

**XI. KEY TO THE GENERA OF
ORCHIDACEAE OF NEW GUINEA**

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INTRODUCTION

With roughly 2300 known species in 133 genera (see Appendix), New Guinea is the richest area in the palaeotropics as far as orchids are concerned.

Up to the present the only useful key with which orchids from New Guinea can be identified to genus level is that published by J.J. Smith in 1934. This key is now obsolete in several respects because of changes in nomenclature and in taxonomic views. Besides, Smith's key is not always very practical; frequent use is made of characters which are difficult to evaluate in preserved material or which easily may be misunderstood. Yet, many orchid genera can be recognized at a glance, a fact which is not at all obvious from most keys that I have seen.

I have tried to write a key in which the use of 'difficult characters' is avoided as far as possible. As many genera are polymorphic with respect to 'easy characters', this means that they had to be included repeatedly. Purists may consider this a loss of efficiency, but I am of the opinion that a key is a tool which should above all be useful. The use of some terminology peculiar to orchids was unavoidable. An excellent survey of orchid morphology and biology is found in Dressler (1981). A drawback of the following key is that one needs complete specimens, because frequently vegetative as well as floral characters are to be evaluated. Please note that the key may not work for species from outside New Guinea, even if they belong to genera listed in the appendix.

I will be very grateful to those who inform me of errors and omissions encountered in this key. Material from New Guinea which seems to defy identification may be sent to me at the Rijksherbarium (compliance with CITES is required, of course).

Note: Characters after the — (long dash) are exclusive for that part of the lead, but are variable in the opposing one.

REFERENCES

- Dressler, R. L. 1981. *The Orchids: natural history and classification*. Harvard Univ. Press, Cambridge, Mass.
- Smith, J. J. 1934. Artificial key to the orchid genera of the Netherlands Indies, together with those of New Guinea, the Malay Peninsula and the Philippines. *Blumea* 1: 194–215.

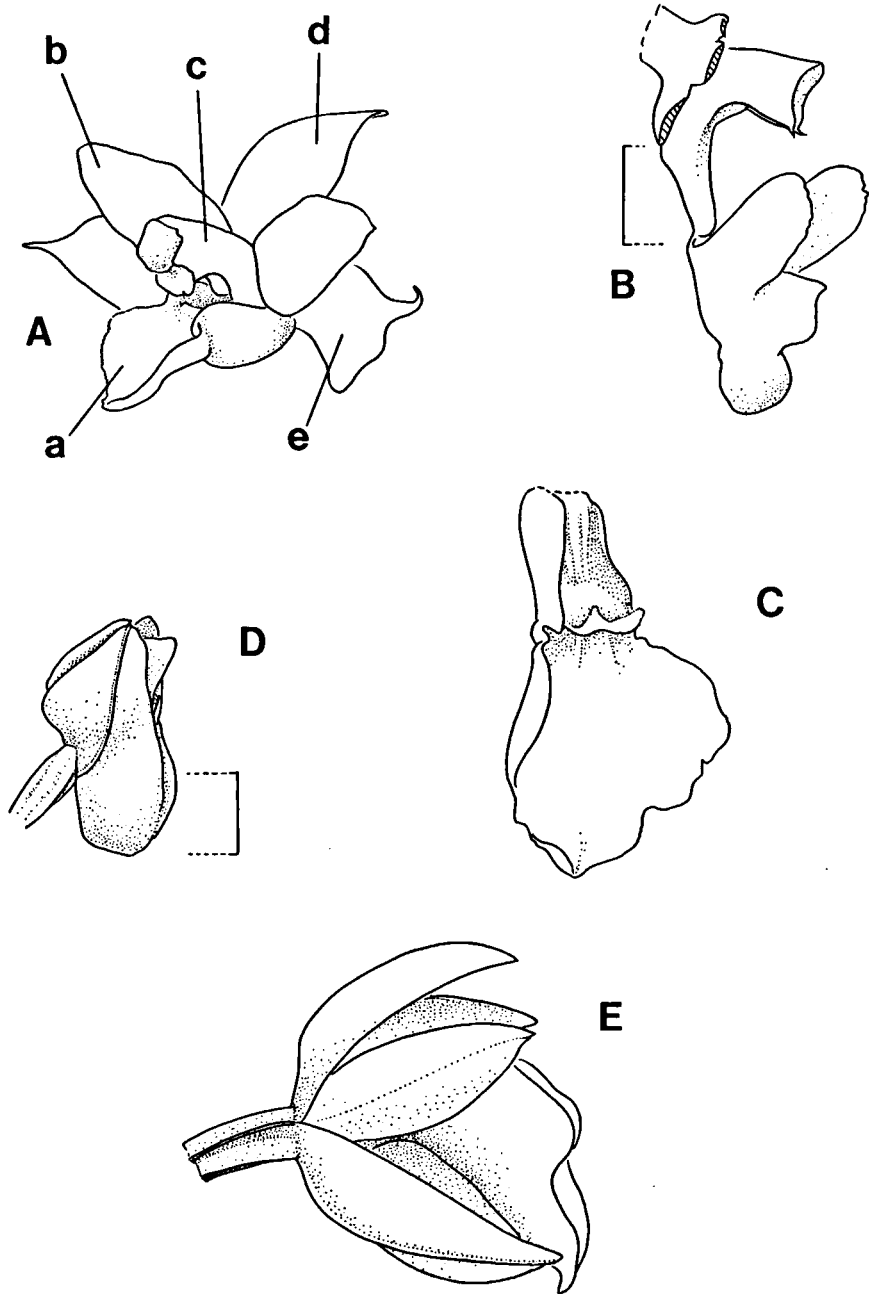


Fig. 1. A. Orchid flower (*Agrostophyllum elatum*): a. lip; b. petal; c. column; d. dorsal sepal; e. lateral sepal. - B. Column with foot, lip attached to the top of the latter (*Pteroceras cladostachyum*, not from New Guinea). - C. Lip divided into a hypochilium and an epichilium (*Agrostophyllum earinoides*). - D. Flower with mentum (*Appendicula aberrans*). - E. Flower without mentum (*Coelogyne veitchii*). — All drawn by the author.

GLOSSARY

- Caudicle** — An appendage of the pollinia, formed within the anther. Often rather soft and shapeless.
- Column-foot** — A basal extension of the column, often at right angles to the ovary (see Fig. 1B).
- Convolute** — Margins of the leaves overlapping in bud.
- Duplicate** — Folded along midrib only (as in leaf of *Paphiopedilum*).
- Ephemeral** — Flower lasting a single day or less.
- Epichilium** — Apical part of a lip which is divided in two parts by a transverse fold or crest (see Fig. 1C).
- Hypochilium** — Basal part, often strongly concave, of a lip which is divided into two parts by a transverse fold or crest (see Fig. 1C).
- Large** — Flower more than 5 cm across.
- Medium-sized** — Flower c. 2.5–4 cm across.
- Mentum** — Chin-like structure formed by strongly oblique lateral sepals, usually together with the column-foot (see Fig. 1D, compare Fig. 1E).
- Minute** — Flower a few mm across.
- Mobile** — Said of a lip which is hinged to the column or column-foot and as a consequence can easily be moved upward and downward without severing the connection between lip and column (often a mere breeze suffices to put such a lip into motion).
- Plicate** — Folded along several veins (as in the leaf of *Phaius tankervilleae*).
- Resupinate** — Said of a flower in its natural position in which the lip is positioned below the column (the usual condition in orchids, as in Fig. 1A).
- Rostellum** — The part of the column which separates the anther from the stigma.
- Settile** — Said of pollinia which consist of very many discrete parts.
- Small** — Flower c. 1–1.5 cm across.
- Stipe** — An appendage of the pollinia, formed outside the anther. Often rather stiff and of characteristic shape. Usually attached to a viscidium.
- Viscidium** — A sticky piece of tissue, formed outside the anther, to which the pollinia are attached, either directly or via the caudicles or the stipe.

KEY

- 1 Plant with leaves or plant epiphytic 2
 – Terrestrial plant without leaves **Key I**
- 2 Plant with less than 6 leaves per shoot, not monopodial, stem not climbing, leaves not laterally flattened, ÒR, when shoots 6- to many-leaved, leaves not arranged in two rows along an elongated stem (but spirally arranged, or on top of a pseudobulb, or in a basal, possibly distichous, rosette or on a very short stem)..... 3
 – Plant with 6 or more leaves per shoot, arranged in two rows along an elongated stem, ÒR plant monopodial (see Key II lead 27 for a circumscription), ÒR a leafless epiphyte, ÒR plant with climbing stems (not just climbing rhizomes), ÒR leaves laterally flattened **Key II**
- 3 Shoots 1- or 2-leaved, ÒR all leaves inserted above the base of a pseudobulb, ÒR lip insect-like **Key III**
 – Shoots with 3 or more leaves which are not all inserted above the base of a pseudobulb. — Lip not insect-like **Key IV**

KEY I

Leafless terrestrials (some of these may develop leaves after the flowering period)

- 1 Sepals and petals all connate 2
 — Sepals and petals free 4
- 2 Plant with a tuberous rhizome and a few roots, all subterranean. Inflorescence terminal. Spur absent 3
 — Plant consisting of a fascicle of exposed roots and a rudimentary stem from which the very slender inflorescences arise laterally. Spur present **Microtatorchis**
- 3 Floral tube deeply split between the lateral sepals and the petals. Stigma near the top of the column. Pollinia 4 **Didymoplexis**
 — Floral tube not deeply split between the lateral sepals and the dorsal petal. Stigma near the base of the column. Pollinia 2 **Gastrodia**
- 4 Stems climbing 5
 — Stems not climbing 6
- 5 Inflorescence and flowers at least partly hairy. Lip cup-shaped **Galeola**
 — Inflorescence and flowers glabrous. Lip not cup-shaped **Pseudovanilla**
- 6 Flower outside at the base without a collar-like structure 7
 — Flower outside at the base with a collar-like structure **Lecanorchis**
- 7 Dorsal sepal and lateral sepals similar. Lip not spurred, or spur 1 8
 — Dorsal sepal very different from the lateral sepals. Lip with two short conical spurs.
 — Inflorescence a single flower **Corybas**
- 8 Lip not beard-like, not blue at the base 9
 — Lip beard-like, metallic blue at the base **Calochilus**
- 9 Column glabrous. Pollinia 2 or 4 10
 — Column finely pubescent. Pollinia 8. — Ovary and sepals finely pubescent
 **Pachystoma**
- 10 Top of the column obtuse in lateral view. Pollinia either without a stipe, or solid-waxy 11
 — Top of the column pointed in lateral view. Pollinia sectile, attached with a stipe to a distinct viscidium **Cystorchis**
- 11 Lip at the base with a short spur or sac 12
 — Lip not spurred nor saccate 13
- 12 Lip entire. Pollinia sectile **Epipogium**
 — Lip 3-lobed. Pollinia solid-waxy, cleft at the base **Eulophia**

- 13 Flowers glabrous outside, resupinate. — Inflorescence not branched 14
 — Flowers brown-mealy outside, not resupinate **Cyrtosia**
- 14 Lip not as below 15
 — Lip entire, at base with 2 warts, otherwise smooth, narrowly elliptic **Stereosandra**
- 15 Lip not clearly divided into two parts 16
 — Lip divided into a concave, bilobed basal part and a less concave, often 3-lobed apical part **Aphyllorchis**
- 16 Very tall plant (0.6 to 1.5 m or more). Leaves absent. Base of the lip not clasping the column. Pollinia solid-waxy, cleft at the base, attached to a bifid stipe, with viscidium **Dipodium**
 — Plant much smaller. Reniform or suborbicular leaves present after the flowering period. Base of the lip clasping the column. Pollinia sectile, without appendages, without viscidium **Nervilia**

KEY II

Plants with elongated stems which carry at least 6 clearly distichous leaves, ÒR plants monopodial, ÒR plants with climbing stems, ÒR leaves laterally flattened.

- 1 Leaves laterally flattened or filiform 2
 — Leaves dorso-ventrally flattened, or more or less fleshy- terete, or absent 9
- 2 Inflorescence a terminal raceme 3
 — Inflorescence 1-flowered or exclusively lateral (sometimes produced on the leafless top part of a stem, this may resemble a raceme, but the 'rhachis' is then covered by brownish scales. 6
- 3 Inflorescence without laterally flattened bracts. Flowers small to minute. Pollinia 4 4
 — Inflorescence with laterally flattened bracts. Flowers medium- sized, Pollinia 2. — Flowers ephemeral, produced successively on a very short raceme, bracts laterally flattened **Bromheadia** section **Aporodes**
- 4 Inflorescence with numerous open flowers. Lip not enclosed by the lateral sepals. Column without a foot 5
 — Inflorescences with a few open flowers only. Lip enclosed by the lateral sepals. Column with a distinct foot **Podochilus**
- 5 Column long and slender. — Plant with a creeping rhizome **Hippeophyllum**
 — Column very short **Oberonia**
- 6 Column with a foot 7
 — Column without a foot. — Leaves not grooved above **Octarrhena**

- 7 Leaves not grooved above. Inflorescence few-flowered. Flowers small to medium-sized 8
 — Leaves grooved above. Inflorescence many-flowered. Flowers minute . **Phreatia**
- 8 Inflorescence with 1 or 2 flowers, or, if a raceme, shoots 1-leaved. Pollinia 4 in two pairs **Dendrobium**
 — Inflorescence a 3–many-flowered raceme. Pollinia 8. — Shoots several-leaved ..
 **Eria** section **Aporodes**
- 9 Plant leafless and stemless (except for inflorescence) 10
 — Plant with leaves or with climbing stems 11
- 10 Pollinia 2. — Sepals and petals connate **Microtatorchis**
 — Pollinia 4 **Taeniophyllum**
- 11 Leaves, when present, widely spaced on a climbing stem, not attached to sheaths 12
 — Stem, when climbing, with leaves attached to sheaths 13
- 12 Stem yellow or brown, opposite each root with a greenish or yellowish scale
 **Pseudovanilla**
 — Stem green, opposite each root with a thick fleshy green leaf **Vanilla**
- 13 Inflorescences terminal or both terminal and lateral 14
 — Inflorescences exclusively lateral 26
- 14 Stems not creeping, or flower with a distinct mentum 15
 — Stems creeping. Flowers without a mentum. — Plant almost always terrestrial, with herbaceous leaves which are not articulated with their sheaths. Inflorescence an elongated raceme. Flowers not resupinate **Malaxis**
- 15 Inflorescence a raceme. Flower without a mentum. Lip neither strongly concave nor spurred 16
 — Not this combination of characters 18
- 16 Flowers several open at the same time. Pollinia 8. — Flowers medium-sized or small 17
 — Flowers appearing one at a time from a gradually elongating raceme. Pollinia 2. — Flowers medium-sized to rather large **Bromheadia**
- 17 Rhachis of inflorescence covered with bracts. Flowers small. Pollinia clavate, attached to a common viscidium **Agrostophyllum**
 — Rhachis of inflorescence naked. Flowers medium-sized. Pollinia ellipsoid, without a viscidium **Dilochia**
- 18 Leaves duplicate. Pollinia 4–8, solid-waxy 19
 — Leaves plicate, convolute. Pollinia 2, sectile. — Inflorescence a raceme. Lip strongly concave at the base. Column without a foot **Tropidia**

- 19 Either the rachis of inflorescence glabrous, or inflorescence not a raceme. Lip without mealy callosities 20
 — Inflorescence a raceme (often several at the same time), rachis pubescent. Lip with mealy callosities. — Ovary pubescent. Pollinia 8 **Eria** section **Mycaranthes**
- 20 Bracts at the base of the inflorescence, if any, not dissolving into fibres. Pollinia 4–6. — Lip not divided into a hypochilium and an epichilium 21
 — Bracts at the base of the inflorescence soon dissolving into fibres. Pollinia 8. — Spur absent. Lip normally with a hypochilium and an epichilium, often separated by a transverse wall **Agrostophyllum**
- 21 Inflorescences very short. Lip with a spur or sac at the base 22
 — Inflorescences short or elongated. Lip without a spur or sac at the base (but flower sometimes with a spur-like mentum). — Margins of leaf-sheaths not ciliate or fimbriate 23
- 22 Inflorescence with 2 or more flowers. Sepals and petals hardly spreading **Glomera**
 — Inflorescence reduced to a single flower. Sepals and petals usually wide-spreading. — Leaf sheaths with fimbriate or ciliate margins **Glossorhyncha**
- 23 Flower with a mentum. — Inflorescence a single flower or a raceme. Pollinia 4 or 6 24
 — Flower without a mentum. — Inflorescence 1- or 2-flowered. Lip boat-shaped. Pollinia 4, more or less ellipsoid **Aglossorhyncha**
- 24 Pollinia clavate, with flattened caudicles or attached to a viscidium. — Stem at most slightly fleshy. Leaves always attached to sheaths. Flowers small to very small. Pollinia 4 or 6 25
 — Pollinia oblong, cohering in two pairs, naked, without viscidium. — Stem often distinctly fleshy. Flowers small to large. Pollinia 4 **Dendrobium**
- 25 Plant not moss-like. Pollinia 6 **Appendicula**
 — Plant very small, often almost moss-like, with the leaves usually less than 8 mm long. Pollinia 4. — Lip without callosities or hairs **Podochilus**
- 26 (13). Not as below 27
 — Stem climbing spirally along tree trunks. Leaves strap-shaped. Inflorescence a raceme with rather large, spotted flowers. Flower without a mentum. Lip not spurred, 3-lobed, in the top part with a hairy median longitudinal crest. Pollinia 2, cleft at the base, attached to a bifid stipe, with a viscidium **Dipodium**
- 27 Monopodial orchids. — Rhizome absent. Roots glabrous, rarely warty-papillose, never hairy, never subterranean. Stems almost absent to much elongated, never swollen, with indefinite top growth, sparsely branched or not branched at all, with the branches arising above the very base of the stem. Leaves attached to sheaths, articulated, duplicate. Inflorescences lateral. Pollinia 2 or 4, solid-waxy, in spheri-

- cal or ellipsoid masses, attached to a stipe with viscidium (if seemingly monopodial, but with 8 club-shaped pollinia, use Key IV lead 4: more or less fan-shaped plants with elongated racemes of small to minute white, greenish or yellowish flowers without spur) 28
- Sympodial orchids. — Stems well-developed. Pollinia 2–8 64
- 28 Leaves dorso-ventrally flattened 29
- Leaves terete. — Inflorescence very short. Spur absent **Luisia**
- 29 Bracts not laterally flattened, not in 2 rows, or spur present 30
- Bracts laterally flattened, in 2 rows. Spur absent. — Flowers ephemeral **Thrixspermum** section **Thrixspermum**
- 30 Margins of leaves and petals not serrate 31
- Margins of leaves (usually) and petals serrate. — Spur present ... **Hymenorchis**
- 31 Peduncle and rhachis very short. — Inflorescence 1–few-flowered 32
- Peduncle and/or rhachis elongated. — Inflorescence few–several-flowered (flowers may appear successively) 36
- 32 Lip saccate or strongly concave at the base 33
- Lip almost flat, without basal concavity **Adenoccos**
- 33 Column without a foot 34
- Lip movably attached to a long column-foot **Sarcochilus** section **Monanthochilus**
- 34 Lip immobile 35
- Lip mobile. — Flowers large **Arachnis**
- 35 Flowers ephemeral. Lip without a lamella at the base **Tuberolabium** (**Trachoma**)
- Flowers not ephemeral. Lip at the base with a hairy lamella **Trichoglottis**
- 36 Lip with a hollow sac or spur at the base 37
- Lip without a sac or spur at the base 55
- 37 Inflorescence elongated, branched. Flowers bright purple or reddish. Lip sac-shaped, with a very small midlobe, without callosities in the spur 38
- Not as above 40
- 38 Flowers red or brownish red. Sepals and petals patent 39
- Flowers bright pinkish purple. Sepals and petals reflexed **Ascoglossum**
- 39 Flowers very small, not resupinate. Pollinia 2 **Porphyrodesme**
- Flowers medium-sized, resupinate. Pollinia 4, in two spherical masses **Renanthera**

- 40 Stem climbing or not, but then spur not as below 41
 — Stem not climbing. Spur at the mouth almost closed by an adaxial callus, inside apically the top with a longitudinal dividing membrane **Cleisostoma**
- 41 Sepals and petals free 42
 — Sepals and petals connate **Microtatorchis**
- 42 Column with a very distinct foot, about as long as the column itself or longer . . 43
 — Column-foot very short or absent 45
- 43 Lip sac-shaped, without distinct sidelobes 44
 — Lip distinctly spurred, with well-developed sidelobes **Aerides**
- 44 Lip immobile. Column-foot broad, concave **Bogoria**
 — Lip mobile. Column-foot narrow, flat **Rhinerrhiza**
- 45 Lip not mobile 46
 — Lip mobile. — Spur pointing forward **Brachypeza**
- 46 Flowers small 47
 — Flowers large **Vanda**
- 47 Stem not climbing. Spur inside without a longitudinal dividing membrane 48
 — Stem very long, climbing. Spur inside at the top with a longitudinal dividing membrane **Micropera**
- 48 Spur inside adaxially without a callus 49
 — Spur inside adaxially with an obliquely erect, tongue-shaped callus . **Pomatocalpa**
- 49 Rhachis of inflorescence elongated. — Flowers not appearing periodically in successive clusters, not ephemeral 50
 — Rhachis of inflorescence very short, or, when elongated, flowers ephemeral and appearing periodically in successive clusters on one inflorescence 53
- 50 Pollinia in two masses. — Inflorescence usually unbranched or with a single branch 51
 — Pollinia in 4 clearly separated masses. — Inflorescence often with several branches **Schoenorchis**
- 51 Plant with a well-developed stem. Sepals and petals rather fleshy. Pollinia not completely split into two parts 52
 — Plant almost stemless. Sepals and petals thin-textured. Each of the two pollinia split into two very unequal parts **Saccolabiopsis**
- 52 Flowers widely opening. Spur apically not inflated. Pollinia entire **Malleola**
 — Flowers not widely opening. Spur apically inflated. Pollinia more or less deeply cleft **Robiquetia**

- 53 Flowers ephemeral. Midlobe indistinct, or not flat 54
 — Flowers not ephemeral. Lip with a large, flat midlobe. (Occurrence in New Guinea highly doubtful) **Acampe**
- 54 Peduncle elongated. Lip inside with a callus **Thrixspermum** section **Dendrocolla**
 — Peduncle short. Lip inside without a callus **Tuberolabium (Trachoma)**
- 55 (36). Lip at the base fused with the footless column 56
 — Column either with a distinct foot, or lip clearly articulated with the base of a footless column 58
- 56 Rhachis of inflorescence elongated, flowers more than 2.5 cm diam. 57
 — Rhachis of inflorescence very short, flowers small. (Occurrence in New Guinea highly doubtful) **Acampe**
- 57 Base of the lip swollen, without a transverse lamella **Sarcantopsis**
 — Base of the lip concave, with a transverse lamella **Vandopsis**
- 58 Column with a foot 59
 — Column without a foot. — Plant large, with strap-shaped leaves. Flowers large ..
 **Arachnis**
- 59 Flowers small to medium-sized. Pollinia either in four separate masses, or in two masses which are completely split into two halves 60
 — Flowers large. Pollinia in two masses, never completely split into two halves. — Lip 3-lobed, with a bilobed callus between the lateral lobes **Phalaenopsis**
- 60 Lip mobile 61
 — Lip not mobile 63
- 61 Rhachis of inflorescence not swollen. Flowers largely opening simultaneously. — Inflorescence usually branched 62
 — Rhachis of inflorescence swollen. Flowers appearing successively, one or a few at a time. — Inflorescence never branched **Dryadorchis**
- 62 Inflorescence usually branched. Anther extended at the back. Pollinia in four equal masses **Calymmanthera**
 — Inflorescence not branched. Anther not extended at the back. Pollinia in two masses which are split into two unequal parts **Gunnarella**
- 63 Lip inside without a callus. Rhachis of inflorescence elongated **Bogoria**
 — Lip inside in the centre with a callus. Rhachis of inflorescence very short
 **Thrixspermum** section **Dendrocolla**
- 64 (27). Leaf-blades attached to sheaths 65
 — Leaf-blades not attached to sheaths **Key III, lead 23**
- 65 Leaves and sheaths hairy, at least along their margins 66
 — Leaves and sheaths glabrous 67

- 66 Hairs only on the sheaths, blackish. Pollinia 4 . . . **Dendrobium** section **Conostalix**
 — Hairs usually on the leaves, sheaths, and inflorescence brown, rarely whitish. Pollinia 8 **Trichotosia**
- 67 Column at most at its base fused with the base of the lip 68
 — Column throughout its length fused with the base of the lip. — Spur present **Calanthe**
- 68 Characters not as below 69
 — Very large plant with duplicate leaves. Stem swollen, more than 1.5 m long. Inflorescence a tall raceme with large, spotted flowers. Column without a foot. Pollinia 2, cleft, attached to a bifid stipe, with a viscidium **Grammatophyllum**
- 69 Stems not climbing 70
 — Stems climbing, not swollen. — Leaves convolute, not plicate. Column without a foot. Lip entire, flat. Pollinia 4, solid-waxy, naked **Pseuderia**
- 70 Leaves plicate, convolute. Column without a foot 71
 — Leaves duplicate. Column with a foot 74
- 71 Inflorescence an erect raceme. Flowers variously coloured, but not uniformly white or yellowish. Top of column obtuse. Pollinia 8, waxy 72
 — Inflorescence a short patent raceme or a panicle. Flowers uniformly white or yellowish. Top of column acute, bidentate. Pollinia 2, sectile 73
- 72 Lip immobile, concave or spurred at the base **Phaius**
 — Lip elastically hinged to the column, not concave at the base **Plocoglottis**
- 73 Lip flat, spatulate **Corymborkis**
 — Lip strongly concave at the base, more or less boat-shaped **Tropidia**
- 74 Pollinia 6 or 8, with caudicles or a viscidium. — Roots glabrous or hairy. Flowers small and not brilliantly coloured 75
 — Pollinia 4, in two oblong pairs, naked. — Roots glabrous (sometimes warty). Flowers often large and brilliantly coloured **Dendrobium**
- 75 Characters not as below 76
 — Inflorescence an erect (never patent) raceme of several to many very small white or greenish flowers. Lip simple, with a short claw. Pollinia 8, narrowly club-shaped **Phreatia**
- 76 Pollinia 6, when 8 inflorescences not as below 77
 — Pollinia 8. Inflorescence filiform, producing several flowers in succession **Poaephyllum**
- 77 Pollinia 6. — Inflorescence never arising from a cavity in the stem; rhachis glabrous **Appendicula**
 — Pollinia 8. — Inflorescence often arising from a cavity in the stem; rhachis often hairy **Eria**

KEY III

Plants non-monopodial with 1- or 2-leaved shoots ÒR all leaves inserted above the base of a pseudobulb, ÒR lip insect-like.

- 1 Plant not as below 2
 - Stemless terrestrial plants without pseudobulbs. Leaves and inflorescences arising from a cluster of thick hairy roots. Leaf petiolate, not plicate. Inflorescence a tall raceme. Flowers not resupinate, a few cm across, with narrow petals and sepals and a much broader lip **Cryptostylis**
- 2 Inflorescences exclusively lateral (or at apparently so: some inflorescences are produced on specialized, leafless shoots, and are actually terminal, but appear to be lateral, e.g. in *Mediocalcar* spp.) 3
 - Inflorescences terminal or both terminal and lateral 37
- 3 Leaves not as below 4
 - Leaves reniform or suborbicular, plicate, arising from a subterranean tuberous rhizome **Nervilia**
- 4 Pseudobulb subterranean. — Leaves plicate. Inflorescence a raceme or a panicle 5
 - Pseudobulb not subterranean. — Leaves duplicate. Inflorescence a raceme, panicle, reduced to a single flower, or a fascicle of 1-flowered inflorescences 23
- 5 Flowers and column-foot not as below 6
 - Flowers large, urn-shaped. Column-foot bent upwards, very long **Acanthephippium**
- 6 Column not flattened at the top. — Pseudobulbs 1–several-leaved 7
 - Column at the top broadened and flattened, forming a hood which overtops the anther. — Pseudobulbs 2-leaved. Spur absent. Pollinia 4, without viscidium **Coelogyne**
- 7 Column at most at its base fused with the lip 8
 - Column throughout its length fused with the lip **Calanthe**
- 8 Lip immobile, often 3-lobed, when mobile, column-foot spurred. — Pollinia 2, 4, or 8 9
 - Lip elastically hinged to the base of the column, not distinctly 3-lobed, column-foot not spurred. — Pollinia 4 **Plocoglottis**
- 9 Lip, when 3-lobed, without a pair of calli at the base of the midlobe 10
 - Lip 3-lobed, with a pair of calli at the base of the midlobe. — Pollinia 8 **Spathoglottis**
- 10 Pollinia 2 (partly cleft or not) or 8 11
 - — Lip entire, not concave, without crests, not spurred. Pollinia naked **Liparis** section **Heteroblastos**

- 11 Leaf solitary, attached to a distinct ovoid or petiole-like pseudobulb 12
 — Leaves either 2–more, or solitary, then arising from a subterranean rather amorphous swollen rhizome 18
- 12 Leaf glabrous 13
 — Leaf conspicuously hairy **Pilophyllum**
- 13 Leaf more or less gradually narrowed to the base. — Pollinia 2 or 8 14
 — Leaf cordate at the base. — Pollinia 8 **Mischobulbum**
- 14 Pollinia 2 15
 — Pollinia 8 17
- 15 Lip clawed. Column-foot with a spur-like nectary 16
 — Lip not clawed. Column-foot not spurred **Diglyphosa**
- 16 Lip mobile, margins of the claw pleated **Chrysoglossum**
 — Lip not mobile, margins of the claw flat **Collabium**
- 17 Pseudobulb of more than one internode. Spur short **Ania**
 — Pseudobulb of one internode. Spur absent **Tainia**
- 18 Lip not basin-shaped. — Inflorescence straight. Lip often 3-lobed. Pollinia 2 or 8 19
 — Lip basin-shaped. — Inflorescence usually nodding. Lip entire, not spurred. Pollinia 2, cleft, attached to a stipe, with viscidium **Geodorum**
- 19 Pollinia 2, cleft, ellipsoid, attached to a stipe, with a viscidium 20
 — Pollinia 8, with indistinct caudicles, without a viscidium 21
- 20 Lip 3-lobed **Eulophia**
 — Lip 4-lobed **Oeceoclades**
- 21 Shoots with sometimes rather narrow and stem-like pseudobulbs. — Column at least dorsally glabrous 22
 — Shoots without pseudobulbs, arising from a swollen subterranean rhizome. — Ovary, sepals and column pubescent **Pachystoma**
- 22 Flower without a hollow nectary or spur. Column with a distinct foot **Eria** section **Eria**
 — Base of the lip fused with the base of the column, producing a hollow nectary, or spur present. Column without a foot. — When lip petal-like: peloric form of *Calanthe*) **Phaius**
- 23 (4). Inflorescence 1-flowered (sometimes a fascicle of 1-flowered inflorescences) 24
 — Inflorescence a raceme or a panicle 29

- 24 Inflorescence arising from the upper part of the shoot **Dendrobium**
 — Inflorescence arising from the very base of the shoot or from a stem-like rhizome 25
- 25 All sepals connate: flower tubular 26
 — At most two sepals connate 27
- 26 Petals and lip not as below. Pollinia 2 or 4. — Flowers not orange or bright red . .
 **Bulbophyllum**
 — Petals linear to subspathulate, entire, without appendages. Lip strongly concave or
 saccate in the centre. Pollinia 8. — Flowers usually orange or bright red with dif-
 ferently coloured apices **Mediocalcar**
- 27 Top of column with at most two slender appendages 28
 — Top of column with several slender appendages. — Lip saccate, thin-textured, with-
 out basal or apical appendages **Saccoglossum**
- 28 Lip not slipper-shaped **Bulbophyllum**
 — Lip slipper-shaped, with a short apical appendage **Pedilochilus**
- 29 Inflorescence arising from the upper part of the shoot 30
 — Inflorescence arising from the very base of the shoot or from the rhizome 31
- 30 Roots glabrous, sometimes warty. Flowers often brilliantly coloured. Base of the
 lip often fused with the column-foot. Column short and straight, not distinctly
 widened at the top. Pollinia 4 **Dendrobium**
 — Roots hairy. Flowers not brilliantly coloured. Base of the lip not fused with the
 column-foot. Column often slender and curved, often distinctly widened at the top.
 Pollinia 8 **Eria**
- 31 Pseudobulbs of more than one internode 32
 — Pseudobulbs of one internode, sometimes only a few mm long 34
- 32 Lateral sepals free. Column not swollen at the base. — Inflorescence not branched
 33
 — Lateral sepals connate. Column swollen at the base. — Inflorescence usually branch-
 ed **Acriopsis**
- 33 Lip with 2 keels. — Pseudobulbs usually hidden by the leaf- sheaths
 **Cymbidium**
 — Lip with 1 broad, flattened keel or with 3 keels. — Pseudobulbs large, exposed . .
 **Grammatophyllum**
- 34 Inflorescence not branched. — Pseudobulb 1- or 2-leaved at the top 35
 — Inflorescence branched. — Pseudobulb 2-leaved at the top **Ridleyella**

- 35 Column with a foot 36
 — Column without a foot. — Lip not mobile **Thelasis**
- 36 Lip mobile. Pollinia 2 or 4, ellipsoid **Bulbophyllum**
 — Lip immobile. Pollinia 8, narrowly club-shaped **Phreatia**
- 37 (2). Leaves articulated at the base, carried by a pseudobulb (which may look petiole-like, however). — Plant without a subterranean rhizome or tuber. Pollinia solid-waxy 38
 — Leaves not articulated at the base, not carried by a pseudobulb 55
- 38 Inflorescence a raceme 39
 — Inflorescence a single flower or a fascicle of 1-flowered inflorescences 45
- 39 Combination of characters not as below 40
 — Leaves plicate. Column-foot distinct. Pollinia 8 **Eria** section **Eria**
- 40 Leaves convolute. Column either more or less winged and hood-like flattened at the top, with the hood overtopping the anther, or with two lateral arms, foot indistinct 41
 — Leaves duplicate. Column not flattened at the top, without lateral arms, foot either entirely absent or distinctly present 43
- 41 Column without lateral arms 42
 — Column with two lateral arms. — Flowers small **Dendrochilum**
- 42 Lip not sharply divided in a concave hypochilium and a flat epichilium **Coelogyne**
 — Lip sharply divided in a hypochilium and an epichilium. — Lip without distinct lateral lobes **Pholidota**
- 43 Column with a foot 44
 — Column without a foot **Liparis**
- 44 Roots glabrous, sometimes warty. Column short and straight, never distinctly widened at the top. Pollinia 4. — Flowers often brilliantly coloured. Base of the lip often fused with the column-foot **Dendrobium**
 — Roots hairy. Column often slender and curved, often distinctly widened at the top. Pollinia 8. — Flowers never brilliantly coloured. Base of the lip not fused with the column-foot **Eria**
- 45 (38). At least the dorsal sepal free from the lateral sepals 46
 — All three sepals connate: flower urn-shaped **Mediocalcar**
- 46 Inflorescences either arising from a mature shoot, or not forming a fascicle ... 47
 — Inflorescences arising in a fascicle from the developing shoot **Epiblastus**

- 47 Roots hairy. Pollinia 8 48
 — Roots glabrous. Pollinia 4 49
- 48 Stems not swollen into pseudobulbs. Column at the top with two rounded arms ..
 **Ceratostylis**
 — Stems with pseudobulbs. Column without arms **Eria**
- 49 Leaf-blades not attached to sheaths 50
 — Leaf-blades attached to sheaths **Dendrobium**
- 50 Pseudobulbs ellipsoid or of uniform width 51
 — Pseudobulbs to the top drawn out in narrow 'neck' **Diplocaulobium**
- 51 Rhizome very short, or creeping, or pendulous, not stem-like 52
 — Rhizome with erect or patent stem-like branches which carry distant pseudobulbs
 **Flickingeria**
- 52 Sepals not white or, when white, lip with 2 or 3 lamellate keels. Column glabrous
 in front below the stigma. — Stems not sharply 4-winged. Ovary terete, glabrous
 53
 — At least the sepals, and usually the whole flower pure or creamy white, if sepals
 yellowish, then ovary papillose. Lip without lamellate keels. Column hairy in front
 below the stigma. — Stems sometimes sharply 4-winged. Ovary usually sharply
 3- to 6-winged or strongly papillose **Cadetia**
- 53 Dorsal sepal ovate or elliptic 54
 — Dorsal sepal narrowly lanceolate to caudate. — Lip with lamellate keels
 **Diplocaulobium**
- 54 Flowers not ephemeral. Lip entire or obscurely 3-lobed, without longitudinal keels
 **Dendrobium** section **Microphytanthe**
 — Flowers ephemeral. Lip distinctly 3-lobed, with longitudinal keels
 **Flickingeria** (*F. convexa*)
- 55 (37). Inflorescence 1-flowered. Dorsal sepal very different from the lateral sepals
 56
 — Inflorescence usually a raceme. Dorsal sepal similar to the lateral sepals, at most the
 lateral sepals somewhat oblique 58
- 56 Lip immobile. Column without a foot 57
 — Lip mobile, attached to a long column-foot **Pterostylis**
- 57 Shoot with one leaf. Lateral sepals not spurred **Corybas**
 — Shoot with two almost opposite leaves. Lateral sepals spurred **Disperis**

- 58 Rhizome absent. Column obtuse in lateral view, or, when pointed, leaves plicate. — Inflorescence, ovary, and sepals glabrous 59
 — Rhizome creeping with a thick hairy root at each node. Column pointed in lateral view. — Leaves not plicate. Inflorescence, ovary, or sepals often glandular-hairy **Key IV, lead 28**
- 59 Spur present. — Leaves not plicate 60
 — Spur absent 62
- 60 Stigmata separate, on two cushion-shaped or stalked processes 61
 — Stigmata confluent, more or less concave **Platanthera**
- 61 Base of the lip free from the stigmata. — Spur never subglobose **Habenaria**
 — Base of the lip fused with or touching the lower margin of the stigmata. — Spur often subglobose **Peristylus**
- 62 Lip dissimilar to sepals and petals. Top of the column without appendages 63
 — Lip similar to the sepals and petals. Top of the column with two brush-like appendages **Thelymitra**
- 63 Lip not as below 64
 — Top of the lip insect-like, flexibly jointed with the basal part. — Flowers not resupinate **Arthrochilus**
- 64 Lip not as below 65
 — Lip beard-like, metallic blue at the base **Calochilus**
- 65 Either the lip not strongly concave at the base, or column much less than half as long as the lip. Column obtuse in lateral view..... 66
 — Lip strongly concave at the base. Column at least about half as long as the lip, pointed in lateral view **Tropidia**
- 66 Lip bilobed, or entire, or with a toothed margin. Anther with an easily detached cap..... 67
 — Lip 3-lobed at the top. Anther immovably attached to the column. — Underground tuber present. Leaves not plicate **Herminium**
- 67 Flowers resupinate. Lip without basal auricles, not clasping the column 68
 — Flowers not resupinate. Lip with basal auricles which clasp the column .. **Malaxis**
- 68 Column not laterally flattened. Lip at the base at most with a low ridge-like callus. Pollinia solid-waxy. — Shoot 1- to several-leaved **Liparis**
 — Column laterally flattened. Lip at the base with a raised and often lobed callus. Pollinia sectile. — Shoot 1-leaved **Pantlingia**

KEY IV

Plants non-monopodial, with more than 2 leaves per shoot which are neither distichous on an elongated stem, nor inserted on the top half of a pseudobulb. Stems not climbing. Leaves not laterally flattened. Lip not insect-like.

- 1 Plants not as below 2
 — Stemless terrestrial plants. Leaves and inflorescences arising from a cluster of thick hairy roots. Leaf petiolate, not plicate. Inflorescence a tall raceme. Flowers not resupinate, a few cm across, with narrow petals and sepals and a much broader lip (the shoots are actually 1-leaved, but this is often difficult to see) ... **Cryptostylis**
- 2 Inflorescences exclusively lateral 3
 — Inflorescences terminal (or at least apparently so) 15
- 3 Stem very short. Leaves distichous, more or less arranged in a fan, duplicate. Inflorescence a raceme of very small to minute flowers. Pollinia 8 4
 — Not this combination of characters. — Leaves usually plicate 6
- 4 Column pointed in lateral view, foot very short or absent 5
 — Column obtuse in lateral view, foot distinct **Phreatia** section **Phreatia**
- 5 Column-foot present. — Plant without a pseudobulb **Rhynchophreatia**
 — Column-foot absent. — Plant usually with a laterally flattened pseudobulb hidden by the leaf-sheaths **Thelasis**
- 6 Leaves duplicate 7
 — Leaves plicate 8
- 7 Stem not swollen **Key II**, lead 27
 — Stem more or less swollen **Key III**, lead 23
- 8 Column pointed in lateral view. Pollinia sectile. — Flowers uniformly white or yellowish. Spur indistinct 9
 — Column obtuse in lateral view. Pollinia waxy. — Flowers white or variously coloured 10
- 9 Lip flat, spatulate **Corymborkis**
 — Lip strongly concave at the base, more or less boat-shaped **Tropidia**
- 10 Column at most at its base fused with the lip 11
 — Column throughout its length fused with the lip **Calanthe**
- 11 Lip immobile. Pollinia 2 or 8 12
 — Lip elastically hinged to the base of the column. Pollinia 4. — Spur absent
 **Plocoglottis**

- 12 Lip, when 3-lobed, without a pair of calli at the base of the midlobe 13
 — Lip 3-lobed, with a pair of calli at the base of the midlobe. — Pollinia 8
 **Spathoglottis**
- 13 Base of the lip not fused with the column. Pollinia 2, partly cleft 14
 — Base of the lip fused with the base of the column, producing a hollow nectary, or spur present. Pollinia 8 **Phaius**
- 14 Lip not basin-shaped. — Inflorescence straight. Lip often 3-lobed **Eulophia**
 — Lip basin-shaped. — Inflorescence usually nodding. Lip entire, spur absent
 **Geodorum**
- 15 (2). Flowers not as below 16
 — Flowers large. Lip slipper-shaped. Fertile anthers 2. Pollen sticky
 **Paphiopedilum**
- 16 Flower with 2 or 3 fertile anthers. Lip not very different from sepals and petals. —
 Leaves plicate 17
 — Flower with 1 fertile anther. Lip usually very different from the sepals and petals 18
- 17 Fertile anthers two. Ovary glabrous **Apostasia**
 — Fertile anthers three. Ovary glandular-hairy **Neuwiedia**
- 18 Leaves articulated with the sheaths. — Leaves not spirally arranged. Pollinia solid-waxy 19
 — Leaves not articulated with the sheaths. — Leaves not duplicate. Inflorescence not branched 21
- 19 Inflorescence glabrous. Lip without mealy calli 20
 — Inflorescences hairy. Lip with mealy calli. — Leaves not plicate. Pollinia 8
 **Eria** section **Mycaranthes**
- 20 Leaves duplicate. Pollinia 8 **Agrostophyllum**
 — Leaves plicate. Pollinia 4. — Shoots distant along a very long creeping or climbing rhizome **Claderia**
- 21 Inflorescence a raceme, very rarely 1-flowered. Column without a foot, lip not mobile 22
 — Inflorescence 1-flowered. Lip attached to a long column-foot, mobile . **Pterostylis**
- 22 Lip spurred, the blade flat, narrowly tongue-shaped or, more often, distinctly 3-lobed (with the lateral lobes often split into several filiform lobules). — Underground tuber present, rhizome absent 23
 — Spur absent, or, when present, plant with creeping rhizomes and lip at least a partly concave 25

- 23 Stigmata separate, on two cushion-shaped or stalked processes 24
 — Stigmata confluent, more or less concave **Platanthera**
- 24 Base of the lip free from the stigmata **Habenaria**
 — Base of the lip fused with or touching the lower margin of the stigmata **Peristylus**
- 25 Lip bilobed, or entire, or margin dentate. Anther with an easily detached cap . . 26
 — Lip 3-lobed at the top. Anther immovably attached to the column. — Subterranean tuber present **Herminium**
- 26 Leaves plicate. Sepals and petals patent or reflexed. Column terminated by the anther. Pollinia waxy, naked or with indistinct caudicles. — All parts of the inflorescence, including the flowers, glabrous. Spur absent. Pollinia 4 27
 — Leaves not plicate. Petals and dorsal sepal convergent. Column terminated by the more or less beak-shaped rostellum. Pollinia sectile, with stipes and viscidium. — Pollinia 2 or 4 28
- 27 Flowers resupinate. Lip without basal auricles, not clasping the column . . . **Liparis**
 — Flowers not resupinate. Lip with basal auricles which clasp the column . . **Malaxis**
- 28 Flowers bilaterally symmetric 29
 — Lip and column asymmetric, more or less twisted. — Sepals glandular hairy outside **Macodes**
- 29 Lip uppermost, i.e. flower not resupinate. 30
 — Lip lowermost or more or less horizontal, e.g. flower partly to completely resupinate 31
- 30 Leaves without whitish reticulate veins. Lip outside smooth. Stigmata 2 . **Hetaeria**
 — Leaves with whitish reticulate veins. Lip outside near the top on either side with an irregularly toothed crest. Stigma 1 **Papuaea**
- 31 Lip at most with two basal tufts of hair-like papillae or with a single transverse row of such papillae 32
 — Lip inside entirely or largely covered with hair-like papillae **Goodyera**
- 32 Lip not spurred or without lateral, blister-like swellings at the base of the spur 33
 — Lip spurred, at the base of the spur with 2 lateral, blister-like swellings . **Cystorchis**
- 33 Lip with a distinct spur projecting from between the lateral sepals 34
 — Lip not spurred, sometimes more or less saccate, but then the sac enclosed by the lateral sepals 38
- 34 Lip not as below 35
 — Lip with a narrow median claw which is toothed or provided with a comb-like row of slender appendages **Anoectochilus**

- 35 Top of spur not bilobed or, if bilobed, tips of sepals obtuse, swollen. Spur always with warts or glands inside 36
 — Top of spur bilobed. Spur usually without glands or warts inside. Tips of sepals acute, not swollen. — Stigma 1 **Erythrodes**
- 36 Spur inside with two warts. Stigma 1 37
 — Spur inside with 2 stalked glands. Stigmata 2 **Vrydagzynea**
- 37 Stigma cup-shaped, with a distinct rim at the base. Spur distinctly projecting from between the lateral sepals **Eurycentrum**
 — Stigma not cup-shaped, without a distinct rim at the base. Spur only slightly projecting from between the lateral sepals **Kuhlhasseltia**
- 38 At least the lateral sepals free from each other 39
 — All sepals connate **Cheirostylis**
- 39 Lip inside at the base with two tufts of hair-like papillae or with a transverse row of elongated papillae 40
 — Lip inside glabrous, at the base with or without two warts 42
- 40 Plant small. Leaves not as below. Lip inside with two tufts of hair-like papillae. — Usually with a distinct creeping rhizome 41
 — Plant very large (more than 50 cm high) with a basal rosette of many linear-lanceolate leaves which are not narrowed towards the base. Lip inside with a transverse row of elongated papillae. — Creeping rhizome absent **Lepidogyne**
- 41 Concave basal part of the lip laterally constricted below the middle. Stigma 1
 **Moerenhoutia**
 — Concave basal part of the lip not laterally constricted. Stigmata 2 **Zeuxine**
- 42 Lip not sac-shaped, at the base with two warts 43
 — Lip sac-shaped, with a very short endlobe, inside without warts **Hylophila**
- 43 Lip not spurred, at most with a very short subglobose sac at the base 44
 — Lip at the base with a short conical spur **Kuhlhasseltia**
- 44 Plant usually with a distinct rhizome, not arising from a fascicle of fleshy roots. Flowers in a dense spiral 45
 — Plant arising from a fascicle of fleshy roots. Flowers in a dense spiral. — Rhizome absent **Spiranthes**
- 45 Lip not as below, inside with basal warts or papillae. — Stigmata 1 or 2 46
 — Lip simple, ovate, petal-like, without warts or papillae inside. — Leaves with coloured or white reticulate veins. Stigma 1 Peloric form of **Anoectochilus**

- 46 Narrow middle part of the lip not much longer than the width of the endlobe (usually much shorter), not toothed. Stigmata 2 47
 — Lip in the middle with a narrow claw which is usually much longer than the width of the endlobe and often conspicuously toothed. Stigma 1 **Pristiglottis**
- 47 Lip just below the midlobe with two short parallel crests **Rhomboda**
 — Lip not with two parallel crests below the midlobe **Zeuxine**

APPENDIX

List of orchid genera recorded from New Guinea

Notes: For each genus an estimate of the number of species occurring in New Guinea is given between brackets. The synonymy in the following list is limited to names frequently used in the past or to be found in recent literature. Misapplied names are indicated by preceding the authority with 'auct. non'. This means that species from New Guinea have been incorrectly attributed to the genus in question. For example, *Gynoglottis palaelabellata* (Gilli) Garay & Kittr. does not belong to *Gynoglottis* J.J. Smith, which is endemic in Sumatra, but rather to *Calanthe* sect. *Aceratochilus* (pers. obs.).

Following the number in brackets the relevant key-entries are indicated.

- | | |
|--|--|
| Acampe Lindley (?1 - occurrence in New Guinea doubtful) II53, II56 | Calymanthera Schltr. (5) II62 |
| Acanthephippium Blume (1) III5 | <i>Camarotis</i> Lindley = <i>Micropera</i> |
| <i>Acianthus</i> auct. non R. Br. = <i>Pantlingia</i> | Ceratostylis Blume (60) III48 |
| Acriopsis Reinw. ex Blume (1) III32 | <i>Chamaeanthus</i> auct. non Schltr. ex J. J. Smith =
Gunnarella |
| Adenoccos Blume (1) II32 | Cheirostylis Blume (3) IV38 |
| Aerides Lour. (1) II43 | <i>Chilopogon</i> Schltr. = <i>Appendicula</i> |
| Aglossorhyncha Schltr. (10) II23 | <i>Chitonanthera</i> Schltr. = <i>Octarrhena</i> |
| Agrostophyllum Blume (40) II17, II20, IV20 | <i>Chitonochilus</i> Schltr. = <i>Agrostophyllum</i> |
| Ania Lindley (1) III17 | Chrysoglossum Blume (1) III16 |
| Anoectochilus Blume (2) IV34, IV45 | <i>Cirrhopetalum</i> Lindley = <i>Bulbophyllum</i> |
| Aphyllorchis Blume (4) I15 | Claderia Hook. f. (1) IV20 |
| Apostasia Blume (1) IV17 | Cleisostoma Blume (6) II40 |
| Appendicula Blume (40) II25, II77 | <i>Codonosiphon</i> Schltr. = <i>Bulbophyllum</i> |
| Arachnis Blume (2) II34, II58 | Coelogyne Lindley (8) III6, III42 |
| Arthrochilus F. Muell. (2) III63 | Collabium Blume (1) III16 |
| Ascoglossum Schltr. (1) II38 | Corybas Salisb. (45) I7, III57 |
| <i>Aulostylis</i> Schltr. = <i>Calanthe</i> | Corymborkis Thouars (1) II73, IV9 |
| Bogoria J. J. Smith (1) II44, II63 | <i>Corysanthes</i> R. Br. = <i>Corybas</i> |
| Brachypeza Garay (1) II45 | Cryptostylis R. Br. (10) III1, IV1 |
| Bromheadia Lindley (2) II3, II16 | Cymbidium Sw. (2) III33 |
| Bulbophyllum Thouars (600) III26, III28, III36 | <i>Cyphochilus</i> Schltr. = <i>Appendicula</i> |
| Cadetia Gaud. (35) III52 | Cyrtosia Blume (1) I13 |
| Calanthe R. Br. (30) II67, III7, IV10 | <i>Cystopus</i> Blume = <i>Pristiglottis</i> |
| Calochilus R. Br. (1) I8, III64 | Cystorchis Blume (5) II10, IV32 |

- Dactylorhynchus* Schltr. = *Bulbophyllum*
Dendrobium Sw. (350) II8, II24, II66, II73, III24,
 III30, III44, III49, III54
Dendrochilum Blume (1) III41
Didymoplexis Griff. (4) I3
Diglyphosa Blume (1) III15
Dilochia Lindley (1) II17
Diplocaulobium Kraenzl. (50) III50, III53
Dipodium R. Br. (2) II6, II26
Disperis Sw. (1) III57
Dryadorchis Schltr. (4) II61
Ephemerantha Hunt & Summerh. = *Flickingeria*
Epiblastus Schltr. (10) III46
Epicranthes Blume = *Bulbophyllum*
Epipogium Gmel. ex Borkh. (1) II2
Eria Lindley (40) II8, II19, II72, III22, III30,
 III39, III44, III48, IV19
Erythrodes Blume (10) IV35
Eucosia auct. non Blume = *Anoectochilus*
Eulophia R. Br. ex Lindley (4) II2, III20, IV14
Eurycentrum Schltr. (7) IV37
Ferruginaria Garay, Hamer & Siegerist =
Bulbophyllum
Flickingeria A. D. Hawkes (9) III51, III54
Galeola Lour. (1) I5
Gastrodia R. Br. (2) I3
Geissanthera Schltr. = *Microtatorchis*
Geodorum Jackson (1) III18, IV14
Giulianettia Rolfe = *Glossorhyncha*
Glomera Blume (40) II22
Glossorhyncha Ridl. (50) II22
Goodyera R. Br. (15) IV31
Grammatophyllum Blume (3) II68, III33
Gunnarella Senghas (3) II62
Gynoglottis auct. non J. J. Smith = *Calanthe*
Habenaria Willd. (20) III61, IV24
Hapalochilus (Schltr.) Senghas = *Bulbophyl-*
lum
Herminium Guett. (1) III66, IV25
Hetaeria Blume (3) IV30
Hippeophyllum Schltr. (4) II5
Hylophila Lindley (2) IV42
Hymenorchis Schltr. (7) II30
Ischnocentrum Schltr. = *Glossorhyncha*
Kerigomnina P. Royen = *Octarrhena*
Kuhlhasseltia J. J. Smith (1) IV37, IV43
Lecanorchis Blume (4) I6
Lectandra J. J. Smith = *Poaephyllum*
Lepidogyne Blume (1) IV40
Liparis L. C. Rich. (60) III10, III43, III68, IV27
Luisia Gaud. (1) II28
Macodes (Blume) Lindley (4) IV28
Malaxis Sol. ex Sw. (60) II14, III67, IV27
Malleola J. J. Smith & Schltr. (4) II52
Mediocalcar J. J. Smith (15) III26, III45
Micropera Lindley (1) II47
Microstylis (Nutt.) Eaton = *Malaxis*
Microtatorchis Schltr. (35) I2, II10, II41
Mischobulbum Schltr. (1) III13
Moerenhoutia Blume (4) IV41
Monomeria auct. non Lindley = *Bulbophyllum*
Monosepalum Schltr. = *Bulbophyllum*
Nephelaphyllum auct. non Blume = *Collabium*
Nervilia Comm. ex Gaud. (10) II6, III3
Neuwiedia Blume (1) IV17
Oberonia Lindley (70) II5
Octarrhena Thwaites (35) II6
Oeceoclades Lindley (1) III20
Oxyricera Blume = *Bulbophyllum*
Oxyanthera Brongn. = *Thelasis*
Pachystoma Blume (1) I9, III21
Pantlingia Prain (3) III68
Paphiopedilum Pfitz. (4) IV15
Papuaea Schltr. (1) IV30
Pedilochilus Schltr. (35) III28
Peristylus Blume (15) III61, IV24
Phaius Lour. (4) II72, III22, IV13
Phalaenopsis Blume (1) II59
Pholidota Lindley (3) III42
Phreatia Lindley (100) II7, II75, III36, IV4
Pilophyllum Schltr. (1) III12
Platanthera L. C. Rich. (3) III60, IV23
Platylepis auct. non A. Rich. = *Moerenhoutia*
Plocoglottis Blume (15) II72, III8, IV11
Poaephyllum Ridl. (4) II76
Podochilus Blume (15) II4, II25
Pomatocalpa Breda (4) II48
Porphyrodesme Schltr. (1) II39
Pristiglottis Cretz. & J. J. Smith (4) IV46
Pseudertia Schltr. (12) II69
Pseudovanilla Garay (3) I5, II12
Pteroceras auct. non Hassk. = *Sarcochilus*
Pterostylis R. Br. (3) III56, IV21
Renanthera Lour. (2) II39
Rhinerrhiza Rupp (1) II44
Rhomboda Lindley (4) IV47
Rhynchophreatia Schltr. (6) IV5
Ridleyella Schltr. (1) III34

- Robiquetia* Gaud. (5) II52
Saccoglossum Schltr. (5) III27
Saccolabiopsis J. J. Smith (7) II51
Sarcanthopsis Garay (1) II57
Sarcanthus Lindley = *Cleisostoma*
Sarcochilus R. Br. (4) II33
Schoenorchis Blume (2) II50
Sepalosiphon Schltr. = *Glossorhyncha*
Spathoglottis Blume (12) III9, IV12
Spiranthes L. C. Rich. (1) IV44
Stereosandra Blume (1) II4
Stigmatodactylus Maxim. ex Makino =
 Pantlingia
Taeniophyllum Blume (80) II10
Tainia Blume (1) III17
Tapeinoglossum Schltr. = *Bulbophyllum*
Thelasis Blume (7) III35, IV5
Thelymitra Forst. (1) III62
Thrixspermum Lour. (12) II29, II54, II63
Trachoma Garay = *Tuberolabium*
Trichoglottis Blume (3) II35
Trichotosia Blume (25) II66
Tropidia Lindley (6) II18, II73, III65, IV9
Tuberolabium Yamamoto (2) II35, II54
Vanda R. Br. (3) II46
Vandopsis Pfitz. (1) II57
Vanilla Sw. (5) II12
Vesicisepalum (J. J. Smith) Garay, Hamer &
 Siegerist = *Bulbophyllum*
Vonroemeria J. J. Smith = *Octarrhena*
Vrydagzynea Blume (12) IV36
Zeuxine Lindley (7) IV41, IV47