglossa* Rchb. f.**

Alismorchis foerstermannii (Rchb. f.) Kuntze; *Alismorchis lyroglossa* (Rchb. f.) Kuntze; *Calanthe foerstermannii* Rchb. f.; *Calanthe liukiensis* Schltr.; *Calanthe nephroidea* Gagnep.

Burma, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Philippines. Laos: 'Bolovents' (S).

***Calanthe odora* Griff.**

Alismorchis angusta (Lindl.) Kuntze; *Alismorchis odora* (Griff.) Kuntze; *Calanthe angusta* Lindl.

India (NE), China, Thailand, Cambodia, Vietnam. Laos: Xiangkhoang (S); 'between Sola Nam Doi and Nam Ma Cun' (S; possibly Houaphan).

***Calanthe succedanea* Gagnep.**

Thailand, Cambodia, Vietnam. Laos: Attapu (N); Champasak (S).

Note: this seems hardly specifically distinct from *C. cardioglossa*, differing only in the lamellate keel on the mid-lobe of the lip, whereas in *C. cardioglossa* the keel is little more than a swollen mid-vein.

***Calanthe triplicata* (Willemet) Ames**

Alismorchis angraeciflora (Rchb. f.) Kuntze; *Alismorchis diploxiphion* (Hook. f.) Kuntze; *Alismorchis furcata* (Bateman ex Lindl.) Kuntze; *Alismorchis gracillima* (Lindl.) Kuntze; *Alismorchis veratrifolia* (Willd.) Kuntze; *Amblyglottis veratrifolia* Blume; *Bletia quadrifida* Buch.-Ham. ex Hook. f.; *Calanthe angraeciflora* Rchb. f.; *Calanthe brevicolumna* Hayata; *Calanthe breviflos* Ridl.; *Calanthe catilligera* Rchb. f.; *Calanthe comosa* Rchb. f.; *Calanthe diploxiphion* Hook. f.; *Calanthe engleriana* Kraenzl.; *Calanthe engleriana* Kraenzl. var. *brevicalcarata* J. J. Sm.; *Calanthe furcata* Bateman ex Lindl.; *Calanthe gracillima* Lindl.; *Calanthe latissimifolia* R. S. Rogers; *Calanthe matsumurana* Schltr.; *Calanthe nephroglossa* Schltr.; *Calanthe orthocentron* Schltr.; *Calanthe perrottetii* A. Rich.; *Calanthe proboscidea* Rchb. f.; *Calanthe pubescens* Ridl.; *Calanthe rubicallosa* Masam.; *Calanthe triplicata* (Willemet) Ames f. *albolineata* (Nakaj.) Hatus.; *Calanthe triplicata* (Willemet) Ames var. *angraeciflora* (Rchb. f.) N. Hall; *Calanthe triplicata* (Willemet) Ames var. *gracillima* (Lindl.) N. Halle; *Calanthe triplicata* (Willemet) Ames var. *minabassae* Schltr.; *Calanthe veratrifolia* (Willd.) R. Br.; *Calanthe veratrifolia* (Willd.) R. Br. var. *cleistogama* Schltr.; *Calanthe veratrifolia* (Willd.) R. Br. var. *densissima* J. J. Sm.; *Calanthe veratrifolia* (Willd.) R. Br. var. *dupliciloba* J. J. Sm.; *Calanthe veratrifolia* (Willd.) R. Br. var. *incurvicalcar* J. J. Sm.; *Calanthe veratrifolia* (Willd.) R. Br. var. *lancipetala* J. J. Sm.; *Calanthe veratrifolia* (Willd.) R. Br. var. *timorensis* J. J. Sm.; *Limodorum ventricosum* Steud.; *Limodorum veratrifolium* Willd.; *Orchis triplicata* Willemet.

Madagascar, Mascarenes, throughout tropical continental Asia, China, Japan, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Pacific. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB468); Champasak (S); Louangphrabang (S); Savannakhet (S); Xiangkhoang (S); ‘Sapone’ (probably Sepone, Savannakhet Prov.) (S).

Terrestrial in dense humid forest at the base of a steep limestone hill, or in forest on a river bank. May, June.

***Calanthe vestita* Lindl.**

Alismorchis vestita (Lindl.) Kuntze; *Amblyglottis pilosa* de Vriese ex Lindl.; *Calanthe grandiflora* Rolfe; *Calanthe melinosema* Schltr.; *Calanthe padangensis* Schltr. ex Mansf.; *Calanthe pilosa* (de Vriese ex Lindl.) Miq.; *Calanthe regnieri* Rchb. f.; *Calanthe turneri* Rchb. f.; *Calanthe vestita* Lindl. var. *fournieri* Rolfe; *Calanthe vestita* Lindl. var. *igneo-oculata* Hort. ex Rchb. f.; *Calanthe vestita* Lindl. var. *oculata-gigantea* Rchb. f. ex B. S. Williams; *Cytheris griffithii* Wight; *Phaius vestitus* (Lindl.) Rchb. f.; *Preptanthe vestita* (Lindl.) Rchb. f.; *Preptanthe villosa* Rchb. f.

Burma, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea, Philippines. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhom, A. Schuiteman PB111); Khammouan (sight record [P. Bonnet, A. Schuiteman, P. Nasoukhom, V. Vannachak; photo]). Lithophytic on rather dry limestone hill with low open forest, also found as an epiphyte on a fallen branch on a steep limestone hill in the shade, 332 m a.s.l. October, November.

Note: a common species in the rugged karst regions of Bolikhamxai and Khammouan provinces. Specimens with all-white flowers and those that possess a red blotch at the base of the lip mid-lobe often grow intermixed. It is a telling symptom of the incomplete botanical exploration of the country that this frequent and conspicuous orchid has never been recorded from Laos before.

***Cephalanthera exigua* Seidenf.**

Laos: Xiangkhoang (S).

Terrestrial in evergreen forest, 1200 m a.s.l. April.

***Cephalantheropsis obcordata* (Lindl.) Ormerod**

Alismorchis gracilis (Lindl.) Kuntze; *Alismorchis longipes* (Hook. f.) Kuntze; *Alismorchis tubifera* (Hook. f.) Kuntze; *Bletia obcordata* Lindl.; *Calanthe amesiana* Schltr.; *Calanthe bursicula* Gagnep.; *Calanthe dolichopoda* Fukuy.; *Calanthe gracilis* Lindl.; *Calanthe gracilis* Lindl. var. *sumatrana* J. J. Sm.; *Calanthe halconensis* (Ames) Schltr.; *Calanthe ramosii* Ames; *Calanthe tubifera* Hook. f.; *Calanthe venusta* Schltr.; *Cephalantheropsis calanthoides* (Ames) T. S. Liu & H. J. Su; *Cephalantheropsis gracilis* (Lindl.) S. Y. Hu; *Cephalantheropsis gracilis* (Lindl.) S. Y. Hu var. *halconensis* (Ames) K. Karas.; *Cephalantheropsis gracilis* (Lindl.) S. Y. Hu var. *venusta* (Schltr.) K. Karas.; *Cephalantheropsis halconensis* (Ames) S. S. Ying; *Cephalantheropsis venusta* (Schltr.) S. Y. Hu; *Gastrorchis gracilis* (Lindl.) Aver.; *Limatodis gracilis* (Lindl.) Lindl.; *Paracalanthe gracilis* (Lindl.) Kudo; *Paracalanthe venusta* Kudo; *Phaius calanthoides* Ames; *Phaius gracilis* (Lindl.) S. S. Ying; *Phaius gracilis* (Lindl.) S. S. Ying var. *calanthoides* (Ames) S. S. Ying; *Phaius halconensis* Ames; *Phaius longipes* (Hook. f.) Holttum; *Phaius longipes* (Hook. f.) Holttum var. *calanthoides* (Ames) T. P. Lin; *Phaius ramosii* (Ames) Ames.

India (NE), Burma, Taiwan, Japan, Thailand, Vietnam, Moluccas, Philippines. Laos: Bolikhamxai (S); Khammouan (N).

***Ceratostylis himalaica* Hook. f.**

Eria ramosissima Wall. ex Hook. f.; *Ritaia himalaica* King & Pantl.

India (NE), Nepal, Burma, China (Yunnan), Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB412); Phongsali (sight record [P. Bonnet, A. Schuiteman, V. Lamxay; photo]); Vientiane (S). Epiphyte in dense wet evergreen tropical forest near a waterfall, and in semi-deciduous montane forest, 1077–1300 m a.s.l. March–May.

***Ceratostylis siamensis* Rolfe ex Downie**

Ceratostylis pygmaea Evrard ex Gagnep.; *Eria banaensis* Gagnep.

Thailand, Vietnam. Laos: Xiangkhoang (S).
Epiphyte in evergreen montane forest, 1500–1700 m a.s.l.
April, May.

***Ceratostylis subulata* Blume**

Appendicula teres Griff.; *Ceratostylis cepula* Rchb. f.; *Ceratostylis malaccensis* Hook. f.; *Ceratostylis teres* (Griff.) Rchb. f.

India (NE), Bhutan, China (Hainan), Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Moluccas, New Guinea, Philippines, Solomon Is., Vanuatu. Laos: Vientiane (S, sterile specimen).

***Cheirostylis chinensis* Rolfe**

Cheirostylis philippinensis Ames; *Cheirostylis taiwanensis* Yamam.

China (Hong Kong), Taiwan, Vietnam, Philippines. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhom, A. Schuiteman PB124, PB128).

Lithophytic on a moss-covered rock in dense humid evergreen forest near a small stream, also on shaded rock on a steep forested limestone hill, 521–863 m a.s.l. January, November.

***Cheirostylis cochinchinensis* Blume**

Vietnam. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhom, A. Schuiteman PB112); Vientiane (P. Bonnet, A. Schuiteman PB159).

Lithophytic on a shaded rock covered with leaf litter on a steep limestone hill, also lithophytic in a shaded gully near the summit of a high limestone mountain, 332–1400 m a.s.l. October, November.

***Chiloschista exuperei* (Guillaumin) Garay**

Taeniophyllum exuperei Guillaumin.

Thailand, Vietnam. Laos: Champasak (P. Bonnet PB201, found on local market, collected in the surrounding countryside).
April.

***Chiloschista lunifera* (Rchb. f.) J. J. Sm.**

Chiloschista lunifera (Rchb. f.) Schltr.; *Sarcophilus lunifer* (Rchb. f.) Benth. ex Hook. f.; *Thrixspermum luniferum* Rchb. f.

Burma, Thailand. Laos: Vientiane (S).
Lowlands. April.

***Chrysoglossum ornatum* Blume**

Ania maculata Thwaites; *Chrysoglossum cyrtopetalum* Schltr.; *Chrysoglossum erraticum* Hook. f.; *Chrysoglossum formosanum* Hayata; *Chrysoglossum gibbsiae* Rolfe; *Chrysoglossum hallbergii* Blatt.; *Chrysoglossum maculatum* Hook. f.; *Tainia maculata* (Thwaites) Hook. f.

Sri Lanka, India (E and NE), Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Sulawesi, New Guinea, Philippines, Vanuatu, New Caledonia, Fiji, Samoa. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB411); Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB603).

Terrestrial in dense humus-rich humid evergreen forest, 1077–1245 m a.s.l. May, June.

***Cleisomeria lanatum* (Lindl.) Lindl. ex G. Don**

Cleisostoma lanatum Lindl.; *Gastrochilus lanatus* (Lindl.) Kuntze; *Saccolabium bracteatum* (Ridl.) Ridl.; *Saccolabium lanatum* (Lindl.) Hook. f.; *Sarcanthus bracteatus* Ridl.; *Sarcanthus lanatus* (Lindl.) Holtum; *Uncifera maxillaleonis* Guillaumin.

Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Borneo. Laos: Khammouan (NUOL cult. OL1344 [B. Svengsuksa et al.]); Louangphrabang (S); Vientiane (S).

Epiphyte in lowland dipterocarp forest and humid evergreen montane forest, 170–1100 m a.s.l. June–August.

***Cleisomeria pilosulum* (Gagnep.) Seidenf. & Garay**

Cleisostoma pilosulum Gagnep.; *Saccolabium pilosulum* (Gagnep.) Tang & F. T. Wang.

Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL1687 [B. Svengsuksa et al.]); Vientiane (S).
May, June.

***Cleisostoma arietinum* (Rchb. f.) Garay**

Echioglossum arietinum (Rchb. f.) Szlach.; *Saccolabium kunstleri* (King & Pantl.) Ridl.; *Sarcanthus arietinus* Rchb. f.; *Sarcanthus kunstleri* King & Pantl.; *Sarcanthus recurvus* Rolfe ex Downie.

India (NE), Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Champasak (NUOL cult. OL62 [B. Svengsuksa et al.]); Xiangkhoang (S).

Epiphyte in dry dipterocarp forest. January.

***Cleisostoma birmanicum* (Schltr.) Garay**

Echioglossum birmanicum Schltr.; *Sarcanthus birmanicus* (Schltr.) Seidenf. & Smitinand; *Sarcanthus ophioglossa* Guillaumin.

Burma, China, Thailand, Vietnam. Laos: Champasak (P. Bonnet PB504); Khammouan (NUOL cult. OL1158 [M. Newman et al.]; N).
June, July.

***Cleisostoma crochetii* (Guillaumin) Garay**

Blumeorchis crochetii (Guillaumin) Szlach.; *Sarcanthus crochetii* Guillaumin; *Sarcanthus tricornis* Seidenf.

Thailand, Vietnam. Laos: Houaphan (NUOL cult. OL674 [Toulavanh]); Vientiane (S).

Epiphyte in lowland dipterocarp forest. July–September.

***Cleisostoma duplicilobum* (J. J. Sm.) Garay**

Cleisostoma carinatum (Rolfe ex Downie) Garay; *Cleisostoma rostellatum* (Hook. f.) Garay; *Garayanthus carinatus* (Rolfe ex Downie) Szlach.; *Garayanthus duplicilobus* (J. J. Sm.) Szlach.; *Saccolabium rostellatum* Hook. f.; *Sarcanthus callosilobus* J. J. Sm.; *Sarcanthus carinatus* Rolfe ex Downie; *Sarcanthus duplicilobus* J. J. Sm.; *Sarcanthus rostellatus* Ridl.

India, Thailand, Vietnam, Sumatra, Java, Borneo, Philippines. Laos: Champasak (NUOL cult. OL102 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB36); Vientiane (NUOL cult. OL1198 [P. Bonnet]; S).

Epiphyte on a small tree trunk in dense evergreen forest and in gallery forest along a small stream, 659–1000 m a.s.l. September–November.

***Cleisostoma fuerstenbergianum* Kraenzl.**

Cleisostoma flagelliforme (Rolfe ex Downie) Garay; *Sarcanthus flagelliformis* Rolfe ex Downie; *Sarcanthus fuerstenbergianum* (Kraenzl.) J. J. Sm.; *Sarcanthus geoffrayi* Guillaumin.

China (Yunnan, Hainan), Thailand, Cambodia, Vietnam. Laos: Attapu (P. Bonnet PB541); Bolikhamxai (sight record [A. Schuiteman, S. Luang Aphay; photo]); Champasak (NUOL cult. OL1371 [B. Svengsuksa et al.]; N); Khammouan (P. Bonnet, P. Nasoukhoun, A. Schuiteman, V. Vannachak PB173); Louangphrabang (photos seen; N); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB221; P. Bonnet, S. Lanorsavanh, C. Loinheuang PB565); Vientiane (NUOL cult. OL1213; S); Xiangkhoang (N).

Epiphyte in dry dipterocarp forest, also in evergreen montane forest dominated by Fagaceae and on trees on steep limestone hills, 98–1240 m a.s.l. June–December.

***Cleisostoma kerrii* Seidenf.**

Thailand. Laos: Bolikhamxai (P. Bonnet, A. Schuiteman, V. Lamxay PB404).

Epiphyte in dense humid evergreen forest, close to a large waterfall. August–October.

***Cleisostoma racemiferum* (Lindl.) Garay**

Aerides racemifera (Lindl.) Wall. ex Hook. f.; *Gastrochilus racemifer* (Lindl.) Kuntze; *Saccolabium racemiferum* Lindl.; *Sarcanthus*

manlinensis Guillaumin; *Sarcanthus pallidus* Lindl.; *Sarcanthus racemifer* (Lindl.) Rchb. f.

India, Nepal, Bhutan, Burma, China (Yunnan), Thailand, Vietnam. Laos: Houaphan (NUOL cult. OL673); Louang Namtha (N); Vientiane (S); ‘Lam Vong’ (S; ‘Lam Vong’ is the name of a national dance). July–August.

***Cleisostoma rostratum* (Lindl.) Garay**

Saccolabium simondii Gagnep.; *Sarcanthus laosensis* Guillaumin; *Sarcanthus rostratus* Lindl.; *Vanda recurva* Hook.; *Vanda rostrata* (Lindl.) Lodd.

China, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL41 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB66); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB271); Savannakhet (NUOL cult. OL302 [B. Svengsuksa et al.]); Vientiane (P. Bonnet PB478; S).

Epiphyte on a small tree trunk in dense humid evergreen forest, in humid evergreen montane forest, also on tree trunk at the base of a steep limestone hill, 210–1000 m a.s.l. May, June.

***Cleisostoma simondii* (Gagnep.) Seidenf.**

Cleisostoma acutilabre (Guillaumin) Aver.; *Cleisostoma seidenfadenii* Garay; *Cleisostoma teres* Garay; *Echioglossum seidenfadenii* (Garay) Szlach.; *Echioglossum simondii* (Gagnep.) Szlach.; *Luisia acutilabris* Guillaumin; *Sarcanthus siamensis* Rolfe ex Downie; *Sarcanthus teretifolius* (Lindl.) Lindl.; *Vanda simondii* Gagnep.; *Vanda teretifolia* Lindl.

India (NE), China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL142 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL895 [M. Newman et al.]; N); Louangphrabang (P. Bonnet PB181; S); Vientiane (NUOL cult. OL1084 [P. Bonnet, K. Nanthavong, B. Svengsuksa]; NUOL cult. OL407 [B. Svengsuksa et al.]; N).

Epiphyte on thick-barked tree trunks in deciduous lowland dipterocarp forest on shallow, rocky, and nutrient-deficient laterite soil. October–December.

***Coelogyne assamica* Linden & Rchb. f. (*Fuscescentes*)**

Coelogyne annamensis Rolfe; *Coelogyne cynoches* Parish & Rchb. f.; *Coelogyne dalatensis* Gagnep.; ?*Coelogyne dichroantha* Gagnep.; *Coelogyne saigonensis* Gagnep.; *Coelogyne siamensis* Rolfe; *Cymbidium evrardii* Guillaumin.

India (NE), Bhutan, China (Yunnan), Thailand, Vietnam. Laos: Champasak (S). 1000 m a.s.l. November.

Note: this species and others in section *Fuscescentes* often secrete drops of a clear liquid on the keels of the lip. We consider it likely that in *Coelogyne dichroantha*, only known from a coloured drawing (reproduced in Seidenfaden

1992), the illustration of such drops has been misinterpreted as forming a row of warts. In other respects it is a fairly good match for *C. assamica*.

***Coelogyne brachyptera* Rchb. f. (*Brachypterae*)**

Pleione brachyptera (Rchb. f.) Kuntze; *Coelogyne virescens* Rolfe.

Burma, Thailand, Cambodia, Vietnam. Laos: Attapu (S); Champasak (NUOL cult. OL1364 [B. Svengsuksa et al.]; S).

Epiphyte on tree trunk in open forest, 1200 m a.s.l. March, April.

***Coelogyne brunnea* Lindl. (*Fuscescentes*)**

Coelogyne fuscescens Lindl. var. *brunnea* (Lindl.) Lindl.

Thailand, Vietnam, Burma. Laos: Champasak (D. Barthélemy, P. Bonnet, M. Coutaud PB613); Saravan (S); Vientiane (P. Bonnet, A. Schuiteman PB154).

Lithophytic and epiphytic in evergreen montane forest, sometimes on limestone, 1245–1400 m a.s.l. October, November. Note: delimitation against *C. fuscescens* is problematic.

***Coelogyne calcicola* Kerr (*Elatae*)**

Burma, China (Yunnan), Vietnam. Laos: Champasak (P. Bonnet PB514); Xiangkhoang (S).

Epiphyte and lithophyte on rocky limestone mountain, 1500 m a.s.l. April, July.

***Coelogyne cumingii* Lindl. (*Coelogyne*)**

Coelogyne casta Ridl.; *Coelogyne longibracteata* Hook. f.; *Pleione cumingii* (Lindl.) Kuntze.

Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Borneo. Laos: Champasak (S). 1300 m a.s.l. April.

***Coelogyne fimbriata* Lindl. (*Fuliginosae*)**

Coelogyne arunachalensis H. J. Chowdhery & G. D. Pal; *Coelogyne fimbriata* Lindl. var. *acuminata* Regel; *Coelogyne fimbriata* Lindl. var. *annamica* Finet ex Gagnep.; *Coelogyne fuliginosa* Lindl. ex Hook.; *Coelogyne laotica* Gagnep.; *Coelogyne leungiana* S. Y. Hu; *Coelogyne longeciliata* Teijsm. & Binn.; *Coelogyne primulina* Barretto; *Coelogyne xerophyta* Hand.-Mazz.; *Pleione chinensis* (Lindl.) Kuntze; *Pleione fimbriata* (Lindl.) Kuntze; *Pleione fuliginosa* (Lodd. ex Hook.) Kuntze.

India (NE), Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB136; N); Champasak (NUOL cult. OL600 [B. Svengsuksa]; N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V.

Vannachak PB61; N); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB577); Saravan (S).

Lithophyte on limestone hills covered with evergreen forest, also epiphytic in mixed deciduous forest and in evergreen montane forest dominated by Fagaceae, 554–976 m a.s.l. August–November.

***Coelogyne flaccida* Lindl. (*Flaccidae*)**

Coelogyne huettneriana Rchb. f. var. *lactea* (Rchb. f.) Pfitzer; *Coelogyne lactea* Rchb. f.; *Pleione flaccida* (Lindl.) Kuntze.

India (NE), Nepal, Burma, Thailand, China. Laos: Vientiane (S); Xiangkhoang (S); ‘Boloovens’ (S). 1500 m a.s.l. April.

***Coelogyne lawrenceana* Rolfe (*Lawrenceanae*)**

Coelogyne fleuryi Gagnep.

Vietnam. Laos: Champasak (NUOL cult. OL1154 [B. Laville]).

Epiphyte. January, February.

***Coelogyne longipes* Hook. f. (*Proliferae*)**

India (NE), Bhutan, Burma, China (Yunnan), Thailand. Laos: unspecified (S); Xiangkhoang (N).

***Coelogyne nitida* Lindl. (*Ocellatae*)**

Coelogyne ochracea Lindl.; *Cymbidium nitidum* Wall.; *Cymbidium nitidum* Wall. ex D. Don; *Pleione nitida* (Lindl.) Kuntze.

India (NE), Nepal, Bhutan, Burma, Thailand, China (Yunnan), Vietnam. Laos: Xaisomboun (S, ‘Xieng Khouang’).

Epiphyte in evergreen upper montane forest, locally abundant, 2300–2600 m a.s.l. April.

***Coelogyne pallens* Ridl. (*Fuliginosae*)**

Burma, Thailand, Vietnam, Peninsular Malaysia, Borneo. Laos: Champasak (S).

***Coelogyne raizadae* S. K. Jain & S. Das (*Proliferae*)**

India (NE), Nepal, Bhutan, China, Tibet. Laos: unspecified (recorded by Clayton 2002).

***Coelogyne rigida* Parish & Rchb. f. (*Elatae*)**

Coelogyne tricarinata Ridl.; *Pleione rigida* (Parish & Rchb. f.) Kuntze.

India (NE), Burma, Thailand, Vietnam. Laos: Vientiane (P. Bonnet PB486).

Lithophyte on large boulder in a shaded stream in gallery forest, 790 m a.s.l. June, July.

***Coelogyne schultesii* S. K. Jain & S. Das (*Proliferae*)**

Coelogyne longipes Lindl. var. *verruculata* S. C. Chen.

India (NE), Nepal, Bhutan, Burma, Thailand, Vietnam. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB226).

Epiphyte in secondary evergreen montane forest dominated by Fagaceae, 1063 m a.s.l. May, June.

***Coelogyne stricta* (D. Don) Schltr. (*Elatae*)**

Coelogyne elata Lindl.; *Cymbidium strictum* D. Don.

India (NE), Nepal, Bhutan, Burma, China (Yunnan), Vietnam. Laos: Xiangkhoang (S); 'Phu Xen' (S).

***Coelogyne sudora* Schuit. & de Vogel (*Fuscescentes*)**

Laos: unspecified (Leiden Botanic Garden cult. 20051293 = Singapore Botanic Garden cult. SBG-O 3632).

Note: so far only known from a cultivated specimen sent to Singapore from a nursery in Thailand in a batch of plants originally collected in Laos.

***Coelogyne trinervis* Lindl. (*Flaccidae*)**

Coelogyne angustifolia Ridl.; *Coelogyne cinnamomea* Teijsm. & Binn.; *Coelogyne pachybulbon* Ridl.; *Coelogyne rhodeana* Rchb. f.; *Coelogyne rossiana* Rchb. f.; *Coelogyne stenophylla* Ridl.; *Coelogyne wettsteiniana* Schltr.; *Pleione trinervis* (Lindl.) Kuntze.

'Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, lesser Sunda Is. Laos: Attapu (photos seen); Bolikhamxai (S); Champasak (NUOL cult. OL244 [B. Svengsuksa et al.]; S); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB2); Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoun, A. Schuiteman PB92; NUOL cult. OL332 [S. Sopraseuth]; S); Xaisomboun (NUOL cult. OL363 [V. Lamxay et al.]); 'Bolovens' (S); 'between Mekong and Hue' (S; possibly Savannakhet).

Epiphyte in deciduous dipterocarp forest and in secondary forest on limestone hill, 342–544 m a.s.l. September–November.

***Coelogyne viscosa* Rchb. f. (*Flaccidae*)**

Coelogyne graminifolia Parish & Rchb. f.; *Pleione viscosa* (Rchb. f.) Kuntze.

India (NE), Burma, China (Yunnan), Thailand, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB460; NUOL cult. OL1119 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Champasak (NUOL cult. OL597 [B. Svengsuksa]); Khammouan (P. Bonnet PB166); Phongsali (NUOL cult. OL989 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL403 [B. Svengsuksa et al.]; S); Xaisomboun (N).

Epiphyte in open forest on summit of dry limestone hills, and lithophyte on rocks in open vegetation along a stream, 307–457 m a.s.l. January, February, December.

***Collabium chinense* (Rolfe) Tang & F. T. Wang**

Chrysoglossum robinsonii Ridl.; *Collabium balansae* (Gagnep.) Tang & F. T. Wang; *Nephelaphyllum chinense* Rolfe; *Tainia balansae* Gagnep.; *Tainia chinensis* (Rolfe) Gagnep.

?India (NE), China (Yunnan, Guangdong, Hainan), Taiwan, Thailand, Vietnam. Laos: Champasak (P. Bonnet PB522, found on local market, collected in the surrounding countryside). July–December.

***Corymborkis veratrifolia* (Reinw.) Blume**

Chloidia confusa Ames; *Corymbis batjanica* J. J. Sm.; *Corymbis brevistylis* Hook.; *Corymbis confusa* (Ames) Schltr.; *Corymbis disticha* (Breda) Lindl.; *Corymbis exaltata* Schltr.; *Corymbis minor* Schltr.; *Corymbis rhytidocarpa* Hook. f.; *Corymbis sakisimensis* (Fukuy.) Masam.; *Corymbis veratrifolia* (Reinw.) Rchb. f.; *Corymborchis assamica* Blume; *Corymborchis confusa* (Ames) Ames; *Corymborchis parviflora* J. J. Sm.; *Corymborchis rutenii* J. J. Sm.; *Corymborchis sakisimensis* Fukuy.; *Corymborchis tropidiifolia* J. J. Sm.; *Corymborkis brevistylis* (Hook. f.) Kuntze; *Corymborkis rhytidocarpa* (Hook. f.) Kuntze; *Hysteria veratrifolia* Reinw.; *Macrostylis disticha* Breda; *Rhynchanthera paniculata* Blume.

?Thailand, Vietnam, tropical east Asia, Australia, Solomon Islands, Vanuatu, Fiji, Samoa, Tonga, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Moluccas, New Guinea, Philippines. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoun, A. Schuiteman PB109); Louang Namtha (P. Bonnet, V. Lamxay PB317); Saravan (S).

Terrestrial at the base of a limestone cliff in the shade and near a small stream in dense humid evergreen forest with undergrowth of tall herbs, 332–905 m a.s.l. Fruiting in November, probably flowering in September.

***Cryptopylos clausus* (J. J. Sm.) Garay**

Pteroceras clausum (J. J. Sm.) Seidenf. & Smitinand; *Sarcochilus clausus* J. J. Sm.; *Sarcochilus pierrei* Guillaumin.

Thailand, Cambodia, Vietnam, Sumatra. Laos: Champasak (NUOL cult. OL1718); Vientiane (S). 500–1500 m a.s.l. April, May.

***Cymbidium aloifolium* (L.) Sw.**

Aerides borassii Buch.-Ham. ex Sm.; *Cymbidium atropurpureum* Yen; *Cymbidium erectum* Wight; *Cymbidium intermedium* H. G. Jones; *Cymbidium pendulum* (Roxb.) Sw.; *Cymbidium simulans* Rolfe; *Epidendrum aloides* Curtis; *Epidendrum aloifolium* L.; *Epidendrum pendulum* Roxb.

Sri Lanka, India, Andaman Is., Nepal, Bangladesh, China, Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Java. Laos: Attapu (N); Louangphrabang (S); Vientiane (NUOL cult. OL408, OL433, OL1324 [B. Svengsuksa et al.]; S); Xaignabouri (N); 'Nam Pat' (S; possibly Houaphan).

Lowlands. April.

***Cymbidium bicolor* Lindl. subsp. *obtusum* Du Puy & P. J. Cribb**

Cymbidium crassifolium Wall.; *Cymbidium flaccidum* Schltr.; *Cymbidium manni* Rchb. f.

Thailand, Cambodia, Vietnam, Nepal, Bhutan, India (NE), Burma, China (Hainan). Laos: Attapu (S); Champasak (NUOL cult. OL562 [B. Svengsuksa et al.]); Vientiane (S).

Lithophyte on a small limestone hill, in a shady wet place, also in the lowlands. March, November, December.

***Cymbidium dayanum* Rchb. f.**

Cymbidium acutum Ridl.; *Cymbidium alborubens* Makino; *Cymbidium angustifolium* Ames & C. Schweinf.; *Cymbidium dayanum* Rchb. f. var. *austrorjaponicum* Tuyama; *Cymbidium dayanum* Rchb. f. subsp. *leachianum* (Rchb. f.) S. S. Ying; *Cymbidium eburneum* Lindl. var. *austrorjaponicum* (Tuyama) Hiroe; *Cymbidium eburneum* Lindl. var. *dayanum* (Rchb. f.) Hook. f.; *Cymbidium leachianum* Rchb. f.; *Cymbidium poilanei* Gagnep.; *Cymbidium pulcherrimum* Sander; *Cymbidium simonsianum* King & Pantl.; *Cymbidium simonsianum* King & Pantl. f. *vernale* Makino; *Cymbidium sutepense* Rolfe ex Downie.

India (NE), Burma, China, Taiwan, Japan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Borneo, Philippines. Laos: Champasak (NUOL cult. OL1700B [P. Bonnet], found on local market, collected in the surrounding countryside); Vientiane (S).

August.

***Cymbidium ensifolium* (L.) Sw.**

Cymbidium albomarginatum Makino; *Cymbidium arrogans* Hayata; *Cymbidium ecristatum* Steud.; *Cymbidium ensifolium* (L.) Sw. var. *estriatum* Lindl.; *Cymbidium ensifolium* (L.) Sw. var. *striatum* Lindl.; *Cymbidium ensifolium* (L.) Sw. var. *yakibaran* (Makino) Y. S. Wu & S. C. Chen; *Cymbidium gonzalesii* Quisumb.; *Cymbidium yokuchin* Makino; *Cymbidium yokuchin* Makino var. *arrogans* (Hayata) S. S. Ying; *Cymbidium yokuchin* Makino var. *sosbin* Makino; *Cymbidium kanran* Makino var. *misericors* (Hayata) S. S. Ying; *Cymbidium koran* Makino; *Cymbidium micans* Schauer; *Cymbidium misericors* Hayata; *Cymbidium niveomarginatum* Makino; *Cymbidium rubrigemmum* Hayata; *Cymbidium shimaran* Makino; *Cymbidium sundaicum*

Schltr.; *Cymbidium xiphiifolium* Lindl.; *Cymbidium yakibaran* Makino; *Epidendrum ensifolium* L.; *Epidendrum sinense* Redout.; *Jensoa ensata* (Thunb.) Raf.; *Limodorum ensatum* Thunb.

Sri Lanka, India, China, Taiwan, Ryukyu Arch., Japan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Philippines. Laos: Bolikhamxai (S); Champasak (P. Bonnet PB506, found on local market, collected in the surrounding countryside); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB59); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB253); Vientiane (S); Xaignabouri (N).

Terrestrial in mixed deciduous forest on poor sandy soil, also in dense evergreen montane forest dominated by Fagaceae, near a small stream, also in the lowlands, 554–1240 m a.s.l. June, July, October.

***Cymbidium insigne* Rolfe**

Cymbidium insigne Rolfe var. *album* Hort.; *Cymbidium insigne* Rolfe var. *sanderi* (O'Brien) Hort.; *Cymbidium sanderi* O'Brien; *Cyperorchis insignis* (Rolfe) Schltr.

China (Hainan), Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1700 [B. Svengsuksa et al.]). January.

***Cymbidium lancifolium* Hook.**

Cymbidium aspidistریفolium Fukuy.; *Cymbidium bambusifolium* Fowlie, Mark & Ho; *Cymbidium caulescens* Ridl.; *Cymbidium cuspidatum* Blume; *Cymbidium gibsonii* Lindl.; *Cymbidium javanicum* Blume; *Cymbidium javanicum* Blume var. *aspidistریفolium* (Fukuy.) F. Maek.; *Cymbidium javanicum* Blume var. *pantlingii* F. Maek.; *Cymbidium kerrii* Rolfe ex Downie; *Cymbidium lancifolium* Hook. var. *aspidistریفolium* (Fukuy.) S. S. Ying; *Cymbidium lancifolium* Hook. f. *aspidistریفolium* (Fukuy.) T. P. Lin; *Cymbidium lancifolium* Hook. var. *syunitianum* (Fukuy.) S. S. Ying; *Cymbidium maclehoseae* S. Y. Hu; *Cymbidium nagifolium* Masam.; *Cymbidium papuanum* Schltr.; *Cymbidium syunitianum* Fukuy.

India, Nepal, Bhutan, Burma, China, Taiwan, Japan, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea. Laos: Xiangkhoang (S).

Terrestrial in evergreen montane forest, 1500 m a.s.l. April.

***Cymbidium lowianum* (Rchb. f.) Rchb. f.**

Cymbidium giganteum Wall. ex Lindl. var. *lowianum* Rchb. f.; *Cymbidium hookerianum* Rchb. f. var. *lowianum* (Rchb. f.) Y. S. Wu & S. C. Chen; *Cymbidium lowianum* (Rchb. f.) Rchb. f. var. *concolor* Rolfe; *Cymbidium lowianum* (Rchb. f.) Rchb. f. var. *flaveolum* Linden; *Cymbidium lowianum* (Rchb. f.) Rchb. f. var. *superbissimum* Linden; *Cymbidium lowianum* (Rchb. f.) Rchb. f. var. *viride* R. Warner & B. S. Williams.

Burma, China (Yunnan), Thailand, Vietnam. Laos: Xiangkhoang (photo seen).

***Cymbidium macrorhizon* Lindl.**

Aphyllorchis aberrans (Finet) Schltr.; *Bletia nipponica* Franch. & Sav.; *Cymbidium aberrans* (Finet) Schltr.; *Cymbidium aphyllum* Ames & Schltr.; *Cymbidium nipponicum* (Franch. & Sav.) Rolfe; *Cymbidium pedicellatum* Finet; *Cymbidium sagamiense* (Nakai) Makino & Nemoto; *Cymbidium szechuanense* S. Y. Hu; *Pachyrhizantha aberrans* (Finet) Nakai; *Pachyrhizantha aphylla* (Ames & Schltr.) Nakai; *Pachyrhizantha macrorhizon* (Lindl.) Nakai; *Pachyrhizantha nipponica* (Franch. & Sav.) Nakai; *Pachyrhizantha sagamiensis* Nakai; *Yuania aberrans* Finet.

Pakistan, India, Nepal, Burma, China, Taiwan, Ryukyu Is., Japan, Thailand, Vietnam. Laos: Louangphrabang (S).

***Cymbidium sinense* (Jacks.) Willd.**

Cymbidium albojucundissimum Hayata; *Cymbidium chinense* Heynh.; *Cymbidium fragrans* Salisb.; *Cymbidium hoosai* Makino; *Cymbidium sinense* (Jacks.) Willd. var. *albojucundissimum* (Hayata) Masam.; *Cymbidium sinense* (Jacks.) Willd. var. *album* Yen; *Cymbidium sinense* (Jacks.) Willd. var. *margicoloratum* Hayata; *Epidendrum sinense* Jacks.

India, Burma, China, Taiwan, Japan, Thailand, Vietnam. Laos: Khammouane (NUOL cult. OL933 [B. Svengsuksa et al.]). January, February.

***Cyrtosia integra* (Rolfe ex Downie) Garay**

Galeola integra Rolfe ex Downie.

Thailand, Vietnam. Laos: Vientiane (S); Xiangkhoang (N). Terrestrial in evergreen montane forest, 1200 m a.s.l. April.

***Dendrobium aduncum* Lindl. (*Breviflores*)**

Callista adunca (Lindl.) Kuntze; *Dendrobium scoriarum* W. W. Sm.

India (NE), Bhutan, Burma, China, Thailand, Vietnam. Laos: Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB52).

Epiphyte at 1 m on a small tree trunk in dense humid evergreen forest, 575 m a.s.l. May.

***Dendrobium aloifolium* (Blume) Rchb. f. (*Aporum*)**

Aporum aloifolium (Blume) Brieger; *Aporum cochinchinense* (Ridl.) Rauschert; *Aporum lobbii* M. A. Clem.; *Aporum micranthum* Griff.; *Aporum serra* Lindl.; *Callista aloifolia* (Blume) Kuntze; *Callista borneoensis* Kuntze; *Callista micrantha* (Griff.) Kuntze; *Dendrobium cochinchinense* Ridl.; *Dendrobium lobbii* Lindl.; *Dendrobium micranthum* (Griff.) Lindl.; *Dendrobium serra* (Lindl.) Lindl.; *Macrostromium aloifolium* Blume; *Orthoglottis imbricata* Breda; *Oxytrophium macrostoma* Hassk.

Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, lesser Sunda Is., New Guinea, Philippines. Laos: Bolikhamxai (S); Vientiane (S).

***Dendrobium anosmum* Lindl. (*Dendrobium*)**

Callista anosma (Lindl.) Kuntze; *Callista macrophylla* (Lindl.) Kuntze; *Callista scortechinii* (Hook. f.) Kuntze; *Dendrobium anosmum* Lindl. var. *dearei* (Rolfe) Ames & Quisumb.; *Dendrobium anosmum* Lindl. var. *huttonii* (Rchb. f.) Ames & Quisumb.; *Dendrobium leucorhodum* Schltr.; *Dendrobium macranthum* Hook.; *Dendrobium macranthum* Hook. var. *album* Náves; *Dendrobium macranthum* Hook. var. *giganteum* Náves; *Dendrobium macranthum* Hook. var. *marginatum* de Vriese ex Miq.; *Dendrobium macranthum* Hook. var. *purpureomarginatum* de Vriese; *Dendrobium macrophyllum* Lindl.; *Dendrobium macrophyllum* Lindl. var. *giganteum* Lindl.; *Dendrobium macrophyllum* Lindl. var. *pallidum* Planch.; *Dendrobium macrophyllum* Lindl. var. *purpureomarginatum* de Vriese ex Rchb. f.; *Dendrobium mastersianum* F. Muell. & Kraenzl.; *Dendrobium retusum* Llanos; *Dendrobium scortechinii* Hook. f.; *Dendrobium superbum* Rchb. f.; *Dendrobium superbum* Rchb. f. var. *anosmum* (Lindl.) Rchb. f.; *Dendrobium superbum* Rchb. f. var. *burkei* Rchb. f.; *Dendrobium superbum* Rchb. f. var. *dearei* Day ex Rolfe; *Dendrobium superbum* Rchb. f. var. *giganteum* (Lindl.) Rchb. f.; *Dendrobium superbum* Rchb. f. var. *huttonii* Rchb. f.; *Dendrobium superbum* Rchb. f. var. *purpureomarginatum* (de Vriese) Rchb. f.; *Dendrobium superbum* Rchb. f. var. *velutinum* Rchb. f.

Sri Lanka, India, Burma, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL130, OL580a, OL593c [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL801 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL992 [B. Svengsuksa et al.]). March–June.

***Dendrobium aphyllum* (Roxb.) C. E. C. Fisch. (*Dendrobium*)**

Callista aphylla (Roxb.) Kuntze; *Cymbidium aphyllum* (Roxb.) Sw.; *Dendrobium aphyllum* Roxb.; *Dendrobium cucullatum* R. Br.; *Dendrobium madrasense* A. D. Hawkes; *Dendrobium oxyphyllum* Gagnep.; *Dendrobium pierardii* Roxb. ex Hook.; *Dendrobium pierardii* Roxb. ex Hook. var. *cucullatum* (R. Br.) Hook. f.; *Limodorum aphyllum* Roxb.; *Pierardia bicolor* Raf.

India, Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL251 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB24; P. Bonnet, P. Nasoukhoun, A. Schuiteman, V. Vannachak PB164; N); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB304); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB257); Vientiane (NUOL cult. OL280 [B. Svengsuksa et al.]; NUOL cult. OL319 [B. Svengsuksa et al.]; S); Xaignabouri (N); Xiangkhoang (S); ‘Ban Klua’ (S); ‘Central’ (S).

Epiphyte in mixed deciduous forest or lithophytic on limestone cliffs covered with open forest including *Euphorbia antiquorum* L., 150–543 m a.s.l. February–July.

Note: Christenson and Wood (2003) have argued that the name *Dendrobium aphyllum* should properly be applied to the taxon that we list below as *D. macrostachyum*, whereas

the present species should be called *D. cucullatum*. We find their arguments not fully convincing as they are mainly based on the interpretation of an illustration by Roxburgh, which may not have been very accurate. Moreover, the size and colour of the flower as described and illustrated by Roxburgh (as *Limodorum aphyllum*) speak against *D. macrostachyum*. Since both *D. aphyllum* and *D. macrostachyum* are common and widespread taxa it would in our opinion create unnecessary confusion to follow Christenson and Wood in this case.

***Dendrobium bellatulum* Rolfe (Formosae)**

India (NE), Burma, China (Yunnan), Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1701 [B. Svengsuksa et al.]; 'Boloovens' (S). 1000 m a.s.l. January, February, December.

***Dendrobium braianense* Gagnep. (*Dendrobium*)**

Dendrobium capillipes Rchb. f. var. *braianense* (Gagnep.) Aver.; *Dendrobium ejirii* T. Yukawa; *Dendrobium sukhakulii* Hort.

Vietnam. Laos: Champasak (NUOL cult. OL508 [B. Svengsuksa]); Phongsali (NUOL cult. OL782 [P. Sengsomphou]). April.

Note: see under *D. capillipes*.

***Dendrobium brymerianum* Rchb. f. (*Dendrobium*)**

Callista brymeriana (Rchb. f.) Kuntze.

India, Burma, China, Thailand, Vietnam. Laos: Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB564); Vientiane (S); Xiangkhoang (S).

Epiphyte in (open) evergreen montane forest, 1240–1800 m a.s.l. August, September.

***Dendrobium capillipes* Rchb. f. (*Dendrobium*)**

Callista capillipes (Rchb. f.) Kuntze.

India (NE), Nepal, Burma, China, Thailand, Vietnam. Laos: Xiangkhoang (S).

Note: we have not seen the specimen cited by Seidenfaden. It may be referable to *D. braianense*, which Seidenfaden (1992) considered synonymous. These taxa seem to present a parallel case with the species pair *D. delacourii* and *D. venustum*, which likewise differ almost exclusively in the stature of the pseudobulbs.

***Dendrobium cariniferum* Rchb. f. (Formosae)**

Callista carinifera (Rchb. f.) Kuntze.

India (NE), Burma, China (Yunnan), Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1648 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL964 [M. Newman et al.]; N); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB313); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB227; P. Bonnet, A. Schuiteman, V. Lamxay PB295; S); Vientiane (S); Xaisomboun (N).

Epiphyte in mixed deciduous forest and in Fagaceae dominated secondary and primary evergreen montane forest, 1063–1365 m a.s.l. March–June.

***Dendrobium christyanum* Rchb. f. (Formosae)**

Dendrobium margaritaceum Finet.

Thailand, Vietnam. Laos: Champasak (NUOL cult. PK1 [P. Bonnet]).

Epiphyte on small branch of a tree in open vegetation on a rocky plateau with groundcover of moss and small herbs, 1245 m a.s.l. July.

***Dendrobium chrysanthum* Lindl. (*Dendrobium*)**

Callista chrysantha (Lindl.) Kuntze; *Dendrobium chrysanthum* Lindl. var. *anophthalma* Rchb. f.; *Dendrobium chrysanthum* Lindl. var. *microphthalma* Rchb. f.; *Dendrobium paxtoni* Lindl.

India, Nepal, Bhutan, Burma, China, Thailand, Vietnam. Laos: Champasak (sight record); Phongsali (NUOL cult. OL703 [P. Sengsomphou]); Xaisomboun (S, as *D. ochreatum* Lindl.); 'between Mekong and Hue' (S; possibly Savannakhet).

In evergreen forest by a stream, 1100–1700 m a.s.l. April, August, September.

***Dendrobium chryseum* Rolfe (*Dendrobium*)**

Aporum rivesii (Gagnep.) Rauschert; *Callista aurantiaca* (Rchb. f.) Kuntze; *Callista clavata* (Wall.) Kuntze; *Dendrobium aurantiacum* Rchb. f.; *Dendrobium aurantiacum* Rchb. f. var. *denneanum* (Kerr) Z. H. Tsi; *Dendrobium clavatum* Lindl.; *Dendrobium clavatum* Lindl. var. *aurantiacum* (Rchb. f.) Tang & F. T. Wang; *Dendrobium denneanum* Kerr; *Dendrobium flaviflorum* Hayata; *Dendrobium rivesii* Gagnep.; *Dendrobium rolfei* A. D. Hawkes & A. H. Heller; *Dendrobium tibeticum* Schltr.

India, Nepal, Bhutan, Burma, China, Taiwan, Thailand, Vietnam. Laos: Vientiane (S); Xiangkhoang (S).

Epiphyte in light evergreen montane forest, 1100 m a.s.l. April.

***Dendrobium chrysotoxum* Lindl. (*Densiflora*)**

Callista chrysotoxa (Lindl.) Kuntze; *Callista suavissima* (Rchb. f.) Kuntze; *Dendrobium chrysotoxum* Lindl. var. *delacourii* Gagnep.; *Dendrobium chrysotoxum* Lindl. var. *suavissimum* (Rchb. f.) Veitch; *Dendrobium suavissimum* Rchb. f.

India (NE), Nepal, Bhutan, Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL655 [M. Newman et al.]; S); Champasak (NUOL cult. OL247 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL851 [B. Svengsuksa et al.]; N); Phongsali (sight records [P. Bonnet, A. Schuiteman, V. Lamxay; photos]; NUOL cult. OL501 [B. Svengsuksa et al.]); Savannakhet (NUOL cult. OL705 [V. Lamxay et al.]); Vientiane (NUOL cult. OL375 [B. Svengsuksa et al.]; S); Xaisomboun (S); Xiangkhoang (NUOL cult. OL342 [B. Svengsuksa]; S); 'Mape' (S).

Epiphyte in evergreen and semi-deciduous forest, also on small trees on rocky limestone hill, 300–1063 m a.s.l. January–May.

***Dendrobium compactum* Rolfe (*Stachyobium*)**

Burma, China, Thailand. Laos: Champasak (NUOL cult. OL602 [V. Lamxay et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB281).

Epiphyte in dense evergreen forest, 900 m a.s.l. October, November.

***Dendrobium crepidatum* Lindl. (*Dendrobium*)**

Callista crepidata (Lindl.) Kuntze; *Callista lawiana* (Lindl.) Kuntze; *Dendrobium actinomorphyllum* Blatt. & Hallb.; *Dendrobium lawanum* Lindl.; *Dendrochilum roseum* Dalz.

India, Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam. Laos: Attapu (S); Bolikhamxai (S); Champasak (NUOL cult. OL139 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB33; N); Phongsali (NUOL cult. OL459 [B. Svengsuksa et al.]).

Epiphyte in deciduous dipterocarp forest, lithophyte at the top of a high waterfall, 544 m a.s.l. March, April.

***Dendrobium crumenatum* Sw. (*Crumenata*)**

Aporum crumenatum (Sw.) Brieger; *Aporum kwashotense* (Hayata) Rauschert; *Callista crumenata* (Sw.) Kuntze; *Ceraia parviflora* (Ames & C. Schweinf.) M. A. Clem.; *Dendrobium crumenatum* Sw. var. *parviflorum* Ames & C. Schweinf.; *Dendrobium kwashotense* Hayata; *Dendrobium schmidtianum* Kraenzl.; *Onychium crumenatum* (Sw.) Blume.

Seychelles, India, Bangladesh, Nepal, Bhutan, Burma, China, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, Philippines, Australia. Laos: Attapu (P. Bonnet PB539); Champasak (NUOL cult. OL569 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL663 [Savieng]); Vientiane (S).

Epiphyte in dry dipterocarp forest, 98 m a.s.l. March, May–July, October.

***Dendrobium crystallinum* Rchb. f. (*Dendrobium*)**

Callista crystallina (Rchb. f.) Kuntze; *Dendrobium crystallinum* Rchb. f. var. *ochroleucum* Guillaumin.

Burma, China, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL273 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL339 [B. Svengsuksa]); Vientiane (S); Xiangkhoang (S).

Epiphyte in deciduous forest and open woodland, 400–900 m a.s.l. April, May, July.

***Dendrobium cumulatum* Lindl. (*Calcarifera*)**

Callista cumulata (Lindl.) Kuntze; *Dendrobium eoum* Ridl.; *Eurycaulis cumulatus* (Lindl.) M. A. Clem.; *Pedilonum eoum* (Ridl.) Rauschert.

India, Nepal, Bhutan, Burma, Thailand, Cambodia, Vietnam, Borneo. Laos: Khammouan (NUOL cult. OL1148 [M. Newman et al.]; N); Vientiane (NUOL cult. OL1221 [P. Bonnet]; S).

Epiphyte on tree trunk in gallery forest along a small stream, 500–770 m a.s.l. July–September.

***Dendrobium curviflorum* Rolfe (*Aporum*)**

Aporum curviflorum (Rolfe) M. A. Clem.

India, Burma, Thailand. Laos: Khammouan (NUOL cult. OL807 [B. Svengsuksa et al.]). May, June, October.

***Dendrobium delacourii* Guillaumin (*Stachyobium*)**

Dendrobium ciliatum Parish ex Hook. var. *breve* Rchb. f.; *Dendrobium rupicola* Rchb. f. ex Kraenzl. var. *breve* (Rchb. f.) J. T. Atwood.

Burma, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL183 [B. Svengsuksa et al.]; S); Vientiane (NUOL cult. OL322 [B. Svengsuksa et al.]; S); Xiangkhoang (S). April, May.

***Dendrobium deltatum* Seidenf. (*Distichophyllae*)**

Thailand. Laos: Vientiane (S).

Epiphyte in dense lowland forest. July–September.

***Dendrobium* cf. *densiflorum* Wall. ex Lindl. (*Densiflora*)**

India (NE), Nepal, Bhutan, Burma, Tibet, China (Yunnan). Laos: Phongsali (sight record [P. Bonnet, A. Schuiteman, V. Lamxay; photo], a single plant was seen from a rather large distance growing high up in a tree; the

photograph taken does not allow a certain identification, but the dense, pendulous inflorescences with yellow flowers strongly suggest the present species; N).

Epiphyte on large branch of a tall tree in riverine forest, 750 m a.s.l. April.

***Dendrobium devonianum* Paxton (*Dendrobium*)**

Callista devoniana (Paxton) Kuntze; *Dendrobium moulmeinense* Hort. Low ex R. Warner & B. S. Williams; *Dendrobium pictum* Griff. ex Lindl.; *Dendrobium pulchellum* Lodd. var. *devonianum* (Paxton) Rchb. f.

India (NE), Bhutan, Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB436; Kerr ADK 0837, n. v.); Khammouan (NUOL cult. OL927 [M. Newman et al.]; N); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB260).

Epiphyte in humid evergreen forest close to a high waterfall, 1077 m a.s.l. March–August.

Note: this is considered one of the most valuable species in Chinese medicine, as a result it has been collected almost to extinction.

***Dendrobium dixanthum* Rchb. f. (*Dendrobium*)**

Callista dixantha (Rchb. f.) Kuntze.

Burma, China, Thailand. Laos: unspecified (S). March.

***Dendrobium draconis* Rchb. f. (*Formosae*)**

Callista draconis (Rchb. f.) Kuntze; *Dendrobium andersonii* J. Scott; *Dendrobium eburneum* Rchb. f. ex Bateman.

India (NE), Burma, Thailand, Cambodia, Vietnam. Laos: Attapu (S); Bolikhamxai (S); Champasak (NUOL cult. OL1355 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL826 [B. Svengsuksa et al.]); Louang Namtha (NUOL cult. OL646 [M. Newman et al.]); Louangphrabang (N); Phongsali (S); Savannakhet (S); Vientiane (S). Lowlands. January–May.

***Dendrobium ellipsophyllum* Tang & F. T. Wang (*Distichophyllae*)**

Distichorchis ellipsophylla (Tang & F. T. Wang) M. A. Clem.

Thailand, Cambodia, Vietnam, Burma, China (Yunan), Borneo. Laos: Champasak (S, also photos seen); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB9; NUOL cult. OL611, OL 981 [M. Newman et al.], OL1251, OL1296 [B. Svengsuksa et al.]; N); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB573); Savannakhet (S); Vientiane (S); Xiangkhoang (S).

Epiphyte on *Pinus* in open montane conifer woodland, also in deciduous dipterocarp forest and in evergreen montane ridge forest dominated by Fagaceae, 554–1300 m a.s.l. February, August–October.

***Dendrobium exile* Schltr. (*Crumenata*)**

Aporum heterocaulon (Guillaumin) Rauschert; *Ceraia exilis* (Schltr.) M. A. Clem.; *Dendrobium heterocaulon* Guillaumin.

China (Yunnan), Thailand, Vietnam. Laos: Phongsali (NUOL cult. OL771 [P. Sengsomphou]). November.

***Dendrobium farmeri* Paxton (*Densiflora*)**

Callista farmeri (Paxton) Kuntze; *Callista palpebrae* (Lindl.) Kuntze; *Dendrobium farmeri* var. *album* Regel; *Dendrobium palpebrae* Lindl.

India (NE), Nepal, Bhutan, Burma, Thailand, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL25 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL1274 [B. Svengsuksa et al.]; N); Vientiane (NUOL cult. OL389 [B. Svengsuksa et al.]); Vientiane (S). Lowlands. May.

***Dendrobium faulhaberianum* Schltr. (*Breviflores*)**

Dendrobium oxyanthum Gagnep.

China, Vietnam. Laos: Vientiane (S). 500 m a.s.l. May.

***Dendrobium fimbriatum* Hook. (*Dendrobium*)**

Callista oculata (Hook.) Kuntze; *Dendrobium fimbriatum* Hook. var. *oculatum* Hook.; *Dendrobium hawkesii* A. H. Heller; *Dendrobium paxtoni* Paxton; *Dendrobium vagans* Gagnep.

India, Nepal, Bhutan, Burma, China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL537, OL1423, OL1699 [B. Svengsuksa et al.], OL1708); Khammouan (NUOL cult. OL956 [M. Newman et al.]; P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB63); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB358); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB255); Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoun, A. Schuiteman PB88; S); Xiangkhoang (S).

Epiphyte in mixed deciduous forest, also in humid evergreen forest on a limestone hill, and in secondary forest at the base of a limestone hill, 342–1500 m a.s.l. March–May.

***Dendrobium findleyanum* Parish & Rchb. f. (*Dendrobium*)**

Burma, Thailand. Laos: Champasak (NUOL cult. OL1633 [B. Svengsuksa et al.]); Louang Namtha (P. Bonnet, A.

Schuiteman, V. Lamxay PB349; P. Bonnet, A. Schuiteman, V. Lamxay PB382; Xiengkhoang (S).

Epiphyte in humid evergreen forest on limestone, 722–1236 m a.s.l. January–April.

***Dendrobium friedricksianum* Rchb. f. (*Dendrobium*)**

Dendrobium friedricksianum Rchb. f. var. *oculatum* Seidenf. & Smitinand.

Thailand. Laos: Khammouan (NUOL cult. OL1306 [B. Svengsuksa et al.]). March, April.

***Dendrobium gibsonii* Paxton (*Dendrobium*)**

Callista gibsonii (Lindl.) Kuntze; *Dendrobium fimbriatum* Hook. var. *gibsonii* (Lindl.) Finet; *Dendrobium fuscatum* Lindl.

Nepal, Bhutan, India, Burma, China, Thailand. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB377).

Epiphyte in secondary montane forest, 1236 m a.s.l. July.

***Dendrobium gratiosissimum* Rchb. f. (*Dendrobium*)**

Callista boxallii (Rchb. f.) Kuntze; *Callista gratiosissima* (Rchb. f.) Kuntze; *Dendrobium boxallii* Rchb. f.; *Dendrobium bullerianum* Bateman.

India (NE), Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL316a [P. Inthapanya.]); Champasak (NUOL cult. OL568 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL939 [M. Newman et al.]; S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB228, PB288); Vientiane (S).

Epiphyte in Fagaceae dominated primary and secondary evergreen and semi-deciduous montane forest, 1063–1365 m a.s.l. March–May.

***Dendrobium harveyanum* Rchb. f. (*Densiflora*)**

Callista harveyana (Rchb. f.) Kuntze.

Burma, China, Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL965 [M. Newman et al.]; N). March, April.

Note: the NUOL specimen has much smaller flowers than is usual for this species. It is interesting to note that the same phenomenon was observed in *D. parishii* and *D. wardianum*. In each case so little material is available from Laos that it is at present impossible to say if these small-flowered forms are normal for this country.

***Dendrobium henryi* Schltr. (*Dendrobium*)**

Dendrobium daoense Simond ex Gagnep.; *Dendrobium evaginatum* Gagnep.

China (Yunnan), Thailand, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB429); Vientiane (NUOL cult. OL1189 [P. Bonnet]).

Epiphyte in dense humid evergreen forest, also above a small stream in gallery forest, 759–1077 m a.s.l. May, June, August–October.

***Dendrobium hercoglossum* Rchb. f. (*Breviflores*)**

Callista annamensis Kraenzl.; *Callista hercoglossa* (Rchb. f.) Kuntze; *Callista vexans* (Dammer) Kraenzl.; *Dendrobium poilanei* Guilloumin; *Dendrobium vexans* Dammer; *Dendrobium wangii* C. L. Tso; *Goldschmidtia gracilis* Dammer.

India, China, Thailand, Vietnam, Peninsular Malaysia, Singapore. Laos: Bolikhamxai (S).

***Dendrobium heterocarpum* Wall. ex Lindl.**

(*Dendrobium*)

Callista aurea (Lindl.) Kuntze; *Callista heterocarpa* (Wall. ex Lindl.) Kuntze; *Dendrobium atractodes* Ridl.; *Dendrobium aureum* Lindl.; *Dendrobium aureum* Lindl. var. *henshallii* (Hook.) Veitch; *Dendrobium aureum* Lindl. var. *pallidum* Lindl.; *Dendrobium aureum* Lindl. var. *philippinense* Rchb. f.; *Dendrobium aureum* Lindl. var. *rhombeum* (Lindl.) Stein; *Dendrobium heterocarpum* Wall. ex Lindl. var. *pallidum* (Lindl.) Kraenzl.; *Dendrobium heterocarpum* Wall. ex Lindl. var. *philippinense* (Rchb. f.) Kraenzl.; *Dendrobium minabassae* Kraenzl.; *Dendrobium rhombeum* Lindl.

Sri Lanka, India (Deccan), Nepal, Bhutan, Burma, China, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Champasak (NUOL cult. OL505 [B. Svengsuksa]; S). 1000 m a.s.l. February, March.

***Dendrobium indivisum* (Blume) Miq. (*Aporum*)**

Aporum incrassatum Blume; *Aporum indivisum* Blume; *Callista eulophota* (Lindl.) Kuntze; *Callista incrassata* (Lindl.) Kuntze; *Callista indivisa* (Blume) Kuntze; *Dendrobium eulophotum* Lindl.; *Dendrobium incrassatum* (Blume) Miq.

Burma, Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Moluccas, Philippines. Laos: Attapu (P. Bonnet PB538); Champasak (NUOL cult. OL50 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL658 [Savieng]); Vientiane (NUOL cult. OL386 [B. Svengsuksa et al.]; S); ‘Phu Quoc’ (S).

Epiphyte in dry dipterocarp forest, 98 m a.s.l. March–July.

***Dendrobium infundibulum* Lindl. (Formosae)**

Callista infundibulum (Lindl.) Kuntze; *Dendrobium jamesianum* Rchb. f.

India (NE), Burma, Thailand. Laos: Xaisomboun (S). 2500 m a.s.l. November.

***Dendrobium jenkinsii* Wall. ex Lindl. (Densiflora)**

Dendrobium aggregatum Roxb. var. *jenkinsii* (Wall. ex Lindl.) King & Pantl.; *Dendrobium marseillei* Gagnep.

India (NE), Bhutan, Burma, China, Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL1308 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL474 [B. Svengsuksa et al.]; P. Bonnet, A. Schuiteman, V. Lamxay PB279); Xiangkhoang (S).

Epiphyte in humid evergreen montane forest, 907 m a.s.l. February, March.

***Dendrobium lagarum* Seidenf. (Crumenata)**

Ceraia lagara (Seidenf.) M. A. Clem.

Thailand. Laos: Champasak (NUOL cult. OL1428). January.

***Dendrobium lamellatum* (Blume) Lindl. (Platycaulon)**

Callista lamellata (Blume) Kuntze; *Dendrobium compressum* Lindl.; *Eurycaulis compressus* (Lindl.) M. A. Clem.; *Eurycaulis lamellatus* (Blume) M. A. Clem. & D. L. Jones; *Onychium lamellatum* Blume; *Pedilonum lamellatum* (Blume) Brieger.

Sri Lanka, Burma, Thailand, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo. Laos: Xiangkhoang (S).

***Dendrobium lamyaiiae* Seidenf. (Dendrobium)**

Laos: 'Brikhanchai Province, Khong Mack District, Nam Ching Village' (Sukhakul GT 9771, type of *D. lamyaiiae*, C. n.v., see note below); Vientiane (NUOL cult. OL1207 [P. Bonnet]; NUOL cult. OL250 [S. Sopraseuth]; Kerr 1960, n. v., see note under *D. unicum*).

Epiphyte in open montane conifer woodland, 889 m a.s.l. July, August.

Note: originally published as *D. lamyaiiae*, a name that turned to contain an orthographic error (Seidenfaden and Pedersen 2002). The type locality cited by Seidenfaden (1996) is puzzling, since there is neither a Brikhanchai province, nor a Khong Mack district in Laos, and we have been unable to locate a Nam Ching village.

***Dendrobium langbianense* Gagnep. (Stachyobium)**

Vietnam. Laos: Vientiane (P. Bonnet, A. Schuiteman PB144).

Epiphyte on tree trunk in disturbed forest on the margin of a small open plateau on a limestone mountain, 1400 m a.s.l. November.

***Dendrobium leonis* (Lindl.) Rchb. f. (Aporum)**

Aporum leonis Lindl.; *Callista leonis* (Lindl.) Kuntze.

Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Borneo. Laos: Champasak (NUOL cult. P2 [P. Bonnet]; NUOL cult. OL51, OL1654b [B. Svengsuksa et al.]; N); 'southern' (S).

Epiphyte in humid evergreen forest, 250 m a.s.l. June, August, October, December.

***Dendrobium lindleyi* Steud. (Densiflora)**

Callista aggregata (Roxb.) Kuntze; *Dendrobium aggregatum* Roxb.

India (NE, Deccan), Bhutan, Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL101 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL641 [M. Newman et al.]; N); Louang Namtha (NUOL cult. OL677 [S. Nilsavang]); Louangphrabang (S); Saravan (N); Vientiane (NUOL cult. OL278 [B. Svengsuksa et al.]; S); Xiangkhoang (N). Lowlands. February, March.

***Dendrobium lituiflorum* Lindl. (Dendrobium)**

Callista lituiflora (Lindl.) Kuntze; *Dendrobium hanburyanum* Rchb. f.

Thailand, Vietnam, India (NE), Burma, China. Laos: Louangphrabang (S); Vientiane (P. Bonnet, T. Keokene PB197; S).

Epiphyte in crown of a solitary garden tree. March.

***Dendrobium loddigesii* Rolfe (Dendrobium)**

Callista loddigesii (Rolfe) Kuntze; *Dendrobium pulchellum* Lodd.

India, Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam. Laos: Xiangkhoang (S).

Epiphyte at base of small tree in montane scrub, 1100 m a.s.l. April.

***Dendrobium macrostachyum* Lindl. (Dendrobium)**

Callista macrostachya (Lindl.) Kuntze; *Callista stuartii* (F. M. Bailey) Kuntze; *Callista tetradon* (Rchb.f. ex Lindl.) Kuntze;

Dendrobium stuartii F. M. Bailey; *Dendrobium tetradon* Rchb. f. ex Lindl.; *Dendrobium tetradon* Rchb. f. ex Lindl. var. *vanvuureonii* J. J. Sm.; *Dendrobium viridicatum* Ridl.; *Dendrobium whiteanum* T. E. Hunt.

Sri Lanka, India, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, New Guinea, Australia. Laos: Champasak (NUOL cult. OL1720). May, June.

***Dendrobium mannii* Ridl. (Aporum)**

Aporum mannii (Ridl.) Rauschert.

India (NE), Thailand, Vietnam, Peninsular Malaysia. Laos: Champasak (NUOL cult. OL513 [B. Svengsuksa]). November, December.

***Dendrobium monticola* P. F. Hunt & Summerh. (Stachyobium)**

218.1. *Callista alpestris* (Royle) Kuntze; *Dendrobium alpestre* Royle; *Dendrobium pusillum* D. Don; *Dendrobium roylei* A. D. Hawkes & A. H. Heller; *Dendrobium roylei* Hiroe.

India, Nepal, China, Thailand. Laos: Champasak (NUOL cult. OL1637 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL1162 [M. Newman et al.]); Phongsali (NUOL cult. OL778 [P. Sengsomphou]). January, September–December.

***Dendrobium moschatum* (Buch.-Ham.) Sw. (Dendrobium)**

Callista moschata (Buch.-Ham.) Kuntze; *Cymbidium moschatum* (Buch.-Ham.) Willd.; *Dendrobium calceolaria* Carey ex Hook.; *Dendrobium cupreum* Herb. ex Lindl.; *Epidendrum moschatum* Buch.-Ham.; *Thicuania moschata* (Buch.-Ham.) Raf.

India, Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam. Laos: Attapu (NUOL cult. OL291 [V. Lamxay et al.]); Bolikhamxai (S); Champasak (NUOL cult. OL1698 [B. Svengsuksa et al.]); Louangphrabang (S); Savannakhet (NUOL cult. OL1047 [V. Lamxay et al.]); Vientiane (NUOL cult. OL444 [B. Svengsuksa et al.]); S; 'between Mekong and Hue' (S; possibly Savannakhet). Lowlands. March–July.

***Dendrobium multilineatum* Kerr (Formosae)**

Vietnam. Laos: Xaisomboun (S).

Epiphyte on trees in evergreen montane forest, 1900 m a.s.l. April.

***Dendrobium nathanielis* Rchb. f. (Aporum)**

Aporum cuspidatum Wall. ex Lindl.; *Aporum nathanielis* (Rchb. f.) M. A. Clem.; *Callista nathanielis* (Rchb. f.) Kuntze; *Dendrobium cuspidatum* Lindl.; *Dendrobium multiflorum* Parish & Rchb. f.

India (NE), Burma, Thailand, Cambodia, Vietnam. Laos: Saravan (N); Vientiane (S). Lowlands. February.

***Dendrobium nobile* Lindl. (Dendrobium)**

Callista nobilis (Lindl.) Kuntze; *Dendrobium chlorostylum* Simond ex Gagnep.; *Dendrobium coerulescens* Wall. ex Lindl.; *Dendrobium lindleyanum* Griff.; *Dendrobium nobile* Lindl. f. *nobilis* (Rchb. f.) Hiroe.

India, Nepal, Bhutan, Burma, China, Taiwan, Thailand, Vietnam. Laos: Bolikhamxai (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB256, PB289); Saravan (S); Vientiane (S); Xaignabouri (S); Xaisomboun (S); Xiangkhoang (S).

Epiphyte in humid evergreen montane ridge forest, also in the lowlands. 170–1365 m a.s.l. March, April.

***Dendrobium oligophyllum* Simond ex Gagnep. (Distichophyllae)**

Dendrobium tixieri Guillaumin.

Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1002 [V. Lamxay et al.]). July, October, December.

***Dendrobium pachyglossum* Parish & Rchb. f. (Conostalix)**

Callista pachyglossa (Parish & Rchb. f.) Kuntze; *Conostalix pachyglossa* (Parish & Rchb. f.) Rauschert; *Dendrobium abietinum* Ridl.; *Dendrobium fallax* Guillaumin.

Burma, Thailand, Vietnam, Peninsular Malaysia. Laos: Attapu (P. Bonnet PB535); Bolikhamxai (NUOL cult. OL1230 [P. Bonnet]; NUOL cult. OL666 [Savieng]); Champasak (NUOL cult. OL528 [B. Svengsuksa]); Khammouan (NUOL cult. OL952 [M. Newman et al.]); N; Vientiane (NUOL cult. OL1206 [P. Bonnet]; S).

Epiphyte in open montane conifer woodland, also in secondary humid evergreen lowland forest, 169–971 m a.s.l. July, August, October.

***Dendrobium parviflorum* Rchb. f. ex Lindl. (Strongyle)**

Aporum jenkinsii Griff.; *Callista jenkinsii* (Griff.) Kuntze; *Dendrobium hainanense* Rolfe; *Dendrobium perula* Rchb. f.

India (NE), China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL525 [B. Svengsuksa]); Khammouan (NUOL cult. OL973 [M. Newman et al.]); Louangphrabang (S); Saravan (S); Vientiane (S). 1000 m a.s.l. August, September.

***Dendrobium parcum* Rchb. f. (Herbacea)**

Callista parca (Rchb. f.) Kuntze; *Dendrobium hexadesmia* Rchb. f.; *Dendrobium listeroglossum* Kraenzl.; *Dendrobium parcoides* Guillaumin; *Dendrobium tapingense* W. W. Sm.

Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL132 [B. Svengsuksa et al.]).

***Dendrobium parishii* Rchb. f. (Dendrobium)**

Callista parishii Kuntze.

India (NE), Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (S); Champasak (S); Louangphrabang (NUOL cult. OL593b [B. Svengsuksa et al.]; S); Vientiane (S).

April, May.

Note: the NUOL specimen has flowers about half the normal size for this species. See also note under *D. harveyanum*.

***Dendrobium pendulum* Roxb. (Dendrobium)**

Callista crassinodis (Benson & Rchb. f.) Kuntze; *Callista pendula* (Roxb.) Kuntze; *Dendrobium crassinode* Benson & Rchb. f.; *Dendrobium crassinode* Benson & Rchb. f. var. *albiflora* Rchb. f.; *Dendrobium crassinode* Benson & Rchb. f. var. *barbarianum* Rchb. f.

India (NE), Burma, China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL91 [B. Svengsuksa et al.], OL550 [B. Svengsuksa et al.]); Phongsali (S); Vientiane (S); Xiangkhoang (S).

Epiphyte in light evergreen montane forest, 1100 m a.s.l. February–April.

***Dendrobium polyanthum* Lindl. (Dendrobium)**

Callista cretacea (Lindl.) Kuntze; *Callista primulina* (Lindl.) Kuntze; *Dendrobium cretaceum* Lindl.; *Dendrobium primulinum* Lindl.

India (NE), Nepal, Burma, Andaman Is., China, Thailand, Vietnam. Laos: Champasak NUOL cult. OL580b [B. Svengsuksa et al.]; Khammouan (NUOL cult. OL805 [B. Svengsuksa et al.], OL859 [B. Svengsuksa et al.], OL1319 [B. Svengsuksa et al.]; N); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB258; NUOL cult. OL340 [B. Svengsuksa et al.]; NUOL cult. OL728 [P. Sengsomphou]); Vientiane (S); 'between Mekong and Hue' (S; possibly Savannakhet).

Lowlands. March, April.

***Dendrobium porphyrochilum* Lindl. (Stachyobium)**

Callista porphyrochila (Lindl.) Kuntze; *Dendrobium caespitosum* King & Pantl.

India, Nepal, Bhutan, Burma, China, Thailand. Laos: Champasak (P. Bonnet PB520, found on local market, collected in the surrounding countryside). July.

***Dendrobium porphyrophyllum* Guillaumin (Aporum)**

Aporum porphyrophyllum (Guillaumin) M. A. Clem.; *Dendrobium indivisum* (Blume) Miq. var. *lampangense* Rolfe; *Dendrobium neolampangense* Aver.

Thailand, Vietnam. Laos: Vientiane (S).

Epiphyte in lowland dipterocarp forest. April.

***Dendrobium pulchellum* Roxb. ex Lindl. (Dendrobium)**

Callista pulchella (Roxb. ex Lindl.) Kuntze; *Dendrobium brevifolium* Hort. ex Lindl.; *Dendrobium dalbousieanum* Wall.

India (NE), Burma, Nepal, Thailand, Peninsular Malaysia, Singapore, Vietnam. Laos: Champasak (NUOL cult. OL67 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL1026 [B. Svengsuksa et al.]); Louangphrabang (S); Savannakhet (NUOL cult. OL1034 [V. Lamxay et al.], OL1043 [V. Lamxay et al.]); Vientiane (NUOL cult. OL357 [B. Svengsuksa et al.]; S); Xaignabouri (S). Lowlands. March–June.

***Dendrobium ruckeri* Lindl. (Dendrobium)**

Callista ramosa (Lindl.) Kuntze; *Callista ruckeri* (Lindl.) Kuntze; *Dendrobium chittimae* Seidenf.; *Dendrobium pseudointricatum* Guillaumin, syn. nov.; *Dendrobium ramosum* Lindl.

India, Bhutan, Vietnam. Laos: Champasak (NUOL cult. OL1647 [B. Svengsuksa et al.], OL1721). February, March.

***Dendrobium salaccense* (Blume) Lindl. (Grastidium)**

Callista intermedia (Teijsm. & Binn.) Kuntze; *Callista salaccensis* (Blume) Kuntze; *Dendrobium bambusifolium* Parish & Rchb. f.; *Dendrobium intermedium* Teijsm. & Binn.; *Grastidium bambusifolium* (Parish & Rchb. f.) Brieger; *Grastidium salaccense* Blume.

Burma, Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo. Laos: Bolikhamxai (NUOL cult. OL1118 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB25); Vientiane (NUOL cult. OL414 [B. Svengsuksa et al.]).

Epiphyte in deciduous dipterocarp forest, also lithophytic on damp, shady, humus-covered rock at the top of a 15 m high waterfall, 307–540 m a.s.l. April, July, October.

***Dendrobium scabrilingue* Lindl. (Formosae)**

Callista scabrilinguis (Lindl.) Kuntze; *Dendrobium galactanthum* Schltr.; *Dendrobium hedyosmum* Bateman ex Hook. f.

Burma, Thailand. Laos: Vientiane (S).
1500 m a.s.l. January.

***Dendrobium schildhaueri* Ormerod & H. A. Pedersen (Formosae)**

Thailand. Laos: Bolikhamxai (NUOL cult. OL661 [Savieng]); Champasak (NUOL cult. OL1681 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL833 [B. Svengsuksa et al.]; N); Savannakhet (NUOL cult. OL1031 [V. Lamxay et al.]); Vientiane (NUOL cult. OL1128 [P. Bonnet]; NUOL cult. OL372 [B. Svengsuksa et al.]; S); Xaisomboun (NUOL cult. OL361 [V. Lamxay et al.]).

Epiphyte in secondary forest and on small trees in open *Pinus* woodland, 297–1000 m a.s.l. June–October.

***Dendrobium schrautii* Schildh. (Formosae)**

Dendrobium phi Christenson ex Aver.

Vietnam. Laos: Champasak (NUOL cult. OL1648 [B. Svengsuksa et al.]).

***Dendrobium secundum* (Blume) Lindl. (Pedilonum)**

Callista bursigera (Lindl.) Kuntze; *Callista secunda* (Blume) Kuntze; *Dendrobium bursigerum* Lindl.; *Dendrobium heterostigma* Rchb. f.; *Dendrobium secundum* (Blume) Lindl. f. *album* Valmayor & D. Tiu; *Dendrobium secundum* (Blume) Lindl. var. *album* Sander; *Dendrobium secundum* (Blume) Lindl. var. *bursigerum* (Lindl.) Ridl.; *Dendrobium secundum* (Blume) Lindl. var. *niveum* Rchb. f.; *Pedilonum bursigerum* (Lindl.) Rauschert; *Pedilonum secundum* Blume.

India, Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., New Guinea, Philippines. Laos: Attapu (S); Champasak (NUOL cult. OL171 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL914 [M. Newman et al.]); Vientiane (NUOL cult. OL317 [B. Svengsuksa et al.]; S); Xaignabourri (S); Xiangkhoang (S).

Epiphyte in open lowland forest. February, March.

***Dendrobium senile* Parish ex Rchb. f. (Formosae)**

Callista senilis (Parish & Rchb. f.) Kuntze.

Burma, Thailand. Laos: Bolikhamxai (NUOL cult. OL1111 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Vientiane (NUOL cult. OL1214 [P. Bonnet]; S); Xiangkhoang (S).

Epiphyte at base of a large tree trunk along a river, on *Pinus* in open montane conifer woodland, and on trees in open scrub, 200–1500 m a.s.l. January–April.

***Dendrobium signatum* Rchb. f. (Dendrobium)**

Dendrobium hildebrandii Rolfe; *Dendrobium tortile* Lindl. var. *hildebrandii* (Rolfe) Tang & F. T. Wang.

Burma, Thailand, Vietnam. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL96 [B. Svengsuksa et al.], OL133 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL606, OL632, OL639, OL654, OL803 [B. Svengsuksa et al.], OL898 [M. Newman et al.]; N).
February–April.

***Dendrobium spatella* Rchb. f. (Aporum)**

Aporum banaense (Gagnep.) Rauschert; *Aporum spatella* (Rchb. f.) M. A. Clem.; *Callista spatella* (Rchb. f.) Kuntze; *Dendrobium banaense* Gagnep.

India (NE), Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (NUOL cult. OL1131 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Khammouan (N); Vientiane (S).

Epiphyte at 2 m above the ground on a tree trunk in secondary humid evergreen lowland forest, 169 m a.s.l. May–July, October, November.

***Dendrobium strongylanthum* Rchb. f. (Stachyobium)**

Callista strongylantha (Rchb. f.) Kuntze; *Dendrobium ctenoglossum* Schltr.

India, Burma, China, Thailand. Laos: Vientiane (P. Bonnet, A. Schuiteman PB162).

Epiphyte on tree trunk in disturbed forest on the margin of a small open plateau on a limestone mountain, 1400 m a.s.l. November.

***Dendrobium stuposum* Lindl. (Stuposa)**

Callista flavidula (Ridl. ex Hook. f.) Kuntze; *Callista stuposa* (Lindl.) Kuntze; *Dendrobium exsculptum* Teijsm. & Binn.; *Dendrobium exsculptum* Teijsm. & Binn. var. *purpureum* J. J. Sm.; *Dendrobium flavidulum* Ridl. ex Hook. f.; *Dendrobium pristinum* Ames; *Dendrobium spegidoglossum* Rchb. f.

India, Bhutan, Burma, China, Thailand. Laos: Champasak (P. Bonnet PB548, found on local market, collected in the surrounding countryside).
July, August.

***Dendrobium sulcatum* Lindl. (Densiflora)**

Callista sulcata (Lindl.) Kuntze; *Dendrobium sulcatum* Lindl. var. *polyantha* Rolfe.

India (NE), Burma, China, Thailand. Laos: Louangphrabang (S).

***Dendrobium thyrsoflorum* Rchb. f. ex Andr. (*Densiflora*)**

Callista thyrsoflora (Rchb. f.) M. A. Clem.; *Dendrobium densiflorum* Wall. ex Lindl. var. *albolutea* Hook. f.; *Dendrobium galliceanum* Linden.

India (NE), Burma, China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL162 [B. Svengsuksa et al.]; NUOL cult. OL1646 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL940 [M. Newman et al.]; N); Louang Namtha (P. Bonnet, A. Schuiteman PB341; P. Bonnet, A. Schuiteman, V. Lamxay PB311; P. Bonnet, A. Schuiteman, V. Lamxay PB370); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB240; P. Bonnet, A. Schuiteman, V. Lamxay PB290; S); Vientiane (S, sight record [P. Bonnet, A. Schuiteman]).

Epiphyte in dry evergreen forest, in mixed deciduous forest, in riverine forest, in Fagaceae dominated secondary and primary evergreen montane forest, and in disturbed forest near the summit of a high limestone mountain, 700–1400 m a.s.l. February, April, May.

Note: one of the most frequent epiphytic orchids in Laos.

***Dendrobium tortile* Lindl. (*Dendrobium*)**

Callista tortilis (Lindl.) Kuntze; *Dendrobium dartoisianum* De Wild.; *Dendrobium haniffii* Ridl.; *Dendrobium haniffii* Ridl. var. *dartoisianum* (De Wild.) A. D. Hawkes; *Dendrobium tortile* Lindl. var. *dartoisianum* (De Wild.) O'Brien ex Kraenzl.; *Dendrobium tortile* Lindl. var. *simondii* Gagnep.

Nepal, India, Bangladesh, Burma, Thailand, Vietnam, Peninsular Malaysia. Laos: Louangphrabang (S); Vientiane (S).

***Dendrobium transparens* Lindl. (*Dendrobium*)**

Callista transparens (Wall.) Kuntze; *Dendrobium henshallii* Rchb. f.

India, Nepal, Bhutan, Burma. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB298, cultivated in a private garden in the town of Louang Namtha, collected by the owner in Louang Namtha province). April.

***Dendrobium trigonopus* Rchb. f. (*Formosae*)**

Callista trigonopus (Rchb. f.) Kuntze; *Dendrobium velutinum* Rolfe.

Burma, China, Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL645 [M. Newman et al.]; NUOL cult. OL821 [B. Svengsuksa et al.]), OL1300 [B. Svengsuksa et al.]; Vientiane (NUOL cult. OL309 [N. Soulivong]; S). 1800 m a.s.l. March–May.

***Dendrobium unicum* Seidenf. (*Dendrobium*)**

Thailand, Vietnam. Laos: Champasak (NUOL cult. OL567 [B. Svengsuksa et al.]); Vientiane (S, see note below); 'Bolovents' (S).

February, December.

Note: Seidenfaden's record from Vientiane Province (based on Kerr 2275 from Phou Khao Khouay) is probably *D. lamyaiae*. Kerr's description (1969, as *D. arachnites* Rchb. f., based on Kerr 1960 from Phou Khao Khouay) fits the latter, rather than *D. unicum*. We have observed *D. lamyaiae* ourselves in Phou Khao Khouay but have never seen *D. unicum* there. *Dendrobium unicum* is probably restricted to southern Laos and flowers during the cool dry season, whereas *D. lamyaiae* is only known from central Laos and flowers during the rainy season.

***Dendrobium venustum* Teijsm. & Binn. (*Stachyobium*)**

Burma, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL1009 [B. Svengsuksa et al.]; NUOL cult. OL1685 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL296 [V. Lamxay et al.]; S); Savannakhet (NUOL cult. OL1039 [V. Lamxay et al.]); Vientiane (NUOL cult. OL1224 [P. Bonnet]; NUOL cult. OL320 [B. Svengsuksa et al.]; S); Xaignabouri (S); Xiangkhoang (S).

Lithophytic on a bare rock face in open vegetation, 297 m a.s.l. June–October.

***Dendrobium wardianum* R. Warner (*Dendrobium*)**

Callista wardiana (R. Warner) Kuntze; *Dendrobium wardianum* R. Warner var. *candidum* Hook. f.

Bhutan, India (NE), Burma, China, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1716). May.

Note: the NUOL collection cited has unusually small flowers, only half the normal size for this species. See also note under *D. harveyanum*.

***Diploprora championii* (Lindl. ex Benth.) Hook. f.**

Cotonia championii Lindl. ex Benth.; *Diploprora bicaudata* (Thwaites) Schltr.; *Luisia bicaudata* Thwaites; *Stauroopsis championii* (Lindl.) Tang & F. T. Wang; *Vanda bicaudata* (Thwaites) Thwaites.

India (Deccan, NE), Sri Lanka, Burma, China, Taiwan, Thailand, Vietnam. Laos: Champasak (P. Bonnet PB501, found on local market, collected in the surrounding countryside); Khammouan (NUOL cult. OL1157 [M. Newman et al.]; N).

Epiphyte in a shady wet evergreen forest, 1200 m a.s.l. June, July.

***Drymoda picta* Lindl.**

Bulbophyllum pictum Parish & Rchb. f.

Burma, Thailand. Laos: unspecified (S).

***Drymoda siamensis* Schltr.**

Thailand. Laos: Khammouan (NUOL cult. OL982 [M. Newman et al.]); Vientiane (S).
1800 m a.s.l. March.

***Eparmatostigma dives* (Rchb. f.) Garay**

Saccolabium chrysoplectrum Guillaumin; *Saccolabium chrysoplectrum* Guillaumin var. *albiflorum* Guillaumin; *Saccolabium dives* Rchb. f.

Vietnam. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoun, A. Schuiteman PB131).

Epiphyte in humid evergreen forest on the slope of a steep limestone hill, 648 m a.s.l. May.

***Epigeneium amplum* (Lindl.) Summerh.**

Bulbophyllum amplum (Lindl.) Rchb. f.; *Callista ampla* (Lindl.) Kuntze; *Dendrobium amplum* Lindl.; *Dendrobium coelogyne* Rchb. f.; *Epigeneium coelogyne* (Rchb. f.) Summerh.; *Katherinea ampla* (Lindl.) A. D. Hawkes; *Sarcopodium amplum* (Lindl.) Lindl. & Paxton.

India (NE), Nepal, Bhutan, Burma, China, Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB374).

Epiphyte in secondary evergreen montane forest, 1236 m a.s.l. November, December.

***Epigeneium clemensiae* Gagnep.**

Epigeneium delacourii Gagnep.; *Sarcopodium clemensiae* (Gagnep.) Tang & F. T. Wang.

China, Vietnam. Laos: Bolikhamxai (S); Khammouan (N).

***Epipactis flava* Seidenf.**

Arthrochilium flavum (Seidenf.) Szlach.

Thailand. Laos: Attapu (S).

***Epipogium roseum* (D. Don) Lindl.**

Ceratopsis rosea (D. Don) Lindl.; *Epipogium dentilabellum* Ohtani & S. Suzuki; *Epipogium guilfoylei* F. Muell.; *Epipogium japonicum* Makino; *Epipogium nutans* (Blume) Rchb. f.; *Epipogium nutans* (Blume) Rchb. f. var. *celebicus* Schltr.; *Epipogium poneranthum* Fukuy.; *Epipogium sinicum* C. L. Tso; *Epipogium tuberosum* Duthie; *Epipogon kusukusense* Hayata; *Epipogon kusukusensis* (Hayata) Schltr.; *Epipogon makinoanus* Schltr.; *Epipogon rolfei* (Hayata) Schltr.; *Galera kusukusensis* Hayata; *Galera nutans* Blume;

Galera pallida (Wight) Blume; *Galera rolfei* Harata; *Galera rosea* (D. Don) Blume; *Gastrodia schinziana* Kraenzl.; *Limodorum roseum* D. Don; *Podanthera pallida* Wight; *Stereosandra schinziana* (Kraenzl.) Garay.

Tropical Africa, tropical continental Asia, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Vanuatu, New Caledonia. Laos: Vientiane (S).

Terrestrial in evergreen forest, 600 m a.s.l. April.

***Eria acervata* Lindl. (*Hymeneria*)**

Dendrobium seriatum Wall. ex Hook. f.; *Eria poilanei* Gagnep.; *Pinalia acervata* (Lindl.) Kuntze.

India (NE), Nepal, Bhutan, Burma, Tibet, China, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL90 [B. Svengsuksa et al.]); Louangphrabang (S).
June.

***Eria amica* Rchb. f. (*Hymeneria*)**

Eria confusa Hook. f.; *Pinalia amica* (Rchb. f.) Kuntze; *Pinalia confusa* (Hook. f.) Kuntze.

India (NE), Bhutan, Burma, China, Taiwan, Thailand, Cambodia, Vietnam. Laos: Khammouan (NUOL cult. OL1170 [M. Newman et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB224); Vientiane (S).

Epiphyte in Fagaceae dominated secondary evergreen montane forest, 600–1500 m a.s.l. March, April, September.

***Eria biflora* Griff. (*Cylindrolobus*)**

Cylindrolobus biflorus (Griff.) Rauschert; *Pinalia biflora* (Griff.) Kuntze.

India (NE), Nepal, Burma, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is. Laos: 'Bolovens' (S).

***Eria bilobulata* Seidenf. (*Pinalia*)**

Thailand, Vietnam. Laos: Xiangkhoang (S).

***Eria bipunctata* Lindl. (*Pinalia*)**

Eria eberhardtii Gagnep.; *Pinalia bipunctata* (Lindl.) Kuntze.

India (NE), Nepal, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1425); Phongsali (NUOL cult. OL763 [P. Sengsomphou]); Vientiane (NUOL cult. OL424 [B. Svengsuksa et al.]).
August.

***Eria boniana* (Gagnep.) Tang & F. T. Wang (*Eria*)**

Dendrobium bonianum Gagnep.; *Eria petelotii* Gagnep.

Vietnam. Laos: Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB560).

Lithophyte in ravine in dense secondary humid evergreen forest, close to a waterfall. August–October.

Note: Seidenfaden (1992) includes this and the related species *E. corneri* Rchb. f. and *E. clausa* King & Pantl. in section *Trichosma*. Based on an examination of the vegetative and floral morphology of a living specimen of *E. boniana* we believe these three species, as well as the similar *E. vittata* Lindl., to be members of section *Eria*.

***Eria bractescens* Lindl. (*Hymeneria*)**

Dendrobium subterrestre Gagnep.; *Eria dillwynii* Hook.; *Eria griffithii* Rchb. f.; *Eria hemimelaena* Rchb. f.; *Eria littoralis* Teijsm. & Binn.; *Eria pulchella* Griff.; *Pinalia bractescens* (Lindl.) Kuntze; *Pinalia pulchella* (Griff.) Kuntze; *Tropilis subterrestris* (Gagnep.) Rauschert.

India (NE), Andaman Isl., Nepal, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Borneo, Sulawesi, Moluccas, New Guinea, Philippines. Laos: Vientiane (S).

Lowlands. February, March.

***Eria dasypus* Rchb. f. (*Hymeneria*)**

Pinalia dasypus (Rchb. f.) Kuntze.

Burma, Thailand. Laos: Vientiane (NUOL cult. OL1188 [P. Bonnet]).

Epiphyte on *Pinus* trunk in open montane conifer woodland, 767 m a.s.l. October, November.

***Eria discolor* Lindl. (*Tylostylis*)**

Callostylis rigida Blume; *Callostylis rigida* Blume subsp. *discolor* (Lindl.) Brieger; *Eria pholidotooides* Gagnep.; *Eria rigida* (Blume) Rchb. f.; *Liparis bidentata* Griff.; *Tylostylis discolor* (Lindl.) Hook. f.; *Tylostylis rigida* (Blume) Ridl.

India (NE), Nepal, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB431); Champasak (NUOL cult. OL551 [B. Svengsuksa et al.]; N); Khammouan (NUOL cult. OL886 [M. Newman et al.]; N); Louang Namtha (P. Bonnet, A. Schuiteman PB333); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB572); Vientiane (S); ‘Boloovens’ (S).

Epiphyte in both dry and humid evergreen montane forest, 800–1150 m a.s.l. February, November.

***Eria donnaiensis* (Gagnep.) Seidenf. (*Hymeneria*)**

Dendrobium donnaiense Gagnep.

Vietnam. Laos: Attapu (S).

***Eria globulifera* Seidenf. (*Pinalia*)**

Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB361); Saravan (S); Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoun, A. Schuiteman PB94; S).

Epiphyte and lithophyte in evergreen forest on limestone, 342–722 m a.s.l. August, September.

***Eria hindei* Summerh. (*Secundae*)**

Eria porteri Seidenf. & Kerr.

Cambodia, Vietnam, India (NE). Laos: Bolikhamxai (S); Vientiane (S).

***Eria javanica* (Sw.) Blume (*Eria*)**

Callista perakensis (Hook. f.) Kuntze; *Dendrobium javanicum* Sw.; *Dendrobium perakense* Hook. f.; *Dendrolirium rugosum* Blume; *Eria cochleata* Lindl.; *Eria fragrans* Rchb. f.; *Eria inamoena* Schltr.; *Eria javanica* (Sw.) Blume var. *philippinensis* Kraenzl.; *Eria pseudostellata* Schltr.; *Eria rugosa* (Blume) Lindl.; *Eria stellata* Lindl.; *Eria striolata* Rchb. f.; *Eria vaginata* (Breda) Benth.; *Katherinea perakensis* (Hook. f.) A. D. Hawkes; *Octomeria stellata* (Lindl.) Spreng.; *Octomeria vaginata* Breda; *Pinalia fragrans* (Rchb. f.) Kuntze; *Pinalia rugosa* (Blume) Kuntze; *Pinalia stellata* (Lindl.) Kuntze; *Pinalia striolata* (Rchb. f.) Kuntze; *Sarcopodium perakense* (Hook. f.) Kraenzl.; *Tainia sessilifolia* Fraser; *Tainia stellata* (Lindl.) Pfitzer.

India (NE), Thailand, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB465); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB216); Vientiane (P. Bonnet PB187; S).

Epiphyte in open xeric forest on summit of limestone hill and on large *Ficus* tree in riverine forest, 457–737 m a.s.l. July, August.

***Eria laniceps* Rchb. f. (*Dendrolirium*)**

India (NE), Thailand, Burma. Laos: Vientiane (S).

***Eria lasiopetala* (Willd.) Ormerod (*Dendrolirium*)**

Aerides lasiopetala Willd.; *Dendrobium macranthum* de Vriese ex Lindl.; *Dendrobium pubescens* Hook.; *Dendrolirium albidotomentosum* Blume; *Epidendrum lasiopetalum* (Willd.) Poir.; *Eria albidotomentosa* (Blume) Lindl.; *Eria albidotomentosa* (Blume) Lindl. var. *pelor* Carr; *Eria flava* Lindl.; *Eria pubescens* (Hook.) Lindl.; *Eria pubescens* (Hook.) Steud.; *Octomeria flava* Wall. ex

Lindl.; *Octomeria pubescens* (Hook.) Spreng.; *Pinalia albidotomentosa* (Blume) Kuntze; *Pinalia pubescens* (Hook.) Kuntze.

India (NE), Nepal, Bhutan, Burma, China, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java. Laos: Bolikhamxai (NUOL cult. OL1116 [D. Barthélemy, P. Bonnet, K. Chanthavongsa]; S); Champasak (NUOL cult. OL234 [B. Svengsuksa et al.]; N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB18); Vientiane (NUOL cult. OL1190 [P. Bonnet]; NUOL cult. OL333 [S. Sopraseuth]; S).

Epiphyte in mixed deciduous forest and gallery forest, also lithophytic on rocks in a large stream, very close to the water, 307–759 m a.s.l. February–April, September–November.

***Eria muscicola* (Lindl.) Lindl. (*Conchidium*)**

Dendrobium muscicola Lindl.; *Dendrobium parviflorum* D. Don; *Pinalia muscicola* (Lindl.) Kuntze.

?Sri Lanka, India, Nepal, Bhutan, Burma, Thailand, Tibet, China (Yunnan), Vietnam. Laos: Vientiane (S). 1500 m a.s.l. August.

***Eria ornata* (Blume) Lindl. (*Dendrolirium*)**

Dendrolirium ornatum Blume; *Eria armeniaca* Lindl.; *Pinalia ornata* (Blume) Kuntze.

Thailand, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Champasak (NUOL cult. OL241 [B. Svengsuksa et al.]). June.

***Eria paniculata* Lindl. (*Mycaranthes*)**

Dendrobium floribundum D. Don; *Pinalia paniculata* (Lindl.) Kuntze.

India (NE), Nepal, Bhutan, Bangladesh, Burma, Thailand, Cambodia, Vietnam. Laos: Attapu (S); Bolikhamxai (D. Barthélemy, P. Bonnet, A. Schuiteman, V. Lamxay PB413); Champasak (NUOL cult. OL157 [B. Svengsuksa et al.]); Houaphan (S); Xiangkhoang (S); ‘Bolovents’ (S).

Epiphyte in dense humid evergreen forest near a waterfall, also in open montane forest. 1077–1300 m a.s.l. February, April, June.

***Eria pannea* Lindl. (*Strongyleria*)**

Eria calamifolia Hook. f.; *Eria nivosa* Ridl.; *Eria odoratissima* Teijsm. & Binn.; *Eria veretifolia* Griff.; *Pinalia calamifolia* (Hook. f.) Kuntze; *Pinalia pannea* (Lindl.) Kuntze.

India (NE), Burma, China (Hainan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Borneo. Laos: Bolikhamxai (D. Barthélemy, P. Bonnet, A. Schuiteman, V. Lamxay PB419; NUOL cult. OL1229 [P.

Bonnet]; N); Champasak (P. Bonnet PB554); Houaphan (NUOL cult. OL883 [P. Thomas et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB5; N); Louang Namtha (P. Bonnet, A. Schuiteman PB332); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB210); ‘Bolovents’ (S); ‘Phu Khao Khouai’ (S).

Epiphyte in dense evergreen forest near a waterfall, in secondary evergreen lowland forest near a waterfall, in open montane conifer woodland, in deciduous dipterocarp forest and in mixed deciduous forest, 169–1500 m a.s.l. January, April–July, December.

***Eria perpusilla* Parish & Rchb. f. (*Conchidium*)**

Eria microphyton Schltr.; *Gunnarorchis perpusilla* (Parish & Rchb. f.) Brieger; *Pinalia perpusilla* (Parish & Rchb. f.) Kuntze.

Thailand, Vietnam, Burma. Laos: Bolikhamxai (P. Bonnet, T. Keokene PB192); Khammouan (NUOL cult. OL813 [B. Svengsuksa et al.], OL975 [B. Svengsuksa et al.]); Vientiane (S).

Epiphyte at base of a tree trunk near a riverbank in deciduous dipterocarp forest, 307–1000 m a.s.l. February.

***Eria pudica* Ridl. (*Pinalia*)**

Bryobium pudicum (Ridl.) Y. P. Ng & P. J. Cribb; *Eria monophylla* Schltr.

Peninsular Malaysia, Borneo. Laos: Bolikhamxai (NUOL cult. OL1115 [D. Barthélemy, P. Bonnet, K. Chanthavongsa]).

Epiphyte in deciduous forest at 2 m high in a tree along a large stream, 307 m a.s.l. June, July.

***Eria siamensis* Schltr. (*Secundae*)**

Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL870); Houaphan (NUOL cult. OL871 [P. Thomas et al.]; N). January.

***Eria spirodela* Aver. (*Conchidium*)**

Vietnam. Laos: Bolikhamxai (NUOL cult. OL1095 [D. Barthélemy, P. Bonnet, K. Chanthavongsa]); Khammouan (NUOL cult. OL980 [M. Newman et al.]); Vientiane (NUOL cult. OL1195 [P. Bonnet]).

Epiphyte in secondary humid evergreen forest, in gallery forest over a small stream, and on large smooth boulders in a stream together with *Porpax elwesii* and mosses, 169–759 m a.s.l. July, August.

***Eria sutepensis* Rolfe ex Downie (*Hymeneria*)**

Thailand, Vietnam, Burma. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB385); Phongsali (NUOL cult. OL798 [B. Svengsuksa et al.]); Xaisomboun (S).

Epiphyte in forest on limestone, 1236–1500 m a.s.l. June.

***Eria tomentosa* (J. Koenig) Hook. f. (*Dendrolirium*)**

Epidendrum tomentosum J. Koenig; *Pinalia tomentosa* (J. Koenig) Kuntze.

India (NE), Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL145 [B. Svengsuksa et al.]); Louangphrabang (S); Phongsali (NUOL cult. OL456 [B. Svengsuksa et al.]); Xaignabouri (S); Xiengkhoang (S). 170–800 m a.s.l. February, May, June.

***Eria truncata* Lindl. (*Cylindrolobus*)**

Cylindrolobus truncatus (Lindl.) Rauschert; *Eria chrysobracteata* Schltr.; *Eria trilamellata* Rolfe; *Pinalia truncata* (Lindl.) Kuntze. Burma, Thailand, Vietnam. Laos: Vientiane (S); Xaisomboun (S); Xiengkhoang (S).

Epiphyte in evergreen montane forest, 1400–1900 m a.s.l. April.

***Erythrorchis ochobiensis* (Hayata) Garay**

Galeola ochobiensis Hayata.

India (NE), Burma, Taiwan, Ryukyu Is., Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Champasak (S).

***Eulophia andamanensis* Rchb. f.**

Eulophia keithii Ridl.; *Eulophia poilanei* Gagnep.

Andaman Is., Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra. Laos: Vientiane (NUOL cult. OL834 [S. Bouamanivong]; S).

Terrestrial among rocks in open vegetation on hilltop. March, April.

***Eulophia dufossei* Guillaumin**

Thailand, Cambodia. Laos: Vientiane (S).

***Eulophia graminea* Lindl.**

Eulophia decipiens Kurz; *Eulophia gusukumai* Masam.; *Eulophia inconspicua* Griff.; *Eulophia ramosa* Hayata; *Eulophia sinensis* Miq.; *Eulophia uebii* Malhotra & Balodi; *Graphorkis decipiens* (Kurz) Kuntze; *Graphorkis graminea* (Lindl.) Kuntze; *Graphorkis inconspicua* (Griff.) Kuntze.

India (NE), Nepal, Bhutan, Nicobar Is., Burma, China, Ryukyu Is., Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Philippines. Laos: Vientiane (S).
Lowlands. February.

***Eulophia herbacea* Lindl.**

Eulophia albiflora Edgew. ex Lindl.

India, Nepal, China, Thailand. Laos: Vientiane (S).

***Eulophia macrobulbon* (Parish & Rchb. f.) Hook. f.**

Cyrtopera macrobulbon Parish & Rchb. f.; *Eulophia cambodiensis* Guillaumin.

Burma, Thailand, Cambodia, Vietnam. Laos: Attapu (S); Khammouan (NUOL cult. OL649 [M. Newman et al.]; N).
February.

***Eulophia pauciflora* Guillaumin**

Thailand, Cambodia, Vietnam. Laos: unspecified (S).

***Eulophia promensis* Lindl.**

Ania promensis (Lindl.) Senghas; *Ascotainia promensis* (Lindl.) Schltr.; *Eulophia geniculata* King & Pantl.; *Eulophia massiei* Guillaumin; *Tainia promensis* (Lindl.) Hook. f.

India (NE), Burma, Thailand. Laos: Vientiane (S).
Lowlands. August.

***Eulophia spectabilis* (Dennst.) Suresh**

Cyrtopodium bulbosum Blanco; *Cyrtopera fusca* Wight; *Cyrtopera gardneri* Thwaites; *Cyrtopera godefroyi* Rchb. f.; *Cyrtopera laxiflora* Gardner ex Thwaites; *Cyrtopera mysorensis* Lindl.; *Cyrtopera nuda* (Lindl.) Rchb. f.; *Cyrtopera plicata* Lindl.; *Cyrtopera regnieri* Rchb. f.; *Cyrtopodium bicolor* (Blume) Ridl.; *Cyrtopodium fuscum* (Wight) Trimen; *Cyrtopodium squalidum* (Lindl.) S. Vidal; *Dipodium plicatum* Buch.-Ham. ex Wall.; *Dipodium ranala* Buch.-Ham. ex Wall.; *Dipodium roniata* Buch.-Ham. ex Wall.; *Eulophia bicolor* Blume; *Eulophia bicolor* Blume var. *celebica* J. J. Sm.; *Eulophia bicolor* Dalz.; *Eulophia burkei* Rolfe ex Downie; *Eulophia celebica* Blume; *Eulophia elata* Hook. f.; *Eulophia elongata* Blume; *Eulophia fusca* (Wight) Blume; *Eulophia hildebrandii* Schltr.; *Eulophia holochila* Collett & Hemsl.; *Eulophia lutea* Blume; *Eulophia mucronata* Blume; *Eulophia nuda* Lindl.; *Eulophia regnieri* (Rchb. f.) Guillaumin; *Eulophia squalida* Lindl.; *Eulophia squalida* Lindl. var. *celebica* (Blume) Schltr.; *Eulophia squalida* Lindl. var. *neoguineensis* Schltr.; *Eulophia sumatrana* Blume; *Geodorum pierreii* Gagnep.; *Graphorkis elata* (Hook. f.) Kuntze; *Graphorkis lutea* (Blume) Kuntze; *Graphorkis squalida* (Lindl.) Kuntze; *Graphorkis sumatrana* (Blume) Kuntze; *Phaius steppicola* Hand.-Mazz.; *Semiphajus chevalieri* Gagnep.; *Wolfia spectabilis* Dennst.

Sri Lanka, India, Nepal, Nicobar Isl., Burma, China (Yunnan), Thailand, Cambodia, Vietnam, Peninsular Ma-

laysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Fiji, Tonga. Laos: Champasak (NUOL cult. OL159 [B. Svengsuksa et al.]); Louang Namtha (S); Savannakhet (S); Xaignabouri (S); Xaisomboun (NUOL cult. OL359 [V. Lamxay et al.]); Xiangkhoang (S).

Terrestrial in savannah, 900 m a.s.l. March, April.

***Flickingeria albopurpurea* Seidenf.**

China (Yunnan), Thailand, Vietnam. Laos: Champasak (P. Bonnet PB530); Phongsali (NUOL cult. OL777 [P. Sengsomphou]); Vientiane (NUOL cult. OL1219 [P. Bonnet]; S); Xiangkhoang (NUOL cult. OL341 [B. Svengsuksa]).

Epiphyte on tree trunk in a large stream in gallery forest, 781–1100 m a.s.l. June, July.

***Flickingeria ritaiana* (King & Pantl.) A. D. Hawkes**

Dendrobium ritaeanum King & Pantl.; *Desmotrichum ritaeanum* (King & Pantl.) Kraenzl.; *Ephemerantha ritaiana* (King & Pantl.) P. F. Hunt & Summerh.

India (NE), Thailand, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB406).

Epiphyte in dense humid evergreen forest near a waterfall, 1077 m a.s.l. May.

***Gastrochilus bellinus* (Rchb. f.) Kuntze**

Saccolabium bellinum Rchb. f.

Burma, China, Thailand, Vietnam. Laos: Vientiane (S).

Note: identification fide Kerr (1969); requires confirmation.

***Gastrochilus obliquus* (Lindl.) Kuntze**

Saccolabium obliquum Lindl.

India (NE), Nepal, Bhutan, Burma, Andaman Is., Thailand, Vietnam. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL124 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL708 [B. Svengsuksa et al.]); Vientiane (sight record; S).

Epiphyte in dry evergreen mountane forest, 900 m a.s.l. October, November.

***Gastrodia exilis* Hook. f.**

Gastrodia siamensis Rolfe ex Downie.

India (NE), Thailand. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB616).

On decaying tree trunks in humid evergreen forest, 1245 m a.s.l. October.

***Geodorum candidum* (Roxb.) Lindl.**

Geodorum attenuatum Griff.; *Geodorum candidum* Wall.; *Geodorum cochinchinense* Gagnep.; *Geodorum laoticum* Guillaumin; *Geodorum regnieri* Gagnep.; *Limodorum candidum* Roxb.

Burma, China (Yunnan, Hainan), Thailand, Vietnam. Laos: Savannakhet (S); Vientiane (S); Xaignabouri (S).

Terrestrial in light evergreen forest, 200 m a.s.l. April, May.

***Goodyera procera* (Ker Gawl.) Hook.**

Cionisaccus lanceolatus Breda; *Cordylestylis foliosa* Falc.; *Epipactis parviflora* (Blume) Eaton; *Epipactis philippinensis* Ames; *Epipactis procera* (Ker Gawl.) Eaton; *Goodyera carnea* A. Rich.; *Goodyera lancifolia* Franch. & Sav.; *Goodyera parviflora* (Blume) Blume; *Goodyera philippinensis* (Ames) Schltr.; *Leucostachys procera* (Ker Gawl.) Hoffmanns.; *Neottia parviflora* Blume; *Neottia procera* Ker Gawl.; *Orchiodes parviflorum* (Blume) Kuntze; *Orchiodes procerum* (Ker Gawl.) Kuntze; *Peramium procerum* (Ker Gawl.) Makino; *Spiranthes parviflora* (Blume) Hassk.

Sri Lanka, India, Nepal, Bhutan, Burma, China, Taiwan, Ryukyu Arch., Japan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is., Philippines. Laos: Attapu (S); Louangphrabang (P. Bonnet PB180); Oudomxai (sight record [P. Bonnet, A. Schuiteman; photo]); Xiangkhoang (S).

Terrestrial at the bank of a small stream and in open herbaceous vegetation at the top of a waterfall in evergreen forest, also on rock in a stream, 400–555 m a.s.l. April.

***Grammatophyllum speciosum* Blume**

Grammatophyllum fastuosum Lindl.; *Grammatophyllum giganteum* Blume ex Rchb. f.; *Grammatophyllum macranthum* (Wight) Rchb. f.; *Pattonia macrantha* Wight.

Thailand, Burma, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, New Guinea, Philippines, Solomon Islands. Laos: Vientiane (S). 300 m a.s.l.

***Habenaria chlorina* Parish & Rchb. f.**

Burma, Thailand. Laos: Bolikhamxai (S); Vientiane (S). Lowlands. October.

***Habenaria dentata* (Sw.) Schltr.**

Habenaria dentata (Sw.) Schltr. subsp. *ecalcarata* (King & Pantl.) Panigrahi & Murti; *Habenaria dentata* (Sw.) Schltr. var. *toboensis* (Hayata) S. S. Ying; *Habenaria finetiana* Schltr.; *Habenaria geniculata* Hamilton ex D. Don; *Habenaria geniculata* Hamilton ex D. Don var. *ecalcarata* King & Pantl.; *Habenaria geniculata* Hamilton ex D. Don var. *yunnanensis* (Finet) Finet; *Habenaria miersiana* Champ. ex Benth.; *Habenaria miersiana* Champ. ex Benth. var. *yunnanensis* Finet; *Habenaria sieboldiana* Miq.; *Habenaria tienensis* Tang & F. T. Wang; *Orchis dentata* Sw.;

Plantaginorchis dentata (Sw.) Szlach.; *Plantaginorchis finetiana* (Schltr.) Szlach.; *Platanthera dentata* (Sw.) Lindl.; *Platanthera dentata* (Sw.) Lindl. f. *ecalcarata* (King & Pantl.) Tuyama; *Platanthera geniculata* (Hamilton ex D. Don) Lindl.

Thailand, Cambodia, Vietnam, India, Nepal, Burma, China, Taiwan, Ryukyu Arch., Japan, Peninsular Malaysia, Philippines. Laos: Attapu (S); Champasak (N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB177); Vientiane (S); Xiangkhoang (S).

Terrestrial in grassland on sandy poor soil surrounded by deciduous dipterocarp forest, also in the lowlands. 170–586 m a.s.l. September, October.

***Habenaria dentirostrata* Tang & F. T. Wang**

Kraenzlinorchis dentirostrata (Tang & F. T. Wang) Szlach. Burma. Laos: Vientiane (S).

Near rice fields in the lowlands. September.

***Habenaria furcifera* Lindl.**

Habenaria hamigera Griff.; *Habenaria ovalifolia* Wight; *Habenaria tenuicornis* Wall. ex Hook. f.

India (NE), Nepal, Burma, China, Thailand. Laos: Louang Namtha (P. Bonnet, A. Schuiteman PB343).

Terrestrial in open deciduous secondary forest, 788 m a.s.l. October, November.

***Habenaria holotricha* Gagnep.**

Medusorchis holotricha (Gagnep.) Szlach.

Thailand. Laos: unspecified (S).

***Habenaria khasiana* Hook. f.**

Habenaria graminea Lindl.; *Habenaria graminifolia* Gagnep.

India (NE), Thailand, Cambodia, New Guinea. Laos: Champasak (S); Saravan (S).

***Habenaria lindleyana* Steud.**

Habenaria columbae Ridl.; *Habenaria latifolia* Lindl.; *Habenaria macroptera* Gagnep.

Thailand, Vietnam. Laos: unspecified (S).

***Habenaria lucida* Lindl.**

Habenaria recurva Rolfe ex Downie; *Habenella lucida* (Wall. ex Lindl.) Szlach. & Kras-Lap.; *Platanthera lucida* Lindl.; *Platantheroides lucida* (Lindl.) Szlach.

Burma, China (Yunnan), Cambodia, Vietnam. Laos: Champasak (S); Vientiane (S).

In cleared woods in the lowlands. July.

***Habenaria malintana* (Blanco) Merr.**

Kraenzlinorchis malintana (Blanco) Szlach.; *Thelymitra malintana* Blanco.

India (NE), Burma, China (Hainan), Thailand, Vietnam, Philippines. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB115).

Terrestrial among grass and shrubs between upland rice fields, 863 m a.s.l. November.

***Habenaria mandersii* Collett & Hemsl.**

Kraenzlinorchis mandersii (Collett & Hemsl.) Szlach.

Burma, Cambodia, Vietnam. Laos: Champasak (S).

***Habenaria medusa* Kraenzl.**

Fimbrorchis medusa (Kraenzl.) Szlach.; *Fimbrorchis myriotricha* (Gagnep.) Szlach.; *Habenaria myriotricha* Gagnep.

Vietnam; Sumatra, Java, Borneo, ?Sulawesi. Laos: Bolikhamxai (S); Champasak (NUOL cult. P3 [P. Bonnet]); Khammouan (NUOL cult. OL943 [M. Newman et al.]; N); Vientiane (S).

Terrestrial in forest, including forest at the base of limestone hills; 500 m a.s.l. August–October.

***Habenaria poilanei* Gagnep.**

Vietnam. Laos: Champasak (NUOL cult. OL1346 [B. Svengsuksa et al.]). June.

***Habenaria reflexa* Blume**

Habenaria murtonii Hook. f.

India (NE), Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java. Laos: unspecified (C. Punpreuk 1, SING, not seen).

***Habenaria rhodocheila* Hance**

Habenaria erichmichaelii Christenson; *Habenaria militaris* Rchb. f.; *Habenaria pusilla* Rchb. f.; *Habenaria xanthocheila* Ridl.; *Smithanthus rhodocheila* (Hance) Szlach. & Marg.

China, Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (sight record [P. Bonnet, A. Schuiteman, D. Barthélémy; photo]; N); Champasak (photos seen; S); Khammouan (N); Vientiane (NUOL cult. OL1200 [P. Bonnet]; S); Xiangkhoang (S).

Lithophytic on large boulders with a thin cover of moss close to a stream through evergreen forest, also lithophytic close to the ground in open montane conifer woodland, on shaded vertical cliffs near a waterfall, and on tree stumps along a stream, 307–1245 m a.s.l. July–October.

Note: forms with orange, rose-red and pale pink flowers have been observed in Laos, showing size-variation of 100% in the width of the lip.

***Habenaria rostellifera* Rchb. f.**

Habenaria roseata Ridl.

Thailand, Cambodia, Vietnam, Peninsular Malaysia. Laos: Vientiane (S).

On the margins of rice fields in the lowlands. August.

***Habenaria rostrata* Lindl.**

Habenaria acuífera Wall. ex Lindl. var. *rostrata* (Wall. ex Lindl.) Finet; *Platanthera rostrata* Lindl.

Burma, Thailand, Vietnam. Laos: Vientiane (S).

***Habenaria rumphii* (Brongn.) Lindl.**

Habenaria dahliana Kraenzl.; *Habenaria boltzei* F. Muell.; *Habenaria rumphii* (Brongn.) Lindl. var. *javanica* J. J. Sm.; *Habenaria rumphii* (Brongn.) Lindl. var. *meraukensis* J. J. Sm.; *Habenaria stauroglossa* Kraenzl.; *Platanthera rumphii* Brongn.

Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea, Philippines, Australia. Laos: Champasak (S).

***Habenaria thailandica* Seidenf.**

Thailand, Cambodia, Vietnam. Laos: unspecified (S).

***Habenaria tonkinensis* Seidenf.**

Cambodia, Vietnam. Laos: Champasak (S); Saravan (S); Vientiane (S).

***Habenaria viridiflora* (Rottler ex Sw.) R. Br. ex Spreng.**

Orchis vicidiflora Rottler ex Sw.

India, Thailand, Vietnam. Laos: Champasak (NUOL cult. P8 [P. Bonnet]).

Terrestrial in a shady spot in open montane conifer woodland on acid soil with e.g. *Drosera* and *Nepenthes*, 1020 m a.s.l. August, September.

***Holcoglossum amesianum* (Rchb. f.) Christenson**

Holcoglossum amesianum (Rchb. f.) Christenson f. *album* (B. S. Williams) Christenson; *Vanda amesiana* Rchb. f.

Burma, China, Thailand, Vietnam. Laos: Xiangkhoang (S).

***Holcoglossum kimballianum* (Rchb. f.) Garay**

Holcoglossum saprophyticum (Gagnep.) Christenson; *Vanda kimballiana* Rchb. f.; *Vanda saprophytica* Gagnep.

Burma, China (Yunnan), Thailand. Laos: Xiangkhoang (S).

***Hygrochilus parishii* (Veitch & Rchb. f.) Pfitzer**

Stauroopsis parishii Rolfe; *Vanda parishii* Veitch & Rchb. f.; *Vandopsis parishii* (Veitch & Rchb. f.) Schltr.

India (NE), Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL69 [B. Svengsuksa et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB230); Xiangkhoang (S).

Epiphyte in secondary evergreen montane forest dominated by Fagaceae, 1063 m a.s.l. May, June.

***Liparis anatina* Szlach.**

Vietnam. Laos: Bolikhamxai (Delacour s. n., type of *L. anatina*).

***Liparis bootanensis* Griff.**

Cestichis forbesii (Ridl.) Ames; *Cestichis plicata* (Franch. & Sav.) Maek.; *Leptorchis bootanensis* (Griff.) Kuntze; *Leptorchis forbesii* (Ridl.) Kuntze; *Leptorchis lancifolia* (Hook. f.) Kuntze; *Leptorchis plicata* (Franch. & Sav.) Kuntze; *Liparis amphibius* Simond ex Gagnep.; *Liparis forbesii* Ridl.; *Liparis lancifolia* Hook. f.; *Liparis plicata* Franch. & Sav.; *Liparis pterostyloides* Szlach.; *Liparis ruybarrettoi* S. Y. Hu & Barretto; *Liparis subplicata* Tang & F. T. Wang; *Liparis uchiyamae* Schltr.

India (NE), Bhutan, Burma, China, Japan, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is., Philippines. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB292).

Lithophytic on hilltop in humid evergreen montane forest, 1365 m a.s.l. September, October.

***Liparis brunneolobata* Kerr**

Laos: Vientiane (S).

Terrestrial in evergreen forest, 1000 m a.s.l. April.

***Liparis caespitosa* (Thouars) Lindl.**

Cestichis caespitosa (Thouars) Ames; *Leptorchis caespitosa* (Thouars) Kuntze; *Leptorchis duthiei* (Hook. f.) Kuntze; *Leptorchis minima*

(Blume) Kuntze; *Leptorchis obscura* (Hook. f.) Kuntze; *Leptorchis prainii* (Hook. f.) Kuntze; *Leptorchis pusilla* (Ridl.) Kuntze; *Liparis angustifolia* (Blume) Lindl.; *Liparis angustifolia* Thwaites; *Liparis auriculata* Rchb. f.; *Liparis comosa* Ridl.; *Liparis duthiei* Hook. f.; *Liparis laurilsilvatica* Fukuy.; *Liparis minima* (Blume) Lindl.; *Liparis minima* (Blume) Lindl. var. *neoguineensis* Schltr.; *Liparis neoguineensis* Schltr.; *Liparis obscura* Hook. f.; *Liparis poilanei* Gagnep.; *Liparis prainii* Hook. f.; *Liparis pusilla* Ridl.; *Malaxis angustifolia* Blume; *Malaxis caespitosa* Thouars; *Malaxis minima* Blume.

Madagascar, Mascarenes, throughout tropical continental Asia, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Moluccas, New Guinea, Philippines, Solomon Islands, Vanuatu, New Caledonia, Fiji. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB117); Champasak (P. Bonnet PB521); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB229); Vientiane (S).

Epiphyte on small branches in humid evergreen forest and in Fagaceae dominated secondary evergreen montane forest, 866–1063 m a.s.l. July.

***Liparis deflexa* Hook. f.**

Leptorchis deflexa (Hook. f.) Kuntze; *Liparis prazeri* King & Pantl.

India (NE), Nepal, Burma, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL1350 [B. Svengsuksa et al.]); Louangphrabang (S).
June.

***Liparis delicatula* Hook. f.**

Platystyliparis delicatula (Hook. f.) Marg.

India (NE), China (Yunnan). Laos: Vientiane (S); Champasak (N).

***Liparis dendrochiloides* Seidenf. ex Aver.**

Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB438).

Epiphyte in dense humid evergreen forest near a waterfall, 1077 m a.s.l. July.

***Liparis distans* C. B. Clarke**

Cestichis nakabarai (Hayata) Kudo; *Cestichis taiwaniana* (Hayata) Nakai; *Leptorchis distans* (C. B. Clarke) Kuntze; *Liparis macrantha* Hook. f.; *Liparis nakabarai* Hayata; *Liparis taiwaniana* Hayata.

India (NE), China, Taiwan, Thailand, Vietnam, Philippines. Laos: Bolikhamxai (S); Khammouan (N).

***Liparis elliptica* Wight**

Cestichis elliptica (Wight) M. A. Clem. & D. L. Jones; *Cestichis lyonii* Ames; *Leptorchis elliptica* (Wight) Kuntze; *Liparis bicornuta* Schltr.; *Liparis concava* Schltr.; *Liparis hookeri* Ridl.; *Liparis lyonii*

(Ames) Ames; *Liparis wightii* Rchb. f.

Sri Lanka, India, Burma, China, Taiwan, Thailand, Vietnam, Java. Laos: Champasak (NUOL cult. OL1703 [B. Svengsuksa et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB292).

Lithphyte on hilltop in humid evergreen montane forest, 1365 m a.s.l. January.

***Liparis gibbosa* Finet**

Disticholiparis gibbosa (Finet) Marg. & Szlach.; *Disticholiparis gregaria* (Lindl.) Marg. & Szlach.; *Liparis gregaria* Lindl.

Sri Langka, Burma, Thailand, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, ?New Guinea, Solomon Is., Vanuatu, New Caledonia, Fiji, Samoa. Laos: Vientiane (S); Xiangkhoang (S).

***Liparis nervosa* (Thunb.) Lindl.**

Cymbidium bituberculatum Hook.; *Cymbidium nervosum* (Thunb.) Sw.; *Diteilis formosana* (Rchb. f.) M. A. Clem. & D. L. Jones; *Diteilis nepalensis* Raf.; *Diteilis nervosa* (Thunb.) M. A. Clem. & D. L. Jones; *Ditulis nepalensis* Raf.; *Empusa paradoxa* Lindl.; *Epidendrum nervosum* (Thunb.) Thunb.; *Iebine nervosa* (Thunb.) Raf.; *Leptorchis bituberculata* (Hook.) Kuntze; *Leptorchis elata* (Lindl.) Kuntze; *Leptorchis nervosa* (Thunb.) Kuntze; *Leptorchis odontostoma* (Rchb. f.) Kuntze; *Leptorchis odorata* (Willd.) Kuntze; *Leptorchis olivacea* (Lindl.) Kuntze; *Liparis bambusaefolia* Makino; *Liparis bicallosa* (D. Don) Schltr. f. aureo-variegata (Nakaj.) Nakaj.; *Liparis bituberculata* (Hook.) Lindl.; *Liparis bituberculata* (Hook.) Lindl. var. *hachijoensis* (Nakai) T. Hashim.; *Liparis elata* Lindl.; *Liparis formosana* Rchb. f.; *Liparis guamensis* Ames; *Liparis hachijoensis* Nakai; *Liparis longiscapa* (Rolfe & Downie) Gagnep.; *Liparis macrocarpa* Hook. f.; *Liparis nervosa* (Thunb.) Lindl. f. aureovariegata Nakaj.; *Liparis nervosa* (Thunb.) Lindl. var. *formosana* (Rchb. f.) Hiroe; *Liparis odontostoma* Rchb. f.; *Liparis odorata* (Willd.) Lindl.; *Liparis odorata* (Willd.) Lindl. var. *intacta* Kerr; *Liparis odorata* (Willd.) Lindl. var. *longiscapa* Rolfe ex Downie; *Liparis paradoxa* (Lindl.) Rchb. f.; *Liparis paradoxa* (Lindl.) Rchb. f. var. *parishii* Hook. f.; *Liparis parishii* Hook. f.; *Liparis shaoshunia* S. S. Ying; *Liparis siamensis* Rolfe ex Downie; *Liparis simeonis* Schltr.; *Liparis teniana* Kraenzl.; *Liparis tenii* Schltr.; *Liparis tonkinensis* Gagnep.; *Liparis violaceonervosa* Guillaumin; *Malaxis lancifolia* Sm.; *Malaxis nervosa* (Thunb.) Sw.; *Malaxis odorata* Willd.; *Ophrys nervosa* Thunb.; *Sturmia nervosa* (Thunb.) Rchb. f.

New and Old World tropics and subtropics, widespread, Peninsular Malaysia, Sumatra, Java, Moluccas. Laos: Vientiane (S).

Lowlands. July.

***Liparis viridiflora* (Blume) Lindl.**

Cestichis longipes (Lindl.) Ames; *Cestichis pendula* (Lindl.) Pfitzer; *Leptorchis longipes* (Lindl.) Kuntze; *Leptorchis triloba* (Ridl.) Kuntze; *Leptorchis viridiflora* (Blume) Kuntze; *Liparis boothii* Regel; *Liparis dendrochilum* Rchb. f.; *Liparis longipes* Lindl.; *Liparis longipes* Lindl. var. *spatulata* Ridl.; *Liparis pendula* Lindl.; *Liparis piestopus* Schltr.; *Liparis pleistantha* Schltr.; *Liparis simondii* Simond ex Gagnep.; *Liparis spatulata* Lindl.; *Liparis stachyurus*

Rchb.f.; *Liparis triloba* Ridl.; *Malaxis viridiflora* Blume; *Stichorchis pendula* (Lindl.) Pfitzer.

Sri Lanka, Nepal, India, Bhutan, Burma, China, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Lesser Sunda Is., Moluccas, New Guinea, Philippines, east to Fiji. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoun, A. Schuiteman PB130); Champasak (NUOL cult. OL57 [B. Svengsuksa et al.]; S); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB44); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB308); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB245); Saravan (S); Vientiane (sight record [P. Bonnet, A. Schuiteman; photo], S); 'Col Den Dinh' (S).

Epiphyte at base of tree trunk in humid evergreen forest on the slope of a steep limestone hill, epiphyte in a mixed deciduous forest and evergreen montane forest, also lithophytic at the base of a small cliff in humid evergreen forest, 575–1400 m a.s.l. January, October–December.

***Liparis wightiana* Thwaites**

Diteilis wightiana (Thwaites) M. A. Clem. & D. L. Jones; *Leptorchis wightiana* (Thwaites) Kuntze; *Liparis atropurpurea* Wight; *Liparis sutepensis* Rolfe ex Downie; *Liparis trimenii* Ridl.

Sri Lanka, Thailand, Vietnam, Sumatra, Java. Laos: Vientiane (S).
Lowlands. June.

***Luisia brachystachys* (Lindl.) Blume**

Luisia siamensis Rolfe ex Downie; *Mesoclastes brachystachys* Lindl.

India (NE), Burma, Andaman Is., Thailand, Vietnam. Laos: Bolikhamxai (S).

Epiphyte on tree in scrubby evergreen lowland forest and in montane forest, 200–1300 m a.s.l. March, April.

***Luisia filiformis* Hook. f.**

Luisia grovesii Hook. f.

India (NE), Bhutan, Thailand, Vietnam. Laos: Bolikhamxai (sight record [P. Bonnet, A. Schuiteman; photo]); Champasak (NUOL cult. OL75 [B. Svengsuksa et al.]); Vientiane (S).

Rather low, open forest near a waterfall, 307–600 m a.s.l. April, May.

***Luisia macrotis* Rchb. f.**

India (NE), Thailand, Vietnam. Laos: Vientiane (S).
300–600 m a.s.l. May.

***Luisia morsei* Rolfe**

Luisia tonkinensis Schltr.

China, Thailand, Vietnam. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB212); Xiangkhoang (S).

Epiphyte in dense mixed deciduous forest near a small stream. May.

***Luisia platyglossa* Rchb. f.**

Luisia brachystachys (Lindl.) Blume var. *flaveola* Rchb. f.

India (NE), Burma, Andaman Is., Thailand, Vietnam. Laos: Vientiane (S); 'Pha Pak' (S).

Epiphyte in open lowland forest. April.

***Luisia psyche* Rchb. f.**

Luisia laosensis Guillaumin.

Burma, Thailand, Vietnam. Laos: Champasak (P. Bonnet PB505, found on local market, collected in the surrounding countryside); Khammouan (N); Phongsali (NUOL cult. OL469 [B. Svengsuksa et al.]); Vientiane (S).

Epiphyte in lowland dipterocarp forest. April–July.

***Luisia thailandica* Seidenf.**

Burma, Thailand, Vietnam. Laos: Phongsali (NUOL cult. OL713 [B. Svengsuksa et al.]).
July, August.

***Luisia zollingeri* Rchb. f.**

Luisia latilabris Rolfe ex Downie; *Luisia latipetala* J. J. Sm.; *Luisia zollingeri* Rchb. f. var. *latipetala* (J. J. Sm.) Sulist.

Andaman Is., Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB360; P. Bonnet, V. Lamxay PB318).

Epiphyte in humid evergreen forest on a limestone hill, also near a small stream in humid evergreen forest, 722–905 m a.s.l. April, May.

***Malaxis acuminata* D. Don**

Crepidium acuminatum (D. Don) Szlach.; *Crepidium bilobum* (Lindl.) Szlach.; *Dienia carinata* Rchb. f.; *Malaxis acuminata* D. Don var. *biloba* (Lindl.) Ames; *Malaxis allanii* S. Y. Hu & Barretto; *Malaxis biloba* (Lindl.) Ames; *Malaxis biloba* (Lindl.) Seidenf. & Smitinand; *Malaxis carinata* (Rchb. f.) Kuntze; *Malaxis pierrei* (Finet) Bakh. f.; *Malaxis pierrei* (Finet) Tang & F. T. Wang; *Malaxis wallichii* (Lindl.) Deb; *Microstylis biloba* Lindl.; *Microstylis carinata* (Rchb. f.) Rchb. f.; *Microstylis pierrei* Finet;

Microstylis siamensis Rolfe ex Downie; *Microstylis trigonocardia* Schltr.; *Microstylis wallichii* Lindl.; *Microstylis wallichii* Lindl. var. *biloba* (Lindl.) Hook. f.; *Microstylis wallichii* Lindl. var. *omphaloides* Parish ex Hook. f.

India, Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam, Sumatra, Java, New Guinea, Philippines, Australia. Laos: Champasak (S); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB40; N); Vientiane (S).

Terrestrial in dense humid evergreen forest on rocky terrain, also in the lowlands. 170–659 m a.s.l. July.

***Malaxis biaurita* (Lindl.) Kuntze**

Crepidium biauratum (Lindl.) Szlach.; *Microstylis biaurita* Lindl.; *Microstylis sutepensis* Rolfe ex Downie; *Microstylis thorelii* Finet.

India (Khasia), Burma, Thailand. Laos: Xaignabouri (S).

***Malaxis calophylla* (Rchb. f.) Kuntze**

Crepidium calophyllum (Rchb. f.) Szlach.; *Epidendrum variegatum* J. Koenig; *Malaxis calophylla* (Rchb. f.) Kuntze var. *brachycheila* (Hook. f.) Tang & F. T. Wang; *Malaxis scottii* (Hook. f.) Kuntze; *Microstylis calophylla* Rchb. f.; *Microstylis scottii* Hook. f.; *Microstylis wallichii* Lindl. var. *brachycheila* Hook. f.

India (NE), Nepal, Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Borneo. Laos: Vientiane (NUOL cult. OL1092 [D. Barthélémy, P. Bonnet]).

Lithophyte on rock covered by leaf litter in gallery forest through secondary *Pinus merkusii* woodland, 759 m a.s.l. May.

***Malaxis chamaeorchis* (Schltr.) Seidenf.**

Glossochilopsis chamaeorchis (Schltr.) Szlach.; *Microstylis chamaeorchis* Schltr.

Thailand, Peninsular Malaysia, Sumatra. Laos: Champasak (P. Bonnet PB544).

Terrestrial in thick moss on a small open rocky plateau covered with moss and herbaceous plants close to humid evergreen tropical forest, 1250 m a.s.l. June, July.

***Malaxis ophrydis* (J. Koenig) Ormerod**

Anaphora liparioides Gagnep.; *Crepidium flavescens* Blume; *Crepidium ophrydis* (J. Koenig) M. A. Clem. & D. L. Jones; *Dienia congesta* Lindl.; *Dienia curranii* (Ames) M. A. Clem. & D. L. Jones; *Dienia fusca* Lindl.; *Dienia latifolia* (Sm.) M. A. Clem. & D. L. Jones; *Dienia montana* (Blume) M. A. Clem. & D. L. Jones; *Dienia ophrydis* (J. Koenig) Seidenf.; *Epidendrum ophrydis* J. Koenig; *Gastroglottis latifolia* (Sm.) Szlach.; *Gastroglottis montana* Blume; *Glossochilopsis carnosula* (Rolfe ex Downie) Szlach. & Marg.; *Liparis bernaysii* F. Muell.; *Liparis krempfii* Gagnep.; *Liparis turfosa* Gagnep.; *Malaxis congesta* (Lindl.) Deb; *Malaxis curranii* Ames; *Malaxis latifolia* Sm.; *Malaxis latifolia* Sm. f. *aureovariegata* (Nakai) Hatus.; *Malaxis latifolia* Sm. var. *fusca*

(Lindl.) Ames; *Malaxis parvissima* S. Y. Hu & Barretto; *Malaxis plicata* Roxb.; *Malaxis shuicae* S. S. Ying; *Malaxis vietnamensis* T. B. Nguyen & Duong Duc Huyen; *Microstylis bernaysii* F. Muell.; *Microstylis carnosula* Rolfe ex Downie; *Microstylis congesta* (Lindl.) Rchb. f.; *Microstylis congesta* (Lindl.) Rchb. f. var. *fusca* (Lindl.) Ridl.; *Microstylis dalatensis* Guillaumin; *Microstylis fusca* (Lindl.) Rchb. f.; *Microstylis latifolia* (Sm.) J. J. Sm.; *Microstylis latifolia* (Sm.) J. J. Sm. var. *fusca* (Lindl.) J. J. Sm.; *Microstylis trilobulata* Kurz; *Microstylis trilobulata* N. E. Br.; *Neottia plantaginea* D. Don; *Spiranthes plantaginea* Spreng.

Tropical continental Asia, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, New Caledonia. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélémy, E. Hoogendijk; photo]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB58); Louangphrabang (S); Phongsali (NUOL cult. OL710 [B. Svengsuksa et al.], OL400 [Hul & Thibaud]); Vientiane (NUOL cult. OL390 [B. Svengsuksa et al.]; S).

Terrestrial on poor sandy soil in mixed deciduous forest, 170–554 m a.s.l. May–July.

***Malaxis polyodon* (Hook. f.) Kuntze**

Crepidium polyodon (Hook. f.) Szlach.; *Microstylis polyodon* Hook. f.; *Microstylis rheedii* Rchb. f.

Burma, Thailand. Laos: Vientiane (S).

Terrestrial in bamboo grove, 400 m a.s.l. April.

***Malaxis prasina* (Ridl.) Seidenf. & Smitinand**

Crepidium prasinum (Ridl.) Szlach.; *Malaxis reniloba* (Carr) Holttum; *Microstylis prasina* Ridl.; *Microstylis reniloba* Carr.

Thailand, Peninsular Malaysia. Laos: Vientiane (S). Lowlands (ca 170 m a.s.l.). June.

***Malaxis purpurea* (Lindl.) Kuntze**

Crepidium purpureum (Lindl.) Szlach.; *Malaxis liparioides* (Schltr.) Tang & F. T. Wang; *Malaxis purpurea* (Lindl.) Seidenf.; *Microstylis liparioides* Schltr.; *Microstylis purpurea* Lindl.

Sri Lanka, India (NE), China, Taiwan, Thailand, Vietnam, ?Philippines. Laos: Khammouan (NUOL cult. OL945 [M. Newman et al.]). July.

***Malleola dentifera* J. J. Sm.**

Ascochilus vietnamensis Guillaumin; *Malleola vietnamensis* Guillaumin.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Borneo. Laos: Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoun, A. Schuiteman PB78).

Epiphyte in the shade at the base of a steep limestone hill, 323 m a.s.l. June, July.

***Micropera pallida* (Roxb.) Lindl.**

Aerides pallida Roxb.; *Camarotis apiculata* Rchb. f.; *Camarotis cochinchinensis* Rchb. f.; *Camarotis pallida* (Roxb.) Lindl.; *Dendrocolla apiculata* Zoll. ex Rchb. f.; *Micropera apiculata* (Rchb. f.) Garay; *Micropera cochinchinensis* (Rchb. f.) Tang & F. T. Wang; *Saccolabium flaveolum* Ridl.; *Saccolabium saxicola* Ridl.; *Sarcanthus apiculatus* (Rchb. f.) J. J. Sm.; *Sarcanthus thorelii* Guillaumin; *Sarcochilus cochinchinensis* (Rchb. f.) Nicholson; *Sarcochilus roxburghii* Hook. f.

India (NE), Bangladesh, Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Champasak (NUOL cult. OL575 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB23); Vientiane (S).

Epiphyte in semi-evergreen forest, and on trees in open ground, 200–537 m a.s.l. April–June.

***Mischobulbum ovifolium* (Z. H. Tsi & S. C. Chen) Aver.**

Tainia ovifolia Z. H. Tsi & S. C. Chen.

China (Yunnan), Vietnam. Laos: Khammouan (NUOL cult. OL900 [B. Svengsuksa et al.]). January, February.

Note: living plants of what may well be *M. cordifolium* (Hook. f.) Schltr. have been in cultivation at the National University of Laos for some time, but we have been unable to study the flowers. They were collected in Khammouan province. We are not convinced that *M. ovifolium* belongs in *Mischobulbum*, but neither are we convinced that *Mischobulbum* should be kept separate from *Tainia*.

***Myrmechis pumila* (Hook. f.) Tang & F. T. Wang**

Anoectochilus pumilus (Hook. f.) Seidenf. & Smitinand; *Cheirostylis franchetiana* King & Pantl.; *Cystopus pumilus* (Hook. f.) Kuntze; *Myrmechis franchetiana* (King & Pantl.) Schltr.; *Odontochilus pumilus* Hook. f.; *Zeuxine franchetiana* (King & Pantl.) King & Pantl.; *Zeuxine pumila* King & Pantl.

India (NE), Burma, China (Yunnan), Thailand. Laos: Bolikhamxai (D. Barthélemy, P. Bonnet, A. Schuiteman, V. Lamxay PB447).

Terrestrial in dense shade in secondary evergreen forest on the bank of a very small stream, 1077 m a.s.l. May.

***Neogyne gardneriana* (Lindl.) Rchb. f.**

Coelogyne gardneriana Lindl.; *Coelogyne trisaccata* Griff.; *Neogyne gardneriana* var. *basiquinquelamellata* T. Tang & F. T. Wang; *Neogyne gardneriana* var. *basitrilamellata* T. Tang & F. T. Wang.

India (NE), Nepal, Bhutan, Thailand, China (Yunnan). Laos: Xiangkhoang (S).

***Nephelaphyllum pulchrum* Blume**

Limodorum maculatum Reinw. ex Lindl.; *Nephelaphyllum borneense* Schltr.; *Nephelaphyllum latilabre* Ridl.; *Tainia borneensis* (Schltr.) Gagnep.; *Tainia latilabris* (Ridl.) Gagnep.; *Tainia pulchra* (Blume) Gagnep.

India (Sikkim), Bhutan, Burma, China (Hainan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Philippines. Laos: Champasak (B. Lavelle PB Vo820080509).

May, June.

***Nervilia aragoana* Gaudich.**

Aplostellis aragoana (Gaudich.) Ridl.; *Aplostellis flabelliformis* (Lindl.) Ridl.; *Epipactis carinata* Roxb.; *Nervilia carinata* (Roxb.) Schltr.; *Nervilia flabelliformis* (Lindl.) Tang & F. T. Wang; *Nervilia scottii* (Rchb. f.) Schltr.; *Nervilia tibetensis* Rolfe; *Nervilia yaeyamensis* Hayata; *Pogonia carinata* (Roxb.) Lindl.; *Pogonia flabelliformis* Lindl.; *Pogonia gracilis* Blume; *Pogonia nervilia* Blume; *Pogonia scottii* Rchb. f.

Thailand, Vietnam, India, Nepal, Bhutan, China, Burma, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Solomon Is., Vanuatu, New Caledonia, Fiji, Samoa, Society Is. Laos: Bolikhamxai (sight record [A. Schuiteman, S. Luang Aphay; leaves only, photo]); Champasak (N); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB238); Saravan (S); Vientiane (S); Xiangkhoang (S).

Terrestrial in open secondary evergreen montane forest dominated by Fagaceae and in secondary grassland, also in the lowlands in deep shade. 170–1063 m a.s.l. April.

***Nervilia crocifformis* (Zoll. & Moritz) Seidenf.**

Bolborchis crocifformis Zoll. & Moritz; *Coelogyne javanica* Lindl.; *Nervilia crispata* (Blume) Schltr.; *Nervilia fimbriata* Schltr.; *Nervilia monantha* Blatt. & McCann; *Nervilia prainiana* (King & Pantl.) Seidenf.; *Pogonia crispata* Blume; *Pogonia prainiana* King & Pantl.

Africa, tropical continental Asia, Java, New Guinea, Philippines, Australia. Laos: Vientiane (NUOL cult. OL1091 [D. Barthélemy, P. Bonnet]).

Terrestrial in open secondary *Pinus merkusii* woodland on poor soil with *Nepenthes* and *Drosera* species, 759 m a.s.l. May.

***Nervilia infundibulifolia* Blatt. & McCann**

Nervilia calcicola Kerr.

India, Bhutan, Thailand, Peninsular Malaysia. Laos: Vientiane (S); Xiangkhoang (S).

Terrestrial among limestone rocks in deep shade, 170–300 m a.s.l. April, May.

***Nervilia plicata* (Andrews) Schltr.**

Aplostellis velutina (Parish & Rchb. f.) Ridl.; *Arethusa plicata* Andrews; *Cordyla discolor* Blume; *Epipactis plicata* (Andrews) Roxb.; *Nervilia biflora* (Wight) Schltr.; *Nervilia dallachyana* (F. Muell. ex Benth.) Schltr.; *Nervilia discolor* (Blume) Schltr.; *Nervilia discolor* (Blume) Schltr. var. *picta* (J. J. Sm.) J. J. Sm.; *Nervilia porphyrophylla* Schltr.; *Nervilia velutina* (Parish & Rchb. f.) Schltr.; *Pogonia biflora* Wight; *Pogonia dallachyana* F. Muell. ex Benth.; *Pogonia discolor* (Blume) Blume; *Pogonia discolor* (Blume) Blume var. *picta* J. J. Sm.; *Pogonia plicata* (Andrews) Lindl.; *Pogonia pudica* Ames; *Pogonia pulchella* Hook. f.; *Pogonia velutina* Parish & Rchb. f.; *Roptrostemon discolor* (Blume) Blume.

India, Burma, Thailand, China, Vietnam, Australia, Peninsular Malaysia, Sumatra, Java, New Guinea, Philippines. Laos: Bolikhamxai (sight record [A. Schuiteman, S. Luang Aphay; leaves only, photo]); Champasak (N); Vientiane (S).

Terrestrial in deep shade in the lowlands, also in dense forest on slopes at the base of limestone cliffs. May.

***Oberonia anthropophora* Lindl.**

Iridorchis anthropophora (Lindl.) Kuntze; *Malaxis anthropophora* (Lindl.) Rchb. f.; *Oberonia aurantiaca* Ridl.

India, Burma, China (Hainan), Thailand, Vietnam, Peninsular Malaysia. Laos: Champasak (P. Bonnet PB545); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB276).

Epiphyte on trunk of a small tree in a coffee plantation and at 5 m high on a tree branch in humid evergreen riverine forest. July–September.

***Oberonia delacourii* Gagnep.**

Laos: Xiangkhoang (S).

***Oberonia ensiformis* (Sm.) Lindl.**

Iridorchis ensiformis (Sm.) Kuntze; *Malaxis ensiformis* Sm.; *Oberonia acaulis* Hook.; *Oberonia trilobata* Griff.

India (NE), Nepal, Burma, Thailand, China, Vietnam. Laos: Champasak (P. Bonnet PB588; S); Vientiane (S); Xiangkhoang (S).

Epiphyte in lowland forest. September, November.

***Oberonia falcata* King & Pantl.**

Oberonia pendula Ridl.

India (NE), Nepal, Bhutan, Thailand, Vietnam, Peninsular Malaysia. Laos: Khammouan (NUOL cult. OL1164 [M. Newman et al.]). August.

***Oberonia falconeri* Hook. f.**

Iridorchis falconeri (Hook. f.) Kuntze; *Oberonia calcicola* Holttum; *Oberonia siamensis* Schltr.

India (NE), Nepal, China, Thailand, Vietnam, Peninsular Malaysia. Laos: Champasak (S); Vientiane (S).

Epiphyte in dipterocarp forest in the lowlands. September, October.

***Oberonia ferruginea* Parish ex Hook. f.**

Iridorchis ferruginea (Parish) Kuntze.

Burma (Tenasserim). Laos: unspecified (S).

***Oberonia gammiei* King & Pantl.**

Oberonia regnieri Finet; *Oberonia saururus* Ridl.; *Oberonia trullilabris* Guillaumin.

India (Bengal), Burma, Thailand, Vietnam. Laos: Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB30); Louangphrabang (S); Vientiane (S).

Epiphyte on tree trunk near a small stream in deciduous dipterocarp forest, 538 m a.s.l. October.

***Oberonia integerrima* Guillaumin**

China (Yunnan), Vietnam, Borneo. Laos: Vientiane (S).

***Oberonia mucronata* (D. Don) Ormerod & Seidenf.**

Cymbidium iridifolium Roxb.; *Iridorchis iridifolia* (Roxb.) Kuntze; *Malaxis denticulata* (Wight) Rchb. f.; *Malaxis iridifolia* (Roxb.) Rchb. f.; *Oberonia denticulata* Wight; *Oberonia iridifolia* (Roxb.) Lindl.; *Oberonia smisrae* Panigrahi; *Stelis mucronata* D. Don.

India (NE), Nepal, Bangladesh, China (Hainan), Thailand, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL1020 [V. Lamxay et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB14); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB242); Vientiane (S); ‘Bolovens’ (S).

Epiphyte in mixed deciduous forest, dipterocarp forest, and in Fagaceae dominated secondary evergreen montane forest, 170–1050 m a.s.l. September, October.

***Oberonia pachyphylla* King & Pantl.**

Oberonia apiculata Kerr; *Oberonia crassirachis* Guillaumin.

India, Nepal, Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL1328 [B. Svengsuksa et al.]). December.

***Oberonia pyrulifera* Lindl.**

Iridorchis pyrulifera (Lindl.) Kuntze; *Malaxis pyrulifera* (Lindl.) Rchb. f.; *Oberonia verticillata* Wight var. *khasiana* Lindl.

India (NE), Bhutan, China (Yunnan), Thailand. Laos: Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB583).

Epiphyte in humid evergreen forest. August.

***Ornithochilus difformis* (Wall. ex Lindl.) Schltr.**

Aerides difformis Wall. ex Lindl.; *Aerides hystrix* Lindl.; *Ornithochilus eublepharon* Hance; *Ornithochilus fuscus* Wall. ex Lindl.; *Sarcochilus difformis* (Wall. ex Lindl.) Tang & F. T. Wang; *Trichoglottis difformis* (Wall. ex Lindl.) T. B. Nguyen & Duong Duc Huyen.

India (NW and NE), Nepal, Bhutan, Burma, China, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Borneo. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB416); Champasak (NUOL cult. OL181 [B. Svengsuksa et al.]); Khammouan (N); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB375); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB250; P. Bonnet, A. Schuiteman, V. Lamxay PB287; S); Vientiane (NUOL cult. OL1205 [P. Bonnet]; P. Bonnet, A. Schuiteman PB152).

Epiphyte in dense humid evergreen forest near a waterfall, in secondary evergreen montane forest, in open montane conifer woodland and in forest on limestone mountain, 889–1400 m a.s.l. April–August.

***Otochilus lancilabius* Seidenf.**

Otochilus lancilabius Seidenf.

India (NE), Nepal, Bhutan, Laos. Laos: Champasak (NUOL cult. OL1642 [B. Svengsuksa et al.]); Xaisomboun (S).

Epiphyte in evergreen upper montane forest, 2000–2200 m a.s.l. January, February, April.

***Pachystoma pubescens* Blume**

Apaturia chinensis Lindl.; *Apaturia lindleyana* Wight; *Apaturia montana* Lindl.; *Apaturia senilis* Lindl.; *Apaturia smithiana* Lindl.; *Eulophia hirsuta* J. Joseph & Vajr.; *Eulophia holztei* F. Muell.; *Neottia pantanalis* Korth. ex Blume; *Pachychilus pantanus* Blume; *Pachychilus pubescens* (Blume) Blume; *Pachychilus senilis* (Lindl.)

Blume; *Pachystoma affine* Schltr.; *Pachystoma brevilabium* Schltr.; *Pachystoma chinense* Rchb. f. var. *formosanum* (Schltr.) S. S. Ying; *Pachystoma chinensis* Hayata; *Pachystoma edgeworthii* Rchb. f.; *Pachystoma formosanum* Schltr.; *Pachystoma gracile* Schltr.; *Pachystoma hirsuta* (J. Joseph & Vajr.) C. S. Kumar & Manilal; *Pachystoma lindleyanum* (Wight) Rchb. f.; *Pachystoma montanum* (Lindl.) Rchb. f.; *Pachystoma pantanum* (Blume) Miq.; *Pachystoma papuanum* Schltr.; *Pachystoma pubescens* Blume var. *gracile* (Schltr.) N. Hall.; *Pachystoma senile* (Lindl.) Rchb. f.; *Pachystoma smithianum* (Lindl.) Rchb. f.

India, Burma, China, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Vanuatu, New Caledonia. Laos: Champasak (S); Savannakhet (S).

***Panisea tricallosa* Rolfe**

Panisea bia (Kerr) Tang & F. T. Wang; *Sigmatogyne bia* Kerr; *Sigmatogyne pantlingii* Pfitzer; *Sigmatogyne tricallosa* (Rolfe) Pfitzer.

India (NE), Nepal, Thailand, China, Vietnam. Laos: Xaisomboun (S).

Epiphyte on trees in evergreen montane forest, 1500 m a.s.l. April.

***Panisea uniflora* (Lindl.) Lindl.**

Chelonistele biflora (Parish & Rchb. f.) Pfitzer; *Coelogyne biflora* Parish & Rchb. f.; *Coelogyne falcata* T. Anderson ex Hook. f.; *Coelogyne thuniana* Rchb. f.; *Coelogyne uniflora* Lindl.

India (NE), Nepal, Bhutan, Burma, Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (N); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB53; NUOL cult. OL920 [M. Newman et al.]); Vientiane (NUOL cult. OL1218 [P. Bonnet]; S).

Epiphyte in mixed deciduous forest, also in gallery forest on a tree trunk in a large stream, and lithophytic on limestone cliffs, 500–781 m a.s.l. February, April, May, August–October.

***Paphiopedilum appletonianum* (Gower) Rolfe**

Cordula appletoniana (Gower) Rolfe; *Cypripedium appletonianum* Gower; *Cypripedium poyntzianum* O'Brien; *Cypripedium wolterianum* Kraenzl.; *Paphiopedilum appletonianum* (Gower) Rolfe f. *album* Asher ex O. Gruss; *Paphiopedilum appletonianum* (Gower) Rolfe var. *hainanense* (Fowlie) Braem, C. O. Baker & M. L. Baker; *Paphiopedilum appletonianum* (Gower) Rolfe var. *immaculata* Braem; *Paphiopedilum appletonianum* (Gower) Rolfe f. *immaculatum* (Braem) Braem; *Paphiopedilum appletonianum* (Gower) Rolfe f. *tridentatum* (S. C. Chen & Z. J. Liu) Aver.; *Paphiopedilum bullenianum* (Rchb. f.) Pfitzer var. *appletonianum* (Gower) Rolfe; *Paphiopedilum hainanense* Fowlie; *Paphiopedilum hookerae* (Rchb. f.) Stein subsp. *appletonianum* (Gower) M. W. Wood; *Paphiopedilum tridentatum* S. C. Chen & Z. J. Liu; *Paphiopedilum*

wolterianum (Kraenzl.) Pfitzer.

Thailand, Cambodia, Vietnam. Laos: 'SW Laos (fide Asher)' (S).

***Paphiopedilum barbigerum* Tang & F. T. Wang**

Paphiopedilum barbigerum Tang & F. T. Wang var. *aureum* H. S. Hua; *Paphiopedilum barbigerum* Tang & F. T. Wang f. *aureum* (H. S. Hua) O. Gruss & Roeth; *Paphiopedilum barbigerum* Tang & F. T. Wang var. *coccineum* (Perner & R. Herrm.) Cavestro; *Paphiopedilum barbigerum* Tang & F. T. Wang var. *lockianum* Aver.; *Paphiopedilum coccineum* Perner & R. Herrm.; *Paphiopedilum insigne* (Wall. ex Lindl.) Pfitzer var. *barbigerum* (Tang & F. T. Wang) Braem; *Paphiopedilum vejvarutianum* O. Gruss & Roellke.

SW China, Thailand, Vietnam. Laos: Bolikhamxai (NUOL cult. OL20080918 [S. Luang Aphay]).

Lithophyte in open forest on vertical cliffs in the summit zone of steep limestone hills, 500 m a.s.l. September, October.

Note: the Lao specimens seen agree well with the broad-leaved form described from Thailand as *P. vejvarutianum*, except that in the former the median sepal is more heavily veined with purple. Our field observations indicate that these plants are not hybrids; they form pure populations without other species of *Paphiopedilum* growing nearby (Schuiteman and Bonnet in press).

***Paphiopedilum callosum* (Rchb. f.) Stein**

Cordula callosa (Rchb. f.) Rolfe; *Cypripedium callosum* Rchb. f.; *Cypripedium crossii* Morren; *Cypripedium schmidtianum* Kraenzl.; *Cypripedium warnierianum* Rchb. f. ex Wittm.; *Paphiopedilum callosum* (Rchb. f.) Stein var. *angustipetalum* Guillaumin; *Paphiopedilum callosum* (Rchb. f.) Stein var. *schmidtianum* (Kraenzl.) Pfitzer; *Paphiopedilum callosum* (Rchb. f.) Stein var. *viniferum* (Koop. & N. Haseg.) Cavestro; *Paphiopedilum callosum* (Rchb. f.) Stein var. *viniferum* (Koop. & N. Haseg.) J. M. H. Shaw; *Paphiopedilum callosum* (Rchb. f.) Stein var. *viridiflorum* (Linden) Braem; *Paphiopedilum callosum* (Rchb. f.) Stein f. *viridiflorum* (Linden) O. Gruss & Roeth; *Paphiopedilum crossii* (Morren) Braem & Senghas; *Paphiopedilum crossii* (E. Morren) Braem & Senghas f. *viniferum* (Koop. & N. Haseg.) Braem & Chiron; *Paphiopedilum crossii* (E. Morren) Braem & Senghas f. *viridiflorum* (Linden) Braem & Chiron; *Paphiopedilum viniferum* Koop. & N. Haseg.

Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (sight record [S. Luang Aphay, pers. comm.]); Champasak (NUOL cult. OL178 [B. Svengsuksa et al.], OL1412 [B. Svengsuksa et al.]; S); Khammouan (NUOL cult. OL1213 [M. Newman et al.]; N); Vientiane (NUOL cult. OL1196 [P. Bonnet]; S).

Lithophyte on boulders along small streams in dense, shady gallery forest, 759–1000 m a.s.l. March, June, July.

***Paphiopedilum concolor* (Lindl.) Pfitzer**

Cordula concolor (Lindl.) Rolfe; *Cypripedium concolor* Lindl. ex Bateman; *Cypripedium tonkinense* Hort.; *Paphiopedilum concolor* (Lindl.) Pfitzer f. *album* (Braem) Braem.

Thailand, Cambodia, Vietnam, Burma, China. Laos: Bolikhamxai (sight record [P. Bonnet, A. Schuiteman, V. Vannachack; photo]); Champasak (NUOL cult. OL175 [B. Svengsuksa et al.]); Khammouan (S); Vientiane (P. Bonnet PB479).

Lithophyte in open xerophytic forest on limestone hills, often at the base of trees, 210 m a.s.l. Flowers throughout the year.

***Paphiopedilum dianthum* Tang & F. T. Wang**

Paphiopedilum parishii (Rchb. f.) Stein var. *dianthum* (Tang & F. T. Wang) K. Karas. & K. Saito.

South China, Vietnam. Laos: Bolikhamxai (S. Luang Aphay cult. s. n. [spirit material NUOL]).

Lithophyte on limestone hill. September, October.

***Paphiopedilum exul* (Ridl.) Rolfe**

Cordula exul (Ridl.) Rolfe; *Cypripedium exul* (Ridl.) Rolfe; *Cypripedium insigne* Wall. ex Lindl. var. *exul* Ridl.; *Paphiopedilum exul* (Ridl.) Rolfe f. *aureum* (Hort.) O. Gruss & Roellke.

Thailand. Laos: ?Bolikhamxai (sight record [S. Luang Aphay, pers. comm.]); Champasak (seen on local market near Paksong, said to have been collected in the province [A. Schuiteman, E. Hoogendijk]).

***Paphiopedilum gratrixianum* (Mast.) Rolfe**

Cordula gratrixiana (Mast.) Rolfe; *Cypripedium gratrixianum* Mast.; *Paphiopedilum affine* De Wild.; *Paphiopedilum gratrixianum* (Mast.) Guillaumin; *Paphiopedilum villosum* (Lindl.) Stein var. *affine* (De Wild.) Braem; *Paphiopedilum villosum* (Lindl.) Stein var. *gratrixianum* (Mast.) Braem.

China (Yunnan), Vietnam. Laos: Attapu (S); Bolikhamxai (sight record [S. Luang Aphay, pers. comm.]); 'Pak Song near the border of N. Vietnam' (S; probably Attapu or Xekong). December.

***Paphiopedilum hirsutissimum* (Lindl. ex Hook.) Stein var. *esquirolii* (Schltr.) K. Karas. & K. Saito**

Cordula esquirolii (Schltr.) Hu; *Paphiopedilum chiwuanum* Tang & F. T. Wang; *Paphiopedilum esquirolii* Schltr.; *Paphiopedilum esquirolii* Schltr. var. *chiwuanum* (Tang & F. T. Wang) Braem & Chiron; *Paphiopedilum hirsutissimum* (Lindl. ex Hook.) Stein var. *chiwuanum* (Tang & F. T. Wang) P. J. Cribb; *Paphiopedilum hirsutissimum* (Lindl. ex Hook.) Stein var. *esquirolii* (Schltr.) P. J. Cribb; *Paphiopedilum saccopetalum* H. S. Hua.

China, Thailand, Vietnam. Laos: unspecified ('fide Asher S).

***Paphiopedilum parishii* (Rchb. f.) Stein**

Cordula parishii (Rchb. f.) Rolfe; *Cypripedium parishii* Rchb. f.

Burma, China (Yunnan), Thailand. Laos: 'northern part' (Singapore Botanic Garden cult. SBG-O 2496, det. J. J. Vermeulen).

***Paphiopedilum villosum* (Lindl.) Stein var. *annamense* Rolfe**

Vietnam. Laos: Champasak (NUOL cult. OL179 [B. Svengsuksa et al.], not seen in flower); Vientiane (S).

Epiphyte in deep shade low on a tree trunk along a stream, 750 m a.s.l. October.

***Papilionanthe teres* (Roxb.) Schltr.**

Aerides cylindrica Hook.; *Aerides subulata* (J. Koenig) Schltr.; *Cymbidium cylindricum* Heyne ex Wall.; *Dendrobium teres* Roxb.; *Epidendrum subulatum* J. Koenig; *Limodorum subulatum* (J. Koenig) Willd.; *Papilionanthe cylindrica* (Lindl.) Seidenf.; *Papilionanthe subulata* (J. Koenig) Garay; *Vanda teres* (Roxb.) Lindl.

India (NE), Nepal, Bhutan, Burma, China, Thailand. Laos: Attapu (S); Champasak (NUOL cult. OL118 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB54); Louang Namtha (N); Louangphrabang (S); Phongsali (sight record [P. Bonnet, A. Schuiteman, V. Lamxay; photo]; S); Saravan (N); Savannakhet (NUOL cult. OL1045 [V. Lamxay et al.]); Vientiane (sight record; S); 'Nam Eah' (S).

Epiphyte in mixed deciduous forest, also on solitary roadside trees, 170–737 m a.s.l. January–March, December.

***Pecteilis hawkesiana* (King & Pantl.) C. S. Kumar**

Habenaria hawkesiana King & Pantl.; *Pecteilis sagarikii* Seidenf.; *Platanthera hawkesiana* (King & Pantl.) Kraenzl.

Burma, Thailand. Laos: Champasak (NUOL cult. OL1402 [B. Svengsuksa et al.], found on local market, collected in the surrounding countryside). August, September.

***Pecteilis henryi* Schltr.**

Habenaria bassacensis Gagnep.; *Habenaria lacei* (Rolfe ex Downie) Gagnep.; *Pecteilis bassacensis* (Gagnep.) Tang & F. T. Wang; *Pecteilis lacei* (Rolfe ex Downie) Tang & F. T. Wang; *Platanthera lacei* Rolfe ex Downie.

Thailand, Vietnam, Burma, China (Yunnan). Laos: Champasak (S); Saravan (S); Vientiane (NUOL cult. OL1212 [P. Bonnet]; S). July.

Note: delimitation of this species against *P. susannae* needs closer study.

***Pecteilis susannae* (L.) Raf.**

Habenaria gigantea (Sm.) D. Don; *Habenaria susannae* (L.) R. Br.; *Hemihabenaria susannae* (L.) Finet; *Orchis altissima* Buch.-Ham. ex Hook. f.; *Orchis gigantea* Sm.; *Orchis susannae* L.; *Pecteilis gigantea* (Sm.) Raf.; *Platanthera gigantea* (Sm.) Lindl.; *Platanthera robusta* Lindl.; *Platanthera susannae* (L.) Lindl.

India (NE), Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas. Laos: Champasak (S); Vientiane (NUOL cult. OL604 [S. Bounphany]; S).

Terrestrial in open woodland in the lowlands. July, August.

***Pelatantheria ctenoglossum* Ridl.**

Cleisostoma lophochilum (Gagnep.) Garay; *Cleisostoma thomatoglossum* Guillaumin; *Sarcanthus lophochilus* Gagnep.

Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL43 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Nasoukhoun, A. Schuiteman, V. Vannachak PB174); Phongsali (NUOL cult. OL772 [P. Sengsomphou]); Savannakhet (NUOL cult. OL706 [V. Lamxay et al.]); Vientiane (S).

Epiphyte on branch of tree at base of a small, steep limestone hill, 171 m a.s.l. May–August.

***Pelatantheria rivesii* (Guillaumin) Tang & F. T. Wang**

Cleisostoma simondianum (Gagnep.) Garay; *Sarcanthus rivesii* Guillaumin; *Sarcanthus simondianus* Gagnep.; *Sarcanthus tonkinensis* Guillaumin.

China (Yunnan, Hainan), Vietnam. Laos: Champasak (S); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB356); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB223).

Epiphyte in evergreen forest on a limestone hill and in semi-deciduous secondary forest, 722–1063 m a.s.l. October, November.

***Peristylus affinis* (D. Don) Seidenf.**

Habenaria affinis D. Don; *Habenaria hollandiae* (J. J. Sm.) Schltr.; *Habenaria lauterbachii* Kraenzl.; *Habenaria sampsonii* (Hance) Hance; *Peristylus hollandiae* J. J. Sm.; *Peristylus sampsonii* Hance.

India (NW and NE), Nepal, China, Thailand, New Guinea. Laos: Vientiane (S).

Note: the distribution and taxonomy of this species are still insufficiently known.

***Peristylus goodyeroides* (D. Don) Lindl.**

Digomphotis undulata Raf.; *Habenaria glaucescens* Ridl.; *Habenaria goodyeroides* D. Don; *Habenaria goodyeroides* D. Don var. *formosana* Hayata; *Habenaria sondaica* Kraenzl.; *Herminium goodyeroides* (D. Don) Lindl.; *Peristylus horsfieldii* Blume; *Peristylus sphaerocentron* Tang & F. T. Wang; *Platanthera horsfieldii* (Blume) Naves.

India (NW, NE), Nepal, Bhutan, Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, ?New Guinea, Philippines. Laos: Champasak (S); Vientiane (S).

Terrestrial in open woodland in the lowlands. June.

***Peristylus monticola* (Ridl.) Seidenf.**

Habenaria biloba (Rolfe) Schltr.; *Habenaria bisaeta* Ames; *Habenaria deistelii* Schltr.; *Habenaria monticola* Ridl.; *Habenaria nitida* Schltr.; *Peristylus bilobus* Rolfe; *Peristylus nitidus* (Schltr.) P. F. Hunt.

Peninsular Malaysia, Sumatra, Java, Sulawesi, lesser Sunda Is., New Guinea, Philippines. Laos: Champasak (NUOL cult. P9 [P. Bonnet]; P. Bonnet PB551).

Terrestrial in a shaded spot in open montane conifer woodland on acid soil, also terrestrial in thick moss in grassland on wet rocky soil, 1020 m a.s.l. July, August.

***Phaius flavus* (Blume) Lindl.**

Bletia flava Wall. ex Lindl.; *Bletia woodfordii* Hook.; *Hecabe lutea* Raf.; *Limodorum flavum* Blume; *Phaius bracteosus* Rchb. f.; *Phaius celebicus* Schltr.; *Phaius crispus* Blume; *Phaius flavus* (Blume) Lindl. var. *papuanus* J. J. Sm.; *Phaius flavus* (Blume) Lindl. f. *punctatus* (Ohwi) Nackej.; *Phaius flexuosus* Blume; *Phaius maculatus* Lindl.; *Phaius minor* Blume; *Phaius platyphilus* Rchb. f.; *Phaius somai* Hayata; *Phaius undulatomarginatus* Hayata; *Phaius woodfordii* (Hook.) Merr.

India, Nepal, Bhutan, Burma, China, Japan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Sulawesi, Moluccas, New Guinea, Philippines, Vanuatu, New Caledonia, Samoa. Laos: Louangphrabang (S).

***Phaius indo-chinensis* Seidenf. & Ormerod**

Thailand, Vietnam. Laos: Champasak (N); Vientiane (sight record [A. Schuiteman, P. Bonnet; without flowers, photo]).

Epiphyte on tree trunks in montane forest on limestone, also lithophytic, 1400 m a.s.l.

***Phaius mishmensis* (Lindl. & Paxton) Rchb. f.**

Calanthe crinita Gagnep.; *Calanthe ramosa* Gagnep.; *Limatodis mishmensis* Lindl. & Paxton; *Phaius augustinianus* Klotzsch; *Phaius crinitus* (Gagnep.) Seidenf.; *Phaius cupreus* Rchb. f.; *Phaius gracilis* Hayata; *Phaius roseus* Rolfe.

India (NE), Bhutan, Burma, China, Ryukyu Arch., Vietnam, Thailand. Laos: Bolikhamxai (P. Bonnet, P. Nasoukhoum, A. Schuiteman PB123); Louangphrabang (S).

Terrestrial on the bank of a small stream in dense humid evergreen forest, 863 m a.s.l. October, November.

***Phaius tankervilleae* (Banks ex l'Hér.) Blume**

Bletia tankervilleae (Banks ex l'Hér.) R. Br.; *Calanthe bachmaensis* Gagnep.; *Calanthe speciosa* Vieill.; *Limodorum incarvillei* Blume; *Limodorum incarvillei* Pers.; *Limodorum tankervilleae* Banks ex l'Hér.; *Pachyne spectabilis* Salisb.; *Phaius australis* F. Muell. var. *bernaysii* (Rowland ex Rchb. f.) Nicholls; *Phaius bernaysii* F. Muell. ex Bernays; *Phaius bicolor* Lindl.; *Phaius blumei* Lindl.; *Phaius blumei* Lindl. var. *bernaysii* (Rowland ex Rchb. f.) Rchb. f. ex Hook. f.; *Phaius carronii* F. Muell.; *Phaius grandifolius* Lindl.; *Phaius grandifolius* Lour. var. *bernaysii* (Rowland ex Rchb. f.) F. M. Bailey; *Phaius grandifolius* Lour. var. *superbus* Van Houtte; *Phaius incarvillei* (Pers.) Kuntze; *Phaius leucophaeus* F. Muell.; *Phaius tankervilleae* (Banks ex l'Hér.) Blume var. *papuanus* J. J. Sm.; *Phaius tankervilleae* (Banks ex l'Hér.) Blume var. *pulchra* (King & Pantl.) Karth.; *Phaius tankervilleae* (Banks ex l'Hér.) Blume var. *superbus* (Van Houtte) S. Y. Hu; *Phaius tankervilleae* (Banks ex l'Hér.) Blume f. *veronicae* S. Y. Hu & Barretto; *Phaius wallichii* Lindl.; *Tankervillea cantonensis* Link.

Sri Lanka, India, Bhutan, Burma, China, Japan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Pacific Is. Laos: Attapu (N); Khammouan (NUOL cult. OL932 [M. Newman et al.]; N); Savannakhet (S); Xiangkhoang (S). January–March.

***Phalaenopsis cornucervi* (Breda) Blume & Rchb. f.**

Phalaenopsis cornucervi (Breda) Blume & Rchb. f. var. *assamica* Mayr; *Phalaenopsis cornucervi* (Breda) Blume & Rchb. f. var. *flava* Braem ex Holle-de Raeve; *Phalaenopsis cornucervi* (Breda) Blume & Rchb. f. f. *flava* (Braem ex Holle-de Raeve) Christenson; *Phalaenopsis cornucervi* (Breda) Blume & Rchb. f. var. *picta* (Hassk.) H. R. Sweet; *Phalaenopsis cornucervi* (Breda) Blume & Rchb. f. f. *sanguinea* Christenson; *Phalaenopsis cornucervi* (Breda) Blume & Rchb. f. f. *thalebanii* (Seidenf.) Christenson; *Phalaenopsis devriesiana* Rchb. f.; *Phalaenopsis lamelligera* H. R. Sweet; *Phalaenopsis thalebanii* Seidenf.; *Polychilos cornucervi* Breda; *Polychilos lamelligera* (H. R. Sweet) Shim; *Polystylus cornucervi* (Breda) Hasselt ex Hassk.; *Polystylus cornucervi* (Breda) Hasselt ex Hassk. var. *picta* Hassk.

India (NE), Burma, Nicobar Is., Thailand, Peninsular Malaysia, Sumatra, Java, Borneo, Philippines. Laos: Champasak (NUOL cult. OL208 [B. Svengsuksa et al., OL1014 [V. Lamxay et al.]); Khammouan (NUOL cult. OL1333 [B. Svengsuksa et al.]); Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoum, A. Schuiteman PB77; S).

Epiphyte in a shady spot at the base of a steep limestone hill, also in lowland forest, 170–500 m a.s.l. April–October.

***Phalaenopsis deliciosa* Rchb. f.**

Aerides latifolia Thwaites; *Doritis deliciosa* (Rchb. f.) T. Yukawa & K. Kita; *Doritis hebe* (Rchb. f.) Schltr.; *Doritis latifolia* (Thwaites) Benth. & Hook. f.; *Doritis philippinensis* Ames; *Doritis steffensii* Schltr.; *Doritis wightii* (Rchb. f.) Benth. & Hook. f.; *Kingidium deliciosum* (Rchb. f.) H. R. Sweet; *Kingidium deliciosum* (Teijsm. & Binn.) H. R. Sweet var. *bellum* (Teijsm. & Binn.) O. Gruss & Roellke; *Kingidium philippinense* (Ames) O. Gruss & Roellke; *Kingidium wightii* (Rchb. f.) O. Gruss & Roellke; *Kingiella hebe* (Rchb. f.) Rolfe; *Kingiella philippinensis* (Ames) Rolfe; *Kingiella steffensii* (Schltr.) Rolfe; *Phalaenopsis alboviolacea* Ridl.; *Phalaenopsis amethystina* Rchb. f.; *Phalaenopsis bella* Teijsm. & Binn.; *Phalaenopsis hebe* Rchb. f.; *Phalaenopsis hebe* Rchb. f. var. *amboinensis* J. J. Sm.; *Phalaenopsis wightii* Rchb. f.

Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Bolikhamxai (NUOL cult. OL1130 [P. Bonnet]; P. Bonnet, P. Nasoukhom, A. Schuiteman PB134); Vientiane (NUOL cult. OL308 [N. Soulivong]; S).

Epiphyte in gallery forest along a large river; also lithophytic in a shady spot in humid evergreen forest on the slope of a steep limestone hill, 170–648 m a.s.l. May–September.

***Phalaenopsis gibbosa* H. R. Sweet**

Doritis gibbosa (H. R. Sweet) T. Yukawa & K. Kita; *Polychilos gibbosa* (H. R. Sweet) Shim.

Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB345); ‘Dank Gap’ (S).

Epiphyte in humid evergreen forest on a limestone hill, 722 m a.s.l. March–June.

***Phalaenopsis pulcherrima* (Lindl.) J. J. Sm.**

Doritis pulcherrima Lindl.; *Doritis pulcherrima* Wall. ex Lindl. f. *alba* O. Gruss & Roeth; *Doritis pulcherrima* Wall. ex Lindl. f. *albiflora* (Rchb. f.) O. Gruss & Roeth; *Doritis pulcherrima* Lindl. var. *candidula* (Rolfe) Guillaumin; *Doritis pulcherrima* Lindl. var. *coerulea* Fowlie; *Doritis pulcherrima* Wall. ex Lindl. f. *coerulea* (Fowlie) O. Gruss & Roeth; *Phalaenopsis antennifera* Rchb. f.; *Phalaenopsis esmeralda* Rchb. f.; *Phalaenopsis esmeralda* Rchb. f. var. *albiflora* Rchb. f.; *Phalaenopsis esmeralda* Rchb. f. var. *candidula* Rolfe; *Phalaenopsis mastersii* King & Pantl.; *Phalaenopsis pulcherrima* (Lindl.) J. J. Sm. f. *alba* (O. Gruss & Roeth) Christenson; *Phalaenopsis pulcherrima* (Lindl.) J. J. Sm. f. *albiflora* (Rchb. f.) Christenson; *Phalaenopsis pulcherrima* (Lindl.) J. J. Sm. f. *coerulea* (Fowlie) Christenson.

India (NE), Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Borneo. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL1000 [V. Lamxay et al.]); Khammouan (NUOL cult. OL1155 [M. Newman et al.]); Savannakhet (NUOL cult. OL1032 [V. Lamxay et al.]; S); Vientiane (NUOL cult. OL1126 [P. Bonnet]; NUOL cult. OL293 [B. Svengsuksa et al.]; NUOL cult. OL447 [B. Svengsuksa et al.]; S); ‘Bolovents’ (S).

Lithophyte in exposed places on almost bare rock at ground level on a hilltop covered with secondary forest, also in the mountains, 297–1300 m a.s.l. June–September.

***Pholidota articulata* Lindl.**

Coelogyne articulata (Lindl.) Rchb. f.; *Pholidota articulata* Lindl. var. *minabassae* (Schltr.) J. J. Sm.; *Pholidota decurva* Ridl.; *Pholidota griffithii* Hook. f.; *Pholidota khasiyana* Rchb. f.; *Pholidota lugardii* Rolfe; *Pholidota minabassae* Schltr.; *Pholidota obovata* Hook. f.; *Pholidota repens* Rolfe.

India, Nepal, Bhutan, Burma, China (Yunnan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, Philippines. Laos: Attapu (P. Bonnet PB528); Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB427; D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB467); Champasak (NUOL cult. OL7 [B. Svengsuksa et al.]; N); Khammouan (NUOL cult. OL615 [M. Newman et al.]; P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB1; N); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB366); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB270); Vientiane (NUOL cult. OL448 [B. Svengsuksa et al.]); Xiangkhoang (S); ‘Phu Khao Khouai’ (S).

Epiphyte in open montane conifer woodland, in dense humid evergreen forest close to a waterfall, in open semi-deciduous dipterocarp forest, in riverine forest, and in humid evergreen montane forest, also lithophyte on the summit of a small limestone hill covered with open xerophytic forest, 457–1077 m a.s.l. July.

***Pholidota chinensis* Lindl.**

Coelogyne chinensis (Lindl.) Rchb. f.; *Coelogyne corniculata* Rchb. f.; *Coelogyne pholas* Rchb. f.; *Pholidota annamensis* Gagnep.; *Pholidota corniculata* (Rchb. f.) Hook. f.; *Pholidota laucheana* Kraenzl.; *Pholidota pholas* Rchb. f.; *Pholidota pyrranthela* Gagnep.; *Pleione corniculata* (Rchb. f.) Kuntze.

Burma, Thailand, China, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB410); Houaphan (NUOL cult. OL877 [P. Thomas et al.]).

Epiphyte in dense humid evergreen forest near a waterfall, 1077 m a.s.l. January, March, June.

***Pholidota convallariae* (Rchb. f.) Hook. f.**

Coelogyne convallariae Rchb. f.; *Pholidota fragrans* Ridl.

India, Burma, China, Thailand, Vietnam, Sumatra, Java. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB595).

Lithophyte on dry rock in the shade on a hilltop, also epiphytic, 1245 m a.s.l. February, March.

***Pholidota imbricata* Hook.**

Coelogyne conchoidea (Lindl.) Rchb. f.; *Coelogyne crotalina* (Rchb. f.) Rchb. f.; *Coelogyne imbricata* (Hook.) Rchb. f.; *Coelogyne loricata* (Rchb. f.) Rchb. f.; *Coelogyne triotos* (Rchb. f.) Rchb. f.; *Cymbidium imbricatum* Roxb.; *Pholidota assamica* Hort. Sander ex Regel; *Pholidota beccarii* Schltr.; *Pholidota bracteata* (D. Don) Seidenf.; *Pholidota conchoidea* Lindl.; *Pholidota crotalina* Rchb. f.; *Pholidota grandis* Kraenzl.; *Pholidota henryi* Kraenzl.; *Pholidota imbricata* Hook. var. *longifolia* Schltr.; *Pholidota imbricata* Hook. var. *montana* Schltr.; *Pholidota imbricata* Hook. var. *papuana* J. J. Sm.; *Pholidota imbricata* Lindl. ex Hook. var. *platyphylla* Schltr.; *Pholidota loricata* Rchb. f.; *Pholidota pygmaea* H. J. Chowdhery & G. D. Pal; *Pholidota spectabilis* Kraenzl. ex Guillaumin; *Pholidota triotos* Rchb. f.; *Psilocnema bracteatum* D. Don.

India, Nepal, Bhutan, Burma, China, Thailand, ?Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, Solomon Is., New Caledonia, east to Tahiti. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB461); Champasak (NUOL cult. OL245 [B. Svengsuksa et al.]; N); Houaphan (N); Khammouan (NUOL cult. OL1150 [M. Newman et al.]; P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB29; S); Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB388); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB215; S); Vientiane (NUOL cult. OL335 [S. Sopraseuth]; S); Xaisomboun (N); Xiengkhoang (S).

Epiphyte on tree trunk near a small stream in deciduous dipterocarp forest, in humid evergreen forest on a steep limestone hill, on a large ficus branch in riverine forest, also lithophytic on the summit of a small limestone hill covered with open xerophytic forest, 457–737 m a.s.l. July, August.

***Pholidota pallida* Lindl.**

Coelogyne calceata (Rchb. f.) Rchb. f.; *Coelogyne pallida* (Lindl.) Rchb. f.; *Pholidota calceata* Rchb. f.; *Pholidota schlechteri* Gagnep.; *Pholidota tixieri* Guillaumin; *Pholidota yunnanensis* Schltr.; *Pholidota yunpeensis* Hu.

India, Nepal, Bhutan, Burma, China (Yunnan), Thailand, Vietnam. Laos: Xiengkhoang (S).

***Pholidota recurva* Lindl.**

Coelogyne recurva (Lindl.) Rchb. f.

Nepal, Burma, Thailand, Vietnam. Laos: Champasak (D. Barthélémy, P. Bonnet, M. Coutaud PB626); Phongsali (NUOL cult. OL749 [B. Svengsuksa et al.]).

Epiphyte in humid evergreen montane forest, 1245 m a.s.l. August.

***Pholidota rubra* Lindl.**

Coelogyne rubra (Lindl.) Rchb. f.; *Coelogyne undulata* (Lindl.) Rchb. f.; *Pholidota undulata* Lindl.

India (NE), Burma, Vietnam. Laos: Champasak (NUOL cult. OL1643 [B. Svengsuksa et al.]). February.

***Pleione hookeriana* (Lindl.) B. S. Williams**

Coelogyne hookeriana Lindl.; *Pleione hookeriana* (Lindl.) B. S. Williams f. *alba* Torelli & Riccab.; *Pleione hookeriana* (Lindl.) B. S. Williams var. *brachyglossa* (Rchb. f.) Karth.; *Pleione hookeriana* (Lindl.) B. S. Williams var. *milanii* (Braem) Torelli & Riccab.; *Pleione laotica* Kerr; *Pleione milanii* Braem.

India (NE), Nepal, Bhutan, Burma, China, Thailand. Laos: Xaisomboun (S).

Epiphyte on mossy trees in evergreen upper montane forest, 2500–2700 m a.s.l. April.

Note: this species currently holds the altitudinal record among Laotian orchids, but our knowledge of the orchid flora of the higher mountains in Laos is very scanty. The highest mountain in Laos, Phu Bia, from which this species is also recorded, reaches 2817 m a.s.l.

***Plocoglottis bokorensis* (Gagnep.) Seidenf.**

Bulbophyllum bokorensis Gagnep.; *Plocoglottis mirabilis* Seidenf.

Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (P. Bonnet, B. Laville PB654).

Terrestrial in dense evergreen forest close to a small stream, 300 m a.s.l. June, July.

***Podochilus* cf. *khasianus* Hook. f.**

Podochilus intemedius Aver.; *Podochilus sinensis* Schltr.

India (NE), Bhutan, China, Vietnam. Laos: Bolikhamxai (NUOL cult. OL s. n.); Champasak (P. Bonnet PB619).

Epiphyte at 2–3 m high on tree trunk in wet evergreen tropical forest at 10 m from the top of a large waterfall, 1070 m a.s.l. January, July, August, October.

Note: even though we are not entirely confident about our identification we have included this taxon as it is the only recorded species of *Podochilus* from Laos.

***Polystachya concreta* (Jacq.) Garay & H. R. Sweet**

Callista flavescens (Blume) Kuntze; *Dendrobium flavescens* (Blume) Lindl.; *Dendrobium parvum* Seidenf.; *Dendrobium polystachya* Thouars; *Dendrorchis zollingeri* (Rchb. f.) Kuntze; *Epidendrum bidentatum* J. Koenig; *Epidendrum concretum* Jacq.; *Limodorum bidentatum* (J. Koenig) Willd.; *Maxillaria luteola* (Sw.) Beer; *Maxillaria purpurea* (Wight) Beer; *Onychium flavescens* Blume; *Polystachya flavescens* (Blume) J. J. Sm.; *Polystachya penangensis* Ridl.; *Polystachya pleistantha* Kraenzl.; *Polystachya purpurea* Wight; *Polystachya purpurea* Wight var. *lutescens* Gagnep.; *Polystachya siamensis* Ridl.; *Polystachya singaporensis* Ridl.; *Polystachya zeylanica* Lindl.; *Polystachya zollingeri* Rchb. f.

Pantropical. In Asia: Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, Philippines. Laos: Champasak (NUOL cult. P12 [P. Bonnet]; P. Bonnet PB509); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB22); Louang Namtha (P. Bonnet, A. Schuiteman PB342; P. Bonnet, A. Schuiteman, V. Lamxay PB302); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB243; P. Bonnet, S. Lanorsavanh, C. Loinheuang PB574); Vientiane (D. Barthélemy, P. Bonnet, A. Schuiteman PB69; S); 'Boloovens' (S).

Epiphyte on coffee trees and shrubs in montane coffee plantation, on a small tree trunk in evergreen forest, in dry evergreen forest near a waterfall, in mixed deciduous forest, in secondary Fagaceae-dominated evergreen montane forest, and on small trees near a small stream trough open montane conifer woodland, 441–1150 m a.s.l. June–September.

***Pomatocalpa angustifolium* Seidenf.**

Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL1073 [M. Newman et al.]). November.

***Pomatocalpa naevatum* J. J. Sm.**

Thailand, Peninsular Malaysia, Sumatra, Java. Laos: Attapu (NUOL cult. OL314 [V. Lamxay et al.]); Champasak (NUOL cult. OL119 [B. Svengsuksa et al.]); Savannakhet (NUOL cult. OL1037 [V. Lamxay et al.]); Vientiane (NUOL cult. OL417 [B. Svengsuksa et al.]).

Epiphyte on trees along a river in dipterocarp forest, 300 m a.s.l., June, July.

***Pomatocalpa siamense* (Rolfe ex Downie) Summerh.**

Cleisostoma siamense Rolfe ex Downie; *Echioglossum siamense* (Rolfe ex Downie) Szlach.; *Pomatocalpa latifolium* (Lindl.) J. J. Sm. var. *siamense* (Rolfe ex Downie) Tang & F. T. Wang.

Thailand. Laos: Louangphrabang (S); Vientiane (S); Xiangkhoang (N).

Epiphyte on tree in open scrub and in evergreen lowland forest, 200 m a.s.l. April.

***Pomatocalpa spicatum* Breda**

Cleisostoma crassum Ridl.; *Cleisostoma expansum* Rchb. f.; *Cleisostoma uteriferum* Hook. f.; *Cleisostoma vitellinum* Rchb. f.; *Cleisostoma wendlandorum* Rchb. f.; *Pomatocalpa expansum* (Rchb. f.) J. J. Sm.; *Pomatocalpa setulense* (Ridl.) Holttum; *Pomatocalpa vitellinum* (Rchb. f.) Ames; *Pomatocalpa wendlandorum* (Rchb. f.) J. J. Sm.; *Saccolabium flavescens* Ridl.; *Saccolabium hobsonii* Ridl.; *Saccolabium setulense* Ridl.; *Saccolabium uteriferum* (Hook. f.) Ridl.; *Saccolabium wendlandorum* (Rchb. f.) Rchb. f. ex Kraenzl.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is., Philippines. Laos: Champasak (NUOL cult. OL161 [B. Svengsuksa et al.]); Houaphan (NUOL cult. OL882 [P. Thomas et al.]); Louangphrabang (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB261); Vientiane (S); Xaisomboun (NUOL cult. OL367 [V. Lamxay et al.]); Xiangkhoang (S).

Epiphyte in montane humid evergreen forest, also in evergreen forest on limestone hill and in the lowlands, 170–907 m a.s.l. February–April.

***Pomatocalpa tonkinense* (Gagnep.) Seidenf.**

Camarotis falciformis Tixier; *Cleisostoma tonkinense* Gagnep.; *Pomatocalpa falciforme* (Tixier) Garay; *Pomatocalpa laoticum* Seidenf.

Thailand, Vietnam. Laos: Louangphrabang (S).

***Porpax elwesii* (Rchb. f.) Rolfe**

Eria elwesii Rchb. f.; *Porpax elwesii* (Rchb. f.) Kraenzl.; *Porpax meirax* (Parish & Rchb. f.) King & Pantl. var. *elwesii* (Rchb. f.) R. C. Srivast.

India, Nepal, Bhutan, Vietnam, Peninsular Malaysia. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélemy, E. Hoogendijk; photo]); Champasak (S); Khammouan (NUOL cult. OL813 [B. Svengsuksa et al.]); Vientiane (D. Barthélemy, P. Bonnet, A. Schuiteman PB73; S).

Lithophyte on large smooth boulders in a stream together with *Eria spirodela* and mosses, 791–1500 m a.s.l. October–December.

***Porpax fibuliformis* King & Pantl.**

India (NE), Thailand. Laos: Vientiane (D. Barthélemy, P. Bonnet, A. Schuiteman PB68; S).

Lithophyte on a small rock on the summit of a small hill in a montane conifer woodland, 556 m a.s.l. June.

***Porpax reticulata* Lindl.**

India (Deccan), Thailand, Vietnam. Laos: Vientiane (S). 800–1500 m a.s.l. February.

***Pteroceras teres* (Blume) Holttum**

Aerides suaveolens Roxb.; *Aerides teres* (Blume) Lindl.; *Dendrocolla teres* Blume; *Ornitharium striatulum* Lindl.; *Ornithochilus striatulus* Hort. Calc. ex Lindl.; *Pteroceras radicans* Hassk.; *Pteroceras suaveolens* (Roxb.) Holttum; *Sarcochilus palawanensis* Ames; *Sarcochilus suaveolens* (Roxb.) Hook. f.; *Sarcochilus teres* (Blume) Rchb. f.; *Sarcochilus teres* (Blume) Rchb. f. var. *exinflatus* J. J. Sm.; *Thrixsperrum teres* (Blume) Rchb. f.

India (NE), Nepal, Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, Philippines. Laos: Champasak (P. Bonnet PB503, found on local market, collected in the surrounding countryside); Vientiane (S).
Lowlands. July–December.

***Renanthera coccinea* Lour.**

Epidendrum renanthera Rausch.

Burma, China, Thailand, Vietnam. Laos: Bolikhamxai (P. Bonnet, T. Keokene PB195; S); Khammouan (N); Louangphrabang (S); Vientiane (P. Bonnet PB475; S); Xiengkhoang (S); ‘can trap’ (S).

Epiphyte in a tree crown in deciduous dipterocarp forest on rocky soil, at the base of a tree trunk on a small limestone hill, on tree in open scrub, also as a terrestrial climber in open secondary forest near a large waterfall. 200–307 m a.s.l. February–April.

***Rhynchosytilis coelestis* (Rchb. f.) Rchb. f. ex Veitch**

Saccolabium coeleste Rchb. f.; *Vanda pseudocaerulescens* Guillaumin.

Thailand, Cambodia, Vietnam. Laos: Vientiane (NUOL cult. OL329 [S. Sopraseuth]; NUOL cult. OL347 [S. Sopraseuth]); unspecified (S).
May.

***Rhynchosytilis gigantea* (Lindl.) Ridl.**

Anota densiflora (Lindl.) Schltr.; *Anota gigantea* (Lindl.) Fukuy.; *Anota hainanensis* (Rolfe) Schltr.; *Anota harrisoniana* (Hook.) Schltr.; *Anota violacea* (Lindl.) Schltr.; *Gastrochilus giganteus* (Lindl.) Kuntze; *Gastrochilus violacea* (Lindl.) Kuntze; *Rhynchosytilis gigantea* (Lindl.) Ridl. var. *petotiana* (Rchb. f.) Guillaumin in Gagnep.; *Rhynchosytilis gigantea* (Lindl.) Ridl. subsp. *violacea* (Lindl.) Christenson; *Rhynchosytilis violacea* (Lindl.) Rchb. f.; *Saccolabium albolineatum* Teijsm. & Binn.; *Saccolabium giganteum* Lindl.; *Saccolabium giganteum* Lindl. var. *petotianum* Rchb. f.; *Saccolabium hanissonii* Boxall ex Naves; *Saccolabium harrisonianum* Hook.; *Saccolabium violaceum* (Lindl.) Rchb. f.; *Vanda densiflora* Lindl.; *Vanda hainanensis* Rolfe; *Vanda violacea* Lindl.

Burma, China (Hainan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Borneo, Philippines. Laos: Champasak (NUOL cult. OL1 [B. Svengsuksa et al.]; N); Khammouan (NUOL cult. OL1076 [B. Svengsuksa et al.]); Savannakhet (NUOL cult. OL305 [B. Svengsuksa et al.]; S); Vientiane (NUOL cult. OL452 [V. Lamxay et al.]; S); ‘Bolovens’ (S).
Lowlands. January, December.

***Rhynchosytilis retusa* (L.) Blume**

Aerides guttata (Lindl.) Roxb.; *Aerides praemorsa* Willd.; *Aerides retusa* (L.) Sw.; *Aerides spicata* D. Don; *Aerides undulata* Sm.; *Epidendrum hippium* Buch.-Ham. ex D. Don; *Epidendrum indicum* Poir.; *Epidendrum retusum* L.; *Gastrochilus blumei* (Lindl.) Kuntze; *Gastrochilus gurwalicus* (Lindl.) Kuntze; *Gastrochilus*

retusus (L.) Kuntze; *Gastrochilus rheedii* (Wight) Kuntze; *Gastrochilus spicatus* (D. Don) Kuntze; *Limodorum retusum* (L.) Sw.; *Orchis lanigera* Blanco; *Rhynchosytilis gurwalica* (Lindl.) Rchb. f.; *Rhynchosytilis guttata* (Lindl.) Rchb. f.; *Rhynchosytilis praemorsa* (Willd.) Blume; *Rhynchosytilis retusa* (L.) Blume var. *macrostachya* Rchb. f.; *Rhynchosytilis violacea* (Lindl.) Rchb. f. var. *berkeleyi* (Rchb. f.) Stein; *Saccolabium berkeleyi* Rchb. f.; *Saccolabium blumei* Lindl.; *Saccolabium blumei* Lindl. var. *major* B. S. Williams; *Saccolabium blumei* Lindl. var. *russelianum* B. S. Williams; *Saccolabium furcatum* Hort. ex B. S. Williams; *Saccolabium gurwalicum* Lindl.; *Saccolabium guttatum* (Lindl.) Lindl.; *Saccolabium heathii* Hort.; *Saccolabium holfordianum* Hort.; *Saccolabium littorale* Rchb. f.; *Saccolabium macrostachyum* Lindl.; *Saccolabium praemorsum* (Willd.) Lindl.; *Saccolabium retusum* (L.) Voigt; *Saccolabium rheedii* Wight; *Saccolabium spicatum* (D. Don) Lindl.; *Saccolabium turneri* B. S. Williams; *Sarcanthus guttatus* Lindl.

Sri Lanka, India, Nepal, Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Philippines. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL52 [B. Svengsuksa et al.]; NUOL cult. OL538 [B. Svengsuksa]; S); Khammouan (P. Bonnet, P. Nasoukhom, A. Schuiteman, V. Vannachak PB172); Louang Namtha (P. Bonnet, V. Lamxay PB320; N); Phongsali (NUOL cult. OL788 [P. Sengsomphou]); Vientiane (NUOL cult. OL396 [B. Svengsuksa et al.]; S); ‘Mekong’ (S); ‘Mt Singh’ (S); ‘between Mekong and Hue’ (S; possibly Savannakhet).

Epiphyte on the summit of a small limestone hill covered with open xerophytic forest, also in deciduous mixed montane forest on a hilltop, 222–1216 m a.s.l. May, June.

***Robiquetia spatulata* (Blume) J. J. Sm.**

Aerides densiflora (Lindl.) Hook. f.; *Cleisostoma robustum* Guillaumin; *Cleisostoma spatulatum* Blume; *Cleisostoma spicatum* Lindl.; *Gastrochilus densiflorus* (Lindl.) Kuntze; *Pomatocalpa densiflorum* (Lindl.) Tang & F. T. Wang; *Rhynchosytilis densiflora* (Lindl.) L. O. Williams; *Saccolabium acutilabrum* Gagnep.; *Saccolabium borneense* Rchb. f.; *Saccolabium densiflorum* Lindl.; *Sarcanthus armeniacus* Rchb. f.; *Sarcanthus castaneus* Ridl.; *Sarcanthus densiflorus* (Lindl.) Parish & Rchb. f.; *Sarcanthus pendulus* Klinge.

India (NE), Burma, China (Hainan), Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Moluccas, Philippines. Laos: Bolikhamxai (NUOL cult. OL1097 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Champasak (NUOL cult. OL268 [B. Svengsuksa et al.]); Phongsali (NUOL cult. OL717 [B. Svengsuksa et al.]); Vientiane (S).

Epiphyte on a liana over a large stream in humid secondary evergreen lowland forest, 169 m a.s.l. May, June.

***Robiquetia succisa* (Lindl.) Seidenf. & Garay**

Cleisostoma virginale Hance; *Pomatocalpa virginale* (Hance) J. J. Sm.; *Robiquetia succisa* (Lindl.) Tang & F. T. Wang.

India (NE), Bhutan, Burma, China, Thailand, Cambodia, Vietnam. Laos: Vientiane (NUOL cult. OL354; S).

Epiphyte in open riverine forest in the lowlands. June–August, October.

***Sarcoglyphis mirabilis* (Rchb. f.) Garay**

Sarcanthus gilbertii Hook. f.; *Sarcanthus mirabilis* Rchb. f.; *Sarcanthus tixieri* Guillaumin; *Sarcanthus vientianensis* Guillaumin. Thailand, Vietnam, Burma. Laos: Champasak (S); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB264); Vientiane (S).

Epiphyte in humid evergreen lowland and montane forest, 170–1500 m a.s.l. March, April.

***Sarcoglyphis smithianus* (Kerr) Seidenf.**

Sarcanthus smithianus Kerr; *Sarcoglyphis yunnanensis* Z. H. Tsi.

China (Yunnan), Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman PB328; P. Bonnet, A. Schuiteman, V. Lamxay PB353); Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB555); Vientiane (D. Barthélémy, P. Bonnet, P. Nasoukhoun, A. Schuiteman PB83); Xiangkhoang (S).

Epiphyte near a small waterfall in dry evergreen forest, in humid evergreen forest on a steep limestone hill, in mixed deciduous forest, and in a shady spot at the base of a steep limestone hill, 200–1150 m a.s.l. March–May.

***Schoenorchis gemmata* (Lindl.) J. J. Sm.**

Cleisostoma dichroantha Gagnep. var. *teurnamense* Tixier; *Cleisostoma dichroanthum* Gagnep.; *Cleisostoma evarardii* Gagnep.; *Saccolabium gemmatum* Lindl.

India (NE), Nepal, Bhutan, Tibet, Burma, China, Thailand, Cambodia, Vietnam. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB422); Champasak (P. Bonnet PB516; S).

Epiphyte in humid evergreen forest on an exposed fallen tree trunk, 1077 m a.s.l. May, June.

***Seidenfadenia mitrata* (Rchb. f.) Garay**

Aerides mitrata Rchb. f.

Burma, Thailand. Laos: Champasak (NUOL cult. OL s. n.).

Epiphyte in open forest. March, April.

***Smitinandia helferi* (Hook. f.) Garay**

Gastrochilus helferi (Hook. f.) Kuntze; *Saccolabium helferi* Hook. f.; *Saccolabium humile* Ridl.; *Smitinandia humilis* (Ridl.) Holttum.

Burma, Andaman Is., Thailand, Vietnam. Laos: Louangphrabang (S).

***Smitinandia micrantha* (Lindl.) Holttum**

Ascocentrum micranthum (Reinw. ex Blume) Holttum; *Cleisostoma micranthum* (Lindl.) King & Pantl.; *Cleisostoma petitiana* Guillaumin; *Cleisostoma poilanei* Gagnep.; *Cleisostoma tixieri* Guillaumin; *Gastrochilus parviflorus* Kuntze; *Pomatocalpa poilanei* (Gagnep.) Tang & F. T. Wang; *Saccolabium fissum* Ridl.; *Saccolabium micranthum* Lindl.; *Uncifera albiflora* Guillaumin.

India, Bangladesh, Nepal, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Borneo. Laos: Champasak (NUOL cult. OL36 [B. Svengsuksa et al.]; N); Khammouan (NUOL cult. OL297 [V. Lamxay et al.]); Louangphrabang (S); Vientiane (S); Xiangkhoang (S).

On small trees on rocky limestone hill, 170–300 m a.s.l. January–June.

***Spathoglottis affinis* de Vriese**

Spathoglottis lobbii Rchb. f.

Burma, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Java. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélémy, E. Hoogendijk; photo]); Champasak (NUOL cult. P5 [P. Bonnet]; S); Vientiane (NUOL cult. OL356 [S. Sopraseuth]; S); Xaisomboun (N); ‘Bolovents’ (S).

Lithophyte on steep open rocky slope above a stream, also on boulders in open conifer woodland and terrestrial among shrubs along a road, 170–1000 m a.s.l. August–October.

***Spathoglottis eburnea* Gagnep.**

Thailand, Cambodia, Vietnam. Laos: Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB10; P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB13); Vientiane (S); Xaisomboun (N).

Terrestrial in sandy soil in open deciduous mixed and dipterocarp forest, ca 550 m a.s.l. October.

***Spathoglottis plicata* Blume**

Bletia angustata Gaudich.; *Bletia angustifolia* Gaudich.; *Calanthe poilanei* Gagnep.; *Limodorum unguiculatum* Labill.; *Paxtonia rosea* Lindl.; *Spathoglottis angustifolia* (Gaudich.) Benth. & Hook. f.; *Spathoglottis daenikeri* Kraenzl.; *Spathoglottis grandifolia* Schltr.; *Spathoglottis lanepolei* R. S. Rogers; *Spathoglottis lilacina* Griff.; *Spathoglottis papuana* F. M. Bailey var. *puberiflora* R. S. Rogers & C. T. White; *Spathoglottis papuana* F. M. Bailey var. *puberula* Schltr.; *Spathoglottis regnieri* Rchb. f.; *Spathoglottis rosea* (Lindl.) Nicholson; *Spathoglottis spicata* Lindl.; *Spathoglottis unguiculata* (Labill.) Rchb. f.; *Spathoglottis vieillardii* Rchb. f.; *Spathoglottis wariana* Schltr.

Sri Lanka, India, Burma, China, Taiwan, Ryukyu Arch., Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Pacific islands east to Fiji and Tonga. Laos: Vientiane (NUOL cult. OL358 [B. Svengsuksa et al.]).
May–September.

***Spathoglottis pubescens* Lindl.**

Cymbidium guttatum Bureau & Franch. ex Gagnep.; *Pachystoma fortunei* (Lindl.) Rchb. f.; *Spathoglottis fortunei* Lindl.; *Spathoglottis plicata* Blume var. *pubescens* (Lindl.) Hiroe; *Spathoglottis pubescens* Lindl. var. *fortunei* (Lindl.) Gagnep.

India (NE), Burma, China, Thailand, Cambodia, Vietnam. Laos: Champasak (photos seen); Houaphan (S); Xiangkhoang (S).
Lithophyte on flat open rocky terrain covered with moss and herbaceous plants close to humid evergreen forest, 1245 m a.s.l. October.

***Spiranthes sinensis* (Pers.) Ames**

Aristotelea spiralis Lour.; *Calanthe australis* (R. Br.) Aiton ex Loudon; *Epidendrum aristotelia* Raensch.; *Gyrostachis amoena* (M. Bieb.) Blume; *Gyrostachis australis* (R. Br.) Blume; *Gyrostachis australis* (R. Br.) Blume var. *amoena* Blume; *Gyrostachis australis* (R. Br.) Blume var. *crispata* Blume; *Gyrostachis australis* (R. Br.) Blume var. *flexuosa* Blume; *Gyrostachis australis* (R. Br.) Blume var. *parviflora* Blume; *Gyrostachis australis* (R. Br.) Blume var. *wightiana* Blume; *Gyrostachis pusilla* Blume; *Gyrostachys stylites* (Lindl.) Kuntze; *Gyrostachys wightiana* (Lindl.) Kuntze; *Monustes australis* (R. Br.) Raf.; *Neottia amoena* M. Bieb.; *Neottia australis* R. Br.; *Neottia crispata* Blume; *Neottia flexuosa* Sm.; *Neottia parviflora* Sm.; *Neottia pudica* (Lindl.) Sweet; *Neottia sinensis* Pers.; *Ophrys spiralis* Georgi; *Spiranthes amoena* (M. Bieb.) Spreng.; *Spiranthes angustilabris* J. J. Sm.; *Spiranthes aristotelia* (Raensch.) Merr.; *Spiranthes australis* (R. Br.) Lindl.; *Spiranthes australis* (R. Br.) Lindl. var. *pudica* (Lindl.) Lindl.; *Spiranthes australis* (R. Br.) Lindl. var. *suisshaensis* Hayata; *Spiranthes australis* (R. Br.) Lindl. var. *wightiana* Lindl. ex Hook. f.; *Spiranthes crispata* (Blume) Zoll. & Moritz; *Spiranthes densa* A. Rich.; *Spiranthes flexuosa* (Sm.) Lindl.; *Spiranthes indica* Lindl. ex Steud.; *Spiranthes longispicata* A. Rich.; *Spiranthes neocaledonica* Schltr.; *Spiranthes novaezeelandiae* Hook. f.; *Spiranthes papuana* Schltr.; *Spiranthes parviflora* (Sm.) Lindl.; *Spiranthes pudica* Lindl.; *Spiranthes pusilla* (Blume) Miq.; *Spiranthes sinensis* (Pers.) Ames var. *australis* (R. Br.) Hara & Kitam.; *Spiranthes spiralis* (Lour.) Makino; *Spiranthes stylites* Lindl.; *Spiranthes suisshaensis* (Hayata) Schltr.; *Spiranthes viridiflora* Makino; *Spiranthes wightiana* Lindl.

Tropical and subtropical continental Asia, Peninsular Malaysia, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., Moluccas, New Guinea, Philippines, Australia, New Zealand, Solomon Islands, Vanuatu, New Caledonia, Samoa. Laos: Khammouan (sight record [M. Newman et al.; photos seen]).

Terrestrial in damp grassland. February.

***Sunipia andersonii* (King & Pantl.) P. F. Hunt**

Ione andersonii King & Pantl.; *Ione pallida* Aver.; *Ione purpurata* Braid; *Sunipia purpurata* (Braid) P. F. Hunt.

India (NE), Bhutan, Burma, China (Yunnan), Taiwan, Thailand, Vietnam. Laos: Houaphan (NUOL cult. OL874 [P. Thomas et al.]).
October.

***Sunipia grandiflora* (Rolfe) P. F. Hunt**

Ione grandiflora Rolfe.

Thailand, Burma. Laos: Champasak (P. Bonnet PB526, found on local market, collected in the surrounding countryside).
July.

***Sunipia scariosa* Lindl.**

Ione siamensis Rolfe; *Ione scariosa* (Lindl.) King & Pantl.; *Ione scariosa* var. *magnibracteata* Kerr.

India (NE), Bhutan, Burma, China (Yunnan), Thailand. Laos: Xiangkhoang (S); ‘Muang Nan Eka’ (S; possibly in Louangphrabang).

Epiphyte on trees on rocky limestone mountain, 1500 m a.s.l. April.

***Taeniophyllum retrospiculatum* (King & Pantl.) King & Pantl.**

Sarcochilus retrospiculatus King & Pantl.

India (NE). Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB267).

Epiphyte in dense evergreen montane forest close to a small stream, 1240 m a.s.l. October, November.

***Tainia angustifolia* (Lindl.) Benth. & Hook. f.**

Ania angustifolia Lindl.; *Ascotainia angustifolia* (Lindl.) Schltr.; *Ascotainia sutepensis* Rolfe ex Downie; *Eulophia evardii* Guillaumin; *Mitopetalum angustifolium* (Lindl.) Blume; *Nephelephyllum evardii* (Guillaumin) Tang & F. T. Wang; *Pachystoma angustifolium* (Lindl.) Rchb. f.; *Tainia sutepensis* (Rolfe ex Downie) Seidenf. & Smitinand.

Burma, China (Yunnan), Thailand, Vietnam. Laos: Bolikhamxai (P. Bonnet PB651); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB8); Phongsali (NUOL cult. OL780 [P. Sengsomphou]).

Lithophyte on a small rock in secondary humid evergreen forest near a large stream, also terrestrial in open deciduous dipterocarp forest, 300–554 m a.s.l. September, October.

***Tainia latifolia* (Lindl.) Rchb. f.**

Ania latifolia Lindl.; *Eria angulata* Rchb. f.; *Eria ania* Rchb. f.; *Eria hologlossa* Parish & Rchb. f.; *Eulophia hastata* Lindl.; *Mitopetalum latifolium* (Lindl.) Blume; *Tainia angulata* (Rchb. f.) Benth. ex Kraenzl.; *Tainia cordata* Hook. f.; *Tainia hastata* (Lindl.) Hook. f.; *Tainia hologlossa* (Parish & Rchb. f.) Benth. ex Hook. f.; *Tainia latifolia* (Lindl.) Benth. ex Hook. f.

India (NE), Bhutan, Burma, Thailand, Vietnam. Laos: Xiangkhoang (S).
February, March.

***Tainia penangiana* Hook. f.**

Ania hookeriana (King & Pantl.) Tang & F. T. Wang ex Summerh.; *Ania penangiana* (Hook. f.) Summerh.; *Ascotainia hookeriana* (King & Pantl.) Ridl.; *Ascotainia penangiana* (Hook. f.) Ridl.; *Ascotainia siamensis* Rolfe ex Downie; *Tainia hookeriana* King & Pantl.; *Tainia siamensis* (Rolfe ex Downie) Seidenf. & Smitinand.

India (NE), Bhutan, China (Hainan), Thailand, Vietnam, Peninsular Malaysia. Laos: Khammouan (NUOL cult. OL885, OL903, OL1072, OL1145 [all M. Newman et al.]).
January, February.

***Thaia saprophytica* Seidenf.**

Thailand. Laos: Bolikhamxai (P. Bonnet, A. Schuiteman, V. Vannachak PB645).

Semi-lithophyte in small pockets of soil between limestone rock on hills covered with open semi-deciduous forest, 200 m a.s.l. September, October.

Note: this species was originally described as a leafless 'saprophyte'. Observations by the authors, as well as by Prapanth Iamwiriyaikul (pers. comm.) in Thailand, have shown that this is a species with deciduous leafy shoots arising from a subterranean corm which flowers when the leaves have already died.

***Thecostele alata* (Roxb.) Parish & Rchb. f.**

Acriopsis latifolia Rolfe; *Collabium annamense* Gagnep.; *Collabium urayi* Hook. f.; *Cymbidium alatum* Roxb.; *Pholidota elmeri* Ames; *Thecostele elmeri* (Ames) Ames; *Thecostele maculosa* Ridl.; *Thecostele poilanei* Gagnep.; *Thecostele urayi* (Hook. f.) Rolfe; *Thecostele zollingeri* Rchb. f.

India (NE), Burma, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, Philippines. Laos: Bolikhamxai (photos seen); Champasak (NUOL cult. OL1016); Khammouan (NUOL cult. OL921 [M. Newman et al.]; N); Louangphrabang (S); Vientiane (NUOL cult. OL1722 [B. Svengsuksa & B. Laville]; S); 'between April and Achang' (S).

Epiphyte on tree trunk in secondary humid evergreen forest near a large stream, also in the lowlands, 170–300 m a.s.l. May–July.

***Thelasis pygmaea* (Griff.) Blume**

Euproboscis pygmaea Griff.; *Thelasis amboinensis* (J. J. Sm.) J. J. Sm.; *Thelasis celebica* Schltr.; *Thelasis elongata* Blume; *Thelasis elongata* Blume var. *amboinensis* J. J. Sm.; *Thelasis hongkongensis* Rolfe; *Thelasis triandra* Blume; *Thelasis triptera* Rchb. f.; *Thelasis zollingeri* Rchb. f.

India, Nepal, Burma, China, Andaman Is., Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Sulawesi, lesser Sunda Is., New Guinea, Philippines, Solomon Is. Laos: Bolikhamxai (NUOL cult. OL1114 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB65); Vientiane (NUOL cult. OL1202 [P. Bonnet]).

Lithophyte on vertical rock in open montane conifer woodland, on moss-covered rocks in an open place at the top of a 15 m high waterfall, also epiphytic in mixed deciduous forest, 307–889 m a.s.l. April–August.

***Thrixspermum centipeda* Lour.**

Aerides arachnites (Blume) Lindl.; *Cleisostoma complanatum* (J. Koenig) Lindl. ex Steud.; *Dendrobium auriferum* Lindl.; *Dendrocolla arachnites* Blume; *Dendrocolla serraeformis* (Lindl.) Lindl. ex Thwaites; *Epidendrum complanatum* J. Koenig; *Epidendrum thrixspermum* Raeusch.; *Limodorum complanatum* (J. Koenig) Willd.; *Liparis serraeformis* Lindl.; *Sarcochilus arachnites* (Blume) Rchb. f.; *Sarcochilus aurifer* (Lindl.) Rolfe; *Sarcochilus centipeda* (Lour.) Náves; *Sarcochilus complanatus* (J. Koenig) Hook. f.; *Sarcochilus hainanensis* Rolfe; *Sarcochilus serraeformis* (Lindl.) Rchb. f.; *Thrixspermum arachnites* (Blume) Rchb. f.; *Thrixspermum auriferum* (Lindl.) Rchb. f.; *Thrixspermum auriferum* (Lindl.) Schltr.; *Thrixspermum complanatum* (J. Koenig) Schltr.; *Thrixspermum papillosum* Carr; *Thrixspermum serraeforme* (Lindl.) Rchb. f.; *Vanda pauciflora* Breda.

India (NE), Burma, China, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo, Philippines. Laos: Bolikhamxai (S); Champasak (P. Bonnet PB513); Khammouan (P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB21; P. Bonnet, P. Kessler, K. Nanthavong, V. Vannachak PB48; N); Louang Namtha (P. Bonnet, A. Schuiteman PB335); Phongsali (NUOL cult. OL397 [Hul & Thebaud]); Vientiane (NUOL cult. OL406 [B. Svengsuksa et al.]; S); 'between Mekong and Hue' (S; possibly Savannakhet).

Epiphyte in mixed deciduous forest, in humid evergreen forest, in dry evergreen forest on a hilltop near a waterfall, on coffee trees in coffee plantation, 537–1150 m a.s.l. May, June, September–December.

***Thrixspermum clavatum* (J. Koenig) Garay**

Dendrocolla maculata Ridl.; *Epidendrum clavatum* J. Koenig; *Gastrochilus clavatus* (J. Koenig) Kuntze; *Limodorum clavatum* (J. Koenig) Willd.; *Saccolabium clavatum* (J. Koenig) Lindl.; *Thrixspermum ciliatum* Schltr.; *Thrixspermum infractum* Schltr.; *Thrixspermum ridleyanum* Schltr.; *Thrixspermum rubrocallosum* Carr.

Thailand, Peninsular Malaysia, Sumatra, Borneo. Laos: Khammouan (NUOL cult. OL1290 [B. Svengsuksa et al.]; NUOL cult. OL830 [B. Svengsuksa et al.]).

Epiphyte on the distal part of small branches in dipterocarp forest. June, December.

***Thrixspermum leucarachne* Ridl.**

Sarcophilus leucarachne (Ridl.) F. N. Williams.

Thailand, Vietnam, Peninsular Malaysia, Sumatra. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélémy, E. Hoogendijk; photo]); Champasak (NUOL cult. OL581 [B. Svengsuksa et al.]); Houaphan (NUOL cult. OL879 [P. Thomas et al.]); Khammouan (NUOL cult. OL899 [M. Newman et al.]; N); Vientiane (S).

Lowlands. July, August, October, December.

***Thrixspermum pusillum* (Guillaumin) Garay**

Ascochilus pusillus Guillaumin; *Pteroceras pusillum* (Guillaumin) T. B. Nguyen & Duong Duc Huyen.

Vietnam. Laos: Vientiane (S).

***Thrixspermum trichoglottis* (Hook. f.) Kuntze**

Dendrocolla alba Ridl.; *Dendrocolla trichoglottis* (Hook. f.) Ridl.; *Sarcophilus trichoglottis* Hook. f.; *Thrixspermum album* (Ridl.) Schltr.

India (NE), Burma, Andaman Is., Thailand, Vietnam, Peninsular Malaysia, Singapore, Sumatra, Java, Borneo. Laos: Bolikhamxai (S); Vientiane (NUOL cult. OL413 [B. Svengsuksa et al.]; S).

Lowlands. March–November.

***Thunia alba* (Lindl.) Rchb. f.**

Phaius albus Lindl.

India (NE), Nepal, Bhutan, Burma, China (Yunnan), Thailand, Vietnam, Peninsular Malaysia. Laos: Champasak (NUOL cult. OL589 [B. Svengsuksa et al.]); Khammouan (NUOL cult. OL949 [M. Newman et al.], OL1140 [M. Newman et al.]; N); Vientiane (NUOL cult. OL1208 [P. Bonnet et al.]).

Lithophyte on the top of a small moss-covered rock in humid woodland, 1100 m a.s.l. January, December.

***Trias disciflora* (Rolfe) Rolfe**

Bulbophyllum disciflorum Rolfe.

India (NE), Thailand, Vietnam. Laos: Khammouan (NUOL cult. OL904 [M. Newman et al.]); Vientiane (NUOL cult. OL1199 [P. Bonnet]; S).

Epiphyte on small trees along a small stream through open conifer woodland, 500–759 m a.s.l. July–December.

***Trias nasuta* (Rchb. f.) Stapf**

Bulbophyllum nasutum Rchb. f.; *Trias vitrina* Rolfe.

Burma, Thailand, Vietnam. Laos: Champasak (NUOL cult. OL1440); Vientiane (NUOL cult. OL421 [B. Svengsuksa et al.]).

January, October.

***Trias nummularia* Aver. & Averyanova**

Vietnam. Laos: unspecified (Singapore Botanic Garden cult. SBG-O 3649, det. J. J. Vermeulen).

***Trichoglottis dawsoniana* (Rchb. f.) Rchb. f.**

Cleisostoma dawsonianum Rchb. f.; *Sarothrochilus dawsonianum* (Rchb. f.) Schltr.; *Staurochilus dawsonianus* (Rchb. f.) Schltr.; *Trichoglottis multiloba* Guillaumin.

Burma, Thailand. Laos: Xaignabouri (S).

***Trichoglottis fasciata* Rchb. f.**

Staurochilus fasciatus (Rchb. f.) Ridl.; *Stauroopsis fasciata* (Rchb. f.) Benth.; *Vandopsis leytenis* Ames.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Borneo, Philippines. Laos: Bolikhamxai (S); Champasak (NUOL cult. OL127 [B. Svengsuksa et al.]); Vientiane (NUOL cult. OL330 [S. Sopraseuth]; S); ‘between Mekong and Hue’ (S; possibly Savannakhet).

Epiphyte in heavy woods in the lowlands. March–May.

***Trichoglottis lorata* (Rolfe ex Downie) Schuit.**

Ascochilus loratus Rolfe ex Downie; *Pteroceras loratum* (Rolfe ex Downie) Seidenf. & Smitinand; *Staurochilus loratus* (Rolfe ex Downie) Seidenf.

Thailand. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB350; P. Bonnet, A. Schuiteman, V. Lamxay PB380).

Epiphyte in humid evergreen forest on a limestone hill, also in secondary montane forest, 722–1236 m a.s.l. May.

***Trichoglottis orchidea* (J. Koenig) Garay**

Ceratobilus orchideus (J. Koenig) Lindl.; *Cleisostoma tenuicaule* King & Pantl.; *Epidendrum orchideum* J. Koenig; *Limodorum orchideum* (J. Koenig) Willd.; *Saccolabium cornigerum* Ridl.; *Saccolabium pantlingii* Ridl.; *Saccolabium peperomioides* Kraenzl.; *Trichoglottis cirrhifera* Teijsm. & Binn.; *Trichoglottis tenuicaulis* (King & Pantl.) J. J. Sm.; *Trichoglottis tetraceris* Ridl.

Thailand, Nicobar Is., Peninsular Malaysia, Java. Laos: Bolikhamxai (P. Bonnet, F. Hallé PB_TX1); Champasak (NUOL cult. OL219 [B. Svengsuksa et al.]); Louangphrabang (S); Vientiane (NUOL cult. OL331 [N. Soulivong]; S).

Epiphyte on a small tree branch in dense secondary evergreen forest, 170–307 m a.s.l. January–April.

***Trichoglottis retusa* Blume**

Thailand, Cambodia, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is., Moluccas. Laos: Vientiane (S).

Note: at least some of the Indochinese specimens identified as *T. retusa* show clear differences from Malesian material, e.g. in the type of pubescence on the lip. Possibly more than one species have been recorded under this name.

***Trichoglottis seidenfadenii* Aver.**

Trichoglottis tomentosa Seidenf.

Thailand, Vietnam. Laos: Champasak (NUOL cult. OL150b [B. Svengsuksa et al.]).

***Trichotosia dasyphylla* (Parish & Rchb. f.) Kraenzl.**

Eria dasyphylla Parish & Rchb. f.; *Eria evrardii* Gagnep.; *Pinalia dasyphylla* (Parish & Rchb. f.) Kuntze.

India (NE), Nepal, Burma, Thailand, China (Yunnan), Vietnam. Laos: Bolikhamxai (sight record [A. Schuiteman, P. Bonnet, D. Barthélémy, E. Hoogendijk; photo]); Khammouan (NUOL cult. OL942 [M. Newman et al.]); Louang Namtha (P. Bonnet, A. Schuiteman PB330); Vientiane (D. Barthélémy, P. Bonnet, A. Schuiteman PB70; S); Xaignabouri (S); Xiangkhoang (S).

Epiphyte in dry evergreen forest on a hilltop near a waterfall, also on small trees along a small stream through open conifer woodland, and in evergreen montane forest, 805–1200 m a.s.l. April, June, July.

***Trichotosia microphylla* Blume**

Eria microphylla (Blume) Blume; *Pinalia microphylla* (Blume) Kuntze.

Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java, Borneo. Laos: Bolikhamxai (D. Barthélémy, P. Bonnet, A. Schuiteman, V. Lamxay PB418).

Epiphyte near a waterfall in dense humid evergreen forest, 1077 m a.s.l. May.

***Trichotosia pulvinata* (Lindl.) Kraenzl.**

Eria cristata Ridl.; *Eria helleri* A. D. Hawkes; *Eria pulvinata* Lindl.; *Eria rufinula* Rchb. f.; *Pinalia pulvinata* (Lindl.) Kuntze; *Trichotosia cristata* (Ridl.) Kraenzl.

India (NE), Burma, China, Thailand, Cambodia, Vietnam. Laos: Phongsali (P. Bonnet, S. Lanorsavanh, C. Loinheuang PB571); Savannakhet (S); Vientiane (NUOL cult. OL369 [B. Svengsuksa et al.]).

Epiphyte in Fagaceae-dominated evergreen montane ridge crest forest, 976 m a.s.l. August.

***Tropidia angulosa* (Lindl.) Blume**

Cnemidia angulosa Lindl.; *Cnemidia semilibera* Lindl.; *Decaisnea angulosa* Lindl.; *Govindooia nervosa* Wight; *Tropidia bellii* Blatt. & McCann; *Tropidia calcarata* Ames; *Tropidia govindooi* Blume; *Tropidia semilibera* (Lindl.) Blume; *Tropidia somai* Hayata.

India, Bangladesh, Bhutan, Burma, Taiwan, Thailand, Vietnam, Peninsular Malaysia, Sumatra, Java. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB348, not in flower).

Terrestrial in humid evergreen forest on a limestone hill, 722 m a.s.l.

***Tropidia curculigoides* Lindl.**

Tropidia assamica Blume; *Tropidia formosana* Rolfe; *Tropidia graminea* Blume; *Tropidia hongkongensis* Rolfe; *Tropidia squamata* Blume.

India, Burma, China, Taiwan, Thailand, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Java, Borneo, lesser Sunda Is., New Guinea, Australia. Laos: Bolikhamxai (P. Bonnet, A. Schuiteman, V. Vannachak PB637, not in flower); Louangphrabang (N); Xaignabouri (N); unspecified: ‘Massie sine no., fide Gagnepain’ (S).

Terrestrial in dense humid evergreen forest between limestone hills, also in evergreen montane forest.

***Tropidia pedunculata* Blume**

Schoenomorphus capitatus Thorel ex Gagnep.; *Tropidia maingayi* Hook. f.

India (NE), Thailand, Peninsular Malaysia, Sumatra, Java, Borneo, lesser Sunda Is., Moluccas, New Guinea. Laos: Xaignabouri (S).

***Vanda brunnea* Rchb. f.**

Thailand, Burma. Laos: Phongsali (NUOL cult. OL500 [B. Svengsuksa et al.]; P. Bonnet, A. Schuiteman, V. Lamxay

PB297); Oudomxai (sight record [P. Bonnet, A. Schuiteman, V. Lamxay; photo]).

Epiphyte in humid evergreen montane forest on a hilltop, also on tree trunk at margin of disturbed forest, 1365 m a.s.l. November, December.

***Vanda coerulescens* Griff.**

India (NE), Burma, China (Yunnan), Thailand. Laos: Champasak (NUOL cult. OL554 [B. Svengsuksa et al.]); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB205; P. Bonnet, A. Schuiteman, V. Lamxay PB236).

Epiphyte in mixed deciduous forest and in secondary Fagaceae-dominated evergreen montane forest, also on solitary trees in cultivated land. 900–1063 m a.s.l. April.

***Vanda concolor* Blume**

China (Yunnan, Guizhou, Sichuan), Vietnam. Laos: Xiangkhoang (S).

***Vanda denisoniana* Benson & Rchb. f.**

Thailand, Vietnam, Burma, China. Laos: Champasak (NUOL cult. OL1712); Louangphrabang (photos seen); Xiangkhoang (S).
January, February, May.

***Vanda flabellata* (Rolfe ex Downie) Christenson**

Aerides flabellata Rolfe ex Downie.

China (Yunnan), Thailand. Laos: Bokeo (N); Bolikhamxai (S); Louang Namtha (N); Louangphrabang (P. Bonnet PB178; P. Bonnet PB183); ‘Tafa to Ban Houai’ (S).

Epiphyte on a tree trunk next to the top of a small waterfall, and on thick-barked tree trunks in deciduous dipterocarp forest on shallow, rocky, and nutrient-deficient laterite soil. April, May.

Note: molecular studies indicate that this species belongs in the genus *Vanda*, rather than *Aerides* (A. Kocyan, pers. comm.).

***Vanda flavobrunnea* Rchb. f.**

Vanda pumila Hook. f.

India, Nepal, Burma, China (Yunnan), Thailand, Vietnam. Laos: Louang Namtha (P. Bonnet, A. Schuiteman, V. Lamxay PB371; P. Bonnet, A. Schuiteman, V. Lamxay PB386; P. Bonnet, V. Lamxay PB322); Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB244; P. Bonnet, A. Schuiteman, V. Lamxay PB280); Xiangkhoang (S).

Epiphyte on trees along a small river, in humid evergreen forest on a limestone hill, in mixed deciduous forest on a

hilltop, in secondary Fagaceae-dominated evergreen montane forest, and in humid montane evergreen forest, 700–1050 m a.s.l. April.

***Vanda lilacina* Teijsm. & Binn.**

Vanda laotica Guillaumin.

Burma, China, Thailand, Cambodia, Vietnam. Laos: Champasak (NUOL cult. OL109 [B. Svengsuksa et al.]; NUOL cult. OL203 [B. Svengsuksa et al.]); Khammouan (P. Bonnet, P. Nasoukhom, A. Schuiteman, V. Vannachak PB169); Savannakhet (S); Vientiane (NUOL cult. OL1053 [S. Soprseuth]; S); ‘Bang Nuc and Khemmarath’ (S; possibly Khammouan).

Epiphyte and lithophyte on the summit of a small limestone hill covered with open xerophytic forest, also in lowland dipterocarp forest, 170–222 m a.s.l. January–April.

***Vanda liouvillei* Finet**

Burma, Thailand, Cambodia, Vietnam. Laos: Xiangkhoang (S).

***Vandopsis gigantea* (Lindl.) Pfitzer**

Fieldia gigantea (Lindl.) Rchb. f.; *Stauropsis chinensis* Rolfe; *Stauropsis gigantea* (Lindl.) Benth. ex Pfitzer; *Vanda gigantea* Lindl.; *Vanda lindleyana* Griff. ex Lindl.; *Vandopsis chinensis* (Rolfe) Schltr.

Burma, China, Thailand, Vietnam, Peninsular Malaysia. Laos: Phongsali (P. Bonnet, A. Schuiteman, V. Lamxay PB213); Vientiane (S).

Epiphyte on a *Ficus* tree on a river bank, 737 m a.s.l. February, April.

***Vandopsis lissochiloides* (Gaudich.) Pfitzer**

Fieldia lissochiloides Gaudich.; *Grammatophyllum pantherinum* Zipp. ex Blume; *Stauropsis batemanii* (Lindl.) Nicholson; *Stauropsis lissochiloides* (Gaudich.) Pfitzer; *Vanda batemanii* Lindl.; *Vanda lissochiloides* (Gaudich.) Lindl.

Thailand, Sulawesi, Moluccas, New Guinea, Philippines. Laos: Bolikhamxai (NUOL cult. OL1105 [D. Barthélémy, P. Bonnet, K. Chanthavongsa]; S); Champasak (NUOL cult. OL189 [B. Svengsuksa et al.]).

Lithophyte on the flat top of big rocks in dense secondary semi-deciduous forest about 30 m from a river, 307 m a.s.l. April–June.

***Vanilla annamica* Gagnep.**

Vietnam. Laos: Louangphrabang (S).

Vanilla aphylla Blume

Burma, Thailand, Vietnam, Peninsular Malaysia, Java. Laos: Bolikhamxai (photos seen); Champasak (NUOL cult. OL276 [B. Svengsuksa et al.]); Savannakhet (NUOL cult. OL1029 [V. Lamxay et al.]); Vientiane (sight record; S).

Terrestrial climber covering a tree trunk in secondary evergreen forest, 170–300 m a.s.l. July–November.

Zeuxine affinis (Lindl.) Benth. ex Hook. f.

Adenostylis arisanensis (Hayata) Hayata; *Hetaeria affinis* Lindl.; *Hetaeria mollis* Lindl.; *Zeuxine arisanensis* Hayata; *Zeuxine aurantiaca* Schltr.; *Zeuxine sutepensis* Rolfe ex Downie.

India (NE), Bhutan, Burma, China, Thailand, Peninsular Malaysia, ?Philippines. Laos: Bolikhamxai (P. Bonnet PB650); Khammouan (NUOL cult. OL884 [M. Newman et al.]; N); Vientiane (S).

Terrestrial in secondary evergreen forest close to a small stream, also in damp grassland. November, December.

Zeuxine parvifolia (Ridl.) Ridl. ex K. Schum. & Fedde

Adenostylis benguetensis Ames; *Hetaeria parvifolia* Ridl.; *Zeuxine benguetensis* (Ames) Ames; *Zeuxine boninensis* Tuyama; *Zeuxine leucochila* Schltr.; *Zeuxine parvifolia* (Ridl.) Seidenf.; *Zeuxine sakagutii* Tuyama; *Zeuxine tenuifolia* Tuyama; *Zeuxine tonkinensis* Gagnep.

Burma, Taiwan, Ryukyu Arch., Thailand, Vietnam, Peninsular Malaysia, New Guinea, Philippines. Laos: Vientiane (S).

Terrestrial in bamboo forest in the lowlands. October, November.

Zeuxine strateumatica (L.) Schltr.

Adenostylis emarginata Blume; *Adenostylis integerrima* Blume; *Adenostylis strateumatica* (L.) Ames; *Adenostylis sulcata* (Roxb.) Hayata; *Neottia strateumatica* (L.) R. Br.; *Orchis strateumatica* L.; *Pterygodium sulcatum* Roxb.; *Spiranthes strateumatica* (L.) Lindl.; *Strateuma zeylanica* Raf.; *Tripleura pallida* Lindl.; *Zeuxine bonii* Gagnep.; *Zeuxine bracteata* Wight; *Zeuxine brevifolia* Wight; *Zeuxine emarginata* (Blume) Lindl.; *Zeuxine evardii* Gagnep.; *Zeuxine godefroyi* Rchb. f.; *Zeuxine integerrima* (Blume) Lindl.; *Zeuxine procumbens* Blume; *Zeuxine robusta* Wight; *Zeuxine rupicola* Fukuy.; *Zeuxine strateumatica* (L.) Schltr. f. *rupicola* (Fukuy.) T. Hashim.; *Zeuxine strateumatica* (L.) Schltr. var. *rupicola* (Fukuy.) S. S. Ying; *Zeuxine sulcata* (Roxb.) Lindl. ex Wight; *Zeuxine tripleura* (Lindl.) Lindl.; *Zeuxine wariana* Schltr.

Tropical continental Asia, Japan, Peninsular Malaysia, Sumatra, Java, Borneo, Moluccas, New Guinea, Philippines. Naturalised in Florida. Laos: Vientiane (S); ‘Bang Muc’ (S); ‘Capra, Sambor’ (Harmand) (S).

In rice fields in the lowlands. November.

List of synonyms and questionable records in Newman et al. (2007)

The following list contains taxa enumerated by Newman et al. (2007) that are reported under different names in our checklist, as well as a number of entries that in our opinion are either based on misidentifications (M) or require validation (V). It should be noted that for most of the species marked with ‘V’ the occurrence in Laos is to be expected.

Acampe carinata = *A. papillosa*
A. praemorsa sensu Newman et al. = *A. papillosa*
Aerides flabellatum = *Vanda flabellata*
A. siamensis (V)
Aphyllorchis annamensis (V)
A. caudata (V)
Apostasia nuda (V)
Armadorum siamense (V)
Ascocentropsis pusilla = *Ascolabium pusilla*
Ascocentrum curvifolium (V)
Bulbophyllum amplifolium (V)
B. bittnerianum (M)
B. crassipes (M)
B. densiflorum (M)
B. fascinator (M)
B. insulsum = *B. levinei*
B. longerepens (V)
B. longibracteatum = *B. macrocoleum*
B. reclusum (V)
B. skeatium = *B. retusiusculum*
B. stenophyllum (M)
B. suavissimum (V)
B. vaginatum (V)
B. wallichii (M)
Calanthe pulchra (V)
Cleisostoma recurvum (ined.) = *C. rostratum*
Coelogyne fuscescens (V)
Flickingeria fimbriata (V)
F. macraei (M)
Gastrochilus calceolaris (V)
G. dasypogon (V)
Geodorum densiflorum (V)
G. recurvum (V)
Glomera erythrosma (V)
Habenaria amplexicaulis (V)
H. digitata (V)
H. hosseussi (V)
H. medioflexa (V)
H. reniformis (V)
H. roseata = *H. rostellifera*
H. trichosantha (V)
Hetaeria affinis (V)
H. anomala (V)
Liparis acutissima (V)
L. averyanoviana (V)
L. chapaensis (V)
L. odorata = *L. nervosa*
L. siamensis = *L. nervosa*
Luisia grovesii = *L. filiformis*
Mischobulbum longiscapum (V)
Nervilia maculata (V)
Anoectochilus annamensis (V)
A. lylei (M)
A. setaceus sensu Newman et al. = *A. roxburghii*
C. huettneriana = ?*C. viscosa*
C. lactea = *C. flaccida*
C. prolifera (M)
Cymbidium cyperifolium (V)
C. nanulum (V)
Dendrobium acinaciforme auct. non Roxb. = *D. spatella*
D. albosanguineum (M)
D. anceps (V)
D. binoculare (V)
D. cathcartii (V)
D. intricatum (V)
D. kentrophyllum (M)
D. linguella (V)
D. ochreatum (M)
D. palabrae = *D. farmeri*
D. parcifolium (sphalm.) = *D. parciflorum*
D. primulinum = *D. polyanthum*
D. revolutum (M)
D. trinervium (V)
D. virgineum auct. non Rchb. f. = *D. schildhaueri*
D. wattii (V)
Eria porteri = *E. hindei*
E. spicata (V)
Eulophia flava (V)
Oberonia myosurus (V)
O. rufilabris (V)
Otochilus porrectus (M)
O. pseudoporrectus (V)
Panisea demissa (V)
Paphiopedilum bellatulum (V)
Peristylus constrictus (V)
P. densus (V)
Phaius indigoferus auct. non Hassk. = *P. indochinensis*
Phalaenopsis buyssoniana (V)
P. taenialis (V)
Pholidota guibertiae (M)
Pleione maculata (V)
P. praecox (V)
Podochilus microphyllus (M)
Staurochilus dawsonianus = *Trichoglottis dawsoniana*
Thrixspermum hystrix (M)
T. merguense (V)
Trias rosea (M)
Trichoglottis cirrhifera = *T. orchidea*
Vanda pumila = *V. flavobrunnea*
Zeuxine tonkinensis = *Z. parvifolia*

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