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Taxonomic Enumeration of Natma Taung National Park Vol. 2

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The Kochi Prefectural Makino Botanical Garden, Japan

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Taxonomic Enumeration of Natma Taung National Park Vol. 2

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The Kochi Prefectural Makino Botanical Garden (MBK)

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Arrangement of the Enumeration

The present volume of enumeration of vascular plants of Natma Taung National Park and adjacent areas, comprises Orchidaceae only. Genera, species, and infraspecific taxa in the family are arranged in alphabetical order. The authors of the treatment are shown at the beginning of the family.

A dichotomous keys to genera only is included in this volume. In Myanmar, and also in Chin State, the flora is poorly known, and keys to species level would probably lead to misidentifications as new records or new species are likely to be found. Abbreviations for authorities of taxa follow Brummitt & Powell (1992), and the International Plant Name Index (see <https://www.ipni.org/>, last accessed March 10, 2021) thereafter. Basionyms where appropriate, and selected synonyms for those relevant to Myanmar taxa, are given in italics, followed by author(s) and bibliographic citations. Protologues and selected bibliographical citations are listed in the standard abbreviation format published in Lawrence et al. (1968), Bridson & Smith (1991) and Bridson et al. (2004). If no recommendations were made in these publications, we give the full titles.

The specimens listed are chiefly those identified by the authors. The botanical institutions in which these specimens are housed are indicated by citing the international herbarium acronym listed by Index Herbariorum (see <http://sweetgum.nybg.org/science/ih/>, last accessed March 10, 2021) immediately after the record. The list is arranged in the following order: Chin State, Kanpetlet, Mindat, Matupi Township to Magway Region, Saw Township. In each township, specimens are arranged first by those without altitude recorded, followed by altitude records from low to high. Where a recorded altitude is available, it is given in metres above sea level, after the locality. Note that the detailed locality details are omitted for the enumeration of Orchidaceae, for conservation reasons. Then the date of collections, collectors and their collecting numbers are cited.

For taxa that extend beyond Myanmar, countries or regions of distribution are listed in the order from west to east within Asia first, then continued eastwards for the countries elsewhere. In parts, where it is more informative than listing countries, a generalised range, such as island groups or floristic region, is used. A question mark, '?', is placed immediately before a country or a region to indicate that a record needs confirmation. Where necessary, directions are indicated by adding Central (C), East (E), North (N), South (S), West (W), or intermediate directions, in front of a country or a region.

Notes including supporting information are sometimes given.

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Enumeration of Orchidaceae Juss.

Hubert Kurzweil¹ Santi Wathana² and Paul Ormerod³

Natma Taung and its Orchid Flora

At about 3053 metres Natma Taung (also known as Mount Victoria) is one of the highest mountains in Myanmar. It is situated in the southern part of Chin State in western Myanmar near the borders with India and Bangladesh and forms part of the Chin Hills-Arakan Yoma mountain range. Inscribed in 1997, the mountain and its foothills have protected area status as the “Natma Taung National Park”. Currently the park encompasses about 723 square kilometres of forest and grassland in the three townships of Kanpetlet, Mindat and Matupi. Unlike many other nature areas of Myanmar, Natma Taung is frequently visited by both botanists and leisure tourists. This is mainly due to its high level of biodiversity, the comparatively easy access and the availability of comfortable accommodation just outside the park boundaries. The vegetation of the park comprises various forest types (Fujikawa et al. 2008, 2015), ranging from tropical deciduous forest at low elevations to pine forest and oak-rhododendron forest above 1800 m, the latter often savanna-like with large grassy areas. The highest areas of the park are dominated by alpine meadow. Several of the plants at high elevation have affinities to the Himalayas and the temperate zone. About 2500 plant species are estimated to occur in the Chin Hills and adjacent areas (Kang et al. 2017). The botanical exploration of Natma Taung has already started in the early 20th century, with collections made by C. Wheeler Cuffe, R.E. Cooper, R. Unwin and F.G. Dickason (Tanaka 2005). The first large-scale floristic survey was undertaken by British naturalist F. Kingdon-Ward in 1956 (Kingdon-Ward 1959). Currently, several teams of foreign botanists in collaboration with officials from the Myanmar Forest Department are involved in biodiversity surveys in Natma Taung National Park and adjacent areas, including botanists from Japan, Korea and China. A number of publications on the plants of the area have recently been produced. Apart from many descriptions of new species of flowering plants and reports of new distribution records, there is also an illustrated guide to ‘100 Wild Flowers of Natma Taung’ (Fujikawa et al. 2015) as well as an illustrated book on the seed plants of the national park (Kang et al. 2017).

Orchids are well represented in Natma Taung National Park plus adjacent areas with 252 species in 68 genera. All of the major genera found in continental Asia are represented. The largest genera are *Dendrobium* with 42 species and *Bulbophyllum* with 22, but also *Coelogyne*, *Habenaria* and *Pinalia* are very diverse in the area. Just over one third of the species are terrestrial, with about two thirds epiphytic. Several new orchid species have been proposed based on specimens collected in the Natma Taung area and numerous new distribution records have been reported. However, further discoveries can still be expected, especially in view of the fact that some of the remote areas of the park have not yet been thoroughly explored (particularly the

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northern areas in Matupi Township). While many species – either widespread ones or endemics – are abundant and are found in different areas of the Natma Taung National Park, others are rather rare and are only found in a small area. This may also explain why some rather showy orchid species have not been recorded in over a century of botanical exploration of Natma Taung and have only been discovered very recently (e.g. *Thuniopsis subsessilis* (Rolfe) Ormerod, Kurzweil & Schuit., better known under its synonym *Dilochia subsessilis* (Rolfe) S.Thomas). Some information on the orchids can be found in publications on flowering plants of Natma Taung (Fujikawa et al. 2015; Kang et al. 2017), but no orchid flora treatment or comprehensive checklist is available as yet. The present enumeration lists all species of Orchidaceae that have so far been recorded in the area, together with their publication details and citations in the taxonomic literature. A selection of species is also illustrated by colour photographs. The taxonomic concept used here is largely that of a national checklist that was published very recently by the same authors (Ormerod et al. 2021). Only those species where the occurrence in the Natma Taung area is confirmed are listed here; we have not listed specimens for which the provenance on herbarium labels is simply given as ‘Chin Hills’ – this locality may well refer to Natma Taung but there is no certainty.

Most of the orchid species of Natma Taung are widely distributed in continental Asia. The overlap is greatest with Thailand (77%), Indochina (72%), the Himalayas plus NE India (60%) and SW China (58%); obviously comparatively fewer species are shared with more distant areas like Taiwan (15%), southern India (16%) and Sri Lanka (7%). Some of the orchids which are native to Natma Taung are also widespread in Malesia, with some of them ranging as far east as New Guinea, northern Australia or some islands in the Pacific Ocean. Examples are *Eulophia graminea* Lindl., *E. nuda* Lindl., *Geodorum densiflorum* (Lam.) Schltr., *Liparis odorata* (Willd.) Lindl., *Nervilia concolor* (Blume) Schltr. and *Pholidota imbricata* Hook. The three species *Epipogium roseum* (D.Don) Lindl., *Liparis cespitosa* (Lam.) Lindl. and *Nervilia simplex* (Thouars) Schltr. are widespread in the tropics of Africa and Asia, and *Cephalanthera damasonium* (Mill.) Druce is distributed in large parts of the northern temperate zone. A few species have a disjunct distribution as specimens from Natma Taung were identified as belonging to species from far-away countries, pending a verification of their identification.

Endemic species, i.e. species native to a limited area and not known anywhere else in the world, are obviously of special importance in plant conservation as there is not a large distribution area that one can rely on for the survival of a species. Consequently, the only possibility to preserve their continued existence is to conserve the small area where they occur. There is no entire genus which is endemic to the Natma Taung area. The genus *Dickasonia* was once considered endemic to the Chin Hills, but it has since also been discovered in north-eastern India and therefore lost its endemicity status in Myanmar. However, on the species level there are quite a few endemics. *Habenaria rodgeri* W.W.Sm. & Banerji, a look-alike of the well-known *H. rhodocheila* Hance, is endemic to Myanmar and is only known from Chin State and Mandalay Region. *Porpax dickasonii* (Ormerod) Schuit., Y.P.Ng & H.A.Pedersen (originally described in the genus *Conchidium*) and *Dendrobium laterale* L.O.Williams are endemic to the Chin Hills, occurring in the northern and southern part of Chin State. Three species that were in the last 10 years described from specimens collected in Natma Taung are endemic to this area and are currently only known from the type locality: *Phalaenopsis natmataungensis* (T.Yukawa, Nob.Tanaka & J.Murata) Dalström & Ormerod (originally described in the genus *Doritis*), *Dendrobium koyamae* Nob.Tanaka, T.Yukawa & J.Murata and *Neottia nyinyikyawii* X.H.Jin, T.M.Aye & H.A.Mung. A natural hybrid is also endemic to Natma Taung, the recently proposed *Pleione* × *kingdonwardii* P.J.Cribb & Butterf.

KEY TO GENERA

1. Flowers with 2 fertile stamens; pollen not forming well-defined pollinia 2
- + Flowers with 1 fertile stamen, two anther halves mostly adjacent but occasionally far apart; pollen forming well-defined soft or hard pollinia 3

2. Flowers subactinomorphic, lip not clearly differentiated from sepals and petals **Apostasia**
- + Flowers strongly zygomorphic, lip slipper-like **Paphiopedilum**

3. Plants holomycotrophic, without green leaves 4
- + Plants autotrophic, with green leaves 8

4. Pollinia waxy or bony, relatively hard 5
- + Pollinia soft or sectile 6

5. Lip shortly saccate-spurred at the base; flowers several to many in a dense or subdense raceme **Eulophia p.p.**
- + Lip not saccate-spurred at the base; flowers few in a lax raceme **Cymbidium p.p.**

6. Calyculus scales present **Lecanorchis**
- + Calyculus scales not present 7

7. Lip not spurred; rhizome slender, creeping **Aphyllorchis**
- + Lip spurred; rhizome spindle-shaped, tuber-like **Epipogium**

8. Pollinia soft or sectile; plants terrestrial; leaves without articulation 9
- + Pollinia mostly relatively hard, waxy or bony, rarely rather soft; plants mostly epiphytic or lithophytic, less often terrestrial; leaves very often articulated at the base 24

9. Plants normally leafless during flowering **Nervilia**
- + Leaves present during flowering (occasionally already partly or entirely dried up and withered) 10

10. Leaves plicate 11
- + Leaves not plicate, either herbaceous or membranous 12

11. Leaves either several and borne all along the stem, or 2 at the apex of the stem; inflorescences short and dense; pollinia sectile **Tropidia**
- + Leaves 4–7, scattered along the stem, to 6 × 2 cm; inflorescence lax; pollinia soft **Cephalanthera**

12. Pollinia soft 13
- + Pollinia sectile 14

13. Plants with a bundle of fleshy roots and a basal leaf rosette; inflorescence twisted like a spiral staircase **Spiranthes**
- + Plants with underground rhizome and two more or less opposite leaves **Neottia**

14. Anther connected to the column-part with a narrow base, opening at the anther apex; plants with short or long rhizomes which are creeping in or on top of the soil 15
 +. Anther connected to the column with a broad base, opening at the anther base; plants usually with underground root tubers 18
15. Lip spurred, spur with stalked glands inside, mesochile pectinate **Anoectochilus**
 +. Lip not spurred, mesochile not pectinate 16
16. Sepals basally extensively united; lip hypochile with two rows of appendages on the inside **Cheirostylis**
 +. Sepals free 17
17. Lip largely hidden in the flower; hypochile with scattered hairs **Goodyera**
 +. Lip protruding from the flower; hypochile with 1–3 fleshy appendages on either side **Zeuxine**
18. Flowers not resupinate, lip uppermost, hooded, with two spurs **Satyrium**
 +. Flowers resupinate, lip lowermost 19
19. Floral bracts leaf-like, as long as or longer than the flowers **Brachycorythis**
 +. Floral bracts not leaf-like 20
20. Central rostellum lobe very large, as tall as or taller than the anther; leaves basal, 1 or rarely 2, suborbicular to ovate, usually with red or brown markings; inflorescences mostly 1–10 flowered; lip unlobed or 3-lobed **Hemipilia**
 +. Central rostellum lobe almost always small and insignificant; leaves 1 to several, cauline or rarely basal, most often green throughout; inflorescences few- to many-flowered; lip unlobed, shallowly or deeply 3-lobed, or very rarely 5-lobed 21
21. Flowers small, green, yellowish green or less often whitish green; lip entire, 3-lobed or 5-lobed; spur usually absent or up to 1.5 mm long, in one species elongate and 8–18 mm long; viscidia often involute and horn-like **Herminium**
 +. Flowers small to large, often green, yellow, white, or rarely pink; lip mostly deeply 3-lobed, rarely entire; spur usually present, short and globular to cylindric and elongate, viscidia not as above 22
22. Flowers large and white; lip side lobes deeply lacinate; stigma a raised cushion below the rostellum **Pecteilis**
 +. Flowers small to large, colour various; lip side lobes (if present) linear, triangular or lorate, rarely flabellate or lacinate; stigmas 2, developed as protruding stalks 23
23. Stigma stalks often short, connate with or adpressed to the lip base **Peristylus**
 +. Stigma stalks short or long, freely projecting **Habenaria**
24. Plants sympodial 25
 +. Plants monopodial 62

25. Pollinia 2, often deeply cleft 26
 +. Pollinia 4 or 8 28
26. Lip not saccate or spurred at the base **Cymbidium p.p.**
 +. Lip saccate or spurred at the base 27
27. Inflorescence erect **Eulophia p.p.**
 +. Inflorescence apically nodding **Geodorum**
28. Pollinia 8 29
 +. Pollinia 4 45
29. Plants densely covered in hispid hairs, our species 1–2 cm tall, stems creeping ... **Trichotosia**
 +. Plants either glabrous or pubescent; taller than 2 cm 30
30. Column-foot absent or inconspicuous 31
 +. Column-foot conspicuous, long or short 37
31. Stems elongate and weakly or not at all thickened, with several cauline leaves all along its length 32
 +. Stems with aerial pseudobulbs or with corms 33
32. Stems often thickened at base but without prominent underground corm; leaves linear-lanceolate, mostly 1–2 cm wide; floral bracts broadly ovate-triangular, shorter than the ovary, 3–9 mm long **Arundina**
 +. Stems with a subterranean, swollen corm; leaves narrowly elliptic-lanceolate to oblong-lanceolate, 1.5–3 cm wide; floral bracts broadly ovate or elliptic, longer than the ovary, 14–16 mm long **Thuniopsis**
33. Plants terrestrial, to 70 cm tall, with small corms bearing 2–4 linear-lanceolate leaves; inflorescence from the base of the plant, with a few yellow flowers in a lax raceme; lip with laminate twin-calli **Spathoglottis**
 +. Not this combination of characters 34
34. Plants epiphytic **Thelasis**
 +. Plants terrestrial 35
35. Leaf 1 **Ania p.p.**
 +. Leaves 2 or more 36
36. Lip base extensively united with the column **Calanthe**
 +. Lip not nor only basally united with the column **Phaius**
37. Plants terrestrial 38
 +. Plants usually epiphytic or lithophytic 40

38. Sepals connate to form an urn-shaped structure; column-foot much longer than the column, curved upwards **Acanthephippium**
 +. Sepals free; column-foot shorter than or as long as the column 39
39. Plants with a subterranean swollen rhizome **Pachystoma**
 +. Plants pseudobulbous **Ania p.p.**
40. Pseudobulbs under 2 cm tall, depressed globose and mostly wider than tall; usually covered by a sheath which is disintegrating into a reticulate pattern; flowers one to few; flowering in leafy or leaf-less state **Porpax**
 +. Pseudobulbs not like this; flowers few to many, rarely only one 41
41. Pseudobulbs conical-ovate; leaves large, about $50-66 \times 4-7$ cm; inflorescence lax, 4-20-flowered; ovary pubescent and with hair-like ramentae **Eriodes**
 +. Not this combination of characters 42
42. Leaves terete **Strongyleria**
 +. Leaves dorsiventral, flat 43
43. Stems of only one internode, cylindric, $5-15 \times 0.3-0.6$ cm, with two subterminal leaves **Eria**
 +. Stems with several internodes 44
44. Stems terete, ca. $9-11 \times 0.3-0.6$ cm; leaves 3 or 4, lanceolate, $6-8.5 \times 1-1.4$ cm; inflorescences subterminal, short, white-tomentose, 2-flowered; floral bracts large, yellowish green, oblong-ovate, $12-13 \times 8-9$ mm; sepals and petals white, 11-15 mm long; lip pale yellow, 3-lobed, midlobe obovate, with median hairy keel **Cylindrolobus**
 +. Not this combination of characters **Pinalia**
45. Slender terrestrial herbs; flowers not resupinate; all three sepals united in their lower part to form a tube, borne almost at right angle to the ovary **Anthogonium**
 +. Plants terrestrial, lithophytic or epiphytic; flowers resupinate or not; sepal tube not present 46
46. Epiphytes; lateral sepals fused into a synsepal **Acriopsis**
 +. Plants terrestrial, lithophytic or epiphytic; lateral sepals not forming a synsepal 47
47. Plants terrestrial; either the pseudobulbs ovoid and inconspicuous (partly hidden by cataphylls and leaf bases), leaves strap-shaped and $25-94 \times 0.7-2.5$ cm; or pseudobulbs fusiform and leaves narrowly obovate to elliptic and up to 50×5.5 cm **Cymbidium p.p.**
 +. Combination of characters not as above 48
48. Column-foot conspicuous; pollinia without accessory structures 49
 +. Column-foot absent or very short; pollinia with or without accessory structures 50
49. Inflorescences arising from the base of the pseudobulb; lip unlobed **Bulbophyllum**
 +. Inflorescences normally from the upper part of the stem or pseudobulb; in one species basal,

- but then lip 3-lobed **Dendrobium**
50. Plants with a long leafy stem **Thunia**
 +. Plants not with a long leafy stem 51
51. Leaves laterally compressed or subterete **Oberonia**
 +. Leaves dorsiventral, flat 52
52. Prominent aerial pseudobulbs not present; plants terrestrial 53
 +. Aerial pseudobulbs present, although sometimes partly obscured by cataphylls and leaf bases; plants mostly epiphytic or lithophytic, rarely terrestrial 55
53. Flowers pendulous, not opening widely; pollinarium with well-developed viscidium **Cremastra**
 +. Flowers spreading, opening widely; pollinarium without stipe, caudicle or viscidium 54
54. Column rather long, arching; basal lip auricles absent **Liparis p.p.**
 +. Column short, erect; lip with basal auricles stretching backwards on both sides of the column **Crepidium**
55. Pollinia without appendages 56
 +. Prominent caudicles present 57
56. Plants epiphytic; inflorescences laxly to subdensely few- to 40-flowered **Liparis p.p.**
 +. Plants terrestrial; inflorescence densely many-flowered **Malaxis**
57. Lip base adnate to the column **Dickasonia**
 +. Lip free from the column 58
58. Lip prominently saccate at the base 59
 +. Lip not saccate at the base, sometimes slightly concave 60
59. Column thick and short, usually much shorter than the lip **Pholidota**
 +. Column long and slender, usually nearly as long as the lip **Otochilus**
60. Lip base more or less sigmoid **Panisea**
 +. Lip base not sigmoid 61
61. Leaves deciduous, developing during anthesis; flowers 1–2, large **Pleione**
 +. Leaves persistent; flowers mostly more than 2, medium-sized to large **Coelogyne**
62. Pollinia 2, porate 63
 +. Pollinia 2, each pollinium more or less cleft or split, sometimes completely so 66
63. Leaves terete; lip hypochile neither saccate nor spurred **Luisia**
 +. Leaves almost always dorsiventrally flattened; lip hypochile saccate or spurred 64

64. Lip hypochile saccate **Gastrochilus**
 +. Lip hypochile with a prominent spur 65
65. Lip midlobe broadly ovate; flowers usually white with pink or pale purple lip
 **Holcoglossum**
 +. Lip midlobe ligulate; flowers uniformly pinkish red **Vanda p.p.**
66. Each pollinium cleft or split 67
 +. Each pollinium completely divided into two unequal halves 70
67. Column-foot absent or very indistinct 68
 +. Column-foot present, short or long 69
68. Stipe short and broad **Vanda p.p.**
 +. Stipe linear **Rhynchostylis**
69. Leaves terete **Papilionanthe**
 +. Leaves flat and fleshy **Acerides**
70. Column-foot present, short or long **Cleisostoma p.p.**
 +. Column-foot absent or indistinct 71
71. Lip movable 72
 +. Lip immovable, firmly adnate to the column 73
72. Stems 20–70 cm long, usually with 6–8 leaves; stipe broad, saddle-like **Arachnis**
 +. Stems under 20 cm long, mostly with 3–5 leaves; stipe narrow, spatulate **Phalaenopsis p.p.**
73. Lip unspurred, but hypochile sometimes concave 74
 +. Lip spurred or distinctly saccate 75
74. Flowers small, pale pink; median sepal under 8 mm long **Diploprora**
 +. Flowers large, mustard yellow and mottled with purplish brown, lip creamy yellow with
 purplish brown markings; median sepal 16–17.5 mm long **Phalaenopsis p.p.**
75. Lip spur with a longitudinal septum inside **Cleisostoma p.p.**
 +. Lip spur without a longitudinal septum inside 76
76. Lip midlobe fringed along the margins, clawed basally with the spur in the apical half of the
 claw **Phalaenopsis p.p.**
 +. Lip not like this 77
77. Flowers red; lip much shorter than the median sepal **Renanthera**
 +. Sepals and petals yellow brown with darker markings, lip white; lip about as long as the sepals
 and petals **Acampe**

ACAMPE Lindley

Acampe ochracea (Lindl.) Hochr. in Bull. New York Bot. Gard. 6: 270. 1910; Seidenf. in Opera Bot. 95: 48, fig. 25, pl. IVb. 1988; Pearce & Cribb, Orchids of Bhutan: 489. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 1 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 449. 2009; Nyan Tun, Wild Orchids of Myanmar: 2 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 61. 2020; Ormerod et al. in Phytotaxa 481 (1): 15. 2021.

— *Saccolabium ochraceum* Lindl. in Edwards's Bot. Reg. 28 (Misc.): 2. 1842; Hook.f., Fl. Brit. India 6: 62. 1890; Grant, Orchids of Burma: 285. 1895.

— *Acampe dentata* Lindl., Fol. Orchid. 4: 3. 1853.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 61).

Distribution. Sri Lanka, India, E Himalaya, SW China, Thailand, Laos, Vietnam, Cambodia.

ACANTHEPHIPIUM Blume

Acanthephippium striatum Lindl. in Edwards's Bot. Reg. 24 (Misc.): 41. 1838; Hook.f., Fl. Brit. India 5: 816. 1890; Seidenf. in Opera Bot. 89: 50, fig. 23, pl. IVb. 1986; Thomas in Orchid Monogr. 8: 131, fig. 65, pl. 6c. 1997; Pearce & Cribb, Orchids of Bhutan: 274, fig. 62. 2002; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 2 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 310. 2009; Fl. China Illustr. 25: figs. 439 & 440.4–6. 2010; Kurzweil in Fl. Thailand 12 (2): 310, pl. XXV.2. 2014; Ormerod et al. in Phytotaxa 481 (1): 16 (2021).

Specimens examined. CHIN STATE. Kanpetlet Township: 1268 m, 27 May 2007, *N. Kuroiwa et al.* 051344 (MBK).

Distribution. Nepal, Bhutan, NE India, China, Taiwan, Thailand, Vietnam, Peninsular Malaysia, Indonesia.

ACRIOPSIS Reinwardt ex Blume

Acriopsis indica Wight, Icon. Pl. Ind. Orient. 5 (1): 20, t. 1748-1. 1851; Hook.f., Fl. Brit. India 6: 79. 1890; Grant, Orchids of Burma: 313. 1895; Seidenf. in Opera Bot. 72: 103, fig. 57, pl. VIIIA. 1983; Minderhout & de Vogel in Orchid Monogr. 1: 8, fig. 5, pl. 1b. 1986; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 3 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 280. 2009; Fl. China Illustr. 25: fig. 377. 2010; Nyan Tun, Wild Orchids of Myanmar: 7 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 61. 2020; Ormerod et al. in Phytotaxa 481 (1): 16. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung *et al.* (2020: 61).

Distribution. NE India, SW China, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia.

AERIDES Loureiro

The occurrence of the genus was reported by Kingdon-Ward (1959: 63), but we have not seen any specimens referable to it. Kingdon-Ward did not indicate a species and we therefore assume that the plant was not flowering at the time. Considering the vegetative similarity of *Aerides* and some other Aeridinae (particularly *Rhynchostylis* and *Vanda*), it is likely that he mistook the plant for *Aerides*.

ANIA Lindley

Ania angustifolia Lindl., Gen. Sp. Orchid. Pl.: 129. 1831; Turner in Orchid Monogr. 6: 51, fig. 25. 1992; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Aung et al. in PhytoKeys 138: 61. 2020; Ormerod et al. in Phytotaxa 481 (1): 20. 2021.

— *Tainia angustifolia* (Lindl.) Hemsl., Gard. Chron., n.s., 18: 780. 1882; Hook.f., Fl. Brit. India 5: 819. 1890; Grant, Orchids of Burma: 155. 1895; Seidenf. in Opera Bot. 89: 31, figs. 9b & 12. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 227 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 282. 2009; Fl. China Illustr. 25: fig. 400.1–5. 2010; Pedersen in Fl. Thailand 12 (2): 635, fig. 343, pl. LV.1. 2014.

— *Ascotainia hennisiana* Schltr., Orchideen Beschreib. Kult. Zücht.: 317. 1914.

— *Ascotainia angustifolia* (Lindl.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 246. 1919.

— *Tainia hennisiana* (Schltr.) P.F.Hunt in Kew Bull. 26: 182. 1971.

Specimens examined. CHIN STATE. Kanpetlet Township: 1155 m, 7 Sep. 2013, *K. Fujikawa et al.* 095088 (MBK). Mindat Township: 1220 m, 3 Oct. 1956, *F. Kingdon-Ward* 22717 (BM).

Distribution. China, Thailand, Vietnam.

Ania viridifusca (Hook.) Tang & W.T.Wang ex Summerh. in Bot. Mag. 161: t. 9553. 1939; Turner in Orchid Monogr. 6: 60, fig. 32. 1992; Pearce & Cribb, Orchids of Bhutan: 277. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Aung et al. in PhytoKeys 138: 61. 2020; Ormerod et al. in Phytotaxa 481 (1): 20. 2021.

— *Calanthe viridifusca* Hook. in Bot. Mag. 78: t. 4669. 1852.

— *Tainia viridifusca* (Hook.) Benth. ex Hook.f., Fl. Brit. India 5: 820. 1890 [as *viridi-fusca*]; Grant, Orchids of Burma: 157. 1895 [as *viridi-fusca*]; Seidenf. in Opera Bot. 89: 28, figs. 9a & 11, pl. I Ib. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 229 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 283. 2009; Fl. China Illustr. 25: figs. 400.7 & 402. 2010; Pedersen in Fl. Thailand 12 (2): 644, fig. 349. 2014.

— *Ascotainia viridifusca* (Hook.) Schltr., Orchideen Beschreib. Kult. Zücht.: 317. 1914.

Specimens examined. CHIN STATE. Kanpetlet Township: 23 Jan. 2008, *S. Yasuda* 060044

(MBK); 27 Mar. 2013, *M. Matsumoto 091239* (MBK); 1552 m, 26 Feb. 2007, *K. Fujikawa 050119* (MBK). Matupi Township: 1289 m, 14 Mar. 2014, *P. Srisanga et al. 098007* (MBK). Mindat District, township not specified: 1430 m, 5 Mar. 1956, *F. Kingdon-Ward 21737* (BM).

Distribution. NE India, SW China, Thailand, Vietnam.

ANOECTOCHILUS Blume

Anoectochilus albolineatus C.S.P.Parish & Rehb.f. in Trans. Linn. Soc. London 30: 141. 1874; Seidenf. in Dansk Bot. Ark. 32 (2): 50, fig. 28. 1978; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Pedersen in Fl. Thailand 12 (1): 11, fig. 2, pl. I.1. 2011; Aung et al. in PhytoKeys 138: 61. 2020; Ormerod et al. in Phytotaxa 481 (1): 20. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060039* (MBK). Mindat District, township not specified: 2135 m, 18 Nov. 1956, *F. Kingdon-Ward 22872* (BM).

Distribution. Thailand, Vietnam.

ANTHOgonium Wallich ex Lindley

Anthogonium gracile Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 426. 1840; Hook.f., Fl. Brit. India 5: 822. 1890; Grant, Orchids of Burma: 158. 1895; Seidenf. in Opera Bot. 89: 67, fig. 33. 1986; Pearce & Cribb, Orchids of Bhutan: 279, fig. 64, pl. 10 [top-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 64. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 10 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 311. 2009; Fl. China Illustr. 25: fig. 441.1–6. 2010; Kurzweil in Fl. Thailand 12 (2): 318, fig. 179. 2014; Nyan Tun, Wild Orchids of Myanmar: 24 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 54 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 62. 2020; Ormerod et al. in Phytotaxa 481 (1): 21. 2021.

— *Anthogonium griffithii* Rehb.f. in Bonplandia 2: 90. 1854.

Specimens examined. CHIN STATE. Kanpetlet Township: 2006, *Ling Shein Man 052211* (MBK); 700 m, 10 Sep. 2011, *H. Funakoshi et al. 085274* (MBK); 750–1200 m, 5 Dec. 2002, *J. Murata et al. 025587* (MBK); 1200 m, 30 Oct. 2008, *S. Yasuda 053646* (MBK); ca. 1500 m, 4 Sep. 2012, *Ling Shein Man 091654* (MBK); 2075 m, 26 Aug. 2013, *K. Fujikawa et al. 094454* (MBK). Mindat Township: 22 Oct. 2011, *Law Shine 088250* (MBK); *088250A* (MBK); 1670–2445 m, 2 Sep. 2013, *K. Fujikawa et al. 094933* (MBK); 5 Aug. 2008, *M. Matsumoto 20080603* (MBK); 1370 m, 29 Aug. 1956, *F. Kingdon-Ward 22600* (BM), det. E.A. Christenson.

Distribution. Nepal, NE India, Bhutan, Bangladesh, China, Thailand, Laos, Vietnam.

APHYLLORCHIS Blume

Aphyllorchis montana Rchb.f. in *Linnaea* 41: 57. 1876; Hook.f., *Fl. Brit. India* 6: 116. 1890; Seidenf. in *Dansk Bot. Ark.* 32 (2): 122, fig. 75. 1978; Pearce & Cribb, *Orchids of Bhutan*: 37, fig. 7k–s. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 64. 2003; Chen & Gale in *Fl. China* 25: 178. 2009; *Fl. China Illustr.* 25: figs. 243.6–7 & 244. 2010; Pedersen in *Fl. Thailand* 12 (2): 324, fig. 182. 2014; Aung et al. in *PhytoKeys* 138: 62. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 22. 2021.

— *Aphyllorchis prainii* Hook.f., *Fl. Brit. India* 6: 117. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 1155 m, 7 Sep. 2013, *K. Fujikawa et al.* 095126 (MBK). Mindat Township: 1525 m, 31 Aug. 1956, *F. Kingdon-Ward* 22609 (BM), det. P.J. Cribb.

Distribution. Sri Lanka, India, China, Taiwan, Japan, Thailand, Vietnam, Cambodia, Malaysia, Indonesia, Philippines.

APOSTASIA Blume

Apostasia wallichii R.Br. in *Wall., Pl. Asiat. Rar.* 1: 75. 1830; Hook.f., *Fl. Brit. India* 6: 175. 1890; de Vogel in *Blumea* 17: 338, fig. 10c–g. 1969; Larsen & de Vogel in *Fl. Thailand* 2 (2): 135. 1972; Pearce & Cribb, *Orchids of Bhutan*: 18, fig. 1. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 64. 2003; Chen et al. in *Fl. China* 25: 20. 2009; Aung et al. in *PhytoKeys* 138: 62. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 22. 2021.

Specimens examined. CHIN STATE. Mindat Township: 22 Oct. 2011, *Law Shine* 088251 (MBK).

Distribution. Sri Lanka, India, Nepal, Bangladesh, Andaman Islands, China, Japan, Thailand, Vietnam, Cambodia, Malaysia, Indonesia; N Australia.

ARACHNIS Blume

Arachnis clarkei (Rchb.f.) J.J.Sm. in *Natuurw. Tijdschr. Ned.-Indië* 72: 76. 1912; Aung et al. in *PhytoKeys* 138: 62. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 23. 2021.

— *Esmeralda clarkei* Rchb.f. in *Gard. Chron., n.s.*, 26: 552. 1886; Seidenf. in *Opera Bot.* 95: 136, fig. 82. 1988; Pearce & Cribb, *Orchids of Bhutan*: 517. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 78. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 149 (incl. colour photo). 2005; Chen & Wood in *Fl. China* 25: 464. 2009; *Fl. China Illustr.* 25: fig. 608.2–3. 2010; Nyan Tun, *Wild Orchids of Myanmar*: 277 (incl. colour photos). 2014.

— *Arachnanthe clarkei* (Rchb.f.) Rolfe in *Gard. Chron., ser. 3, 4*: 567. 1888; Hook.f., *Fl. Brit. India* 6: 28. 1890.

— *Vanda clarkei* (Rchb.f.) N.E.Br. in *Bull. Misc. Inform. Kew* 1888: 122. 1888.

Specimens examined. CHIN STATE. Kanpetlet Township: 2220 m, 16 Feb. 2012, *K. Fujikawa et al.* 086751 (MBK). Mindat District, township not specified: 2285 m, 1 Jan. 1954, *F. Kingdon-*

Ward 22418 (K); 1980 m, 2 Sep. & 4 Oct. 1956, *F. Kingdon-Ward 22718* (BM), det. P.F. Hunt.

Distribution. Nepal, Bhutan, NE India, S and SW China, Thailand.

ARUNDINA Blume

Arundina graminifolia (D.Don) Hochr. in Bull. New York Bot. Gard. 6: 270. 1910; Seidenf. in Opera Bot. 89: 16, fig. 4, pl. Id. 1986; Pearce & Cribb, Orchids of Bhutan: 319, fig. 76, pl. 12 [top-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 13 (incl. colour photo). 2005; Chen & Gale in Fl. China 25: 315. 2009; Fl. China Illustr. 25: figs. 447.1–3 & 448. 2010; Pedersen in Fl. Thailand 12 (2): 327, fig. 184. 2014; Nyan Tun, Wild Orchids of Myanmar: 27 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 55 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 62. 2020; Ormerod et al. in Phytotaxa 481 (1): 24. 2021.

— *Bletia graminifolia* D.Don, Prodr. Fl. Nepal.: 29. 1825.

— *Arundina chinensis* Blume, Bijdr. Fl. Ned. Ind.: 402. 1825; Hook.f., Fl. Brit. India 5: 857. 1890.

— *Arundina bambusifolia* Lindl., Gen. Sp. Orchid. Pl.: 125. 1831, nom. illeg.; Hook.f., Fl. Brit. India 5: 857. 1890; Grant, Orchids of Burma: 201. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 2006, *Ling Shein Man 052150* (MBK); 14 Aug. 2008, *K. Fujikawa et al. 053500* (MBK); 17 Sep. 2012, *Law Shine 091570* (MBK); ca. 600–815 m, 7 Sep. 2013, *K. Fujikawa et al. 095167* (MBK); 820 m, 2 Sep. 2011, *H. Funakoshi et al. 085049* (MBK); ca. 900 m, 25 Oct. 2011, *Ling Shein Man 087686* (MBK); 1125 m, 30 Sep. 2008, *S. Yasuda 053621* (MBK); 1140 m, 11 Aug. 2008, *S. Yasuda 053612* (MBK); ca. 1676 m, 4 Nov. 2002, *Ling Shein Man & Cho Cho Win 024454* (MBK); 1700 m, 13 July 2013, *Ling Shein Man 093094* (MBK). Mindat Township: 29 Nov. 2011, *Law Shine 088318* (MBK); 1370 m, 19 July 1956, *F. Kingdon-Ward 22509* (BM), det. P.F. Hunt.

Distribution. Sri Lanka, India, Nepal, Bhutan, Bangladesh, China, Taiwan, S Japan, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Philippines, New Guinea; naturalised in Réunion, several islands of the Pacific Ocean, Central America and the Caribbean.

BRACHYCORYTHIS Lindley

Brachycorythis acuta (Rchb.f.) Summerh. in Kew Bull. 10: 238. 1955; Seidenf. in Dansk Bot. Ark. 31 (3): 10, fig. 1. 1977; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 16 (incl. colour photo). 2005; Pedersen in Fl. Thailand 12 (1): 21, fig. 8. 2011; Aung et al. in PhytoKeys 138: 62. 2020; Ormerod et al. in Phytotaxa 481 (1): 26. 2021.

— *Gymnadenia acuta* Rchb.f., Otia Bot. Hamburg.: 32. 1878.

— *Platanthera acuta* (Rchb.f.) Kraenzl., Orchid. Gen. Sp. 1: 611. 1899.

— *Brachycorythis obovalis* Summerh. in Kew Bull. 10: 237. 1955; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003.

Specimens examined. CHIN STATE. Mindat Township: 365 m, 27 Jun. 1956, *F. Kingdon-Ward* 22426 (BM), det. H.Æ. Pedersen.

Distribution. NE India, Thailand, Cambodia.

Brachycorythis galeandra (Rchb.f.) Summerh. in Kew Bull. 10: 241. 1955; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Chen et al. in Fl. China 25: 101. 2009; Fl. China Illustr. 25: figs. 145.4–6 & 146. 2010; Pedersen in Fl. Thailand 12 (1): 23, fig. 9. 2011; Aung et al. in PhytoKeys 138: 62. 2020; Ormerod et al. in Phytotaxa 481 (1): 27. 2021.

— *Platanthera galeandra* Rchb.f. in Linnaea 25: 226. 1852.

— *Habenaria galeandra* (Rchb.f.) Benth., Fl. Hongk.: 363. 1861; Hook.f., Fl. Brit. India 6: 163. 1890.

— *Gymnadenia galeandra* (Rchb.f.) Rchb.f., Otia Bot. Hamburg.: 33. 1878.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda* 060070 (MBK); 1350 m, 3 July 2013, *Ling Shein Man* 092985 (MBK); ca. 1524 m, 28 June 2011, *Ling Shein Man et al.* 087467 (MBK). Mindat District, township not specified: 21 July 2007, *N. Tanaka s.n.* (TNS).

Distribution. Himalaya, NE India, Bangladesh, China, Taiwan, Thailand, Laos, Vietnam, Cambodia.

Brachycorythis cf. **helferi** (Rchb.f.) Summerh. in Kew Bull. 10: 235. 1955; Seidenf. in Dansk Bot. Ark. 31 (3): 13, fig. 3. 1977; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 16 (incl. colour photo). 2005; Pedersen in Fl. Thailand 12 (1): 24, fig. 10. 2011; Nyan Tun, Wild Orchids of Myanmar: 38 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 62. 2020; Ormerod et al. in Phytotaxa 481 (1): 27. 2021.

— *Gymnadenia helferi* Rchb.f. in Flora 55: 276. 1872; Grant, Orchids of Burma: 325. 1895.

— *Habenaria helferi* (Rchb.f.) Hook.f., Fl. Brit. India 6: 164. 1890.

— *Gymnadenia sesamoides* C.S.P. Parish in F. Mason, Burmah, ed. 4, 2: 184. 1883.

— *Platanthera helferi* (Rchb.f.) Kraenzl., Orchid. Gen. Sp. 1: 611. 1899.

Specimens examined. CHIN STATE. Kanpetlet Township, 30 July 2008, *K. Fujikawa et al.* 053027 (MBK); 914 m, 25 July 2006, *Ling Shein Man* 052055 (MBK).

Distribution. NE India, Bangladesh, SW China, Thailand, Laos, Vietnam.

BULBOPHYLLUM Thouars, nom. cons.

Bulbophyllum careyanum (Hook.) Spreng., Syst. Veg. 3: 732. 1826; Hook.f., Fl. Brit. India 5: 760. 1890; Grant, Orchids of Burma: 36. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 145, fig. 98. 1979; Pearce & Cribb, Orchids of Bhutan: 451, pl. 24 [bottom-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 22

(incl. colour photo). 2005; Aung et al. in *PhytoKeys* 138: 63. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 30. 2021.

— *Anisopetalum careyanum* Hook., *Exot. Fl.* 2: t. 149. 1825.

— *Bulbophyllum careyanum* var. *ochracea* Hook.f., *Fl. Brit. India* 5: 760. 1890.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 63).

Distribution. Himalaya, NE India, Thailand, Vietnam.

Bulbophyllum dickasonii Seidenf. in *Dansk Bot. Ark.* 33 (3): 192, fig. 139. 1979; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 66. 2003; Aung et al. in *PhytoKeys* 138: 64. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 33. 2021.

— *Tripudianthes dickasonii* (Seidenf.) Szlach. & Kras in *Richardiana* 7: 95. 2007.

Specimens examined. CHIN STATE. Mindat District, township not specified: 2285 m, *F.G. Dickason 8444* (holotype: AMES); 1400 m, 26 Mar. 1956, *F. Kingdon-Ward 21866* (BM).

Distribution. ? NE India.

Bulbophyllum helenae (Kuntze) J.J.Sm. in *Bull. Jard. Bot. Buitenzorg, sér. 2*, 8: 24. 1912; Seidenf. in *Dansk Bot. Ark.* 33 (3): 157, fig. 108. 1979; Pearce & Cribb, *Orchids of Bhutan*: 468, pl. 25 [top-right]. 2002; Chen & Vermeulen in *Fl. China* 25: 430. 2009; *Fl. China Illustr.* 25: figs. 548.8–10. 2010; Aung et al. in *PhytoKeys* 138: 64. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 35. 2021.

— *Cirrhopetalum cornutum* Lindl. in *Edwards's Bot. Reg.* 24 (Misc.): 75. 1838; Hook.f., *Fl. Brit. India* 5: 774. 1890.

— *Phyllorkis helenae* Kuntze, *Revis. Gen. Pl.* 2: 676. 1891.

— *Phyllorkis cornuta* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 677. 1891.

— *Rhytionanthos cornutum* (Lindl.) Garay et al. in *Nordic J. Bot.* 14: 637. 1994.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 64).

Distribution. Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Bulbophyllum leopardinum (Wall.) Lindl. ex Wall., *Numer. List*: no. 1981. 1829; Hook.f., *Fl. Brit. India* 5: 756. 1890; Seidenf. in *Dansk Bot. Ark.* 33 (3): 28, fig. 10. 1979; Pearce & Cribb, *Orchids of Bhutan*: 442. 2002; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 30 (incl. colour photo). 2005; Chen & Vermeulen in *Fl. China* 25: 409. 2009; *Fl. China Illustr.* 25: figs. 534 & 535.1. 2010; Aung et al. in *PhytoKeys* 138: 65. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 37. 2021.

— *Dendrobium leopardinum* Wall., *Tent. Fl. Nepal.*: 39. 1826.

— *Phyllorkis leopardina* (Wall.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 65).

Distribution. Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Bulbophyllum lobbii Lindl. in Edwards's Bot. Reg. 33: sub t. 29. 1847; Hook.f., Fl. Brit. India 5: 755. 1890; Grant, Orchids of Burma: 41. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 21. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 66. 2003; Aung et al. in PhytoKeys 138: 65. 2020.

Specimens examined. CHIN STATE. Mindat District, township not specified: photographic record M. Rodda.

Distribution. E Himalaya, NE India, Bangladesh, Thailand, Cambodia, Malaysia, Indonesia, Philippines.

Note. Record is from a photograph only and this did not permit the identification of the subspecies.

Bulbophyllum moniliforme C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 151. 1874; Hook.f., Fl. Brit. India 5: 757. 1890; Grant, Orchids of Burma: 43. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 49, fig. 24. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 66. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 34 (incl. colour photo). 2005; Aung et al. in PhytoKeys 138: 65. 2020; Ormerod et al. in Phytotaxa 481 (1): 39. 2021.

— *Phyllorkis moniliformis* (C.S.P.Parish & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 65).

Distribution. NE India, S Thailand, Laos, Vietnam, Cambodia.

Bulbophyllum nigrescens Rolfe in Bull. Misc. Inform. Kew 1910: 158. 1910; Seidenf. in Dansk Bot. Ark. 33 (3): 104, fig. 64. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 66. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 36 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 421. 2009; Fl. China Illustr. 25: figs. 554 & 566.9–11. 2010; Aung et al. in PhytoKeys 138: 65. 2020; Ormerod et al. in Phytotaxa 481 (1): 39. 2021.

— *Bulbophyllum angusteellipticum* Seidenf. in Nordic J. Bot. 1: 209. 1981; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 19 (incl. colour photo). 2005.

— *Bulbophyllum secundum* auct., non Hook.f.: Saw Lwin, Myanmar native orchids, vol. II: 7. 2004.

Specimens examined. CHIN STATE. Mindat District, township not specified: *Homan 21* (TNS).

Distribution. Thailand, SW China, Laos, Vietnam.

Bulbophyllum odoratissimum (Sm.) Lindl. ex Wall., Numer. List: no. 1987. 1829, nomen; Lindl., Gen. Sp. Orchid. Pl.: 55. 1830; Hook.f., Fl. Brit. India 5: 758. 1890; Grant, Orchids of Burma: 44. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 76, fig. 43. 1979; Pearce & Cribb, Orchids of Bhutan: 447, pl. 25 [bottom-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 66. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 36 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 414. 2009; Fl. China Illustr. 25: fig. 543. 2010; Nyan Tun, Wild Orchids of Myanmar: 57 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 57 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 65. 2020; Ormerod et al. in Phytotaxa 481 (1): 40. 2021.

— *Bulbophyllum congestum* Rolfe in Bull. Misc. Inform. Kew 1912: 131. 1912; Seidenf. in Dansk Bot. Ark. 33 (3): 78, fig. 45. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 23 (incl. colour photo). 2005.

— *Stelis odoratissima* Sm. in A.Rees, Cycl. 34: 12. 1816.

Specimens examined. CHIN STATE. Kanpetlet Township, 31 July 2008, *S. Yasuda 060081* (MBK).

Distribution. Nepal, Bhutan, NE India, S and SW China, Thailand, Laos, Vietnam, Cambodia.

Bulbophyllum parviflorum C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 152. 1874; Hook.f., Fl. Brit. India 5: 763. 1890; Grant, Orchids of Burma: 44. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 103, fig. 64. 1979; Pearce & Cribb, Orchids of Bhutan: 456. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 38 (incl. colour photo). 2005; Aung et al. in PhytoKeys 138: 65. 2020; Ormerod et al. in Phytotaxa 481 (1): 41. 2021.

— *Phyllorkis parviflora* (C.S.P.Parish & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1950 m, *N. Tanaka 20040162* (TNS).

Distribution. E Himalaya, NE India, Thailand, Laos, Vietnam, Cambodia.

Bulbophyllum pectinatum Finet in Bull. Soc. Bot. France 44: 268. 1897; Seidenf. in Dansk Bot. Ark. 33 (3): 25, fig. 9. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 38 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 407. 2009; Fl. China Illustr. 25: figs. 528 & 529. 2010; Nyan Tun, Wild Orchids of Myanmar: 58 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 65. 2020; Ormerod et al. in Phytotaxa 481 (1): 41. 2021.

— *Bulbophyllum spectabile* Rolfe in Bull. Misc. Inform. Kew 1898: 193. 1898.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 030989* (MBK); 1750 m, 26 Apr. 2003, *J. Murata et al. 029692* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081272* (MBK); 2135-2440 m, Apr. 1956, *Maung Gale-2*

5553 (RAF), ident. uncertain. Mindat District, township not specified: 1830 m, 20 Apr. 1926, *R. Unwin* 3078 (E), det. Ji Zhanhou; *R. Swinhoe* 35 (K); 3050 m, Apr. 1939, *F.G. Dickason* 8605 (AMES); 2135-2440 m, 2 Apr. 1956, *F. Kingdon-Ward* 21931 (BM), det. Ji Zhanhou.

Distribution. NE India, Bangladesh, China, Taiwan, Thailand, Vietnam.

Bulbophyllum cf. **refractum** (Zoll.) Rchb.f. in *Ann. Bot. Syst.* (Walpers) 6: 259. 1861; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 67. 2003; Aung et al. in *PhytoKeys* 138: 66. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 44. 2021.

— *Cirrhopetalum refractum* Zoll. in *Flora* 30: 456. 1847; Hook.f., *Fl. Brit. India* 5: 779. 1890; Grant, *Orchids of Burma*: 58. 1895.

— *Phyllorkis refracta* (Zoll.) Kuntze, *Revis. Gen. Pl.* 2: 677. 1891.

Specimens examined. CHIN STATE. Mindat Township: *Maung Gale-2 & Chit Ko Ko* 5512 (RAF).

Distribution. Vietnam, W Indonesia (Sumatra and Java).

Note. Very similar to *B. wallichii* (Lindl.) Rchb.f.

Bulbophyllum reptans (Lindl.) Lindl. ex Wall., *Numer. List*: no. 1988. 1829; Hook.f., *Fl. Brit. India* 5: 768. 1890; Seidenf. in *Dansk Bot. Ark.* 33 (3): 109, fig. 70. 1979; Pearce & Cribb, *Orchids of Bhutan*: 452, fig. 101. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 67. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 42 (incl. colour photo). 2005; Chen & Vermeulen in *Fl. China* 25: 412. 2009; *Fl. China Illustr.* 25: fig. 566.12–14. 2010; Aung et al. in *PhytoKeys* 138: 66. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 44. 2021.

— *Stelis racemosa* Sm. in A.Rees, *Cycl.* 34: 10. 1816.

— *Tribrachia reptans* Lindl., *Coll. Bot.*: t. 41. 1826.

— *Tribrachia racemosa* (Sm.) Lindl., *Coll. Bot.*: sub t. 41A. 1826.

— *Phyllorkis reptans* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 677. 1891.

— *Sunipia racemosa* (Sm.) Tang & F.T.Wang in *Acta Phytotax. Sin.* 1: 90. 1951.

— *Ione racemosa* (Sm.) Seidenf. in *Bot. Tidsskr.* 64: 227. 1969.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 66).

Distribution. N India, Himalaya, S and SW China, Thailand, Laos, Vietnam.

Bulbophyllum retusiusculum Rchb.f. in *Gard. Chron.* 1869: 1182. 1869; Seidenf. in *Dansk Bot. Ark.* 29 (1): 195, figs. 106–108. 1973; Seidenf. in *Dansk Bot. Ark.* 33 (3): 173, fig. 123. 1979; Pearce & Cribb, *Orchids of Bhutan*: 473, fig. 102, pl. 25 [bottom-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 67. 2003; Chen & Vermeulen in *Fl. China* 25: 427. 2009; *Fl. China Illustr.* 25: fig. 564. 2010; Aung et al. in *PhytoKeys* 138: 66. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 45. 2021.

— *Cirrhopetalum retusiusculum* (Rchb.f.) Hemsley in Gard. Chron., n.s., 18: 365. 1882; Hook.f., Fl. Brit. India 5: 776. 1890; Grant, Orchids of Burma: 59. 1895; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 63 (incl. colour photo). 2005.

— *Phyllorkis retusiuscula* (Rchb.f.) Kuntze, Rev. Gen. Pl. 2: 677. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060065* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081269* (MBK); 2040 m, 19 May 2012, *K. Fujikawa et al. 089043* (MBK). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al. 089231* (MBK). Mindat District, township not specified: 1924, *R.E. Cooper 6082* (E).

Distribution. Nepal, Bhutan, NE India, China, Taiwan, Thailand, Laos, Vietnam, Cambodia, Peninsular Malaysia.

Bulbophyllum rufinum Rchb.f., Xenia Orchid. 3: 44. 1881; Hook.f., Fl. Brit. India 6: 188. 1890; Grant, Orchids of Burma: 47. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 115, fig. 74. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 42 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 418. 2009; Fl. China Illustr. 25: fig. 549. 2010; Nyan Tun, Wild Orchids of Myanmar: 66 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 58 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 66. 2020; Ormerod et al. in Phytotaxa 481 (1): 46. 2021.

— *Phyllorkis rufina* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kang et al. (2017: 58).

Distribution. Thailand, SW China, Laos, Vietnam, Cambodia.

Bulbophyllum sasakii (Hayata) Vermeulen et al. in Phytotaxa 166 (2): 105. 2014; Ormerod et al. in Phytotaxa 481 (1): 47. 2021.

— *Ione andersonii* King & Pantl. in Ann. Roy. Bot. Gard. (Calcutta) 8: 159. 1898; Pearce & Cribb, Orchids of Bhutan: 481. 2002.

— *Ione sasakii* Hayata, Icon. Pl. Formosan. 2: 139. 1912.

— *Ione flavescens* Rolfe in Bull. Misc. Inform. Kew 1914: 373. 1914; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003.

— *Ione bifurcatoflorens* Fukuy. in Bot. Mag. (Tokyo) 49: 440. 1935.

— *Ione andersonii* var. *flavescens* (Rolfe) Tang & F.T.Wang in Acta Phytotax. Sin. 1: 90. 1951.

— *Sunipia andersonii* (King & Pantl.) P.F.Hunt in Kew Bull. 26: 183. 1971; Seidenf. in Opera Bot. 89: 172, fig. 113. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 225 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 442. 2009; Fl. China Illustr. 25: figs. 585. 1–2 & 586. 2010; Nyan Tun, Wild Orchids of Myanmar: 413 (incl. colour photo). 2014.

— *Sunipia flavescens* (Rolfe) P.F.Hunt in Kew Bull. 26: 184. 1971.

— *Sunipia sasakii* (Hayata) P.F.Hunt in Kew Bull. 26: 184. 1971.

— *Bulbophyllum bifurcatoflorens* (Fukuy.) Vermeulen et al. in Phytotaxa 166 (2): 104. 2014; Aung et al. in PhytoKeys 138: 63. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: 1552 m, 1 Mar. 2007, *K. Fujikawa 050168* (MBK). Mindat District, township not specified: *C. Wheeler-Cuffe s.n.* (holotype of *Ione flavescens*: K).

Distribution. Bhutan, NE India, China, Taiwan, Thailand, Vietnam.

Notes:—Well known as *Sunipia andersonii*.

Bulbophyllum secundum Hook.f., Fl. Brit. India 5: 764. 1890; Seidenf. in Dansk Bot. Ark. 33 (3): 103, fig. 63. 1979; Pearce & Cribb, Orchids of Bhutan: 457. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 43 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 420. 2009; Fl. China Illustr. 25: fig. 553. 2010; Nyan Tun, Wild Orchids of Myanmar: 67 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 67. 2020; Ormerod et al. in Phytotaxa 481 (1): 47. 2021.

— *Phyllorkis secunda* (Hook. f.) Kuntze, Revis. Gen. Pl. 2: 678. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 031004* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081264* (MBK). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al. 089204* (MBK). Matupi Township: 1760 m, 11 July 2013, *Mu Mu Aung et al. 092414* (MBK). Mindat District, township not specified: *R. Swinhoe 122* (K).

Distribution. Nepal, NE India, SW China, Thailand, Laos, Vietnam.

Bulbophyllum suavissimum Rolfe in Gard. Chron., ser. 3, 5: 297. 1889; Hook.f., Fl. Brit. India 5: 768. 1890; Grant, Orchids of Burma: 49. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 210, fig. 153. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 45 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 440. 2009; Fl. China Illustr. 25: fig. 581.11–13. 2010; Nyan Tun, Wild Orchids of Myanmar: 69 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 67. 2020; Ormerod et al. in Phytotaxa 481 (1): 49. 2021.

— *Phyllorkis suavissima* (Rolfe) Kuntze, Rev. Gen. Pl. 2: 678. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 2008, *S. Yasuda 060050* (MBK); 18 Sep. 2008, *S. Yasuda 060051* (MBK).

Distribution. ? NE India, Bangladesh, SW China, Thailand.

Bulbophyllum sulcatum (Blume) Lindl., Gen. Sp. Orchid. Pl.: 57. 1830; Aung et al. in PhytoKeys 138: 67. 2020; Ormerod et al. in Phytotaxa 481 (1): 49. 2021.

— *Diphyes sulcata* Blume, Bijdr. Fl. Ned. Ind.: 314. 1825.

— *Phyllorkis sulcata* (Blume) Kuntze, Revis. Gen. Pl. 2: 678. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al.

(2020: 67).

Distribution. Thailand, ? Vietnam, Malaysia, Indonesia.

Bulbophyllum sunipia J.J.Verm. et al. in *Phytotaxa* 166 (2): 105. 2014; Aung et al. in *PhytoKeys* 138: 67. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 49. 2021.

— *Sunipia scariosa* Lindl., Gen. Sp. Orchid. Pl.: 179. 1833; Hook.f., Fl. Brit. India 5: 772. 1890; Grant, Orchids of Burma: 186. 1895; Pearce & Cribb, Orchids of Bhutan: 488, fig. 105. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 88. 2003; Chen & Vermeulen in Fl. China 25: 441. 2009; Fl. China Illustr. 25: fig. 584.1–4. 2010.

— *Ione scariosa* (Lindl.) King & Pantl. in Ann. Roy. Bot. Gard. (Calcutta) 8 (1): 161. 1898; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003.

— *Sunipia racemosa* auct., non (Sm.) Tang & F.T.Wang: Seidenf. in Opera Bot. 89: 182, fig. 124. 1986; Nyan Tun, Wild Orchids of Myanmar: 416 (incl. colour photo). 2014.

Specimens examined. CHIN STATE. Kanpetlet Township: 1 Apr. 2009, *S. Yasuda* 060008 (MBK); 1750 m, 26 Apr. 2003, *J. Murata et al.* 029702 (MBK). Mindat District, township not specified: 1830 m, Apr. 1939, *F.G. Dickason* 8554 (AMES); *R. Swinhoe* 33 (K).

Distribution. Nepal, NE India, SW China, Thailand, Laos, Vietnam.

Bulbophyllum taeniophyllum C.S.P.Parish & Rchb.f. in J. Bot. 12: 198. 1874; Seidenf. in Dansk Bot. Ark. 29 (1): 143, fig. 70. 1973; Seidenf. in Dansk Bot. Ark. 33 (3): 167, fig. 115. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Chen & Vermeulen in Fl. China 25: 429. 2009; Aung et al. in *PhytoKeys* 138: 67. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 50. 2021.

— *Bulbophyllum simillimum* C.S.P.Parish & Rchb.f., Otia Bot. Hamburg.: 49. 1878.

— *Cirrhopetalum simillimum* C.S.P.Parish & Rchb.f., Otia Bot. Hamburg.: 49. 1878; Hook.f., Fl. Brit. India 5: 775. 1890; Grant, Orchids of Burma: 59. 1895.

— *Cirrhopetalum taeniophyllum* (C.S.P.Parish & Rchb.f.) Hook.f., Fl. Brit. India 5: 780. 1890; Grant, Orchids of Burma: 60. 1895; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 64 (incl. colour photo). 2005.

— *Phyllorkis simillima* (C.S.P.Parish & Rchb.f.) Kuntze, Rev. Gen. Pl. 2: 678. 1891.

— *Phyllorkis taeniophylla* (C.S.P.Parish & Rchb.f.) Kuntze, Rev. Gen. Pl. 2: 678. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 7 Aug. 2008, *S. Yasuda* 060089 (MBK). Mindat Township: 2000 m, 5 Aug. 2008, *S. Yasuda* 053610 (MBK).

Distribution. SW China, Thailand, Laos, Vietnam, Malaysia, Indonesia.

Bulbophyllum tripudians C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 154. 1874; Seidenf. in Dansk Bot. Ark. 33 (3): 189, fig. 135. 1979; Kress et al. in Contr. U.S. Natl. Herb. 45: 67. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 48 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 72 (incl. colour photos). 2014; Aung et al. in *PhytoKeys* 138: 67. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 50. 2021.

- *Cirrhopetalum tripudians* (C.S.P.Parish & Rchb.f.) C.S.P.Parish & Rchb.f. in Gard. Chron., n.s., 5: 816. 1876.
- *Tripudianthes tripudians* (C.S.P.Parish & Rchb.f.) Szlach. & Kras in Richardiana 7: 96. 2007.
- *Bulbophyllum tripudianthe* J.M.H.Shaw in Orchid Rev. 124 (1314, Suppl.): 35. 2016, nom. superfl.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 67).

Distribution. Thailand, Laos, Vietnam.

Bulbophyllum triste Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 253. 1861; Hook.f., Fl. Brit. India 5: 768. 1890; Grant, Orchids of Burma: 50. 1895; Seidenf. in Dansk Bot. Ark. 33 (3): 213, fig. 156. 1979; Pearce & Cribb, Orchids of Bhutan: 464. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 68. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 49 (incl. colour photo). 2005; Chen & Vermeulen in Fl. China 25: 439. 2009; Fl. China Illustr. 25: figs. 581.1–6 & 583. 2010; Nyan Tun, Wild Orchids of Myanmar: 73 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 67. 2020; Ormerod et al. in Phytotaxa 481 (1): 51. 2021.

- *Bulbophyllum alopecurus* Rchb.f. in Gard. Chron., n.s., 14: 70. 1880; Grant, Orchids of Burma: 35. 1895.
- *Bulbophyllum micranthum* Hook.f., Fl. Brit. India 5: 768. 1890, nom. illeg.; Grant, Orchids of Burma: 42. 1895.
- *Phyllorkis tristis* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 678. 1891.
- *Phyllorkis alopecurus* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.
- *Phyllorkis micrantha* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 677. 1891.
- *Bulbophyllum mackeeanum* Guillaumin in Bull. Mus. Natl. Hist. Nat., sér. 2, 34: 95. 1962.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 67).

Distribution. India, Himalaya, SW China, Thailand.

CALANTHE R.Brown

Calanthe simplex Seidenf. in Dansk Bot. Ark. 29 (2): 42. 1975; Chen et al. in Fl. China 25: 299. 2009; Fl. China Illustr. 25: fig. 427.3. 2010; Clayton & Cribb, The genus *Calanthe*: 41, fig. 9.8. 2013; Kurzweil in Fl. Thailand 12 (2): 369, fig. 206, pl. XXIX.3. 2014; Aung et al. in PhytoKeys 138: 68. 2020; Ormerod et al. in Phytotaxa 481 (1): 57. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 2135 m, 18 Nov. 1956, *F. Kingdon-Ward* 22873 (BM).

Distribution. NE India, SW China, Thailand.

CEPHALANTHERA Richard

Cephalanthera damasonium (Mill.) Druce in Ann. Scott. Nat. Hist. 1906: 225. 1906; Pearce & Cribb, Orchids of Bhutan: 39, pl. 2 [bottom-right]. 2002; Chen et al. in Fl. China 25: 176. 2009; Fl. China Illustr. 25: fig. 241.3–4. 2010; Aung et al. in PhytoKeys 138: 69. 2020; Ormerod et al. in Phytotaxa 481 (1): 59. 2021.

— *Serapias damasonium* Mill. in Gard. Dict. ed. 8: n.º 2. 1768.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 031019* (MBK); 2040 m, 19 May 2012, *K. Fujikawa et al. 089050* (MBK); 2100 m, 24 May 2007, *N. Kuroiwa et al. 051215* (MBK); ca. 2300-2450 m, 4 June 2002, *N. Tanaka et al. 023279* (MBK); 6 June 1924, *R.E. Cooper 6131* (E, SING); 1 July 1924, *R.E. Cooper 6122* (E, SING). Mindat Township: 1670-2445 m, 2 Sep. 2013, *K. Fujikawa et al. 094936* (MBK); 2200 m, 24 May 2012, *K. Fujikawa et al. 089212* (MBK); 1830 m, 20 May 1956, *F. Kingdon-Ward 22235* (BM). MAGWAY REGION. Saw Township: 15 May 2007, *N. Tanaka et al. 051113* (MBK).

Distribution. Bhutan, NE India, SW China; Europe, N Africa, Middle East.

CHEIROSTYLIS Blume

Cheirostylis griffithii Lindl. in J. Proc. Linn. Soc., Bot. 1: 188. 1857; Hook.f., Fl. Brit. India 6: 105. 1890; Grant, Orchids of Burma: 360. 1895; Seidenf. in Dansk Bot. Ark. 32 (2): 65, fig. 36. 1978; Pearce & Cribb, Orchids of Bhutan: 79. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 69. 2003; Chen et al. in Fl. China 25: 60. 2009; Pedersen in Fl. Thailand 12 (1): 30, fig. 13, pl. II.1. 2011; Aung et al. in PhytoKeys 138: 69. 2020; Ormerod et al. in Phytotaxa 481 (1): 61. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: photographic record M. Rodda.

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Thailand.

Cheirostylis spathulata J.J.Sm. in Bull. Jard. Bot. Buitenzorg, III, 9: 32. 1927; Seidenf. in Dansk Bot. Ark. 32 (2): 66, fig. 37. 1978; Ormerod & Sathish Kumar in Rheedeia 13: 46. 2003; Pedersen in Fl. Thailand 12 (1): 37, fig. 18. 2011; Aung et al. in PhytoKeys 138: 69. 2020; Ormerod et al. in Phytotaxa 481 (1): 61. 2021.

Specimens examined. CHIN STATE. Mindat Township: 1220 m or below, 11 Mar. 1956, *F. Kingdon-Ward 21776* (BM).

Distribution. Thailand, Vietnam, W Indonesia.

CLEISOSTOMA Blume

Cleisostoma duplicilobum (J.J.Sm.) Garay in Bot. Mus. Leaflet. 23: 171. 1972; Seidenf. in Dansk

Bot. Ark. 29 (3): 36, fig. 15. 1975; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 67 (incl. colour photo). 2005; Aung et al. in PhytoKeys 138: 70. 2020; Ormerod et al. in Phytotaxa 481 (1): 64. 2021.

— *Sarcanthus duplicilobus* J.J.Sm. in Bull. Dép. Agric. Indes Néerl. 13: 64. 1907.

— *Sarcanthus carinatus* Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 408. 1925.

— *Cleisostoma carinatum* (Rolfe ex Downie) Garay in Bot. Mus. Leaflet. 23: 170. 1972.

Specimens examined. CHIN STATE. Mindat Township: 915-1220 m, 2 June 1956, *F. Kingdon-Ward* 22336 (BM).

Distribution. NE India, Thailand, Laos, Vietnam, Malaysia, Indonesia, Philippines.

Cleisostoma filiforme (Lindl.) Garay in Bot. Mus. Leaflet. 23: 171. 1972; Seidenf. in Dansk Bot. Ark. 29 (3): 55, figs. 23a & 24. 1975; Pearce & Cribb, Orchids of Bhutan: 513. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 69. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 68 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 462. 2009; Fl. China Illustr. 25: fig. 607.1-5. 2010; Aung et al. in PhytoKeys 138: 70. 2020; Ormerod et al. in Phytotaxa 481 (1): 64. 2021.

— *Sarcanthus filiformis* Lindl. in Edwards's Bot. Reg. 28 (Misc.): 61. 1842; Hook.f., Fl. Brit. India 6: 66. 1890; Grant, Orchids of Burma: 294. 1895.

Specimens examined. CHIN STATE. Mindat Township: 915 m, 25 Aug. 1956, *F. Kingdon-Ward* 22595 (BM).

Distribution. Himalaya, NE India, S and SW China, Thailand, Laos, Vietnam, Cambodia.

Cleisostoma racemiferum (Lindl.) Garay in Bot. Mus. Leaflet. 23: 173. 1972; Seidenf. in Dansk Bot. Ark. 29 (3): 16, fig. 4. 1975; Pearce & Cribb, Orchids of Bhutan: 511, pl. 27 [bottom-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 69. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 70 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 459. 2009; Nyan Tun, Wild Orchids of Myanmar: 108 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 70. 2020; Ormerod et al. in Phytotaxa 481 (1): 65. 2021.

— *Saccolabium racemiferum* Lindl., Gen. Sp. Orchid. Pl.: 224. 1833.

— *Sarcanthus pallidus* Lindl. in Edwards's Bot. Reg. 26 (Misc.): 78. 1840; Hook.f., Fl. Brit. India 6: 68. 1890; Grant, Orchids of Burma: 297. 1895.

— *Sarcanthus racemifer* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 891. 1864.

— *Sarcanthus chrysomelas* Rchb.f. in Gard. Chron. 1869: 662. 1869; Grant, Orchids of Burma: 293. 1895.

— *Sarcanthus lorifolius* C.S.P.Parish ex Hook.f., Fl. Brit. India 6: 69. 1890; Grant, Orchids of Burma: 295. 1895.

— *Cleisostoma chrysomelas* (Rchb.f.) Garay in Bot. Mus. Leaflet. 23: 170. 1972.

Specimens examined. CHIN STATE. Kanpetlet Township: 1740 m, 26 Apr. 2003, *J. Murata et al.* 029688 (MBK); 2560 m, 22 May 2012, *K. Fujikawa et al.* 089191 (MBK).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Laos, Vietnam, Peninsular Malaysia.

COELOGYNE Lindley

Coelogyne anceps Hook.f., Fl. Brit. India 5: 840. 1890; Clayton, The genus *Coelogyne*: 32, fig. 5a.1. 2002; George & George, Les Coelogyne: 242 (incl. colour photos). 2011; de Vogel & Pedersen in Fl. Thailand 12 (2): 390. 2014; Aung et al. in PhytoKeys 138: 70. 2020; Ormerod et al. in Phytotaxa 481 (1): 67. 2021.

— *Pleione anceps* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 70).

Distribution. Thailand, Peninsular Malaysia.

Coelogyne brachyptera Rchb.f. in Gard. Chron., n.s., 16: 6. 1881; Hook.f., Fl. Brit. India 5: 842. 1890; Grant, Orchids of Burma: 170. 1895; Seidenf. in Dansk Bot. Ark. 29 (4): 66, fig. 27, Pl. II. 1975; Clayton, The genus *Coelogyne*: 59, fig. 9.1, pl. 4A. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 69. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 74 (incl. colour photo). 2005; George & George, Les Coelogyne: 63 (incl. colour illustr.). 2011; de Vogel & Pedersen in Fl. Thailand 12 (2): 392, fig. 216, pl. XXXI.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 113 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 67. 2021.

— *Pleione brachyptera* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

— *Coelogyne parishii* Hook. var. *brachyptera* (Rchb.f.) Pfitzer & Kraenzl. in H.G.A.Engler (ed.), Pflanzenr., IV, 50 II B 7 (32): 78. 1907.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 71).

Distribution. Thailand, Laos, Vietnam, Cambodia.

Coelogyne corymbosa Lindl., Fol. Orchid. 5: 7. 1854; Hook.f., Fl. Brit. India 5: 831. 1890; Pearce & Cribb, Orchids of Bhutan: 330, pl. 13 [top-left]. 2002; Clayton, The genus *Coelogyne*: 187, fig. 24.1, pl. 22B. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 69. 2003; Chen & Clayton in Fl. China 25: 325. 2009; Fl. China Illustr. 25: fig. 454.1. 2010; George & George, Les Coelogyne: 328 (incl. colour photos). 2011; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 68. 2021.

— *Pleione corymbosa* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 6 Mar. 2008, *S. Yasuda 060017*

(MBK); 1450-1262 m, 1 June 2012, *K. Fujikawa et al. 089640A* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081290* (MBK); 2300-2600 m, 25 Apr. 2003, *J. Murata et al. 029174* (MBK); 2340 m, 19 May 2012, *K. Fujikawa et al. 089077* (MBK); 2400-2750 m, 15 May 2004, *N. Tanaka et al. 030581* (MBK); ca. 2450-2750 m, 3 June 2002, *N. Tanaka et al. 023498* (MBK). Mindat Township: ca. 2400-2500 m, 17 May 2004, *N. Tanaka et al. 030845* (MBK); ca. 2450 m, 24 June 2009, *N. Tanaka & T. Yukawa 081118* (MBK); 2480 m, 28 Apr. 2003, *J. Murata et al. 029740* (MBK); 2540 m, 22 June 2013, *Mu Mu Aung et al. 092131* (MBK). Matupi Township: 1685 m, 8 July 2013, *Mu Mu Aung et al. 092379* (MBK). Mindat Township: 2285 m, 20 May 1956, *F. Kingdon-Ward 22251* (BM).

Distribution. Nepal, Bhutan, NE India, SW China.

Coelogyne fuscescens Lindl., Gen. Sp. Orchid. Pl.: 41. 1830; Hook.f., Fl. Brit. India 5: 833. 1890; Grant, Orchids of Burma: 173. 1895; Seidenf. in Dansk Bot. Ark. 29 (4): 26, fig. 7. 1975; Clayton, The genus *Coelogyne*: 182, fig. 23.2, pl. 21F. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; Chen & Clayton in Fl. China 25: 323. 2009; George & George, Les Coelogyne: 167 (incl. colour illustr.). 2011; Kang et al., Seed Pl. Natma Taung: 60 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 69. 2021.

— *Pleione fuscescens* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kang et al. (2017: 60).

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Coelogyne holochila P.F.Hunt & Summerh. in Kew Bull. 20: 52. 1966; Pearce & Cribb, Orchids of Bhutan: 337. 2002; Clayton, The genus *Coelogyne*: 35, fig. 5a.7, pl. 1C. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; George & George, Les Coelogyne: 106 (incl. colour illustr.). 2011; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 70. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: *C. Wheeler-Cuffe s.n.* (holotype: K); 2285 m, Apr. 1939, *F.G. Dickason 8611* (AMES).

Distribution. E Himalaya, NE India.

Coelogyne micrantha Lindl. in Gard. Chron. 1855: 173. 1855; Hook.f., Fl. Brit. India 5: 836. 1890; Grant, Orchids of Burma: 177. 1895; Clayton, The genus *Coelogyne*: 57, fig. 8. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; George & George, Les Coelogyne: 302 (incl. colour illustr.). 2011; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 70. 2021.

— *Coelogyne papagena* Rchb.f. in Bot. Zeitung (Berlin) 20: 214. 1862.

— *Pleione micrantha* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 1552 m, 26 Feb. 2007, *K. Fujikawa 050120* (MBK).

Distribution. E Himalaya, NE India, ? SW China, ? Vietnam.

Coelogyne nervosa A.Rich. in Ann. Sci. Nat., Bot., sér. 2, 15: 16. 1841; Clayton, The genus *Coelogyne*: 178, fig. 22.9, pl. 21C. 2002; George & George, Les Coelogyne: 86 (incl. colour photos). 2011; Aung et al. in PhytoKeys 138: 71. 2020; Ormerod et al. in Phytotaxa 481 (1): 71. 2021.

— *Coelogyne corrugata* Wight, Icon. Pl. Ind. Orient. 5: t. 1639. 1851; Hook.f., Fl. Brit. India 5: 835. 1890.

— *Pleione nervosa* (A.Rich.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

— *Pleione corrugata* (Wight) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 71).

Distribution. S India.

Coelogyne nitida (Wall. ex D.Don) Lindl., Coll. Bot.: t. 33 & 37. 1824; Hook.f., Fl. Brit. India 5: 837. 1890; Grant, Orchids of Burma: 177. 1895; Seidenf. in Dansk Bot. Ark. 29 (4): 53, fig. 20. 1975; Pearce & Cribb, Orchids of Bhutan: 330. 2002; Clayton, The genus *Coelogyne*: 189, fig. 24.3, pl. 22C. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 76 (incl. colour photo). 2005; Chen & Clayton in Fl. China 25: 324. 2009; George & George, Les Coelogyne: 333 (incl. colour photos). 2011; Nyan Tun, Wild Orchids of Myanmar: 124 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 72. 2020; Ormerod et al. in Phytotaxa 481 (1): 71. 2021.

— *Cymbidium nitidum* D.Don, Prodr. Fl. Nepal.: 35. 1825.

— *Pleione nitida* (Wall. ex D.Don) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Matupi Township: 1685 m, 8 July 2013, *Mu Mu Aung et al. 092379A* (MBK).

Distribution. Nepal, Bhutan, NE India, Bangladesh, SW China, Thailand, Laos, Vietnam.

Coelogyne prolifera Lindl., Gen. Sp. Orchid. Pl.: 40. 1830; Hook.f., Fl. Brit. India 5: 838. 1890; Grant, Orchids of Burma: 180. 1895; Seidenf. in Dansk Bot. Ark. 29 (4): 78, fig. 33. 1975; Pearce & Cribb, Orchids of Bhutan: 335. 2002; Clayton, The genus *Coelogyne*: 44, fig. 6.2, pl. 2C. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; Chen & Clayton in Fl. China 25: 319. 2009; Fl. China Illustr. 25: fig. 451.1–2. 2010; George & George, Les Coelogyne: 353 (incl. colour illustr.). 2011; de Vogel & Pedersen in Fl. Thailand 12 (2): 410, fig. 228, pl. XXXII.4 & XXXIII.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 118 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 63 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 72. 2020; Ormerod et al. in Phytotaxa 481 (1): 72. 2021.

— *Coelogyne flavida* Hook.f. ex Lindl., Fol. Orchid. 5: 10. 1854; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 75 (incl. colour photo). 2005.

— *Pleione prolifera* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 20 May 2007, *N. Tanaka et al. 051153* (MBK); ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 031001* (MBK). Mindat Township, 2200 m, 24 May 2012, *K. Fujikawa et al. 089203* (MBK); 1220-1525 m, 2 May 1956, *F. Kingdon-Ward 22194* (BM). Mindat District, township not specified: 2135 m, 22 Apr. 1926, *R. Unwin 3099* (E); 21 May 2004, *N. Tanaka et al. 20040158* (TNS); 31 May 2004, *Kobayashi 20040158* (TNS).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Laos, Vietnam.

Coelogyne sanderae Kraenzl., Reichenbachia, ser. 2, 2: t. 56. 1893; Grant, Orchids of Burma: 182. 1895; Clayton, The genus *Coelogyne*: 39, fig. 5b.13. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; Chen & Clayton in Fl. China 25: 322. 2009; Fl. China Illustr. 25: fig. 452.4. 2010; George & George, Les Coelogyne: 114 (incl. colour photos). 2011; Aung et al. in PhytoKeys 138: 72. 2020; Ormerod et al. in Phytotaxa 481 (1): 73. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: *R. Swinhoe 32* (K).

Distribution. Bangladesh, SW China, Vietnam.

Coelogyne schultesii S.K.Jain & S.Das in Proc. Indian Acad. Sci., B 87 (5): 121. 1978; Pearce & Cribb, Orchids of Bhutan: 336, pl. 14 [top-right]. 2002; Clayton, The genus *Coelogyne*: 46, fig. 6.4, pl. 2E. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003; Chen & Clayton in Fl. China 25: 319. 2009; George & George, Les Coelogyne: 356 (incl. colour illustr.). 2011; de Vogel & Pedersen in Fl. Thailand 12 (2): 420, fig. 235, pl. XXXIV.1. 2014; Aung et al. in PhytoKeys 138: 72. 2020; Ormerod et al. in Phytotaxa 481 (1): 74. 2021.

— *Coelogyne prolifera* auctt. plur., non Lindl.

— *Coelogyne victoria-reginae* Q.Liu & S.S.Zhou in PhytoKeys 98: 127, figs. 1, 2 & 3C. 2018; Aung et al. in PhytoKeys 138: 73. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: 20 May 2007, *N. Tanaka et al. 051152* (MBK); ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 030961* (MBK); *031002* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081265* (MBK); 2285 m, Apr. 1939, *F.G. Dickason 8441* (AMES, K). Mindat Township, ca. 2500 m, 24 June 2009, *N. Tanaka & T. Yukawa 081141* (MBK); 1525 m, 19 Mar. 1956, *F. Kingdon-Ward 21816* (BM). Mindat District, township not specified: 2400-2600 m, 1 May 2017, *Qiang Liu M17-18* (holotype of *Coelogyne victoria-reginae*: HITBC; isotype: RAF) [not seen]; *R. Swinhoe 96* (K); 1830-1980 m, 23 June 1956, *F. Kingdon-Ward 22420* (BM).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Laos, Vietnam.

Coelogyne stricta (D.Don) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 184. 1919; Pearce & Cribb, Orchids of Bhutan: 333, pl. 14 [bottom-left]. 2002; Clayton, The genus *Coelogyne*: 40, fig. 5b.14, pl. 1D. 2002; Chen & Clayton in Fl. China 25: 320. 2009; George & George, Les Coelogyne: 117 (incl. colour photos). 2011; Kang et al., Seed Pl. Natma Taung: 64 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 72. 2020; Ormerod et al. in Phytotaxa 481 (1): 74.

2021.

- *Cymbidium strictum* D.Don, Prodr. Fl. Nepal.: 35. 1825.
- *Coelogyne elata* Lindl., Gen. Sp. Orchid. Pl.: 40. 1830; Hook.f., Fl. Brit. India 5: 838. 1890; Grant, Orchids of Burma: 171. 1895; Kress et al. in Contr. U.S. Natl. Herb. 45: 70. 2003.
- *Pleione elata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 17 May 2007, *N. Tanaka et al.* 051124 (MBK, TNS); 1790 m, 26 Apr. 2003, *J. Murata et al.* 029715 (MBK).

Distribution. Nepal, Bhutan, NE India, Bangladesh, SW China, Laos, Vietnam.

Coelogyne viscosa Rchb.f. in Allg. Gartenzeitung 24: 218. 1856; Hook.f., Fl. Brit. India 5: 832. 1890; Seidenf. in Dansk Bot. Ark. 29 (4): 37, fig. 13. 1975; Clayton, The genus *Coelogyne*: 215, fig. 26.8, pl. 24D. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 71. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 79 (incl. colour photo). 2005; Chen & Clayton in Fl. China 25: 324. 2009; Fl. China Illustr. 25: fig. 452.2–3. 2010; George & George, Les Coelogyne: 137 (incl. colour photos). 2011; de Vogel & Pedersen in Fl. Thailand 12 (2): 431, fig. 243. 2014; Nyan Tun, Wild Orchids of Myanmar: 131 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 73. 2020; Ormerod et al. in Phytotaxa 481 (1): 75. 2021.

- *Coelogyne graminifolia* C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 146. 1874; Hook.f., Fl. Brit. India 5: 831. 1890; Grant, Orchids of Burma: 174. 1895.
- *Pleione graminifolia* (C.S.P.Parish & Rchb.f.) Kuntze, Rev. Gen. Pl. 2: 680. 1891.
- *Pleione viscosa* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 680. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: *R. Unwin s.n.* in *Maymyo Bot. Gard.* 13521 (K); 12 Jan. 2009, *Kyaw Khaing 0021* (TNS), ident. uncertain.

Distribution. E Himalaya, NE India, Bangladesh, SW China, Thailand, Laos, Vietnam, Peninsular Malaysia.

CREMASTRA Lindley

Cremastra appendiculata (D.Don) Makino in Bot. Mag. (Tokyo) 18: 24. 1904; Hook.f., Fl. Brit. India 6: 16. 1890; Pearce & Cribb, Orchids of Bhutan: 237, fig. 53. 2002; Chen et al. in Fl. China 25: 249. 2009; Fl. China Illustr. 25: fig. 325. 2010; Watthana et al. in Acta Phytotax. Geobot. 66 (3): 197. 2015; Aung et al. in PhytoKeys 138: 73. 2020; Ormerod et al. in Phytotaxa 481 (1): 76. 2021.

- *Cymbidium appendiculatum* D.Don, Prodr. Fl. Nepal.: 36. 1825.

Specimens examined. CHIN STATE. Kanpetlet Township: 2340 m, 19 May 2012, *K. Fujikawa et al.* 089099 (MBK). Mindat Township: ca. 2400–2500 m, 17 May 2004, *N. Tanaka et al.* 030828 (MBK).

Distribution. Nepal, Bhutan, NE India, China, Taiwan, Japan, Korea.

CREPIDIUM Blume

Crepidium acuminatum (D.Don) Szlach. in *Fragm. Florist. Geobot., Suppl.* 3: 123. 1995; Chen & Wood in *Fl. China* 25: 233. 2009; *Fl. China Illustr.* 25: fig. 307.5–6. 2010; Kang et al., *Seed Pl. Natma Taung*: 66 (incl. colour photos). 2017; Aung et al. in *PhytoKeys* 138: 73. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 77. 2021.

— *Malaxis acuminata* D.Don, *Prodr. Fl. Nepal.*: 29. 1825; Seidenf. in *Dansk Bot. Ark.* 33 (1): 55, figs. 43–44. 1978; Pearce & Cribb, *Orchids of Bhutan*: 213, pl. 7 [bottom-left]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 83. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 181 (incl. colour photo). 2005.

— *Microstylis wallichii* Lindl., *Gen. Sp. Orchid. Pl.*: 20. 1830; Hook.f., *Fl. Brit. India* 5: 686. 1888; Grant, *Orchids of Burma*: 18. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1524 m, 26 June 2011, *Ling Shein Man 087460* (MBK); ca. 2450–2750 m, 4 June 2002, *N. Tanaka et al. 023510* (MBK); 1525–1830 m, 1 July 1956, *F. Kingdon-Ward 22492* (BM). Mindat District, township not specified: 1924, *R.E. Cooper 6051* (E, SING).

Distribution. India, Nepal, Bhutan, Bangladesh, China, ? Taiwan, Andaman Islands, Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, ? Malaysia, Indonesia, Philippines; N Australia.

Crepidium calophyllum (Rchb.f.) Szlach. in *Fragm. Florist. Geobot., Suppl.* 3: 125. 1995; Chen & Wood in *Fl. China* 25: 232. 2009; Kang et al., *Seed Pl. Natma Taung*: 67 (incl. colour photos). 2017; Aung et al. in *PhytoKeys* 138: 73. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 77. 2021.

— *Liparis elegantissima* Jacob-Makoy ex T.Moore & Mast. in *Gard. Chron., n.s.*, 5: 603. 1876.

— *Microstylis calophylla* Rchb.f. in *Gard. Chron., n.s.*, 12: 718. 1879.

— *Microstylis wallichii* var. *brachycheila* Hook.f., *Fl. Brit. India* 5: 686. 1888.

— *Microstylis scottii* Hook.f., *Fl. Brit. India* 5: 687. 1890; Grant, *Orchids of Burma*: 17. 1895.

— *Malaxis calophylla* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 673. 1891; Seidenf. in *Dansk Bot. Ark.* 33 (1): 54, fig. 42. 1978; Pearce & Cribb, *Orchids of Bhutan*: 215. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 83. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 181 (incl. colour photo). 2005; Nyan Tun, *Wild Orchids of Myanmar*: 326 (incl. colour photo). 2014.

— *Malaxis scottii* (Hook.f.) Kuntze, *Revis. Gen. Pl.* 2: 673. 1891.

— *Malaxis calophylla* var. *brachycheila* (Hook.f.) Tang & F.T.Wang in *Acta Phytotax. Sin.* 1: 71. 1951.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kang et al. (2017: 67); 26 July 2015, *Y.D. Kim s.n.*, photographic record.

Distribution. E Himalaya, NE India, S and SW China, Thailand, Vietnam, Cambodia, Borneo.

Crepidium khasianum (Hook.f.) Szlach. in *Fragm. Florist. Geobot., Suppl.* 3: 127. 1995; Chen &

Wood in Fl. China 25: 233. 2009; Aung et al. in PhytoKeys 138: 73. 2020; Ormerod et al. in Phytotaxa 481 (1): 78. 2021.

— *Microstylis khasiana* Hook.f., Fl. Brit. India 5: 686. 1888.

— *Malaxis khasiana* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 673. 1891; Seidenf. in Dansk Bot. Ark. 33 (1): 52, fig. 39. 1978; Pearce & Cribb, Orchids of Bhutan: 216. 2002.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060072* (MBK); 1370 m, 8 July 2013, *Ling Shein Man 093057* (MBK); 1400 m, 25 July 2008, *S. Yasuda 053605* (MBK); 1400-1600 m, 26 June 2009, *N. Tanaka & T. Yukawa 081194* (MBK); ca. 1432 m, 24 June 2011, *Ling Shein Man et al. 087417* (MBK); 1552 m, 2 Aug. 2008, *K. Fujikawa et al. 053114* (MBK); 1965-1590 m, 22 Aug. 2013, *K. Fujikawa et al. 094196* (MBK). Matupi Township: 1660 m, 12 July 2013, *Mu Mu Aung et al. 092458* (MBK).

Distribution. Nepal, NE India, SW China, Thailand.

Crepidium mackinnonii (Duthie) Szlach. in Fragm. Florist. Geobot., Suppl. 3: 128. 1995; Chen & Wood in Fl. China 25: 232. 2009; Aung et al. in PhytoKeys 138: 73. 2020; Ormerod et al. in Phytotaxa 481 (1): 78. 2021.

— *Microstylis mackinnonii* Duthie in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 71: 37. 1902.

— *Malaxis mackinnonii* (Duthie) Ames, Orchidaceae 6: 289. 1920; Seidenf. in Dansk Bot. Ark. 33 (1): 50, fig. 38. 1978; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 182 (incl. colour photo). 2005.

— *Seidenforchis mackinnonii* (Duthie) Marg. in Acta Soc. Bot. Poloniae 75: 303. 2006.

Specimens examined. CHIN STATE. Mindat Township: 1295 m, 27 Aug. 1956, *F. Kingdon-Ward 22598* (BM).

Distribution. India, Himalaya, SW China.

Crepidium ophrydis (J.König) M.A.Clem. & D.L.Jones in Lasianthera 1: 38. 1996; Ormerod et al. in Phytotaxa 481 (1): 78. 2021.

— *Epidendrum ophrydis* J.König in A.J.Retzius, Observ. Bot. 6: 46. 1791.

— *Malaxis latifolia* Sm. in A.Rees, Cycl. 22: 3. 1812; Seidenf. in Dansk Bot. Ark. 33 (1): 45, fig. 35. 1978; Kress et al. in Contr. U.S. Natl. Herb. 45: 83. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 182 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 328 (incl. colour photo). 2014.

— *Dienia congesta* Lindl. in Bot. Reg. 10: sub t. 825. 1824.

— *Microstylis congesta* (Lindl.) Rehb.f. in Ann. Bot. Syst. (Walpers) 6: 206. 1861; Hook.f., Fl. Brit. India 5: 689. 1890; Grant, Orchids of Burma: 16. 1895.

— *Microstylis latifolia* (Sm.) J.J.Sm., Orch. Java: 248. 1905.

— *Malaxis ophrydis* (J.König) Ormerod in G.Seidenfaden, Descr. Epidendrorum J.G.König: 18. 1995; Pearce & Cribb, Orchids of Bhutan: 220. 2002.

— *Dienia latifolia* (Sm.) M.A.Clem. & D.L.Jones in Lasianthera 1: 41. 1996.

— *Dienia ophrydis* (J.König) Ormerod & Seidenf., Contr. Orchid Fl. Thailand 13: 18. 1997; Chen

& Wood in Fl. China 25: 235. 2009; Fl. China Illustr. 25: fig. 309. 2010; Kang et al., Seed Pl. Natma Taung: 75 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 83. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1524 m, 28 June 2011, *Ling Shein Man et al.* 087466 (MBK).

Distribution. Sri Lanka, India, Nepal, Bhutan, Bangladesh, SW China, Taiwan, S Japan, Andaman and Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, New Guinea; N Australia, New Caledonia.

Crepidium szemaense (Tang & F.T.Wang) Nuammee et al. in Thai Forest Bull., Bot. 44: 36. 2016; Aung et al. in PhytoKeys 138: 73. 2020; Ormerod et al. in Phytotaxa 481 (1): 79. 2021.

— *Malaxis szemaensis* Tang & F.T.Wang in Acta Phytotax. Sin. 1: 75. 1951.

— *Malaxis ovalisepala* auct., non (J.J.Sm.) Seidenf.: Seidenf. in Dansk Bot. Ark. 33 (1): 79, fig. 55. 1978.

— *Crepidium ovalisepalum* auct., non (J.J.Sm.) Szlach.: Chen & Wood in Fl. China 25: 231. 2009.

Specimens examined. CHIN STATE. Matupi Township: 1685 m, 8 July 2013, *Mu Mu Aung et al.* 092359 (MBK).

Distribution. SW China, Thailand.

CYLINDROLOBUS Blume

Cylindrolobus cristatus (Rolfe) S.C.Chen & J.J.Wood in Fl. China 25: 349. 2009; Aung et al. in PhytoKeys 138: 74. 2020; Ormerod et al. in Phytotaxa 481 (1): 81. 2021.

— *Eria cristata* Rolfe in Bull. Misc. Inform. Kew 1892: 139. 1892; Seidenf. in Opera Bot. 62: 96, fig. 54, pl. Vlb. 1982; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 74).

Distribution. SW China, Thailand.

CYMBIDIUM Swartz

Cymbidium aloifolium (L.) Sw. in Nova Acta Regiae Soc. Sci. Upsal. 6: 73. 1799; Hook.f., Fl. Brit. India 6: 10. 1890; Grant, Orchids of Burma: 225. 1895; Seidenf. in Opera Bot. 72: 77, fig. 43, pl. Va. 1983; Pearce & Cribb, Orchids of Bhutan: 259, pl. 8 [bottom-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 71. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 80 (incl. colour photo). 2005; Du Puy & Cribb, The genus *Cymbidium*: 122, figs. 58–62.1a–d & 63, pl. 8. 2007; Liu et al. in Fl. China 25: 263. 2009; Fl. China Illustr. 25: fig. 338. 2010; Cribb & Pedersen in Fl. Thailand 12 (2): 444, fig. 248, pl. XXXVI.1. 2014; Nyan Tun, Wild Orchids of

Myanmar: 139 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 74. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 82. 2021.

- *Epidendrum aloifolium* L., *Sp. Pl.*: 953. 1753.
- *Epidendrum pendulum* Roxb., *Pl. Coromandel* 1: 35. 1795.
- *Cymbidium pendulum* (Roxb.) Sw. in *Nova Acta Regiae Soc. Sci. Upsal.* 6: 73. 1799.
- *Cymbidium simulans* Rolfe in *Orchid Rev.* 25: 175. 1917.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 74).

Distribution. Sri Lanka, India, Himalaya, S and SW China, Thailand, Laos, Vietnam, Cambodia, W Malesia.

Cymbidium cochleare Lindl. in *J. Proc. Linn. Soc., Bot.* 3: 28. 1859; Hook.f., *Fl. Brit. India* 6: 15. 1890; Pearce & Cribb, *Orchids of Bhutan*: 265, pl. 8 [bottom-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 71. 2003; Du Puy & Cribb, *The genus Cymbidium*: 177, figs. 94 & 95.1a–f. 2007; Liu et al. in *Fl. China* 25: 272. 2009; *Fl. China Illustr.* 25: fig. 364. 2010; Aung et al. in *PhytoKeys* 138: 74. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 82. 2021.

— *Cyperorchis cochleare* (Lindl.) Benth. in *J. Linn. Soc., Bot.* 18: 318. 1881; Grant, *Orchids of Burma*: 231. 1895.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 74).

Distribution. E Himalaya, NE India, SW China, Taiwan, Vietnam.

Cymbidium cyperifolium Wall. ex Lindl., *Gen. Sp. Orchid. Pl.*: 163. 1833; Hook.f., *Fl. Brit. India* 6: 13. 1890; Pearce & Cribb, *Orchids of Bhutan*: 267. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 71. 2003; Du Puy & Cribb, *The genus Cymbidium*: 255, figs. 149–151, 154.3a–g. 2007; Liu et al. in *Fl. China* 25: 273. 2009; Cribb & Pedersen in *Fl. Thailand* 12 (2): 449. 2014; Aung et al. in *PhytoKeys* 138: 74. 2020.

subsp. **indochinense** Du Puy & P.J.Cribb, *The genus Cymbidium*: 176. 1988; Du Puy & Cribb, *The genus Cymbidium*: 259, fig. 154.5a–f. 2007; Cribb & Pedersen in *Fl. Thailand* 12 (2): 450, fig. 251. 2014; Ormerod et al. in *Phytotaxa* 481 (1): 82. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 74).

Distribution. Thailand, Vietnam, Cambodia, Philippines.

Note. Aung et al. (2020) do not cite the subspecies. We assume that they refer to subsp. *indochinense* which is the subspecies that occurs in Myanmar. The typical subspecies is found in Nepal, NE India, Bhutan and S China.

Cymbidium ensifolium (L.) Sw. in Nova Acta Regiae Soc. Sci. Upsal. 6: 77. 1799; Hook.f., Fl. Brit. India 6: 13. 1890; Seidenf. in Opera Bot. 72: 71, fig. 38, pl. IVa. 1983; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 81 (incl. colour photo). 2005; Du Puy & Cribb, The genus *Cymbidium*: 263, figs. 153, 154.2a–f & 156, pl. 33. 2007; Liu et al. in Fl. China 25: 274. 2009; Fl. China Illustr. 25: fig. 377. 2010; Cribb & Pedersen in Fl. Thailand 12 (2): 455. 2014; Aung et al. in PhytoKeys 138: 75. 2020; Ormerod et al. in Phytotaxa 481 (1): 83. 2021.

— *Epidendrum ensifolium* L., Sp. Pl.: 954. 1753.

Specimens examined. CHIN STATE. Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al.* 089235 (MBK).

Distribution. Sri Lanka, India, SW China, Taiwan, Japan, Korea, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Philippines.

Cymbidium erythraeum Lindl. in J. Proc. Linn. Soc., Bot. 3: 30. 1859; Pearce & Cribb, Orchids of Bhutan: 262, pl. 9 [top-right]. 2002; Du Puy & Cribb, The genus *Cymbidium*: 190, figs. 103–105 & 106.3a–g, pl. 2. 2007; Kress et al. in Contr. U.S. Natl. Herb. 45: 71. 2003 [*as erythraeum*]; Liu et al. in Fl. China 25: 267. 2009; Fl. China Illustr. 25: fig. 351. 2010; Aung et al. in PhytoKeys 138: 75. 2020; Ormerod et al. in Phytotaxa 481 (1): 83. 2021.

— *Cymbidium hennisianum* Schltr. in Orchis 12: 46. 1918.

— *Cymbidium longifolium* auct., non D. Don: Lindl., Gen. Sp. Orchid. Pl.: 163. 1833; Hook.f., Fl. Brit. India 6: 13. 1890; King & Pantl. in Ann. Roy. Bot. Gard. (Calcutta) 8: 191, pl. 254. 1898.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1750–2700 m, 5 Dec. 2002, *J. Murata et al.* 025172 (MBK). Mindat District, township not specified: 1830 m, *F. Kingdon-Ward* 22725 (BM).

Distribution. N India, Nepal, Bhutan, SW China, Vietnam.

Cymbidium faberi Rolfe in Bull. Misc. Inform. Kew 1896: 198. 1896; Pearce & Cribb, Orchids of Bhutan: 268. 2002; Du Puy & Cribb, The genus *Cymbidium*: 280, figs. 160 & 178.2a–e. 2007; Liu et al. in Fl. China 25: 277. 2009; Fl. China Illustr. 25: fig. 390. 2010; Aung et al. in PhytoKeys 138: 75. 2020; Ormerod et al. in Phytotaxa 481 (1): 84. 2021.

Specimens examined: CHIN STATE. Mindat District, township not specified: 1924, *R.E. Cooper* 6017 (E).

Distribution. N India, Himalaya, China, Taiwan.

Cymbidium lancifolium Hook., Exot. Fl. 1: t. 51. 1823; Hook.f., Fl. Brit. India 6: 9. 1890; Seidenf. in Opera Bot. 72: 68, fig. 37, pl. VIII d. 1983; Pearce & Cribb, Orchids of Bhutan: 269. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 71. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 82 (incl. colour photo). 2005; Du Puy & Cribb, The genus *Cymbidium*: 316, figs. 180 & 183. 2007; Liu et al. in Fl. China 25: 278. 2009; Fl. China Illustr. 25: figs. 386 & 395. 2010; Cribb & Pedersen in Fl. Thailand 12 (2): 459, fig. 257. 2014; Nyan Tun, Wild Orchids of

Myanmar: 146 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 75. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 84. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 915 m, June 1956, *Maung Gale-2 & Chit Ko Ko 5822* (RAF), ident. uncertain. Mindat District, township not specified: Aug. 2008, *M. Matsumoto 1741* (TNS); 13 July 2013, *M. Matsumoto s.n.* (TNS).

Distribution. N India, Himalaya, China, Taiwan, Japan, Indonesia.

Cymbidium macrorhizon Lindl., *Gen. Sp. Orchid. Pl.*: 162. 1833; Hook.f., *Fl. Brit. India* 6: 9. 1890; Seidenf. in *Opera Bot.* 72: 67, fig. 35, pl. VIIIc. 1983; Pearce & Cribb, *Orchids of Bhutan*: 271, fig. 60, pl. 9 [bottom-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 71. 2003; Du Puy & Cribb, *The genus Cymbidium*: 326, figs. 184–186, pl. 38. 2007; Liu et al. in *Fl. China* 25: 279. 2009; *Fl. China Illustr.* 25: fig. 394. 2010; Cribb & Pedersen in *Fl. Thailand* 12 (2): 463, fig. 259. 2014; Nyan Tun, *Wild Orchids of Myanmar*: 149 (incl. colour photos). 2014 [as *microrhizon*]; Aung et al. in *PhytoKeys* 138: 75. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 85. 2021.

— *Pachyrhizanthemum macrorhizon* (Lindl.) Nakai in *Bot. Mag. (Tokyo)* 45: 109. 1931.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 2010 m, 22 June 2009, *N. Tanaka & T. Yukawa 081019* (MBK). Mindat Township: 1525 m, 26 Apr. 1956, *F. Kingdon-Ward 22157* (BM).

Distribution. Pakistan, N India, Nepal, SW China, Taiwan, S Japan, Korea, Thailand, Laos, Vietnam, Cambodia.

Cymbidium mannii Rchb.f. in *Flora* 55: 274. 1872; Liu et al. in *Fl. China* 25: 264. 2009; *Fl. China Illustr.* 25: fig. 340. 2010; Ormerod et al. in *Phytotaxa* 481 (1): 85. 2021.

— *Cymbidium bicolor* Lindl. subsp. *obtusum* Du Puy & P.J.Cribb, *The genus Cymbidium*: 70. 1988; Pearce & Cribb, *Orchids of Bhutan*: 260. 2002; Du Puy & Cribb, *The genus Cymbidium*: 132, figs. 62.3a–d, 68 & 69. 2007; Cribb & Pedersen in *Fl. Thailand* 12 (2): 448, fig. 250, pl. XXXVI.3. 2014.

— *Cymbidium crassifolium* auct., non Herb.: Aung et al. in *PhytoKeys* 138: 74. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: 12 Mar. 2008, *S. Yasuda 060042* (MBK).

Distribution. Nepal, Bhutan, N India, SW China, Thailand, Laos, Vietnam, Cambodia.

DENDROBIUM Swartz, nom. cons.

Dendrobium aphyllum (Roxb.) C.E.C.Fisch. in J.S.Gamble, *Fl. Madras*: 1416. 1928; Seidenf. in *Opera Bot.* 83: 70, fig. 40, pl. IXb. 1985; Pearce & Cribb, *Orchids of Bhutan*: 406, pl. 19 [bottom-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 72. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 87 (incl. colour photo). 2005; Nyan Tun, *Wild Orchids of Myanmar*:

160 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 76. 2020; Ormerod et al. in Phytotaxa 481 (1): 91. 2021.

— *Limodorum aphyllum* Roxb., Pl. Coromandel 1: 34. 1795.

— *Dendrobium cucullatum* R.Br. in Bot. Reg. 7: t. 548. 1821; Zhu et al. in Fl. China 25: 379. 2009; Fl. China Illustr. 25: fig. 500.1. 2010.

— *Dendrobium pierardii* Roxb. ex Hook., Exot. Fl. 1: t. 9. 1822; Hook.f., Fl. Brit. India 5: 738. 1890; Grant, Orchids of Burma: 112. 1895.

— *Dendrobium pierardii* var. *cucullatum* (R.Br.) Hook.f., Fl. Brit. India 5: 739. 1890.

— *Dendrobium aphyllum* var. *cucullatum* (R.Br.) P.K.Sarkar in J. Econ. Taxon. Bot. 5: 1007. 1984.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 June 2008, *S. Yasuda* 060007 (MBK); 12 June 2008, *S. Yasuda* 060006 (MBK); 060091 (MBK); 28 June 2008, *S. Yasuda* 060002 (MBK). Mindat Township: 1525 m, 19 Mar. 1953, *F. Kingdon-Ward* 21824 (BM).

Distribution. N India, Nepal, Bhutan, Bangladesh, S and SW China, Andaman Islands, Thailand, Laos, Vietnam, Peninsular Malaysia.

Dendrobium bellatulum Rolfe in J. Linn. Soc., Bot. 36: 10. 1903; Seidenf. in Opera Bot. 83: 103, fig. 60, pl. XIIIb. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 88 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 391. 2009; Fl. China Illustr. 25: fig. 511.3. 2010; Nyan Tun, Wild Orchids of Myanmar: 161 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 76. 2020; Ormerod et al. in Phytotaxa 481 (1): 92. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: Jan. 2008, *S. Watthana* s.n., photographic record.

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Dendrobium bensoniae Rchb.f. in Bot. Zeitung (Berlin) 25: 230. 1867; Hook.f., Fl. Brit. India 5: 739. 1890; Grant, Orchids of Burma: 69. 1895; Seidenf. in Opera Bot. 83: 86, fig. 49. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Nyan Tun, Wild Orchids of Myanmar: 162 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 76. 2020; Ormerod et al. in Phytotaxa 481 (1): 92. 2021.

— *Callista bensoniae* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 654. 1891.

— *Dendrobium bensoniae* var. *aurantiacum* Rchb.f. in Gard. Chron., n.s., 2: 6. 1874.

— *Dendrobium bensoniae* var. *xanthinum* Rchb.f. in B.S.Williams, Orch.-Grow. Man., ed. 7: 327. 1894.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1220-1525 m, 2 May 1956, *F. Kingdon-Ward* 22193 (BM); 15 May 2007, *N. Tanaka* s.n. (TNS).

Distribution. NE India, Thailand.

Dendrobium bicameratum Lindl. in Edwards's Bot. Reg. 25 (Misc.): 59. 1839; Hook.f., Fl. Brit. India 5: 729. 1890; Grant, Orchids of Burma: 70. 1895; Seidenf. in Opera Bot. 83: 97, fig. 58a, pl. XIIId. 1985; Pearce & Cribb, Orchids of Bhutan: 415. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Aung et al. in PhytoKeys 138: 76. 2020; Ormerod et al. in Phytotaxa 481 (1): 93. 2021.

— *Callista bicamerata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 654. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 76).

Distribution. India, Himalaya, Thailand.

Dendrobium cariniferum Rchb.f. in Gard. Chron. 1869: 611. 1869; Hook.f., Fl. Brit. India 5: 720. 1890; Grant, Orchids of Burma: 75. 1895; Seidenf. in Opera Bot. 83: 120, figs. 75 & 76, pl. XVIa. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 90 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 392. 2009; Fl. China Illustr. 25: figs. 511.1. 2010; Nyan Tun, Wild Orchids of Myanmar: 165 & 166 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 76. 2020; Ormerod et al. in Phytotaxa 481 (1): 94. 2021.

— *Callista carinifera* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 654. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 1830-2745 m, Apr. 1956, *Maung Gale-2 5555* (RAF).

Distribution. NE India, Thailand, SW China, Laos, Vietnam.

Dendrobium chrysanthum Wall. ex Lindl. in Edwards's Bot. Reg. 15: t. 1299. 1829; Hook.f., Fl. Brit. India 5: 747. 1890; Grant, Orchids of Burma: 75. 1895; Seidenf. in Opera Bot. 83: 53, fig. 17e & 27, pl. VIa. 1985; Pearce & Cribb, Orchids of Bhutan: 407, pl. 20 [bottom-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 91 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 377. 2009; Fl. China Illustr. 25: fig. 499.2. 2010; Nyan Tun, Wild Orchids of Myanmar: 169 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 68 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 95. 2021.

— *Dendrobium paxtonii* Lindl. in Edwards's Bot. Reg. 25 (Misc.): 43. 1839.

— *Dendrobium chrysanthum* var. *microphthalama* Rchb.f. in Gard. Chron., n.s., 11: 366. 1879.

— *Dendrobium chrysanthum* var. *anophthalama* Rchb.f. in Gard. Chron., n.s., 19: 44. 1883.

Specimens examined. CHIN STATE. Kanpetlet Township: 12 June 2008, *S. Yasuda 060022* (MBK); *060023* (MBK).

Distribution. NE India, Nepal, Bhutan, S and SW China, Taiwan, Thailand, Laos, Vietnam.

Dendrobium chryseum Rolfe in Gard. Chron., ser. 3, 3: 233. 1888; Hook.f., Fl. Brit. India 5: 748.

1890; Seidenf. in Opera Bot. 83: 43, fig. 22. 1985; Pearce & Cribb, Orchids of Bhutan: 408. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 91 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 386. 2009; Nyan Tun, Wild Orchids of Myanmar: 170 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 95. 2021.

- *Dendrobium clavatum* Wall. ex Lindl. in Paxton's Fl. Gard. 2: 104, 1851, nom. illeg.
- *Dendrobium aurantiacum* Rchb.f. in Gard. Chron., ser. 3, 2: 98. 1887, nom. illeg.
- *Dendrobium denneanum* Kerr in J. Siam Soc., Nat. Hist. Suppl. 9: 229. 1933.
- *Dendrobium clavatum* var. *aurantiacum* (Kuntze) Tang & F.T.Wang in Acta Phytotax. Sin. 1: 40, 80. 1951.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1924, *R.E. Cooper 6084* (E, SING), ident. uncertain; 1525 m, 8 May 1956, *F. Kingdon-Ward 22205* (BM).

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Taiwan, Thailand, Laos, Vietnam.

Dendrobium chrysotoxum Lindl. in Edwards's Bot. Reg. 33: sub t. 19. 1847; Hook.f., Fl. Brit. India 5: 750. 1890; Grant, Orchids of Burma: 76. 1895; Seidenf. in Opera Bot. 83: 19, fig. 6, pl. IIa. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 92 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 375. 2009; Fl. China Illustr. 25: fig. 496.2. 2010; Nyan Tun, Wild Orchids of Myanmar: 172 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 95. 2021.

- *Dendrobium suavissimum* Rchb.f. in Gard. Chron., n.s., 1: 406. 1874.
- *Dendrobium chrysotoxum* var. *suavissimum* (Rchb.f.) A.H.Kent in H.J.Veitch, Man. Orch. Pl. 3: 30. 1888.
- ? *Dendrobium calothyrsos* Schltr. in Notizbl. Bot. Gart. Berlin-Dahlem 8: 120. 1922.

Specimens examined. CHIN STATE. Kanpetlet Township: 1750 m, 26 Apr. 2003, *J. Murata et al. 029695* (MBK). Mindat Township: 1220 m, 15 Mar. 1956, *F. Kingdon-Ward 21807* (BM). Mindat District, township not specified: 3050 m, Apr. 1939, *F.G. Dickason 8607* (AMES).

Distribution. E Himalaya, NE India, Bangladesh, SW China, Thailand, Laos, Vietnam, Cambodia.

Dendrobium crepidatum Lindl. & Paxton in Paxton's Fl. Gard. 1: 63. 1853; Hook.f., Fl. Brit. India 5: 740. 1890; Grant, Orchids of Burma: 78. 1895; Seidenf. in Opera Bot. 83: 80, fig. 46 [with incorrect caption as *D. caespitosum*], pl. Xd. 1985; Pearce & Cribb, Orchids of Bhutan: 408. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 93 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 380. 2009; Fl. China Illustr. 25: fig. 501.1. 2010; Nyan Tun, Wild Orchids of Myanmar: 174–176 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 69 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 96. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1220 m, 13 Apr. 1926, *R. Unwin 3003* (E); 15 May 2007, *N. Tanaka s.n.* (TNS). MAGWAY REGION. Saw

Township: 15 May 2007, *N. Tanaka et al. 051108* (MBK).

Distribution. Nepal, Bhutan, NE India, Bangladesh, SW China, Thailand, Laos, Vietnam.

Dendrobium crystallinum Rehb.f. in Gard. Chron. 1868: 572. 1868; Hook.f., Fl. Brit. India 5: 739. 1890; Grant, Orchids of Burma: 81. 1895; Seidenf. in Opera Bot. 83: 80, fig. 45, pl. Xc. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 72. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 95 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 380. 2009; Nyan Tun, Wild Orchids of Myanmar: 180 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 97. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 17 May 2007, *N. Tanaka et al. 051125* (MBK); 20 May 2007, *N. Tanaka et al. 051150* (MBK); 12 June 2008, *S. Yasuda 060024* (MBK); *060030* (MBK); ca. 790 m, 27 Apr. 2003, *J. Murata et al. 029726* (MBK); *029726A* (MBK); ca. 1600 m, 19 May 2007, *N. Tanaka et al. 051128* (MBK); ca. 1680-1315 m, 22 May 2004, *N. Tanaka et al. 031080* (MBK); 2080-2660 m, 30 May 2012, *K. Fujikawa et al. 089563* (MBK). Mindat District, township not specified: 17 May 2007, *N. Tanaka s.n.* (TNS); 19 Feb. 2009, *N. Tanaka 0700 & s.n.* (TNS); *Homan 14* (TNS), ident. uncertain.

Distribution. NE India, Bangladesh, S and SW China, Thailand, Laos, Vietnam, Cambodia.

Dendrobium dantaniense Guillaumin in Bull. Mus. Natl. Hist. Nat., sér. 2, 28: 547. 1956; Kang et al., Seed Pl. Natma Taung: 70 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 98. 2021.

— *Dendrobium alterum* Seidenf. in Opera Bot. 83: 100, figs. 58b & 59, pl. XIIIa. 1985; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 86 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 158 (incl. colour photos). 2014.

Specimens examined. CHIN STATE. Mindat District, township not specified: 26 July 2015, *Y.D. Kim s.n.*, photographic record; fide Kang et al. (2017: 70).

Distribution. NE India, Thailand, Vietnam.

Dendrobium delacourii Guillaumin in Bull. Mus. Natl. Hist. Nat. 30: 522. 1924; Seidenf. in Opera Bot. 83: 128, fig. 80, pl. XVIc. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 73. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 97 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 183 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 77. 2020; Ormerod et al. in Phytotaxa 481 (1): 99. 2021.

Specimens examined. MAGWAY REGION. Saw Township: ca. 485 m, 25 June 2009, *N. Tanaka & T. Yukawa 081165* (MBK).

Distribution. NE India, Bangladesh, Thailand, Laos, Vietnam, Cambodia.

Dendrobium denudans D.Don, Prodr. Fl. Nepal.: 34. 1825; Seidenf. in Opera Bot. 83: 148, fig. 100, pl. XVIIc. 1985; Hook.f., Fl. Brit. India 5: 715. 1890; Pearce & Cribb, Orchids of Bhutan:

419, pl. 21. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003; Aung et al. in *PhytoKeys* 138: 78. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 99. 2021.

Specimens examined. CHIN STATE. Mindat Township: 1 Sep. 2009, *M. Matsumoto 20090701* (MBK).

Distribution. N India, Nepal, Thailand.

Dendrobium dickasonii L.O.Williams in *Bot. Mus. Leafl.* 8: 107. 1940; Kang et al., *Seed Pl. Natma Taung*: 71 (incl. colour photos). 2017; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003; Aung et al. in *PhytoKeys* 138: 78. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 100. 2021.

— *Dendrobium arachnites* Rchb.f. in *Gard. Chron., n.s.*, 2: 354. 1874, nom. illeg.; Hook.f., *Fl. Brit. India* 5: 734. 1890; Grant, *Orchids of Burma*: 67. 1895.

— *Dendrobium inversum* A.D.Hawkes in *Orquidea (Rio de Janeiro)* 25: 103. 1963.

— *Dendrobium seidenfadenii* Senghas & Bockemühl in *Orchidee (Hamburg)* 29 (5) cppo: 2. 1978, nom. superfl.; Seidenf. in *Opera Bot.* 83: 41, fig. 19, pl. IVb. 1985; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 123 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al. 031005* (MBK); 1750 m, 26 Apr. 2003, *J. Murata et al. 029696* (MBK); 2135 m, May 1956, *Maung Gale-2 5486* (RAF). Mindat Township: ca. 1800 m, 15 May 2007, *N. Tanaka et al. 051121* (MBK); 915-1220 m, 10 May 1956, *F. Kingdon-Ward 22222* (BM), det. Alsterlund; 2135 m, 20 May 1956, *F. Kingdon-Ward 22244* (BM).

Distribution. NE India, Thailand.

Dendrobium draconis Rchb.f. in *Bot. Zeitung (Berlin)* 20: 214. 1862; Hook.f., *Fl. Brit. India* 5: 722. 1890; Grant, *Orchids of Burma*: 86. 1895; Seidenf. in *Opera Bot.* 83: 110, fig. 66, pl. XIVd. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 99 (incl. colour photo). 2005; Nyan Tun, *Wild Orchids of Myanmar*: 188 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 78. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 100. 2021.

— *Callista draconis* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 654. 1891.

— *Dendrobium eburneum* Rchb.f. ex Bateman in *Bot. Mag.* 90: t. 5459. 1864.

— *Dendrobium andersonii* J.Scott in *J. Agri-Hort. Soc. W. India, n.s.*, 3: 117. 1872; Grant, *Orchids of Burma*: 66. 1895.

Specimens examined. CHIN STATE. Mindat District, township not specified: Dec. 2002, *N. Tanaka s.n.* (TNS).

Distribution. NE India, Thailand, Laos, Vietnam, Cambodia.

Dendrobium eriiflorum Griff., *Icon. Pl. Asiat.* 3: t. 316. 1851; Hook.f., *Fl. Brit. India* 5: 715. 1890 [as *eriaeflorum*]; Seidenf. in *Opera Bot.* 83: 149, fig. 101. 1985; Pearce & Cribb, *Orchids of Bhutan*: 419, pl. 19 [bottom-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003;

Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 100 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 189 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 78. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 101. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Oct. 2008, *S. Yasuda 060005* (MBK).

Distribution. N India, Nepal, Bhutan, Thailand.

Dendrobium fimbriatum Hook., *Exot. Fl.* 1: t. 71. 1823; Hook.f., *Fl. Brit. India* 5: 745. 1890; Grant, *Orchids of Burma*: 89. 1895; Seidenf. in *Opera Bot.* 83: 36, figs. 16 & 17a, pl. III d. 1985; Pearce & Cribb, *Orchids of Bhutan*: 410, pl. 22 [top-right]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 101 (incl. colour photo). 2005; Zhu et al. in *Fl. China* 25: 386. 2009; *Fl. China Illustr.* 25: fig. 508.3. 2010; Nyan Tun, Wild Orchids of Myanmar: 193–195 (incl. colour photos). 2014; Aung et al. in *PhytoKeys* 138: 78. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 102. 2021.

— *Dendrobium paxtonii* Paxton in *Paxton's Mag. Bot.* 6: 169. 1839, nom. illeg.

— *Dendrobium fimbriatum* var. *occulatum* Hook. in *Bot. Mag.* 71: t. 4160. 1845; Hook.f., *Fl. Brit. India* 5: 745. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 23 Mar. 2008, *S. Yasuda 060021* (MBK); 9 Aug. 2008, *S. Yasuda 060043* (MBK). Mindat Township: 1220 m, 11 Mar. 1956, *F. Kingdon-Ward 21777* (BM).

Distribution. Nepal, Bhutan, NE India, Bangladesh, S and SW China, Thailand, Laos, Vietnam, Peninsular Malaysia.

Dendrobium gratiosissimum Rchb.f. in *Bot. Zeitung (Berlin)* 23: 99. 1865; Hook.f., *Fl. Brit. India* 5: 743. 1890; Grant, *Orchids of Burma*: 95. 1895; Seidenf. in *Opera Bot.* 83: 58, fig. 31, pl. VII a. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 73. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 105 (incl. colour photo). 2005; Zhu et al. in *Fl. China* 25: 378. 2009; Nyan Tun, Wild Orchids of Myanmar: 201 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 79. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 104. 2021.

— *Dendrobium bullerianum* Bateman in *Bot. Mag.* 93: t. 5652. 1867.

— *Dendrobium boxallii* Rchb.f. in *Gard. Chron., n.s.*, 1: 315. 1874.

— *Callista gratiosissima* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 654. 1891.

— *Callista boxallii* (Rchb.f.) Kuntze, *Revis. Gen. Pl.* 2: 654. 1891.

— *Dendrobium boxallii* var. *albanense* Sander, *Sander's Orch. Guide*: 67. 1901.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1830 m, 21 July 1956, *F. Kingdon-Ward 22515* (BM); May 2007, *N. Tanaka s.n.* (TNS), det. N. Tanaka; 2007, without collector *s.n.* (TNS).

Distribution. NE India, SW China, Thailand, Laos, Vietnam.

Dendrobium harveyanum Rchb.f. in Gard. Chron., n.s., 19: 624. 1883; Hook.f., Fl. Brit. India 5: 747. 1890; Grant, Orchids of Burma: 96. 1895; Seidenf. in Opera Bot. 83: 35, fig. 14, pl. IIIb. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 73. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 106 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 374. 2009; Fl. China Illustr. 25: fig. 496.1. 2010; Nyan Tun, Wild Orchids of Myanmar: 203 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 79. 2020; Ormerod et al. in Phytotaxa 481 (1): 104. 2021.

— *Callista harveyana* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 654. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 79).

Distribution. Thailand, SW China, Vietnam.

Dendrobium heterocarpum Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 78. 1830; Hook.f., Fl. Brit. India 5: 737. 1890; Grant, Orchids of Burma: 97. 1895; Seidenf. in Opera Bot. 83: 50, fig. 26, pl. Vd. 1985; Pearce & Cribb, Orchids of Bhutan: 411. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 73. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 108 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 376. 2009; Fl. China Illustr. 25: fig. 498. 2010; Nyan Tun, Wild Orchids of Myanmar: 205 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 72 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 79. 2020; Ormerod et al. in Phytotaxa 481 (1): 105. 2021.

— *Dendrobium aureum* Lindl., Gen. Sp. Orchid. Pl.: 77. 1830.

— *Dendrobium heterocarpum* var. *henshallii* Hook. in Bot. Mag. 83: t. 4970. 1857.

Specimens examined. CHIN STATE. Kanpetlet Township: 10 Jan. 2008, *S. Yasuda 060035* (MBK); 9 Aug. 2008, *S. Yasuda 060026* (MBK); *060036* (MBK); 1900 m, 25 Feb. 2013, *S. Sangvirotjanaphat et al. 091028* (MBK).

Distribution. Sri Lanka, India, Nepal, Bhutan, Bangladesh, SW China, Thailand, Laos, Vietnam, Malaysia, Indonesia.

Dendrobium hookerianum Lindl. in J. Proc. Linn. Soc., Bot. 3: 8. 1859; Hook.f., Fl. Brit. India 5: 745. 1890; Pearce & Cribb, Orchids of Bhutan: 412. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 73. 2003; Zhu et al. in Fl. China 25: 383. 2009; Fl. China Illustr. 25: fig. 508.2. 2010; Nyan Tun, Wild Orchids of Myanmar: 206 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 79. 2020; Ormerod et al. in Phytotaxa 481 (1): 105. 2021.

— *Callista hookeriana* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 654. 1891.

Specimens examined. CHIN STATE. Mindat Township: fide Aung et al. (2020: 79).

Distribution. Himalaya, NE India, SW China.

Dendrobium incurvum Lindl. in J. Proc. Linn. Soc., Bot. 3: 18. 1858; Hook.f., Fl. Brit. India 5:

718. 1890; Grant, *Orchids of Burma*: 99. 1895; Seidenf. in *Opera Bot.* 83: 143, figs. 96–97. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 74. 2003; Aung et al. in *PhytoKeys* 138: 79. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 106. 2021.

— *Aclinia* sp. Griff., *Not. Pl. Asiat.* 3: 321. 1851.

— *Dendrobium aclinia* Lindl. in *J. Proc. Linn. Soc., Bot.* 3: 9. 1858, nom. illeg.

Specimens examined. CHIN STATE. Kanpetlet Township: 13 Dec. 2007, *S. Yasuda 060025* (MBK); 20 Jan. 2008, *S. Yasuda 060001* (MBK); 10 July 2008, *S. Yasuda 060003* (MBK); 9 Aug. 2008, *S. Yasuda 060010* (MBK); *060041A* (MBK); 18 Sep. 2008, *S. Yasuda 060019* (MBK).

Distribution. Andaman Islands, Thailand, Vietnam, Peninsular Malaysia.

Dendrobium infundibulum Lindl. in *J. Proc. Linn. Soc., Bot.* 3: 16. 1858; Hook.f., *Fl. Brit. India* 5: 721. 1890; Grant, *Orchids of Burma*: 99. 1895; Seidenf. in *Opera Bot.* 83: 117, fig. 72, pl. XVc. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 74. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 109 (incl. colour photo). 2005; Nyan Tun, *Wild Orchids of Myanmar*: 207 (incl. colour photo). 2014; Kang et al., *Seed Pl. Natma Taung*: 73 (incl. colour photos). 2017; Aung et al. in *PhytoKeys* 138: 79. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 107. 2021.

— *Dendrobium moulmeinense* Low ex Baker in *Bot. Mag.* 90: t. 5446. 1864, nom. inval.

— *Dendrobium jamesianum* Rchb.f. in *Gard. Chron.* 1869: 554. 1869.

— *Dendrobium infundibulum* var. *jamesianum* (Rchb.f.) Veitch, *Man. Orch. Pl.* 3: 50. 1888; Hook.f., *Fl. Brit. India* 5: 721. 1890.

— *Dendrobium cariniferum* var. *wattii* Hook.f. in *Bot. Mag.* 109: t. 6715. 1883.

— *Dendrobium wattii* (Hook.f.) Rchb.f. in *Gard. Chron.*, ser. 3, 4: 725. 1888; Hook.f., *Fl. Brit. India* 5: 721. 1890; Seidenf. in *Opera Bot.* 83: 113, figs. 70–71. 1985; Zhu et al. in *Fl. China* 25: 392. 2009.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700–2030 m, 21 May 2004, *N. Tanaka et al. 031016* (MBK); 1740 m, 26 Apr. 2003, *J. Murata et al. 029698* (MBK); 2040 m, 19 May 2012, *K. Fujikawa et al. 089045* (MBK); 2220 m, 28 Apr. 2003, *J. Murata et al. 029756* (MBK); ca. 2743 m, 19 Nov. 2011, *Ling Shein Man 087844* (MBK); 1065 m, 13 Apr. 1926, *R. Unwin 3002* (E); 1585 m, 19 Apr. 1926, *R. Unwin 3077* (E, RAF); 2440–2745 m, May 1956, *Maung Gale-2 5556* (RAF). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al. 089209* (MBK). Mindat District, township not specified: 2440–2745 m, 10 Apr. 1956, *F. Kingdon-Ward 21999* (BM).

Distribution. NE India, Bangladesh, Thailand, Laos, Vietnam.

Dendrobium koyamae Nob.Tanaka et al. in *Acta Phytotax. Geobot.* 60: 173. 2010; Aung et al. in *PhytoKeys* 138: 79. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 108. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060037* (MBK). Mindat Township: 1500–2000 m, 18 May 2004, *N. Tanaka et al. 20040042* (holotype: MBK).

Distribution. Endemic to Natma Taung.

Dendrobium laterale L.O.Williams in Amer. Orch. Soc. Bull. 9: 272, t. 10, f. 1–5. 1941; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Aung et al. in PhytoKeys 138: 79. 2020; Ormerod et al. in Phytotaxa 481 (1): 108. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 1500 m, 20 Jan. 2008, *S. Yasuda 060031* (MBK). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al. 089254* (MBK); 2526 m, 27 Feb. 2014, *P. Srisanga et al. 097363* (MBK).

Distribution. Endemic to the Chin Hills.

Dendrobium lituiflorum Lindl. in Gard. Chron. 1856: 372. 1856 [May]; Hook.f., Fl. Brit. India 5: 740. 1890; Grant, Orchids of Burma: 102. 1895; Seidenf. in Opera Bot. 83: 81, fig. 47, pl. XIA. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 113 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 380. 2009; Nyan Tun, Wild Orchids of Myanmar: 213 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 79. 2020; Ormerod et al. in Phytotaxa 481 (1): 109. 2021.

— *Callista lituiflora* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

— *Dendrobium hanburyanum* Rchb.f. in Bonplandia 4: 329. 1856 [Oct].

Specimens examined. CHIN STATE. Mindat District, township not specified: 19 Feb. 2009, *N. Tanaka 0693* (TNS).

Distribution. E Himalaya, NE India, S and SW China, Thailand, Laos, Vietnam.

Dendrobium longicornu Lindl. in Edwards's Bot. Reg. 16: t. 1315. 1830; Hook.f., Fl. Brit. India 5: 720. 1890; Pearce & Cribb, Orchids of Bhutan: 417, pl. 22 [bottom-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Zhu et al. in Fl. China 25: 392. 2009; Nyan Tun, Wild Orchids of Myanmar: 214 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 74 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 80. 2020; Ormerod et al. in Phytotaxa 481 (1): 109. 2021.

— *Dendrobium flexuosum* Griff., Not. Pl. Asiat. 3: 317. 1851.

— *Dendrobium hirsutum* Griff., Not. Pl. Asiat. 3: 318. 1851.

Specimens examined. CHIN STATE. Kanpetlet Township: 29 Oct. 2008, *S. Yasuda 060015* (MBK); 10 Dec. 2008, *M. Matsumoto & Hong Mang 053822* (MBK); 2400 m, 5 Dec. 2012, *K. Fujikawa et al. 090921* (MBK); ca. 2450–2750 m, 3 June 2002, *N. Tanaka et al. 023499* (MBK); ca. 2700–3050 m, 3 Dec. 2002, *J. Murata et al. 024624* (MBK); ca. 2743 m, 19 Nov. 2011, *Ling Shein Man 087846* (MBK); 2750–2500 m, 3 Dec. 2002, *J. Murata et al. 025495* (MBK, TI). Mindat District, township not specified: 2745 m, 10 Aug. 1956, *F. Kingdon-Ward 22562* (BM); 1830–2135 m, 24 Oct. 1956, *F. Kingdon-Ward 22742* (BM); 20 Aug. 2007, *N. Tanaka s.n.* (TNS), ident. uncertain; without collector *s.n.* (SING).

Distribution. NE India, Nepal, Bhutan, Bangladesh, S and SW China, Vietnam.

Dendrobium moniliforme (L.) Sw. in Nova Acta Regiae Soc. Sci. Upsal. 6: 85. 1799; Zhu et al. in Fl. China 25: 381. 2009; Fl. China Illustr. 25: figs. 502.1–3, 504 & 506.7–8. 2010; Aung et al. in PhytoKeys 138: 80. 2020; Ormerod et al. in Phytotaxa 481 (1): 110. 2021.

— *Epidendrum moniliforme* L., Sp. Pl.: 954. 1753.

— *Dendrobium candidum* Wall. ex Lindl. in Edwards's Bot. Reg. 24 (Misc.): 36. 1838; Hook.f., Fl. Brit. India 5: 735. 1890; Pearce & Cribb, Orchids of Bhutan: 407, pl. 20 [top-left]. 2002.

Specimens examined. CHIN STATE. Kanpetlet Township: 20 May 2007, *N. Tanaka et al.* 051151 (MBK); 2400–2750 m, 15 May 2004, *N. Tanaka et al.* 030588 (MBK); 2440 m, 25 Apr. 2003, *J. Murata et al.* 029676 (MBK). Mindat District, township not specified: 2135 m, 17 Apr. 1956, *F. Kingdon-Ward* 22139 (BM).

Distribution. N India, Nepal, Bhutan, China, Taiwan, Japan, Korea, Vietnam.

Dendrobium nobile Lindl., Gen. Sp. Orchid. Pl.: 79. 1830; Hook.f., Fl. Brit. India 5: 740. 1890; Grant, Orchids of Burma: 106. 1895; Seidenf. in Opera Bot. 83: 83, fig. 48, pl. XIb. 1985; Pearce & Cribb, Orchids of Bhutan: 413, pl. 23 [top-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 115 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 381. 2009; Fl. China Illustr. 25: fig. 503.1. 2010; Nyan Tun, Wild Orchids of Myanmar: 218 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 80. 2020; Ormerod et al. in Phytotaxa 481 (1): 111. 2021.

— *Callista nobilis* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1220–1525 m, Mar. 1956, *Maung Gale-2* 5511 (RAF).

Distribution. India, Himalaya, Thailand, China, Taiwan, Laos, Vietnam.

Dendrobium ochreatum Lindl. in Edwards's Bot. Reg. 21: sub t. 1756. 1836; Hook.f., Fl. Brit. India 5: 747. 1890; Seidenf. in Opera Bot. 83: 55, figs. 17f & 28, pl. VIb. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 115 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 219 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 80. 2020; Ormerod et al. in Phytotaxa 481 (1): 112. 2021.

— *Dendrobium cambridgeanum* Paxton in Paxton's Mag. Bot. 6: 265. 1839.

Specimens examined. CHIN STATE. Kanpetlet Township: 1750 m, 26 Apr. 2003, *J. Murata et al.* 029697 (MBK). Mindat District, township not specified: 1675 m, 24 Apr. 1926, *R. Unwin* 3075 (E); 3290 m, Apr. 1939, *F.G. Dickason* 8608 (AMES); 2285 m, Apr. 1939, *F.G. Dickason* 8609 (AMES).

Distribution. Nepal, NE India, Bangladesh, Thailand, Laos.

Dendrobium parcum Rchb.f. in Gard. Chron. 1866: 1042. 1866; Hook.f., Fl. Brit. India 5: 720.

1890; Grant, Orchids of Burma: 109. 1895; Seidenf. in Opera Bot. 83: 158, fig. 107, pl. XVIIIc. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 117 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 221 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 80. 2020; Ormerod et al. in Phytotaxa 481 (1): 113. 2021.

— *Dendrobium hexadesmia* Rchb.f. in Gard. Chron. 1869: 710. 1869.

— *Callista parca* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

— *Dendrobium listeroglossum* Kraenzl. in H.G.Reichenbach, Xenia Orchid. 3: 108. 1892.

— *Dendrobium tapingense* W.W.Sm. in Notes Roy. Bot. Gard. Edinburgh 13: 202. 1921.

Specimens examined. CHIN STATE. Mindat District, township not specified: 18 Aug. 2009, *Kyaw Khaing 050801* (TNS), ident. uncertain [material poor].

Distribution. NE India, Thailand, Vietnam.

Dendrobium parishii Rchb.f. in Bot. Zeitung (Berlin) 21: 237. 1863; Hook.f., Fl. Brit. India 5: 740. 1890; Grant, Orchids of Burma: 109. 1895; Seidenf. in Opera Bot. 83: 62, fig. 34, pl. VIIId. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 74. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 118 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 378. 2009; Nyan Tun, Wild Orchids of Myanmar: 222 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 81. 2020; Ormerod et al. in Phytotaxa 481 (1): 113. 2021.

— *Dendrobium rhodopterygium* Rchb.f. in Gard. Chron., n.s., 3: 684. 1875; Grant, Orchids of Burma: 119. 1895.

— *Dendrobium parishii* var. *dives* Rchb.f. in Gard. Chron., n.s., 26: 205. 1886.

— *Dendrobium polyphlebium* Rchb.f. in Gard. Chron., ser. 3, 1: 702. 1887.

— *Dendrobium polyphlebium* var. *emericii* Rchb.f. in Gard. Chron., ser. 3, 2: 242. 1887.

— *Callista rhodopterygia* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

— *Callista parishii* (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 81).

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam, Cambodia.

Dendrobium pendulum Roxb., Fl. Ind. ed. 1832, 3: 484. 1832; Hook.f., Fl. Brit. India 5: 741. 1890; Grant, Orchids of Burma: 110. 1895; Seidenf. in Opera Bot. 83: 60, fig. 32, pl. VIIb. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 75. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 119 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 378. 2009; Fl. China Illustr. 25: fig. 501.3. 2010; Nyan Tun, Wild Orchids of Myanmar: 224–226 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 81. 2020; Ormerod et al. in Phytotaxa 481 (1): 114. 2021.

— *Dendrobium crassinode* Benson & Rchb.f. in Gard. Chron. 1869: 164. 1869.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060033* (MBK).

Distribution. NE India, SW China, Thailand, Laos, Vietnam.

Dendrobium plicatile Lindl. in Edwards's Bot. Reg. 26 (Misc.): 10. 1840; Aung et al. in PhytoKeys 138: 81. 2020; Ormerod et al. in Phytotaxa 481 (1): 114. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 81).

Distribution. India, Himalaya, SW and S China, Andaman and Nicobar islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Philippines.

Dendrobium porphyrochilum Lindl. in J. Proc. Linn. Soc., Bot. 3: 18. 1859; Hook.f., Fl. Brit. India 5: 716. 1890; Seidenf. in Opera Bot. 83: 138, fig. 89. 1985; Pearce & Cribb, Orchids of Bhutan: 420. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 75. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 120 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 393. 2009; Fl. China Illustr. 25: fig. 503.2–3. 2010; Nyan Tun, Wild Orchids of Myanmar: 228 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 81. 2020; Ormerod et al. in Phytotaxa 481 (1): 115. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 July 2008, *S. Yasuda 060092* (MBK); *060093* (MBK); 9 Aug. 2008, *S. Yasuda 060074* (MBK); 1450-1262 m, 1 June 2012, *K. Fujikawa et al. 089664* (MBK). Matupi Township: 1760 m, 11 July 2013, *Mu Mu Aung et al. 092412* (MBK). Mindat District, township not specified: 2135 m, 5 Sep. 1956, *F. Kingdon-Ward 22670* (BM).

Distribution. N India, Nepal, S and SW China, Thailand, Vietnam.

Dendrobium primulinum Lindl. in Gard. Chron. 1858: 400. 1858; Hook.f., Fl. Brit. India 5: 735. 1890; Grant, Orchids of Burma: 113. 1895; Seidenf. in Opera Bot. 83: 69, fig. 39, pl. IXa. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 75. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 120 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 229 (incl. colour photo). 2014; Ormerod et al. in Phytotaxa 481 (1): 116. 2021.

— *Callista primulina* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

— *Dendrobium primulinum* var. *giganteum* Sander, Sander's Orch. Guide: 74. 1901.

— *Dendrobium theionochilum* Schltr. in Notizbl. Bot. Gart. Berlin-Dahlem 8: 121. 1922.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060027*, *060028* & *060029* (MBK).

Distribution. N India, Himalaya, SW China, Thailand, Laos, Vietnam, Cambodia.

Note. Considered a synonym of *D. polyanthum* Wall. ex Lindl. by Wood (2006: 679), but probably distinct.

Dendrobium pulchellum Roxb. ex Lindl., Gen. Sp. Orchid. Pl.: 82. 1830; Grant, Orchids of

Burma: 114. 1895; Seidenf. in *Opera Bot.* 83: 65, fig. 37, pl. VIIIc. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 75. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 121 (incl. colour photo). 2005; Nyan Tun, *Wild Orchids of Myanmar*: 230 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 81. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 116. 2021.

— *Dendrobium dalhousieanum* Wall. in *Paxton's Mag. Bot.* 11: 145. 1844; Hook.f., *Fl. Brit. India* 5: 743. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060064* (MBK). Mindat District, township not specified: 15 May 2009, *Kyaw Khaing 0083* (TNS).

Distribution. Nepal, NE India, Bangladesh, Thailand, Laos, Vietnam, ? Peninsular Malaysia.

Dendrobium strongylanthum Rehb.f. in *Gard. Chron.*, n.s., 9: 462. 1878; Hook.f., *Fl. Brit. India* 5: 716. 1890; Seidenf. in *Opera Bot.* 83: 142, fig. 95. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 75. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 125 (incl. colour photo). 2005; Zhu et al. in *Fl. China* 25: 393. 2009; *Fl. China Illustr.* 25: fig. 503.4–5. 2010; Nyan Tun, *Wild Orchids of Myanmar*: 239 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 81. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 119. 2021.

— *Callista strongylantha* (Rehb.f.) Kuntze, *Revis. Gen. Pl.* 2: 655. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Oct. 2008, *S. Yasuda 060004* (MBK); 2135 m, 9 Nov. 1956, *F. Kingdon-Ward 22843* (BM).

Distribution. S and SW China, Thailand, Laos, Vietnam.

Dendrobium sulcatum Lindl. in *Edwards's Bot. Reg.* 24: t. 65. 1838; Hook.f., *Fl. Brit. India* 5: 749. 1890; Grant, *Orchids of Burma*: 123. 1895; Seidenf. in *Opera Bot.* 83: 19, fig. 5, pl. Id. 1985; Pearce & Cribb, *Orchids of Bhutan*: 405. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 75. 2003; Zhu et al. in *Fl. China* 25: 375. 2009; Nyan Tun, *Wild Orchids of Myanmar*: 242 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 82. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 119. 2021.

— *Callista sulcata* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 655. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 82).

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Dendrobium thyrsoiflorum B.S.Williams, *Orch.-Grow. Man.*, ed. 4: 172. 1871; Seidenf. in *Opera Bot.* 83: 25, fig. 9, pl. IIc. 1985; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 75. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 128 (incl. colour photo). 2005; Zhu et al. in *Fl. China* 25: 376. 2009; Nyan Tun, *Wild Orchids of Myanmar*: 244–246 (incl. colour photos). 2014; Aung et al. in *PhytoKeys* 138: 82. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 120. 2021.

— *Dendrobium densiflorum* Lindl. var. *alboluteum* Hook.f. in Bot. Mag. 95: t. 5780. 1869; Grant, Orchids of Burma: 84. 1895 [as *albo-lutea*].

— *Dendrobium densiflorum* Lindl. var. *walkerianum* Warner, Select Orch. 3: t. 21. 1878 [not seen]; Grant, Orchids of Burma: 84. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060020* (MBK).

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Dendrobium transparens Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 79. 1830; Hook.f., Fl. Brit. India 5: 738. 1890; Grant, Orchids of Burma: 124. 1895; Pearce & Cribb, Orchids of Bhutan: 414, pl. 23 [bottom-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003; Nyan Tun, Wild Orchids of Myanmar: 248 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 82. 2020; Ormerod et al. in Phytotaxa 481 (1): 120. 2021.

— *Callista transparens* (Wall. ex Lindl.) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 82).

Distribution. N India, Himalaya.

Dendrobium wardianum R.Warner, Select Orchid. Pl.: t. 19. 1863; Hook.f., Fl. Brit. India 5: 742. 1890; Grant, Orchids of Burma: 126. 1895; Seidenf. in Opera Bot. 83: 56, fig. 30, pl. VI. 1985; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 131 (incl. colour photo). 2005; Zhu et al. in Fl. China 25: 377. 2009; Nyan Tun, Wild Orchids of Myanmar: 250 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 82. 2020; Ormerod et al. in Phytotaxa 481 (1): 122. 2021.

— *Dendrobium wardianum* var. *candidum* Rchb.f. in Gard. Chron., n.s., 5: 460. 1876.

— *Callista wardiana* (R.Warner) Kuntze, Revis. Gen. Pl. 2: 655. 1891.

Specimens examined. CHIN STATE. Mindat Township: 1220 m and below, 11 Mar. 1956, *F. Kingdon-Ward 21778* (BM), det. Alsterlund.

Distribution. E Himalaya, NE India, SW China, Thailand, Vietnam.

DICKASONIA L.O.Williams

Dickasonia vernicosa L.O.Williams in Bot. Mus. Leaf. 9: 38. 1941; Pearce & Cribb, Orchids of Bhutan: 338, fig. 80. 2002; Aung et al. in PhytoKeys 138: 82. 2020; Ormerod et al. in Phytotaxa 481 (1): 124. 2021.

— *Kalimpongia narajitii* Pradhan in Orchid Digest 41: 172. 1977; Kress et al. in Contr. U.S. Natl.

Herb. 45: 82. 2003.

Specimens examined. CHIN STATE. Kanpetlet Township: 23 Mar. 2008, *S. Yasuda 060012* (MBK). Mindat Township: ca. 2400-2600 m, 18 May 2004, *N. Tanaka et al. 030725* (MBK). Mindat District, township not specified: 1525 m, 13 Apr. 1926, *R. Unwin 3009* (E); 1905 m, 14 Apr. 1926, *R. Unwin 3018* (E); 2135 m, 16 Apr. 1956, *F. Kingdon-Ward 22129* (BM).

Distribution. NE India, Bhutan.

DIPLOPRORA J.D.Hooker

Diploprora truncata Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 385. 1925; Seidenf. in Opera Bot. 95: 40, fig. 21, pl. IIIc. 1988; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 134 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 257 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 83. 2020; Ormerod et al. in Phytotaxa 481 (1): 125. 2021.

— *Stauropsis truncata* (Rolfe ex Downie) Tang & F.T.Wang in Acta Phytotax. Sin. 1: 94. 1951.

Specimens examined. CHIN STATE. Matupi Township: 1707 m, 9 Mar. 2014, *P. Srisanga et al. 097741* (MBK).

Distribution. NE India, Thailand.

EPIPOGIUM Borkhausen

Epipogium roseum (D.Don) Lindl. in J. Proc. Linn. Soc., Bot. 1: 177. 1857; Seidenf. in Dansk Bot. Ark. 32 (2): 171, fig. 106. 1978; Pearce & Cribb, Orchids of Bhutan: 34, fig. 6. 2002; Chen et al. in Fl. China 25: 208. 2009; Fl. China Illustr. 25: fig. 277.1–2. 2010; Tanaka et al. in Acta Phytotax. Geobot. 61 (3): 164. 2011; Pedersen in Fl. Thailand 12 (2): 498, pl. XLII.3–4. 2014; Aung et al. in PhytoKeys 138: 83. 2020; Ormerod et al. in Phytotaxa 481 (1): 127. 2021.

— *Limodorum roseum* D.Don, Prodr. Fl. Nepal.: 30. 1825.

— *Epipogium nutans* (Blume) Rchb.f. in Bonplandia 5: 36. 1857; Hook.f., Fl. Brit. India 6: 124. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 6 Dec. 2008, *M. Matsumoto 053821* (MBK); 1268 m, 27 May 2007, *N. Kuroiwa et al. 051335* (MBK). Mindat District, township not specified: 1924, *R.E. Cooper 5951A* (E, SING).

Distribution. Widespread throughout the Paleotropics.

ERIA Lindley

Eria coronaria (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 271. 1861; Seidenf. in Opera Bot. 62: 40, fig. 18, pl. IIIa. 1982; Pearce & Cribb, Orchids of Bhutan: 372. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003; Chen et al. in Fl. China 25: 345. 2009; Fl. China Illustr. 25: fig. 472.1–2. 2010; Nyan Tun, Wild Orchids of Myanmar: 267 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 83. 2020; Ormerod et al. in Phytotaxa 481 (1): 127. 2021.

— *Coelogyne coronaria* Lindl. in Edwards's Bot. Reg. 27 (Misc.): 83. 1841.

— *Trichosma suavis* Lindl. in Edwards's Bot. Reg. 28: t. 21. 1842; Hook.f., Fl. Brit. India 5: 827. 1890.

— *Eria suavis* (Lindl.) Lindl. in J. Proc. Linn. Soc., Bot. 3: 52. 1858.

— *Trichosma coronaria* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 681. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 2743 m, 19 Nov. 2011, *Ling Shein Man 087845* (MBK).

Distribution. N India, Nepal, Bhutan, S and SW China, Thailand, Vietnam.

ERIODES Rolfe

Eriodes barbata (Lindl.) Rolfe in Orchid Rev. 23: 326. 1915; Seidenf. in Opera Bot. 89: 65, fig. 32, pl. Va. 1986; Pearce & Cribb, Orchids of Bhutan: 298, fig. 67. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 148 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 285. 2009; Fl. China Illustr. 25: figs. 409 & 441.9. 2010; Kurzweil in Fl. Thailand 12 (2): 499, fig. 274, pl. XLIII.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 276 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 75 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 83. 2020; Ormerod et al. in Phytotaxa 481 (1): 128. 2021.

— *Tainia barbata* Lindl. in Gard. Chron. 1857: 68. 1857.

— *Eria barbata* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 270. 1861; Hook.f., Fl. Brit. India 5: 803. 1890.

— *Pinalia barbata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

— *Tainiopsis barbata* (Lindl.) Schltr. in Orchis 9: 12. 1915.

Specimens examined. CHIN STATE. Mindat District, township not specified: 15 Jan. 2016, *Y.D. Kim s.n.*, photographic record; fide Kang et al. (2017: 76).

Distribution. E Himalaya, NE India, SW China, Thailand, Vietnam.

EULOPHIA R.Brown, nom. cons.

Eulophia cf. **andamanensis** Rchb.f. in Flora 55: 276. 1872; Hook.f., Fl. Brit. India 6: 8. 1890; Grant, Orchids of Burma: 216. 1895; Seidenf. in Opera Bot. 72: 29, fig. 13, pl. Ic. 1983; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 149 (incl. colour photo). 2005; Pedersen in Fl. Thailand 12 (2): 502, fig. 275. 2014; Nyan

Tun, Wild Orchids of Myanmar: 279 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 129. 2021.

— *Cyrtopera andamanensis* (Rchb.f.) Rolfe in Gard. Chron., ser. 3, 18: 581. 1895.

— *Eulophia keithii* Ridl. in J. Linn. Soc., Bot. 32: 333. 1896.

Specimens examined. CHIN STATE. Mindat District, township not specified: June 2009, *N. Tanaka s.n.* (TNS), ident. uncertain.

Distribution. Andaman and Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, W Malesia.

Eulophia flava (Lindl.) Hook.f., Fl. Brit. India 6: 7. 1890; Seidenf. in Opera Bot. 72: 33, fig. 16, pl. Ila. 1983; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Chen et al. in Fl. China 25: 256. 2009; Fl. China Illustr. 25: fig. 334. 2010; Pedersen in Fl. Thailand 12 (2): 510, fig. 280. 2014; Nyan Tun, Wild Orchids of Myanmar: 280 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 130. 2021.

— *Cyrtopera flava* Lindl., Gen. Sp. Orchid. Pl.: 189. 1833.

— *Lissochilus flavus* (Lindl.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 260. 1919.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060056* (MBK). MAGWAY REGION. Saw Township: ca. 485 m, 25 June 2009, *N. Tanaka & T. Yukawa 081161* (MBK).

Distribution. India, Nepal, S China, Thailand, Laos, Vietnam.

Eulophia graminea Lindl., Gen. Sp. Orchid. Pl.: 182. 1833; Hook.f., Fl. Brit. India 6: 2. 1890; Grant, Orchids of Burma: 215. 1895; Seidenf. in Opera Bot. 72: 29, fig. 14, pl. Id. 1983; Pearce & Cribb, Orchids of Bhutan: 249, fig. 58. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 150 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 255. 2009; Fl. China Illustr. 25: figs. 331.4–5 & 332. 2010; Pedersen in Fl. Thailand 12 (2): 511, fig. 281, pl. XLIII.3. 2014; Nyan Tun, Wild Orchids of Myanmar: 281 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 130. 2021.

— *Graphorkis graminea* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 662. 1891.

— *Eulophia venusta* Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 72. 1919.

Specimens examined. CHIN STATE. Kanpetlet Township: 19 May 2007, *N. Tanaka et al. 051135* (MBK).

Distribution. Pakistan, Sri Lanka, India, Nepal, Bhutan, Bangladesh, SW and S China, Taiwan, S Japan, Andaman and Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, islands of the NW Pacific Ocean; naturalised in Florida (USA).

Eulophia macrobulbon (C.S.P.Parish & Rchb.f.) Hook.f., Fl. Brit. India 6: 7. 1890; Grant, Orchids of Burma: 217. 1895; Seidenf. in Opera Bot. 72: 38, fig. 21, pl. Iib. 1983; Kress et al. in

Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 150 (incl. colour photo). 2005; Pedersen in Fl. Thailand 12 (2): 515, fig. 283. 2014; Nyan Tun, Wild Orchids of Myanmar: 283 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 130. 2021.

— *Cyrtopera macrobulbon* C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 144. 1874.

— *Graphorkis macrobulbon* (C.S.P.Parish & Rchb.f.) Kuntze, Rev. Gen. Pl. 2: 662. 1891.

— *Eulophia burmanica* Hook.f., Fl. Brit. India 6: 5. 1890; Grant, Orchids of Burma: 214. 1895.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1924, *R.E. Cooper* 6077 (E); 1065 m, 1 May 1956, *F. Kingdon-Ward* 22186 (BM). MAGWAY REGION. Saw Township: 555 m, 16 Mar. 2006, *K. Fujikawa & A. Nomachi* 035707 (MBK, TI).

Distribution. E Himalaya, NE India, Thailand, Laos, Vietnam, Cambodia.

Eulophia nuda Lindl., Gen. Sp. Orchid. Pl.: 180. 1833; Hook.f., Fl. Brit. India 6: 5. 1890; Grant, Orchids of Burma: 218. 1895; Seidenf. in Opera Bot. 72: 40, fig. 26. 1983; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 131. 2021.

— *Wolfia spectabilis* Dennst., Schlüssel Hortus Malab.: 38. 1818, nom. inval.

— *Eulophia squalida* Lindl. in Edwards's Bot. Reg. 27 (Misc.): 77. 1841; Grant, Orchids of Burma: 219. 1895.

— *Cyrtopera squalida* (Lindl.) Rchb.f. in Bonplandia 5: 38. 1857.

— *Cyrtopera nuda* (Lindl.) Rchb.f. in Flora 55: 274. 1872.

— *Eulophia holochila* Collett & Hemsl. in J. Linn. Soc., Bot. 28: 132. 1890; Hook.f., Fl. Brit. India 6: 196. 1890; Grant, Orchids of Burma: 217. 1895.

— *Eulophia hildebrandii* Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 262. 1919.

— *Eulophia burkei* Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 380. 1925.

— *Eulophia spectabilis* (Dennst.) Suresh in Nicolson et al., Interpret. Van Rheede's Hort. Malab.: 300. 1988, nom. superfl.; Pearce & Cribb, Orchids of Bhutan: 253. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 151 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 258. 2009; Pedersen in Fl. Thailand 12 (2): 521, fig. 287, pl. XLIII.4. 2014; Nyan Tun, Wild Orchids of Myanmar: 284–286 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 77 (incl. colour photos). 2017.

Specimens examined. CHIN STATE. Kanpetlet Township: 19 June 2008, *S. Yasuda* 060063 (MBK); 9 Aug. 2008, *S. Yasuda* 060059 (MBK); 060060 (MBK); 27 May 2012, *K. Fujikawa et al.* 089371 (MBK); ca. 750–800 m, 9 June 2002, *N. Tanaka et al.* 022979 (MBK, TI); 850–1450 m, 2 June 2012, *K. Fujikawa et al.* 089692 (MBK); 1500 m, 20 May 2009, *S. Yasuda* 053813 (MBK); ca. 1600 m, 20 May 2004, *N. Tanaka et al.* 030933 (MBK). Mindat Township: 1220 m, 11 May 1956, *F. Kingdon-Ward* 22207 (BM); 1280 m, 16 May 1956, *F. Kingdon-Ward* 22228 (BM). MAGWAY REGION. Saw Township: 15 May 2007, *N. Tanaka et al.* 051102 (MBK); 23 June 2009, *N. Tanaka & T. Yukawa* 081034 (MBK).

Distribution. Sri Lanka, India, Bhutan, Bangladesh, SW China, Andaman Islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, New Guinea, Solomon Islands, islands of the W Pacific Ocean.

Eulophia pauciflora Guillaumin in Bull. Soc. Bot. France 77: 338. 1930; Seidenf. in Opera Bot. 72: 40, fig. 23. 1983; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 151 (incl. colour photo). 2005; Pedersen in Fl. Thailand 12 (2): 517, fig. 284. 2014; Ormerod et al. in Phytotaxa 481 (1): 131. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 14 Aug. 2002, *Ling Shein Man & Cho Cho Win 024356* (MBK); 840 m, 2 Sep. 2011, *H. Funakoshi et al. 085046* (MBK); ca. 850-1100 m, 11 Sep. 2013, *K. Fujikawa et al. 095442* (MBK); 1085 m, 30 Sep. 2008, *S. Yasuda 053619* (MBK).

Distribution. Thailand, Laos, Vietnam, Cambodia.

Eulophia siamensis Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 380. 1925; Seidenf. in Opera Bot. 72: 40, fig. 24. 1983; Chen et al. in Fl. China 25: 258. 2009; Fl. China Illustr. 25: fig. 326.3–4. 2010; Pedersen in Fl. Thailand 12 (2): 520, fig. 286. 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 132. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 84).

Distribution. SW China, Thailand.

Eulophia zollingeri (Rchb.f.) J.J.Sm., Orch. Java: 228. 1905; Pearce & Cribb, Orchids of Bhutan: 254. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 152 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 254. 2009; Fl. China Illustr. 25: fig. 333. 2010; Pedersen in Fl. Thailand 12 (2): 524, pl. XLIV.1. 2014; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 132. 2021.

— *Cyrtopera zollingeri* Rchb.f. in Bonplandia 5: 38. 1857.

Specimens examined. CHIN STATE. Kanpetlet Township: 12 June 2008, *S. Yasuda 053820* (MBK); 9 Aug. 2008, *S. Yasuda & Hong Mang 060104* (MBK); ca. 1240 m, 25 June 2009, *N. Tanaka & T. Yukawa 081173* (MBK); ca. 1500 m, 24 May 2004, *N. Tanaka et al. 031179* (MBK).

Distribution. Sri Lanka, India, E Himalaya, SW China, Taiwan, Japan, Andaman Islands, Thailand, Vietnam, Malaysia, Indonesia, Philippines, New Guinea; N Australia.

GASTROCHILUS D. Don

Gastrochilus corymbosus A.P. Das & Chanda in J. Econ. Taxon. Bot. 12: 401. 1988 (publ. 1989); Pearce & Cribb, Orchids of Bhutan: 525. 2002; Liu et al. in PhytoKeys 138: 116, fig. 2. 2020; Ormerod et al. in Phytotaxa 481 (1): 134. 2021.

Specimens examined (both fide Liu et al. 2020: 116). CHIN STATE. Mindat District, township not specified: 2750 m, 9 Jan. 2017, *Liu 414* (HITBC); 2900 m, 30 Apr. 2017, *Tan M1271* (HITBC).

Distribution. E Himalaya.

Gastrochilus distichus (Lindl.) Kuntze, Revis. Gen. Pl. 2: 661. 1891; Pearce & Cribb, Orchids of Bhutan: 525. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 79. 2003; Chen et al. in Fl. China 25: 496. 2009; Nyan Tun, Wild Orchids of Myanmar: 291 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 78 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 84. 2020; Ormerod et al. in Phytotaxa 481 (1): 134. 2021.

— *Saccolabium distichum* Lindl. in J. Proc. Linn. Soc., Bot. 3: 36. 1859; Hook.f., Fl. Brit. India 6: 64. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060040* (MBK); 21 May 2012, *Ling Shein Man 060094* (MBK); ca. 2750-3000 m, 5 June 2002, *N. Tanaka et al. 023367* (MBK); *023384* (MBK). Mindat District, township not specified: 2745 m, 17 Apr. 1926, *R. Unwin 3068* (E); 2680 m, 3 Apr. 1956, *F. Kingdon-Ward 21930* (BM), det. Alsterlund.

Distribution. N India, Nepal, Bhutan, SW China.

Gastrochilus pseudodistichus (King & Pantl.) Schltr. in Repert. Spec. Nov. Regni Veg. 12: 315. 1913; Seidenf. in Opera Bot. 95: 286, fig. 185, pl. XXXIIIa. 1988; Pearce & Cribb, Orchids of Bhutan: 526. 2002; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 157 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 495. 2009; Aung et al. in PhytoKeys 138: 85. 2020; Ormerod et al. in Phytotaxa 481 (1): 136. 2021.

— *Saccolabium pseudodistichum* King & Pantl. in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 64 (2): 341. 1895.

— *Saccolabium distichum* var. *pseudodistichum* (King & Pantl.) Finet in H.Lecomte, Fl. Indo-Chine 6: 506. 1933.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 2500 m, 23 May 2004, *N. Tanaka et al. 031129* (MBK); 2781-3050 m, 21 Feb. 2014, *P. Srisanga et al. 097056* (MBK); 2440-2745 m, Apr. 1956, *Maung Gale-2 & Chit Ko Ko 5559* (RAF). Mindat Township: 2554 m, 18 Feb. 2012, *K. Fujikawa et al. 086818* (MBK); 2580 m, 18 Feb. 2012, *K. Fujikawa et al. 086126* (MBK).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Vietnam.

GEODORUM Andrews

Geodorum densiflorum (Lam.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 259. 1919; Seidenf. in Opera Bot. 72: 61, fig. 33. 1983; Pearce & Cribb, Orchids of Bhutan: 255, fig. 59. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 79. 2003; Chen et al. in Fl. China 25: 259. 2009; Fl. China Illustr. 25: figs. 330.4–5 & 337. 2010; Watthana & Pedersen in Fl. Thailand 12 (2): 533, fig. 291. 2014; Aung et al. in PhytoKeys 138: 85. 2020; Ormerod et al. in Phytotaxa 481 (1): 137. 2021.

— *Limodorum densiflorum* Lam., Encycl. 3: 516. 1792.

— *Geodorum purpureum* R.Br. in W.T.Aiton, Hortus Kew. 5: 207. 1813; Hook.f., Fl. Brit. India 6:

16. 1890; Grant, Orchids of Burma: 223. 1895.

— *Geodorum pallidum* D.Don, Prodr. Fl. Nepal.: 31. 1825.

— *Geodorum appendiculatum* Griff. in Calcutta J. Nat. Hist. 5: 357. 1845.

— *Geodorum rariflorum* Lindl., Fol. Orchid. 6: 2. 1854.

— *Geodorum candidum* (Roxb.) Lindl., Fol. Orchid. 6: 8. 1855; Hook.f., Fl. Brit. India 6: 17. 1890; Grant, Orchids of Burma: 222. 1895.

Specimens examined. MAGWAY REGION. Saw Township: 23 June 2009, *N. Tanaka & T. Yukawa 081024* (MBK).

Distribution. Very widespread in tropical and subtropical Asia ranging to the islands of the Pacific Ocean.

Geodorum recurvum (Roxb.) Alston in H.Trimen, Handb. Fl. Ceylon 6 (Suppl.): 276. 1931; Seidenf. in Opera Bot. 72: 61, fig. 34. 1983; Pearce & Cribb, Orchids of Bhutan: 257. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 79. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 159 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 259. 2009; Watthana & Pedersen in Fl. Thailand 12 (2): 535, fig. 292, pl. XLV.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 296 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 85. 2020; Ormerod et al. in Phytotaxa 481 (1): 137. 2021.

— *Limodorum recurvum* Roxb., Pl. Coromandel 1: t. 39. 1795.

— *Geodorum dilatatum* R.Br. in W.T.Aiton, Hortus Kew. 5: 207. 1813; Hook.f., Fl. Brit. India 6: 17. 1890; Grant, Orchids of Burma: 223. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 10 June 2008, *S. Yasuda 060058* (MBK).

Distribution. India, S and SW China, Thailand, Laos, Vietnam, Cambodia.

Geodorum siamense Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 383. 1925; Seidenf. in Opera Bot. 72: 55, fig. 29. 1983; Ormerod & Sathish Kumar in Rheedea 13: 47. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 159 (incl. colour photo). 2005; Watthana & Pedersen in Fl. Thailand 12 (2): 537, fig. 293, pl. XLV.2–3. 2014; Aung et al. in PhytoKeys 138: 85. 2020; Ormerod et al. in Phytotaxa 481 (1): 138. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 20 May 2007, *N. Tanaka et al. 051154* (MBK); *051155* (MBK). MAGWAY REGION. Saw Township: 319 m, 23 May 2007, *K. Fujikawa et al. 051172* (MBK).

Distribution. SW China, Thailand, Vietnam, Cambodia.

GOODYERA R.Brown

Goodyera schlechtendaliana Rchb.f. in Linnaea 22: 861. 1850; Seidenf. in Dansk Bot. Ark. 32 (2): 26, fig. 11. 1978; Pearce & Cribb, Orchids of Bhutan: 94, pl. 5 [top-left]. 2002; Kress et al. in

Contr. U.S. Natl. Herb. 45: 80. 2003; Chen et al. in Fl. China 25: 47. 2009; Fl. China Illustr. 25: figs. 59 & 67.4–6. 2010; Pedersen in Fl. Thailand 12 (1): 75, fig. 39, pl. III.4. 2011; Aung et al. in PhytoKeys 138: 86. 2020; Ormerod et al. in Phytotaxa 481 (1): 139. 2021.

— *Georchis schlechtendaliana* (Rchb.f.) Rchb.f. in Bonplandia 5: 36. 1857.

— *Goodyera secundiflora* Lindl. in J. Proc. Linn. Soc., Bot. 1: 182. 1857; Hook.f., Fl. Brit. India 6: 113. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 2133 m, 9 Jan. 2012, *Ling Shein Man 088142* (MBK).

Distribution. Nepal, Bhutan, NE India, Bangladesh, China, Taiwan, Japan, Korea, Thailand, Vietnam, W Indonesia.

HABENARIA Willdenow

Habenaria amplexicaulis Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 417. 1925; Seidenf. in Dansk Bot. Ark. 31 (3): 74, fig. 41. 1977; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 22. 2009; Kurzweil in Fl. Thailand 12 (1): 84, fig. 43, pl. IV.3. 2011; Ormerod et al. in Phytotaxa 481 (1): 141. 2021.

Specimens examined. MAGWAY REGION. Saw Township: ca. 304 m, 20 Nov. 2011, *Ling Shein Man 087869* (MBK).

Distribution. SW China, Thailand, Vietnam.

Note. The species belongs to the mainly Indian *H. digitata* Lindl. complex. The entire complex requires a careful study in order to evaluate the status of its taxa (Seidenfaden 1977: 74).

Habenaria dentata (Sw.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 125. 1919; Seidenf. in Dansk Bot. Ark. 31 (3): 98, fig. 60. 1977; Pearce & Cribb, Orchids of Bhutan: 148. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 80. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 163 (incl. colour photo). 2005; Chen & Cribb in Fl. China 25: 157. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 39, fig. 7. 2009; Fl. China Illustr. 25: figs. 202.2 & 207. 2010; Kurzweil in Fl. Thailand 12 (1): 98, fig. 52, pl. VI.1. 2011; Nyan Tun, Wild Orchids of Myanmar: 301 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 80 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 86. 2020; Ormerod et al. in Phytotaxa 481 (1): 142. 2021.

— *Orchis dentata* Sw. in Kongl. Vetensk. Acad. Nya Handl. 21: 207. 1800.

— *Habenaria geniculata* D. Don, Prodr. Fl. Nepal.: 25. 1825; Hook.f., Fl. Brit. India 6: 138. 1890; Grant, Orchids of Burma: 336. 1895.

— *Platanthera geniculata* (D. Don) Lindl. ex Wall., Numer. List: no. 7042. 1832.

— *Platanthera dentata* (Sw.) Lindl., Gen. Sp. Orchid. Pl.: 296. 1835.

— *Habenaria pelorioides* C.S.P. Parish & Rchb.f. in Trans. Linn. Soc. London 30: 139, pl. XXVII A1–3. 1874; Hook.f., Fl. Brit. India 6: 166. 1890; Grant, Orchids of Burma: 340. 1895.

— *Habenaria malintana* (Blanco) Merr., Sp. Blancoan.: 112. 1918; Seidenf. in Dansk Bot. Ark. 31

(3): 126, fig. 79. 1977; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 43, fig. 8. 2009; Kurzweil in Fl. Thailand 12 (1): 121, fig. 67, pl. VIII.4. 2011; Kress et al. in Contr. U.S. Natl. Herb. 45: 80. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 166 (incl. colour photo). 2005; Chen & Cribb in Fl. China 25: 157. 2009; Fl. China Illustr. 25: fig. 214.5. 2010; Aung et al. in PhytoKeys 138: 87. 2020.

— *Habenaria parageniculata* Tang & F.T.Wang in Bull. Fan Mem. Inst. Biol. 7: 137. 1936; Kress et al. in Contr. U.S. Natl. Herb. 45: 80. 2003.

— *Habenaria dentata* var. *parageniculata* (Tang & F.T.Wang) Aver. in Turczaninowia 9 (3): 67. 2006.

Specimens examined. CHIN STATE. Kanpetlet Township: 22 Oct. 2011, *Law Shine 088249* (MBK); ca. 700–800 m, 4 Dec. 2002, *J. Murata et al. 024629* (MBK); 750–1200 m, 5 Dec. 2002, *J. Murata et al. 025577* (MBK); ca. 1000 m, 25 Oct. 2011, *Ling Shein Man 087681* (MBK); *087681A* (MBK); *087681B* (MBK); 1138 m, 9 Oct. 2008, *S. Yasuda 053818* (MBK); 1150–1200 m, 6 Dec. 2002, *J. Murata et al. 025620* (MBK); 1200 m, 21 Oct. 2008, *Om Ling Htang 053642* (MBK); 1250 m, 13 Jan. 2013, *Ling Shein Man 096179* (MBK); 1500 m, 12 Oct. 2008, *S. Yasuda 053638* (MBK); *053638A* (MBK); ca. 1500 m, 4 Sep. 2012, *Ling Shein Man 091676* (MBK); ca. 1676 m, 4 Nov. 2002, *Ling Shein Man & Cho Cho Win 024433* (MBK). Mindat Township: 1295 m, 27 Sep. 1956, *F. Kingdon-Ward 22707* (BM); 1370 m, 15 Sep. 1956, *Maung Gale-2 5785* (RAF).

Distribution. N India, Nepal, China, Taiwan, Japan, Korea, Thailand, Laos, Vietnam, Cambodia, Peninsular Malaysia, Philippines.

Note. We consider *H. malintana* a peloric form of this species.

Habenaria furcifera Lindl., Gen. Sp. Orchid. Pl.: 319. 1835; Hook.f., Fl. Brit. India 6: 149. 1890; Seidenf. in Dansk Bot. Ark. 31 (3): 118, fig. 72. 1977; Pearce & Cribb, Orchids of Bhutan: 149. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 80. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 164 (incl. colour photo). 2005; Chen & Cribb in Fl. China 25: 160. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 63, fig. 16. 2009; Fl. China Illustr. 25: fig. 214.1–4. 2010; Kurzweil in Fl. Thailand 12 (1): 101, fig. 55, pl. VI.2. 2011; Aung et al. in PhytoKeys 138: 86. 2020; Ormerod et al. in Phytotaxa 481 (1): 144. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Aug. 2007, *Ling Shein Man 055224* (MBK); 10 Aug. 2008, *S. Yasuda 060090* (MBK); 445–850 m, 29 Aug. 2013, *K. Fujikawa et al. 094691* (MBK); 1830 m, 12 Sep. 1956, *Maung Gale-2 & Chit Ko Ko 5757* p.p. (RAF); 1065 m, Aug. 1956, *Maung Gale-2 5861* (RAF). Mindat District, township not specified: 1220 m, 12 July 1956, *F. Kingdon-Ward 22474* (BM); 1220 m, 22 Aug. 1956, *F. Kingdon-Ward 22580* (BM). MAGWAY REGION. Saw Township: 498 m, 6 Dec. 2012, *K. Fujikawa et al. 090112* (MBK).

Distribution. Pakistan, India, Nepal, Bangladesh, SW China, Thailand, Laos.

Habenaria gibsonii Hook.f., Fl. Brit. India 6: 135. 1890.

var. ***foetida*** Blatt. & McCann in J. Bombay Nat. Hist. Soc. 36: 16. 1932; Kumar et al. in Taiwania 63: 75. 2018; Ormerod et al. in Phytotaxa 481 (1): 144. 2021.

— *Habenaria thailandica* Seidenf. in Dansk Bot. Ark. 31 (3): 78. 1977.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1370 m, 10 June 1956, *F. Kingdon-Ward 22340* (BM).

Distribution. India, Thailand, Laos, Vietnam, Cambodia.

Habenaria intermedia D.Don, Prodr. Fl. Nepal.: 24. 1825; Hook.f., Fl. Brit. India 6: 138. 1890; Chen & Cribb in Fl. China 25: 154. 2009; Aung et al. in PhytoKeys 138: 86. 2020; Ormerod et al. in Phytotaxa 481 (1): 144. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060067* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081279* (MBK); ca. 2500 m, 24 June 2009, *N. Tanaka & T. Yukawa 081134* (MBK); 28 June 2009, *N. Tanaka & T. Yukawa 081398* (MBK); 1830-1980 m, 21 June 1956, *Maung Gale-2 & Chit Ko Ko 5595* (RAF). Mindat Township: 2500 m, 5 July 2013, *Mu Mu Aung et al. 092340* (MBK).

Distribution. Pakistan, N India, Nepal, SW China.

Habenaria lucida Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 319. 1835; Hook.f., Fl. Brit. India 6: 133. 1890; Grant, Orchids of Burma: 338. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 102, fig. 62. 1977; Kress et al. in Contr. U.S. Natl. Herb. 45: 80. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 165 (incl. colour photo). 2005; Chen & Cribb in Fl. China 25: 158. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 49. 2009; Fl. China Illustr. 25: fig. 210.6–9. 2010; Kurzweil in Fl. Thailand 12 (1): 119, fig. 66, pl. VIII.3. 2011; Nyan Tun, Wild Orchids of Myanmar: 304 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 145. 2021.

— *Habenaria recurva* Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 420. 1925.

— *Platantheroides lucida* (Wall. ex Lindl.) Szlach. in Richardiana 4: 107. 2004.

— *Habenella lucida* (Wall. ex Lindl.) Szlach. & Kras-Lap. in Richardiana 6: 37. 2006.

Specimens examined. CHIN STATE. Mindat District, township not specified: 7 Aug. 2016, *Y.D. Kim s.n.*, photographic record.

Distribution. SW and S China, Taiwan, Thailand, Laos, Vietnam, Cambodia.

Habenaria pantlingiana Kraenzl., Orchid. Gen. Sp. 1: 892. 1901; Pearce & Cribb, Orchids of Bhutan: 151. 2002; Chen & Cribb in Fl. China 25: 152. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 16. 2009; Fl. China Illustr. 25: figs. 198.1–2 & 200. 2010; Kurzweil in Fl. Thailand 12 (1): 128, fig. 72, pl. IX.4. 2011; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 147. 2021.

— *Habenaria stenopetala* var. *polytricha* Hook.f. in Ann. Roy. Bot. Gard. (Calcutta) 5: 64. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 73 in obs., fig. 38. 1977.

Specimens examined. CHIN STATE. Mindat Township: fide Aung et al. (2020: 87).

Distribution. Himalaya, S China, Taiwan, Thailand, Vietnam, S Japan.

Habenaria pectinata D.Don, Prodr. Fl. Nepal.: 24. 1825; Hook.f., Fl. Brit. India 6: 137. 1890; Pearce & Cribb, Orchids of Bhutan: 151. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Chen & Cribb in Fl. China 25: 153. 2009; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 147. 2021.

— *Orchis pectinata* Sm., Exot. Bot. 2: 77. 1805, nom. illeg.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kingdon-Ward (1959: 62).

Distribution. Pakistan, N India, Nepal, SW China.

Habenaria reniformis (D.Don) Hook.f., Fl. Brit. India 6: 152. 1890; Seidenf. in Dansk Bot. Ark. 31 (3): 132, fig. 85. 1977; Chen & Cribb in Fl. China 25: 149. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 82. 2009; Fl. China Illustr. 25: fig. 193. 2010; Kurzweil in Fl. Thailand 12 (1): 133, fig. 76. 2011; Kurzweil & Lwin in Gard. Bull. Singapore 67 (1): 113, fig. 2C. 2015; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 147. 2021.

— *Listera reniformis* D.Don, Prodr. Fl. Nepal.: 28. 1825.

— *Neottia reniformis* (D.Don) Spreng., Syst. Veg. 3: 707. 1826.

Specimens examined. CHIN STATE. Kanpetlet Township: 1200 m, 2 Sep. 2011, *H. Funakoshi et al.* 085039 (MBK).

Distribution. India, Nepal, SW China, Thailand, Vietnam, Cambodia, W Indonesia.

Habenaria rodgeri W.W.Sm. & Banerji in Rec. Bot. Surv. India 6: 34. 1914; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Ormerod et al. in Phytotaxa 481 (1): 148. 2021.

— *Habenaria rhodocheila* auctt. plur. non Hance: Chen & Cribb in Fl. China 25: 157. 2009; Fl. China Illustr. 25: fig. 208.1–3. 2010; Kurzweil in Fl. Thailand 12 (1): 134, fig. 77, pl. X.2–4. 2011; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 167 (incl. colour photo). 2005; Aung et al. in PhytoKeys 138: 87. 2020.

— *Habenaria erichmichelii* auct., non Christenson: Tanaka et al. in Acta Phytotax. Geobot. 61: 164, fig. 2E. 2011.

Specimens examined. CHIN STATE. Mindat Township: 900 m, 21 Sep. 1956, *F. Kingdon-Ward* 22700 (BM).

Distribution. Endemic to Myanmar (Mandalay Region and Chin State).

Note. Previously considered conspecific with *H. rhodocheila* Hance but appears distinct vegetatively (broadly ovate-lanceolate basal leaves with paler mottling).

Habenaria stenopetala Lindl., Gen. Sp. Orchid. Pl.: 319. 1835; Hook.f., Fl. Brit. India 6: 134. 1890; Seidenf. in Dansk Bot. Ark. 31 (3): 70, fig. 37. 1977; Pearce & Cribb, Orchids of Bhutan: 153. 2002; Chen & Cribb in Fl. China 25: 151. 2009; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 17. 2009; Kurzweil in Fl. Thailand 12 (1): 142, fig. 82, pl. XI.3. 2011; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 148. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 10 Oct 2017, *Y.D. Kim s.n.*, photographic record.

Distribution. India, Himalaya, SW China, Taiwan, Japan, Thailand, Vietnam, Philippines.

Habenaria trichosantha Lindl., Gen. Sp. Orchid. Pl.: 324. 1835; Hook.f., Fl. Brit. India 6: 138. 1890; Grant, Orchids of Burma: 344. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 86, fig. 49. 1977; Pearce & Cribb, Orchids of Bhutan: 153. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Kurzweil in Thai Forest Bull., Bot. (Special Issue): 31. 2009; Kurzweil in Fl. Thailand 12 (1): 145, fig. 84. 2011; Nyan Tun, Wild Orchids of Myanmar: 306 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 82 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 149. 2021.

— *Fimbrorchis trichosantha* (Lindl.) Szlach. in Orchidee (Hamburg) 55: 491. 2004.

Specimens examined. CHIN STATE. Mindat District, township not specified: 22 Oct 2013, *Y.D. Kim s.n.*, photographic record; fide Kang et al. (2017: 82).

Distribution. E Himalaya, Thailand.

Habenaria yuana Tang & F.T.Wang in Bull. Fan Mem. Inst. Biol. 7: 135. 1936; Chen & Cribb in Fl. China 25: 154. 2009; Aung et al. in PhytoKeys 138: 87. 2020; Ormerod et al. in Phytotaxa 481 (1): 150. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 1520-1600 m, 21 Aug. 2013, *K. Fujikawa et al. 094080* (MBK); 1525 m, 30 July 2008, *K. Fujikawa et al. 053010* (MBK); ca. 2000 m, 10 Sep. 2012, *Ling Shein Man 091720* (MBK). Mindat Township: 1670-2445 m, 2 Sep. 2013, *K. Fujikawa et al. 094940* (MBK); 1740 m, 5 Aug. 2008, *K. Fujikawa et al. 053123* (MBK).

Distribution. SW China, Thailand.

Note. Specimens are frequently misidentified as *H. limprichtii* Schltr.

HEMIPILIA Lindley

Hemipilia calophylla C.S.P.Parish & Rehb.f. in J. Bot. 12: 197. 1874; Hook.f., Fl. Brit. India 6: 167. 1890; Grant, Orchids of Burma: 328. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 18, fig. 6. 1977; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 169 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 100. 2009; Pedersen in Fl. Thailand 12 (1): 150, fig. 87. 2011; Nyan Tun, Wild Orchids of Myanmar: 309

(incl. colour photos). 2014; Aung et al. in *PhytoKeys* 138: 87. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 150. 2021.

- *Hemipilia amethystina* Rolfe ex Hook.f. in *Bot. Mag.* 123: t. 7521. 1897.
- *Orchis subrotunda* King & Pantl. in *J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist.* 66: 600. 1897.
- *Galearis subrotunda* (King & Pantl.) P.F.Hunt in *Kew Bull.* 26: 172. 1971.

Specimens examined. CHIN STATE. Kanpetlet Township: 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081284* (MBK); 2065 m, 24 Aug. 2013, *K. Fujikawa et al. 094370* (MBK); 2400 m, 25 May 2007, *N. Kuroiwa et al. 051277* (MBK). Mindat District, township not specified: 1980 m, 17 June 1956, *F. Kingdon-Ward 22358* (BM).

Distribution. SW China, Thailand, Vietnam.

Hemipilia cordifolia Lindl., *Gen. Sp. Orchid. Pl.*: 296. 1835; Hook.f., *Fl. Brit. India* 6: 167. 1890; Pearce & Cribb, *Orchids of Bhutan*: 157, fig. 42. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 81. 2003; Chen et al. in *Fl. China* 25: 98. 2009; *Fl. China Illustr.* 25: figs. 142 & 143.3–5. 2010; Aung et al. in *PhytoKeys* 138: 87. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 150. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1924, *R.E. Cooper 6048* (E, SING).

Distribution. N India, Nepal, SW China, Taiwan.

HERMINIUM Linnaeus

Herminium fallax (Lindl.) Hook.f., *Fl. Brit. India* 6: 129. 1890; Raskoti et al. in *Cladistics* 32: 210. 2016; Raskoti et al. in *PhytoKeys* 79: 35, figs. 5D, 6J, 7J, 8J, 9J, 10I & 11F. 2017; Aung et al. in *PhytoKeys* 138: 88. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 151. 2021.

- *Peristylus fallax* Lindl., *Gen. Sp. Orchid. Pl.*: 298. 1835; Pearce & Cribb, *Orchids of Bhutan*: 176. 2002; Chen et al. in *Fl. China* 25: 140. 2009; *Fl. China Illustr.* 25: fig. 184.4–6. 2010.
- *Habenaria fallax* (Lindl.) King & Pantl. in *Ann. Roy. Bot. Gard. (Calcutta)* 8: 325. 1898.
- *Platanthera fallax* (Lindl.) Schltr. in *Repert. Spec. Nov. Regni Veg. Beih.* 4: 111. 1919.

Specimens examined. CHIN STATE. Kanpetlet Township: 7 Aug. 2008, *S. Yasuda 060088* (MBK); 1900 m, 11 Aug. 2008, *S. Yasuda 053613* (MBK); 2400 m, 21 Aug. 2013, *K. Fujikawa et al. 094119* (MBK); 3070 m, 30 July 2013, *Mu Mu Aung et al. 092824* (MBK). Mindat Township: 2000 m, 5 Aug. 2008, *S. Yasuda 053610A* (MBK). Mindat District, township not specified: *Kurzweil s.n.*, photographic record; fide Kang et al. (2017: 92).

Distribution. Nepal, NE India, Bhutan, SW China.

Note. The specimens *Yasuda 053610A*, *053613* & *060088* and *Fujikawa et al. 094119* differ from typical *H. fallax* by their broader leaves and many-flowered inflorescences with flexible and wiry axes; floral material is identical though. Further studies are needed.

Herminium kamengense A.N.Rao in J. Econ. Tax. Bot. 25 (2): 287. 2001; Chen et al. in Fl. China 25: 119. 2009; Raskoti et al. in PhytoKeys 79: 47, figs. 9P & 10E. 2017; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 152. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 10 Aug. 2016, *Kurzweil s.n.*, photographic record, det. B.B. Raskoti; 15 Aug. 2018, *Y.D. Kim s.n.*, photographic record.

Distribution. Himalaya, SW China.

Herminium lanceum (Thunb. ex Sw.) Vuijk in Blumea 11: 228. 1961; Seidenf. in Dansk Bot. Ark. 31 (3): 20, fig. 7. 1977; Pearce & Cribb, Orchids of Bhutan: 162. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Chen et al. in Fl. China 25: 122. 2009; Fl. China Illustr. 25: figs. 166.6 & 168. 2010; Pedersen in Fl. Thailand 12 (1): 152, fig. 88, pl. XII.3. 2011; Raskoti et al. in PhytoKeys 79: 48, figs. 5E, 6F, 7F, 7Q, 8F, 9N & 11E. 2017; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 152. 2021.

— *Ophrys lancea* Thunb. ex Sw. in Kongl. Vetensk. Acad. Nya Handl. 21: 223. 1800.

— *Aceras angustifolium* Lindl. in Edwards's Bot. Reg. 18: sub t. 1525. 1832; Grant, Orchids of Burma: 324. 1895 [as *Accras angustifolia*].

— *Herminium angustifolium* (Lindl.) Ridl. in H.O.Forbes, Nat. Wand. East. Archip.: 519. 1885; Hook.f., Fl. Brit. India 6: 129. 1890.

— *Spiranthes lancea* (Thunb. ex Sw.) Bakh.f. & Steenis in Blumea 6: 361. 1950.

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Aug. 2007, *Ling Shein Man 055366* (MBK); 9 Aug. 2008, *S. Yasuda 060085* (MBK); 15 Aug. 2008, *S. Yasuda 060087* (MBK); 2075 m, 20 Aug. 2013, *K. Fujikawa et al. 094019* (MBK); 2300 m, 14 Sep. 2011, *H. Funakoshi et al. 085329* (MBK); 2400 m, 29 July 2013, *Mu Mu Aung et al. 092759* (MBK); 2680 m, 22 Aug. 2013, *K. Fujikawa et al. 094230* (MBK); *094254* (MBK); 1830 m, Sep. 1956, *Maung Gale-2 & Chit Ko Ko 5763* (RAF). Mindat Township: 1670-2445 m, 2 Sep. 2013 *K. Fujikawa et al. 094935* (MBK); 2485 m, 31 Aug. 2013, *K. Fujikawa et al. 094796* (MBK); 2550 m, 1 Sep. 2013, *K. Fujikawa et al. 094876* (MBK); 1370 m, 8 Oct. 1956, *F. Kingdon-Ward 22724* (BM). Mindat District, township not specified: 2135 m, 2 Sep. 1956, *F. Kingdon-Ward 22612* (BM); *22613* (BM); 2530 m, 27 Oct. 1956, *F. Kingdon-Ward 22784* (BM), ident. uncertain [largely fruiting].

Distribution. Pakistan, N India, Nepal, China, Mongolia, Japan, Korea, Thailand, Vietnam, Peninsular Malaysia, Indonesia, Philippines, New Guinea.

Herminium latilabre (Lindl.) X.H.Jin et al. in Cladistics 32: 210. 2016; Raskoti et al. in PhytoKeys 79: 51, figs. 5B, 10C, 11H & 14. 2017; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 152. 2021.

— *Platanthera latilabris* Lindl., Gen. Sp. Orchid. Pl.: 289. 1835; Pearce & Cribb, Orchids of Bhutan: 190. 2002; Chen et al. in Fl. China 25: 111. 2009; Fl. China Illustr. 25: fig. 160.5–7. 2010.

— *Habenaria latilabris* (Lindl.) Hook.f., Fl. Brit. India 6: 153. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Dec. 2002, *J. Murata et al.* 025478 (MBK); ca. 1676 m, 4 Nov. 2002, *Ling Shein Man & Cho Cho Win* 024450 (MBK); ca. 1750 m, 23 Oct. 2011, *Ling Shein Man* 087624 (MBK); ca. 1750–2000 m, 2 Dec. 2002, *J. Murata et al.* 025132 (MBK); ca. 2000 m, 20 Sep. 2012, *Ling Shein Man* 091759 (MBK); 2270 m, 10 Oct. 2008, *S. Yasuda* 053625 (MBK). Mindat Township: 2550 m, 1 Sep. 2013, *K. Fujikawa et al.* 094832 (MBK); 094832A (MBK); 094856 (MBK). Mindat District, township not specified: 2135 m, 5 Sep. 1956, *F. Kingdon-Ward* 22671 (BM), det. P. Efimov; 1525 m, 24 Oct. 1956, *F. Kingdon-Ward* 22741 (BM).

Distribution. Pakistan, N India, Nepal, Bhutan, SW China.

Note. Well known in the genus *Platanthera* but recently transferred to *Herminium* (Raskoti et al. 2017: 51).

Herminium mannii (Rchb.f.) Tang & F.T.Wang in Bull. Fan Mem. Inst. Biol. 7: 128. 1936; Raskoti et al. in Cladistics 32: 210. 2016; Raskoti et al. in PhytoKeys 79: 56, figs. 6Q & 10H. 2017; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 153. 2021.

— *Coeloglossum mannii* Rchb.f. in Linnaea 41: 54. 1877.

— *Habenaria gracillima* Hook.f., Fl. Brit. India 6: 163. 1890.

— *Platanthera mannii* (Rchb.f.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 114. 1919.

— *Peristylus mannii* (Rchb.f.) Mukerjee in Notes Roy. Bot. Gard. Edinburgh 21: 153. 1953; Seidenf. in Dansk Bot. Ark. 31 (3): 45, fig. 19. 1977; Kurzweil in Nordic J. Bot. 28: 29, fig. 5. 2010; Kurzweil in Fl. Thailand 12 (1): 240, fig. 141, pl. XIX.3. 2011; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Chen et al. in Fl. China 25: 141. 2009; Fl. China Illustr. 25: fig. 184.7–8. 2010.

Specimens examined. CHIN STATE. Kanpetlet Township: 2075 m, 20 Aug. 2013, *K. Fujikawa et al.* 094040 (MBK). Mindat Township: 2450–2545 m, 31 Aug. 2013, *K. Fujikawa et al.* 094724 (MBK). Mindat District, township not specified: 2135 m, 5 Sep. 1956, *F. Kingdon-Ward* 22684 (BM).

Distribution. E Nepal, NE India, SW China, Thailand.

Herminium quinquelobum King & Pantl. in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 65: 130. 1896; Pearce & Cribb, Orchids of Bhutan: 167. 2002; Chen et al. in Fl. China 25: 121. 2009; Raskoti et al. in PhytoKeys 79: 65, figs. 5H, 6O, 7O, 8O & 9O. 2017; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 153. 2021.

— *Monorchis quinqueloba* (King & Pantl.) O.Schwarz in Mitt. Thüring. Bot. Ges. 1: 96. 1949.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 88).

Distribution. Thailand, Peninsular Malaysia, W Indonesia (Java).

HOLCOGLOSSUM Schlechter

Holcoglossum amesianum (Rchb.f.) Christenson in Notes Roy. Bot. Gard. Edinburgh 44: 255. 1987; Seidenf. in Opera Bot. 95: 308, fig. 201, pl. XXXVIa. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 170 (incl. colour photo). 2005; Jin & Wood in Fl. China 25: 499. 2009; Fl. China Illustr. 25: fig. 635.6. 2010; Nyan Tun, Wild Orchids of Myanmar: 310–311 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 88. 2020; Ormerod et al. in Phytotaxa 481 (1): 154. 2021.

— *Vanda amesiana* Rchb.f. in Gard. Chron. ser. 3, 1: 764. 1887; Grant, Orchids of Burma: 249. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 1552 m, 26 Feb. 2007, *K. Fujikawa 050134* (MBK).

Distribution. NE India, Bangladesh, SW China, Thailand, Laos, Vietnam, Cambodia.

LECANORCHIS Blume

indet.

Specimens examined. CHIN STATE. Kanpetlet Township: 19 May 2008, *Khin Myo Htwe 080977* (MBK).

Note. The specimen cannot be identified to the species level as it is in the fruiting stage.

LIPARIS Richard, nom. cons.

Liparis cespitosa (Lam.) Lindl. in Bot. Reg. 11: sub t. 882. 1825; Seidenf. in Dansk Bot. Ark. 31 (1): 61, fig. 38. 1976; Pearce & Cribb, Orchids of Bhutan: 204. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003 [as *caespitosa*]; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 173 (incl. colour photo). 2005 [as *caespitosa*]; Chen et al. in Fl. China 25: 222. 2009; Fl. China Illustr. 25: figs. 282.4–6 & 295. 2010; Aung et al. in PhytoKeys 138: 89. 2020; Ormerod et al. in Phytotaxa 481 (1): 157. 2021.

— *Epidendrum cespitosum* Lam., Encycl. 1: 187. 1783.

— *Malaxis cespitosa* (Lam.) Thouars, Hist. Orchid.: t. 90. 1822.

— *Liparis auriculata* Rchb.f. in Flora 55: 277. 1872, nom. illeg.

— *Liparis pusilla* Ridl. in J. Linn. Soc., Bot. 22: 294. 1886; Hook.f., Fl. Brit. India 5: 701. 1890.

— *Liparis prainii* Hook.f. in Hooker's Icon. Pl. 19: t. 1857A. 1889; Hook.f., Fl. Brit. India 5: 700. 1890.

Specimens examined. CHIN STATE. Mindat Township: 1670–2445 m, 2 Sep. 2013, *K. Fujikawa et al. 094951* (MBK).

Distribution. Widespread throughout the Paleotropics.

Liparis deflexa Hook.f., Fl. Brit. India 5: 697. 1890; Seidenf. in Dansk Bot. Ark. 31 (1): 27, fig. 15. 1976; Pearce & Cribb, Orchids of Bhutan: 198. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Aung et al. in PhytoKeys 138: 89. 2020; Ormerod et al. in Phytotaxa 481 (1): 158. 2021.

— *Leptorkis deflexa* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 671. 1891.

— *Liparis prazeri* King & Pantl. in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 66: 582. 1897.

Specimens examined. CHIN STATE. Mindat Township: fide Aung et al. (2020: 89).

Distribution. India, ? Laos, ? Vietnam, ? Cambodia.

Liparis jovispluvii C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 154. 1874; Hook.f., Fl. Brit. India 5: 697. 1890; Grant, Orchids of Burma: 21. 1895; Seidenf. in Dansk Bot. Ark. 31 (1): 43, fig. 25. 1976; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Aung et al. in PhytoKeys 138: 89. 2020; Ormerod et al. in Phytotaxa 481 (1): 157. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 30 July 2008, *K. Fujikawa et al.* 053029 (MBK); 9 Aug. 2008, *S. Yasuda* 060061 (MBK); 060082 (MBK); 914 m, 25 July 2006, *Ling Shein Man* 052053 (MBK); 1070 m, 6 July 2013, *Ling Shein Man* 093005 (MBK); 1150 m, 29 July 2008, *S. Yasuda* 053609 (MBK). Mindat Township: 1450 m, 11 July 1956, *F. Kingdon-Ward* 22466 (BM); 1220-1525 m, 22 July 1956, *F. Kingdon-Ward* 22517 p.p. (BM).

Distribution. Thailand, Cambodia.

Liparis odorata (Willd.) Lindl., Gen. Sp. Orchid. Pl.: 26. 1830; Pearce & Cribb, Orchids of Bhutan: 201. 2002; Chen et al. in Fl. China 25: 218. 2009; Fl. China Illustr. 25: fig. 289.6–8. 2010; Aung et al. in PhytoKeys 138: 89. 2020; Ormerod et al. in Phytotaxa 481 (1): 160. 2021.

— *Malaxis odorata* Willd., Sp. Pl. 4: 91. 1805.

— *Liparis paradoxa* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 218. 1861; Hook.f., Fl. Brit. India 5: 697. 1890; Grant, Orchids of Burma: 23. 1895; Seidenf. in Dansk Bot. Ark. 31 (1): 38, fig. 22. 1976; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 175 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 319 (incl. colour photos). 2014.

— *Liparis parishii* (Hook.f.) Hook.f., Fl. Brit. India 6: 182. 1890; Grant, Orchids of Burma: 24. 1895; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003.

Specimens examined. CHIN STATE. Kanpetlet Township: 4 Dec. 2005, *Ling Shein Man* 022 (MBK); 26 June 2008, *S. Yasuda* 060062 (MBK); 29 July 2008, *S. Yasuda* 060083 (MBK); 9 Aug. 2008, *S. Yasuda* 060075 (MBK); 060084 (MBK); 1400-1600 m, 26 June 2009, *N. Tanaka & T. Yukawa* 081210 (MBK). Mindat Township: 1220-1525 m, 22 July 1956, *F. Kingdon-Ward* 22516 (BM); 22517 p.p. (BM).

Distribution. India, Nepal, Bhutan, Bangladesh, China, Taiwan, Japan, Thailand, Laos,

Cambodia, Guam.

Liparis regnieri Finet in Bull. Soc. Bot. France 55: 338. 1908; Seidenf. in Dansk Bot. Ark. 31 (1): 20, fig. 8. 1976; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 175 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 220. 2009; Nyan Tun, Wild Orchids of Myanmar: 320 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 89. 2020; Ormerod et al. in Phytotaxa 481 (1): 161. 2021.

Specimens examined. CHIN STATE. Mindat Township: 1220 m, 12 July 1956, *F. Kingdon-Ward 22473* (BM).

Distribution. SW China, Thailand, Vietnam.

Liparis siamensis Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 371. 1925; Seidenf. in Dansk Bot. Ark. 31 (1): 24, fig. 13. 1976; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 175 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 218. 2009; Aung et al. in PhytoKeys 138: 90. 2020; Ormerod et al. in Phytotaxa 481 (1): 161. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 760 m, 1 Sep. 2011, *H. Funakoshi et al. 085008* (MBK).

Distribution. SW China, Thailand, Laos.

Liparis tchangii Schltr. in Repert. Spec. Nov. Regni Veg. 19: 380. 1924; Chen et al. in Fl. China 25: 217. 2009; Fl. China Illustr. 25: fig. 289.4–5. 2010; Aung et al. in PhytoKeys 138: 90. 2020; Ormerod et al. in Phytotaxa 481 (1): 162. 2021.

— *Liparis sutepensis* Rolfe ex Downie in Bull. Misc. Inform. Kew 1925: 371. 1925; Seidenf. in Dansk Bot. Ark. 31 (1): 27, fig. 14. 1976; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 176 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Mindat District, township not specified: 7 Aug. 2016, *Y.D. Kim s.n.*, photographic record.

Distribution. SW China, Thailand, Laos, Vietnam.

LUISIA Gaudichaud

Luisia brachystachys (Lindl.) Blume, Rumphia 4: 50. 1849; Hook.f., Fl. Brit. India 6: 23. 1890; Grant, Orchids of Burma: 235. 1895; Seidenf. in Opera Bot. 95: 278, fig. 179, pl. XXXIc. 1988; Pearce & Cribb, Orchids of Bhutan: 527. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 82. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 178 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 490. 2009; Aung et al. in PhytoKeys 138: 90. 2020; Ormerod et al. in Phytotaxa 481 (1): 163. 2021.

— *Mesoclastes brachystachys* Lindl., Gen. Sp. Orchid. Pl.: 45. 1830.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 90).

Distribution. Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Luisia filiformis Hook.f., Fl. Brit. India 6: 23. 1890; Seidenf. in Opera Bot. 95: 284, fig. 184, pl. XXXIId. 1988; Pearce & Cribb, Orchids of Bhutan: 528. 2002; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 178 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 490. 2009; Aung et al. in PhytoKeys 138: 90. 2020; Ormerod et al. in Phytotaxa 481 (1): 163. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 90).

Distribution. India, E Himalaya, SW China, Thailand, Laos, Vietnam, Cambodia.

MALAXIS Solander ex Swartz

Malaxis cylindrostachya (Lindl.) Kuntze, Revis. Gen. Pl. 2: 673. 1891; Pearce & Cribb, Orchids of Bhutan: 218. 2002; Ormerod et al. in Phytotaxa 481 (1): 165. 2021.

— *Dienia cylindrostachya* Lindl., Gen. Sp. Orchid. Pl.: 22. 1830; Chen & Wood in Fl. China 25: 235. 2009; Aung et al. in PhytoKeys 138: 83. 2020.

— *Microstylis cylindrostachya* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 207. 1861; Hook.f., Fl. Brit. India 5: 689. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 2680-3053 m, 27 Aug. 2013, *K. Fujikawa et al. 094517* (MBK); 2800 m, 13 Aug. 2008, *M. Matsumoto 053614* (MBK); 3070 m, 30 July 2013, *Mu Mu Aung et al. 092798* (MBK). Mindat Township: 2550 m, 1 Sep. 2013, *K. Fujikawa et al. 094853* (MBK). Mindat District, township not specified: 2000 m, 14 Aug. 2016, *Thet Yu Nwe TY 61* (RAF).

Distribution. Pakistan, N India, Nepal, S and SW China.

NEOTTIA Guettard

Neottia nyinyikyawii X.H.Jin et al. in Phytotaxa 446 (3): 205. 2020; Ormerod et al. in Phytotaxa 481 (1): 168. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 2800-3070 m, 3 July 2018, *Jin et al. PT-19864* (holotype: RAF; isotypes: XTBG, PE).

Distribution. Endemic to Natma Taung.

Neottia cf. pinetorum (Lindl.) Szlach. in *Fragm. Florist. Geobot., Suppl.* 3: 118. 1995; Chen et al. in *Fl. China* 25: 192. 2009; *Fl. China Illustr.* 25: 258. 2010; Aung et al. in *PhytoKeys* 138: 91. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 168. 2021.

— *Listera pinetorum* Lindl. in *J. Proc. Linn. Soc., Bot.* 1: 175. 1857; Hook.f., *Fl. Brit. India* 6: 104. 1890; Pearce & Cribb, *Orchids of Bhutan*: 52, fig. 10a–j. 2002.

Specimens examined. CHIN STATE. Mindat District, township not specified: 14 Aug. 2016, *Thet Yu Nwe TY 65* (RAF), ident. uncertain.

Distribution. N India, Himalaya, SW China.

NERVILIA Commerson ex Gaudichaud, nom. cons.

Nervilia concolor (Blume) Schltr. in *Bot. Jahrb. Syst.* 45: 404. 1911; Kang et al., *Seed Pl. Natma Taung*: 85 (incl. colour photos). 2017; Aung et al. in *PhytoKeys* 138: 92. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 169. 2021.

— *Cordyla concolor* Blume, *Bijdr. Fl. Ned. Ind.*: 417. 1825.

— *Nervilia aragoana* Gaudich., *Voy. Uranie*: 422. 1829; Seidenf. in *Dansk Bot. Ark.* 32 (2): 164, figs. 103–105. 1978; Pearce & Cribb, *Orchids of Bhutan*: 61. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 83. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 188 (incl. colour photo). 2005; Chen & Gale in *Fl. China* 25: 200. 2009; *Fl. China Illustr.* 25: figs. 266 & 267.6–7. 2010; Gale & Watthana in *Fl. Thailand* 12 (2): 555, fig. 301, pl. XLVII.1–3. 2014; Nyan Tun, *Wild Orchids of Myanmar*: 334 (incl. colour photo). 2014.

— *Pogonia carinata* (Roxb.) Lindl., *Gen. Sp. Orchid. Pl.*: 414. 1840; Hook.f., *Fl. Brit. India* 6: 121. 1890; Grant, *Orchids of Burma*: 352. 1895.

— *Pogonia flabelliformis* Lindl., *Gen. Sp. Orchid. Pl.*: 415. 1840; Hook.f., *Fl. Brit. India* 6: 121. 1890; Grant, *Orchids of Burma*: 353. 1895.

— *Pogonia concolor* (Blume) Blume, *Mus. Bot.* 1: 32. 1849.

— *Pogonia scottii* Rehb.f. in *Flora* 55: 276. 1872; Hook.f., *Fl. Brit. India* 6: 120. 1890; Grant, *Orchids of Burma*: 354. 1895.

— *Nervilia flabelliformis* (Lindl.) Tang & F.T.Wang in *Acta Phytotax. Sin.* 1: 68. 1951.

Specimens examined. CHIN STATE. Kanpetlet Township: 775 m, 10 June 2008, *S. Yasuda 053616* (MBK); 914 m, 25 July 2006, *Ling Shein Man 052057* (MBK); 1070 m, 6 July 2013, *Ling Shein Man 093004* (MBK). Mindat Township: 1220 m, 11 May 1956, *F. Kingdon-Ward 22208* (BM). MAGWAY REGION. Saw Township: 15 May 2007, *N. Tanaka et al. 051106* (MBK); 4 June 2012, *K. Fujikawa et al. 089698* (MBK).

Distribution. Very widespread in the tropics and subtropics of Asia and ranging to the islands of the Pacific Ocean.

Nervilia plicata (Andrews) Schltr. in *Bot. Jahrb. Syst.* 45: 403. 1911; Seidenf. in *Dansk Bot. Ark.* 32 (2): 156, fig. 100. 1978; Pearce & Cribb, *Orchids of Bhutan*: 60. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 83. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 188

(incl. colour photo). 2005; Chen & Gale in Fl. China 25: 200. 2009; Fl. China Illustr. 25: figs. 267.1–3 & 268. 2010; Gale & Watthana in Fl. Thailand 12 (2): 566, fig. 307, pl. XLIX.1–3. 2014; Nyan Tun, Wild Orchids of Myanmar: 335 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 171. 2021.

— *Arethusa plicata* Andrews, Bot. Repos. 5: pl. 321. 1803.

— *Pogonia plicata* (Andrews) Lindl., Gen. Sp. Orchid. Pl.: 415. 1840; Hook.f., Fl. Brit. India 6: 119. 1890.

— *Pogonia velutina* C.S.P.Parish & Rehb.f. in Trans. Linn. Soc. London 30: 142. 1874; Hook.f., Fl. Brit. India 6: 119. 1890; Grant, Orchids of Burma: 355. 1895.

— *Nervilia velutina* (C.S.P.Parish & Rehb.f.) Schltr. in Bot. Jahrb. Syst. 45: 403. 1911.

Specimens examined. CHIN STATE. Mindat Township: 1465 m, 28 Apr. 1956, *F. Kingdon-Ward 22166* (BM).

Distribution. Pakistan, India, Nepal, Bhutan, Bangladesh, Andaman Islands, China, Taiwan, Thailand, Laos, Vietnam, Malaysia, Indonesia, Philippines, New Guinea; N Australia.

Nervilia simplex (Thouars) Schltr. in Bot. Jahrb. Syst. 45: 401. 1911; Ormerod et al. in Phytotaxa 481 (1): 171. 2021.

— *Arethusa simplex* Thouars, Hist. Orchid.: t. 24. 1822.

— *Pogonia simplex* (Thouars) Rehb.f., Xenia Orchid. 2: 92. 1865.

— *Bolborchis crocifformis* Zoll. & Moritzi in A.Moritzi, Syst. Verz. Java: 89. 1846.

— *Nervilia crocifformis* (Zoll. & Moritzi) Seidenf. in Dansk Bot. Ark. 32 (2): 151. 1978; Pearce & Cribb, Orchids of Bhutan: 57. 2002; Chen & Gale in Fl. China 25: 199. 2009; Kang et al., Seed Pl. Natma Taung: 86 (incl. colour photos). 2017.

— *Pogonia crispata* Blume, Mus. Bot. 1: 32. 1849.

— *Nervilia crispata* (Blume) Schltr. ex K.Schum. & Lauterb., Fl. Schutzgeb. Südsee: 240. 1900.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kang et al. (2017: 86).

Distribution. Tropical and subtropical Africa, Asia and Australia to the islands of the SW Pacific.

Note. Well known as *N. crocifformis*, but the name *N. simplex* is older.

OBERONIA Lindley

Oberonia anthropophora Lindl., Gen. Sp. Orchid. Pl.: 16. 1830; Hook.f., Fl. Brit. India 5: 684. 1888; Grant, Orchids of Burma: 28. 1895; Seidenf. in Dansk Bot. Ark. 33 (1): 33, fig. 23. 1978; Kress et al. in Contr. U.S. Natl. Herb. 45: 83. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 189 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 240. 2009; Fl. China Illustr. 25: fig. 313.4–5. 2010; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 172. 2021.

— *Malaxis anthropophora* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 215. 1861.

— *Iridorkis anthropophora* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 669. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 92).

Distribution. E Himalaya, NE India, S China, Thailand, Vietnam, Peninsular Malaysia.

Oberonia cavaleriei Finet in Bull. Soc. Bot. France 55: 334. 1908; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Chen et al. in Fl. China 25: 244. 2009; Fl. China Illustr. 25: fig. 319.5–6. 2010; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 173. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1928-1929, *R. Unwin 13505* (K).

Distribution. N India, Nepal, S and SW China, ? Thailand, ? Vietnam.

Oberonia falconeri Hook.f. in Hooker's Icon. Pl. 18: t. 1780. 1888; Hook.f., Fl. Brit. India 5: 678. 1888; Seidenf. in Dansk Bot. Ark. 33 (1): 22, fig. 12. 1978; Pearce & Cribb, Orchids of Bhutan: 224. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 190 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 241. 2009; Fl. China Illustr. 25: fig. 318.3–4. 2010; Nyan Tun, Wild Orchids of Myanmar: 336 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 173. 2021.

— *Iridorkis falconeri* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 669. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 92).

Distribution. India, Himalaya, SW China, Thailand, Laos, Vietnam, Peninsular Malaysia.

Oberonia forcipata Lindl., Fol. Orchid. 8: 2. 1859; Hook.f., Fl. Brit. India 5: 681. 1888; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 174. 2021.

— *Malaxis forcipata* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 209. 1861.

— *Iridorkis forcipata* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 669. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 92).

Distribution. Sri Lanka.

Oberonia gammiei King & Pantl. in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 66: 578. 1897; Seidenf. in Dansk Bot. Ark. 33 (1): 19, fig. 8. 1978; Chen et al. in Fl. China 25: 243. 2009; Fl. China Illustr. 25: fig. 316.1–2. 2010; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 174. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 92).

Distribution. NE India, Bangladesh, S and SW China, Thailand, Laos, Vietnam, Cambodia.

Oberonia insectifera Hook.f. in Hooker's Icon. Pl. 21: t. 2004. 1890; Hook.f., Fl. Brit. India 6: 180. 1890; Aung et al. in PhytoKeys 138: 92. 2020; Ormerod et al. in Phytotaxa 481 (1): 175. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 92).

Distribution. Widespread from Thailand through Malesia to Queensland (Australia).

Oberonia pachyrachis Rchb.f. ex Hook.f., Fl. Brit. India 5: 681. 1888; Seidenf. in Dansk Bot. Ark. 33 (1): 11, fig. 4. 1978; Pearce & Cribb, Orchids of Bhutan: 226. 2002; Chen et al. in Fl. China 25: 244. 2009; Fl. China Illustr. 25: fig. 319.3–4. 2010; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in Phytotaxa 481 (1): 176. 2021.

— *Iridorkis pachyrachis* (Rchb.f. ex Hook.f.) Kuntze, Revis. Gen. Pl. 2: 669. 1891.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 93).

Distribution. N India, Himalaya, SW China, Thailand, Vietnam.

Oberonia pyrulifera Lindl., Fol. Orchid. 8: 3. 1859; Hook.f., Fl. Brit. India 5: 678. 1888; Seidenf. in Dansk Bot. Ark. 25 (3): 38, fig. 20. 1968; Seidenf. in Dansk Bot. Ark. 33 (1): 23, fig. 13. 1978; Ansari & Balakrishnan in Orchid Monogr. 4: 30, fig. 26. 1990; Pearce & Cribb, Orchids of Bhutan: 226. 2002; Chen et al. in Fl. China 25: 241. 2009; Fl. China Illustr. 25: fig. 316.3–4. 2010; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in Phytotaxa 481 (1): 176. 2021.

— *Malaxis pyrulifera* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 211. 1861.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 2350-2550 m, 7 Dec. 2002, *J. Murata et al. 024737* (MBK); ca. 2743 m, 19 Nov. 2011, *Ling Shein Man 087843* (MBK). Mindat Township: 2450-2545 m, 31 Aug. 2013, *K. Fujikawa et al. 094771* (MBK). Mindat District, township not specified: 2590 m, 28 Oct 1956, *F. Kingdon-Ward 22783* (BM), ident. uncertain.

Distribution. Nepal, NE India, SW China, Thailand.

OTOCHILUS Lindley

Otochilus albus Lindl., Gen. Sp. Orchid. Pl.: 35. 1830; Hook.f., Fl. Brit. India 5: 843. 1890; Seidenf. in Opera Bot. 89: 91, fig. 51. 1986; Pearce & Cribb, Orchids of Bhutan: 342. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Vaddhanaphuti, Field Guide Wild Orchids of

Thailand, ed. 4: 192 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 340. 2009; Suddee in Fl. Thailand 12 (2): 570, fig. 308. 2014; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in Phytotaxa 481 (1): 179. 2021.

— *Coelogyne alba* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 236. 1862.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700-2030 m, 21 May 2004, *N. Tanaka et al.* 030962 (MBK); 031018 (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa* 081268 (MBK); 2040 m, 19 May 2012, *K. Fujikawa et al.* 089044 (MBK). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al.* 089207 (MBK). Mindat District, township not specified: 19 May 2007, *Homan 70* (TNS).

Distribution. Nepal, NE India, SW China, Thailand, Vietnam.

Otochilus fuscus Lindl., Gen. Sp. Orchid. Pl.: 35. 1830; Hook.f., Fl. Brit. India 5: 844. 1890; Grant, Orchids of Burma: 164. 1895; Seidenf. in Opera Bot. 89: 90, fig. 50, pl. VIIa. 1986; Pearce & Cribb, Orchids of Bhutan: 342, pl. 14 [bottom-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 192 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 340. 2009; Fl. China Illustr. 25: fig. 466.1-3. 2010; Suddee in Fl. Thailand 12 (2): 572, fig. 309. 2014; Nyan Tun, Wild Orchids of Myanmar: 341 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in Phytotaxa 481 (1): 179. 2021.

— *Coelogyne fusca* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 236. 1861.

Specimens examined. CHIN STATE. Kanpetlet Township: 30 Dec. 2007, *S. Yasuda 053819* (MBK).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Laos, Vietnam, Cambodia.

Otochilus lancilabius Seidenf. in Opera Bot. 89: 94, fig. 53. 1986; Pearce & Cribb, Orchids of Bhutan: 343, fig. 82, pl. 15 [top left]. 2002; Chen & Wood in Fl. China 25: 340. 2009; Fl. China Illustr. 25: fig. 467. 2010; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in Phytotaxa 481 (1): 179. 2021.

— *Otochilus albus* var. *lancilabius* (Seidenf.) Pradhan, Indian Orchids: Guide Identif. & Cult. 2: 706. 1979.

Specimens examined. CHIN STATE. Kanpetlet Township: 2300-2500 m, 7 Dec. 2002, *J. Murata et al.* 025647 (MBK, TI).

Distribution. N India, Nepal, SW China, Laos, Vietnam.

Otochilus porrectus Lindl., Gen. Sp. Orchid. Pl.: 36. 1830; Hook.f., Fl. Brit. India 5: 844. 1890; Grant, Orchids of Burma: 164. 1895; Seidenf. in Opera Bot. 89: 91, fig. 52, pl. VIIb. 1986; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Chen & Wood in Fl. China 25: 340. 2009; Suddee in Fl. Thailand 12 (2): 574, fig. 310. 2014; Aung et al. in PhytoKeys 138: 93. 2020; Ormerod et al. in

Phytotaxa 481 (1): 180. 2021.

— *Coelogyne porrecta* (Lindl.) Rehb.f. in Ann. Bot. Syst. (Walpers) 6: 236. 1861.

Specimens examined. CHIN STATE. Mindat Township: 2135 m, 20 May 1956, *F. Kingdon-Ward 22245* (BM).

Distribution. Himalaya, NE India, SW China, Thailand, Vietnam.

PACHYSTOMA Blume

Pachystoma pubescens Blume, Bijdr. Fl. Ned. Ind.: 376. 1825; Seidenf. in Opera Bot. 89: 54, fig. 26. 1986; Pearce & Cribb, Orchids of Bhutan: 300, fig. 68. 2002; Chen & Wood in Fl. China 25: 286. 2009; Fl. China Illustr. 25: figs. 410 & 441.7–8. 2010; Kurzweil in Fl. Thailand 12 (2): 576, fig. 311, pl. L.2. 2014; Aung et al. in PhytoKeys 138: 94. 2020; Ormerod et al. in Phytotaxa 481 (1): 180. 2021.

— *Pachystoma senile* (Lindl.) Rehb.f. in Bonplandia 3: 251. 1855; Hook.f., Fl. Brit. India 5: 812. 1890; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003.

— *Pachychilus pubescens* (Blume) Blume, Mus. Bot. 2: 173. 1856.

— *Pachystoma nutans* S.C.Chen & Luo in Acta Phytotax. Sin. 40: 174. 2002.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 602 m, 7 Mar. 2006, *H. Nagamasu et al. 035472* (MBK). Mindat Township: 1465 m, 12 Mar. 1956, *F. Kingdon-Ward 21786* (BM).

Distribution. Sri Lanka, India, Nepal, Bhutan, S and SW China, Taiwan, Andaman and Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Philippines, New Guinea; N Australia, New Caledonia.

PANISEA (Lindley) Lindley

Panisea tricallosa Rolfe in Bull. Misc. Inform. Kew 1901: 148. 1901; Seidenf. in Opera Bot. 89: 86, fig. 46, pl. VIc. 1986; Lund in Nordic J. Bot. 7: 520, figs. 11–16. 1987; Pearce & Cribb, Orchids of Bhutan: 347. 2002; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 193 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 333. 2009; Suddee in Fl. Thailand 12 (2): 581, fig. 314. 2014; Aung et al. in PhytoKeys 138: 94. 2020; Ormerod et al. in Phytotaxa 481 (1): 181. 2021.

— *Panisea pantlingii* (Pfitzer) Schltr., Orchideen Beschreib. Kult. Zücht.: 155. 1914.

— *Sigmatogyne pantlingii* Pfitzer in H.G.A.Engler (ed.), Pflanzenr., IV, 50 (32): 134. 1907.

— *Sigmatogyne tricallosa* (Rolfe) Pfitzer in H.G.A.Engler (ed.), Pflanzenr., IV, 50 (32): 133. 1907.

Specimens examined. CHIN STATE. Kanpetlet Township: 1750 m, 26 Apr. 2003, *J. Murata et al. 029703* (MBK).

Distribution. Nepal, Bhutan, NE India, S and SW China, Thailand, Laos, Vietnam, Peninsular Malaysia.

Panisea uniflora (Lindl.) Lindl., *Fol. Orchid.* 5: 2. 1854; Hook.f., *Fl. Brit. India* 5: 842. 1890; Seidenf. in *Opera Bot.* 89: 88, fig. 47, pl. VI d. 1986; Lund in *Nordic J. Bot.* 7: 525, figs. 18–19. 1987; Pearce & Cribb, *Orchids of Bhutan*: 347, pl. 15 [bottom-left]. 2002; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 84. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 193 (incl. colour photo). 2005; Chen & Wood in *Fl. China* 25: 334. 2009; Aung et al. in *PhytoKeys* 138: 94. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 181. 2021.

— *Coelogyne uniflora* Lindl., *Gen. Sp. Orchid. Pl.*: 42. 1830; Grant, *Orchids of Burma*: 183. 1895.

— *Coelogyne biflora* C.S.P.Parish ex Rchb.f. in *Gard. Chron.* 1865: 1035. 1865.

— *Pleione uniflora* (Lindl.) Kuntze, *Revis. Gen. Pl.* 2: 680. 1891.

— *Chelonistele biflora* (C.S.P.Parish ex Rchb.f.) Pfitzer in H.G.A.Engler (ed.), *Pflanzenr.*, IV, 50 II B 7 (32): 139. 1907.

Specimens examined. CHIN STATE. Mindat District, township not specified: 13 May 2007, *Kyaw Khaing s.n.* (TNS).

Distribution. Himalaya, NE India, SW China, Thailand, Laos, Vietnam, Cambodia.

Panisea yunnanensis S.C.Chen & Z.H.Tsi in *Acta Bot. Yunnan.* 2: 301. 1980; Lund in *Nordic J. Bot.* 7: 525, figs. 20. 1987; Chen & Wood in *Fl. China* 25: 334. 2009; *Fl. China Illustr.* 25: fig. 461.1–3. 2010; Aung et al. in *PhytoKeys* 138: 94. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 181. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 94).

Distribution. S and SW China, Vietnam.

PAPHIOPEDILUM Pfitzer, nom. cons.

Paphiopedilum villosum (Lindl.) Stein, *Orchid.-Buch*: 490. 1892; Cribb, *The genus Paphiopedilum*: 259, figs. 74–75. 1998; Kress et al. in *Contr. U.S. Natl. Herb.* 45: 85. 2003; Vaddhanaphuti, *Field Guide Wild Orchids of Thailand*, ed. 4: 198 (incl. colour photo). 2005; Liu et al. in *Fl. China* 25: 41. 2009; *Fl. China Illustr.* 25: fig. 49. 2010; Cribb in *Fl. Thailand* 12 (1): 215, fig. 126, pl. XVI.4. 2011; Nyan Tun, *Wild Orchids of Myanmar*: 364 (incl. colour photo). 2014; Aung et al. in *PhytoKeys* 138: 94. 2020; Ormerod et al. in *Phytotaxa* 481 (1): 185. 2021.

— *Cypripedium villosum* Lindl. in *Gard. Chron.* 1854: 135. 1854; Hook.f., *Fl. Brit. India* 6: 171. 1890; Grant, *Orchids of Burma*: 380. 1895.

— *Cypripedium boxallii* Rchb.f. in *Gard. Chron.*, n.s., 7: 367. 1877.

— *Paphiopedilum boxallii* (Rchb.f.) Pfitzer in H.G.A.Engler & K.A.E.Prantl (eds.), *Nat. Pflanzenfam.* 2 (6): 84. 1889.

— *Cypripedium villosum* var. *aureum* B.S.Williams, *Orch.-Grow. Man.*, ed. 7: 311. 1894.

Specimens examined. CHIN STATE. Mindat District, township not specified: 19 Dec. 2014, *Y.D. Kim s.n.*, photographic record.

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam, Cambodia.

Paphiopedilum sp.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060018* (MBK).

Note. The plant is sterile and therefore cannot be identified.

PAPILIONANTHE Schlechter

Papilionanthe biswasiana (Ghose & Mukerjee) Garay in Bot. Mus. Leaflet. 23: 371. 1974; Seidenf. in Opera Bot. 95: 233, fig. 144. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 198 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 477. 2009; Nyan Tun, Wild Orchids of Myanmar: 366 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 94. 2020; Ormerod et al. in Phytotaxa 481 (1): 186. 2021.

— *Aerides biswasiana* Ghose & Mukerjee in Orchid Rev. 53: 124. 1945.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1950 m, 31 Mar. 1956, *F. Kingdon-Ward 21903* (BM).

Distribution. SW China, Thailand.

? **Papilionanthe hookeriana** (Rchb.f.) Schltr. in Orchis 9: 80. 1915; Seidenf. in Opera Bot. 95: 230, fig. 142, pl. XXVa. 1988.

— *Vanda hookeriana* Rchb.f. in Bonplandia 4: 324. 1856; Hook.f., Fl. Brit. India 6: 50. 1890.

Distribution. Thailand, Vietnam, Malaysia, W Indonesia.

Note. This species was said to be typical in the subtropical evergreen forests of Natma Taung (Kingdon-Ward 1959: 63). However, the record is questionable as the occurrence of this attractive species in Natma Taung has not been reported by others.

Papilionanthe teres (Roxb.) Schltr. in Orchis 9: 78. 1915; Seidenf. in Opera Bot. 95: 230, fig. 143, pl. XXVb. 1988; Pearce & Cribb, Orchids of Bhutan: 536, fig. 120. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 198 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 477. 2009; Fl. China Illustr. 25: fig. 617.3. 2010; Nyan Tun, Wild Orchids of Myanmar: 367 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 94. 2020; Ormerod et al. in Phytotaxa 481 (1): 186. 2021.

— *Dendrobium teres* Roxb., Fl. Ind. ed. 1832, 3: 485. 1832.

— *Vanda teres* (Roxb.) Lindl., Gen. Sp. Orchid. Pl.: 217. 1833; Hook.f., Fl. Brit. India 6: 49. 1890; Grant, Orchids of Burma: 258. 1895.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 94).

Distribution. Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Papilionanthe vandarum (Rchb.f.) Garay in Bot. Mus. Leaflet. 23: 372. 1974; Pearce & Cribb, Orchids of Bhutan: 539, pl. 30 [top-left]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Chen & Wood in Fl. China 25: 478. 2009; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 187. 2021.

— *Aerides vandarum* Rchb.f. in Gard. Chron. 1867: 997. 1867; Hook.f., Fl. Brit. India 6: 44. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 1552 m, 26 Feb. 2007, *K. Fujikawa 050136* (MBK); ca. 2300-2450 m, 4 June 2002, *N. Tanaka et al. 023316* (MBK); 2300-2500 m, 7 Dec. 2002, *J. Murata et al. 025632* (MBK); 1980 m, Apr. 1956, *Maung Gale-2 5557* (RAF). Mindat Township: 2083 m, 6 Mar. 2014, *P. Srisanga et al. 097605* (MBK); ca. 2400-2500 m, 17 May 2004, *N. Tanaka et al. 030832* (MBK). Mindat District, township not specified: 2390 m, 28 Apr. 2003, *N. Tanaka et al. 029748* (TNS), ident. uncertain.

Distribution. Nepal, Bhutan, NE India, SW China.

PECTEILIS Rafinesque

Pecteilis susannae (L.) Raf., Fl. Tellur. 2: 38. 1836 [as *susanna*]; Seidenf. in Dansk Bot. Ark. 31 (3): 22, fig. 8. 1977; Pearce & Cribb, Orchids of Bhutan: 173, fig. 45. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 199 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 136. 2009; Fl. China Illustr. 25: fig. 182.1-2. 2010; Pedersen in Fl. Thailand 12 (1): 220, fig. 129. 2011; Nyan Tun, Wild Orchids of Myanmar: 368 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 188. 2021.

— *Orchis susannae* L., Sp. Pl.: 939. 1753.

— *Habenaria susannae* (L.) R.Br. ex Spreng., Syst. Veg. 3: 692. 1826; Hook.f., Fl. Brit. India 6: 137. 1890.

— *Platanthera robusta* Lindl., Gen. Sp. Orchid. Pl.: 295. 1835.

— *Platanthera susannae* (L.) Lindl., Gen. Sp. Orchid. Pl.: 295. 1835; Grant, Orchids of Burma: 326. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Sep. 2002, *Ling Shein Man & Cho Cho Win 024393* (MBK); ca. 600-815 m, 7 Sep. 2013, *K. Fujikawa et al. 095132* (MBK); 1125 m, 30 Sep. 2008, *S. Yasuda 053620* (MBK).

Distribution. Nepal, NE India, S and SW China, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia.

PERISTYLUS Blume, nom. cons.

Peristylus affinis (D.Don) Seidenf. in Dansk Bot. Ark. 31 (3): 48, fig. 23. 1977; Pearce & Cribb, Orchids of Bhutan: 174. 2002; Chen et al. in Fl. China 25: 142. 2009; Fl. China Illustr. 25: fig. 187.5–7. 2010; Kurzweil in Nordic J. Bot. 28: 32. 2010; Kurzweil in Fl. Thailand 12 (1): 225, fig. 130. 2011; Nyan Tun, Wild Orchids of Myanmar: 371 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 189. 2021.

— *Habenaria affinis* D.Don, Prodr. Fl. Nepal.: 25. 1825; Hook.f., Fl. Brit. India 6: 166. 1890.

— *Gymnadenia affinis* (D.Don) Rchb.f., Otia Bot. Hamburg.: 33. 1878.

— *Peristylus goodyeroides* var. *affinis* (D.Don) T.Cooke, Fl. Bombay 2: 712. 1907.

Specimens examined. CHIN STATE. Kanpetlet Township: 1200 m, 8 Aug. 2008, *S. Yasuda 053611* (MBK); 1700 m, 11 July 2013, *Ling Shein Man 093086* (MBK). Mindat Township: 1220–1525 m, 23 July 1956, *F. Kingdon-Ward 22519* (BM), ident. uncertain.

Distribution. N India, Nepal, S and SW China, Thailand, Laos.

Peristylus constrictus (Lindl.) Lindl., Gen. Sp. Orchid. Pl.: 300. 1835; Grant, Orchids of Burma: 328. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 46, fig. 20. 1977; Pearce & Cribb, Orchids of Bhutan: 175. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 201 (incl. colour photo). 2005 [as *affinis*]; Chen et al. in Fl. China 25: 141. 2009; Fl. China Illustr. 25: fig. 187.8. 2010; Kurzweil in Nordic J. Bot. 28: 31, fig. 6. 2010; Kurzweil in Fl. Thailand 12 (1): 227, fig. 132, pl. XVII.3. 2011; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 189. 2021.

— *Herminium constrictum* Lindl. in Edwards's Bot. Reg. 18: t. 1499. 1832.

— *Habenaria constricta* (Lindl.) Hook.f., Fl. Brit. India 6: 161. 1890.

Specimens examined. CHIN STATE. Mindat Township: 1525 m, 18 May 1956, *F. Kingdon-Ward 22259* (BM, C); 1220–2285 m, *Maung Gale-2 & Chit Ko Ko 5427* (RAF).

Distribution. India, Nepal, Bhutan, SW China, Thailand, Vietnam, Cambodia.

Peristylus densus (Lindl.) Santapau & Kapadia in J. Bombay Nat. Hist. Soc. 57: 128. 1960; Seidenf. in Dansk Bot. Ark. 31 (3): 32, fig. 12. 1977; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Chen et al. in Fl. China 25: 139. 2009; Fl. China Illustr. 25: fig. 183.1–3. 2010; Kurzweil in Nordic J. Bot. 28: 37, fig. 9. 2010; Kurzweil in Fl. Thailand 12 (1): 227, fig. 133, pl. XVII.4. 2011; Kang et al., Seed Pl. Natma Taung: 91 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 189. 2021.

— *Coeloglossum densum* Lindl., Gen. Sp. Orchid. Pl.: 302. 1835.

— *Habenaria stenostachya* (Lindl. ex Benth.) Benth., Fl. Hongk.: 362. 1861; Hook.f., Fl. Brit. India 6: 156. 1890; Grant, Orchids of Burma: 342. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060076* (MBK); ca. 1750 m, 23 Oct. 2011, *Ling Shein Man 087624A* (MBK); ca. 1828 m, 11 July 2011, *Ling Shein Man 087536* (MBK); 2030-2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081255* (MBK); 2065 m, 24 Aug. 2013, *K. Fujikawa et al. 094371* (MBK); 2075 m, 20 Aug. 2013, *K. Fujikawa et al. 094059* (MBK); 2400 m, 29 July 2013, *Mu Mu Aung et al. 092772* (MBK). Mindat District, township not specified: 21 July 2007, *N. Tanaka s.n.* (TNS).

Distribution. India, Nepal, China, Japan, Korea, Thailand, Vietnam, Cambodia.

Note. A few collections cited above have threadlike lip side lobes three to four times as long as the midlobe.

Peristylus goodyeroides (D.Don) Lindl., Gen. Sp. Orchid. Pl.: 299. 1835; Grant, Orchids of Burma: 329. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 53, fig. 25. 1977; Pearce & Cribb, Orchids of Bhutan: 178. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 201 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 141. 2009; Fl. China Illustr. 25: figs. 187.1–4 & 188. 2010; Kurzweil in Nordic J. Bot. 28: 34, fig. 7. 2010; Kurzweil in Fl. Thailand 12 (1): 230, fig. 134, pl. XVIII.1. 2011; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 190. 2021.

— *Habenaria goodyeroides* D.Don, Prodr. Fl. Nepal.: 25. 1825; Hook.f., Fl. Brit. India 6: 161. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 15 June 2007, *Ling Shein Man 055162* (MBK); 29 May 2008, *S. Yasuda 060103* (MBK); 23 June 2008, *S. Yasuda 060066* (MBK); 29 June 2008, *S. Yasuda 060071* (MBK); 9 Aug. 2008, *S. Yasuda 060057* (MBK); 1200 m, 22 June 2013, *Ling Shein Man 092871* (MBK); ca. 1524 m, 26 June 2011, *Ling Shein Man 087458* (MBK); *087459* (MBK). Mindat District, township not specified: 1370 m, 26 July 1956, *F. Kingdon-Ward 22532* (BM), ident. uncertain.

Distribution. N India, Nepal, Bhutan, China, Taiwan, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Philippines, New Guinea.

Peristylus intrudens (Ames) Ormerod in Taiwania 56: 46. 2011; Ormerod et al. in Phytotaxa 481 (1): 190. 2021.

— *Habenaria intrudens* Ames, Schedul. Orchid. 6: 1. 1923.

— *Peristylus lacertifer* var. *taipoensis* (S.Y.Hu & Barretto) S.C.Chen et al. in Fl. China 25: 143. 2009; Fl. China Illustr. 25: 190. 2010.

— *Peristylus taipoensis* (S.Y.Hu & Barretto) T.C.Hsu & S.W.Chung in Taiwania 54: 84. 2009.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1000 m, 16 Aug. 2016, *Thet Yu Nwe TY 71* (RAF).

Distribution. Central Nepal, S China, Taiwan, Philippines.

Peristylus cf. **parishii** Rehb.f. in Trans. Linn. Soc. London 30: 139. 1874; Grant, Orchids of Burma: 329. 1895; Seidenf. in Dansk Bot. Ark. 31 (3): 52, fig. 24. 1977; Pearce & Cribb, Orchids of Bhutan: 180. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 85. 2003; Chen et al. in Fl. China 25: 142. 2009; Fl. China Illustr. 25: fig. 187.9. 2010; Kurzweil in Nordic J. Bot. 28: 33. 2010; Kurzweil in Fl. Thailand 12 (1): 242, fig. 142. 2011; Aung et al. in PhytoKeys 138: 95. 2020; Ormerod et al. in Phytotaxa 481 (1): 191. 2021.

— *Habenaria parishii* (Rehb.f.) Hook.f., Fl. Brit. India 6: 161. 1890.

Specimens examined. CHIN STATE. Matupi Township: 1660 m, 12 July 2013, *Mu Mu Aung et al. 092421* (MBK) [largely fruiting].

Distribution. India, Nepal, S and SW China, Andaman Islands, Thailand, Vietnam.

PHAIUS Loureiro

Phaius was said to be typical in pine savanna on Mt. Victoria, but no reference to a particular species was made (Kingdon-Ward 1959: 62).

PHALAEOPSIS Blume

Phalaenopsis **difformis** (Wall. ex Lindl.) Kocyan & Schuit. in Phytotaxa 161 (1): 67. 2014; Aung et al. in PhytoKeys 138: 96. 2020; Ormerod et al. in Phytotaxa 481 (1): 194. 2021.

— *Aerides difformis* Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 242. 1833.

— *Ornithochilus fuscus* Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 242. 1833, nom. inval.; Hook.f., Fl. Brit. India 6: 76. 1890; Grant, Orchids of Burma: 275. 1895.

— *Ornithochilus difformis* (Wall. ex Lindl.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 4: 277. 1919; Seidenf. in Opera Bot. 95: 43, fig. 23, pl. III d. 1988; Pearce & Cribb, Orchids of Bhutan: 534, fig. 119. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 84. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 191 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 448. 2009; Fl. China Illustr. 25: fig. 593.5–6. 2010; Nyan Tun, Wild Orchids of Myanmar: 340 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 87 (incl. colour photos). 2017.

— *Sarcochilus difformis* (Wall. ex Lindl.) Tang & F.T.Wang in Acta Phytotax. Sin. 1: 92. 1951.

Specimens examined. CHIN STATE. Kanpetlet Township: 20 May 2007, *N. Tanaka et al. 051149* (MBK); 9 Aug. 2008, *S. Yasuda 060055* (MBK). Mindat District, township not specified: 1924, *R.E. Cooper 6085* (E, SING); without collector *20090703* (TNS).

Distribution. N India, Nepal, Bhutan, SW China, Thailand, Laos, Vietnam, Malaysia, W Indonesia.

Phalaenopsis **hygrochila** J.M.H.Shaw in Orchid Rev. 123 (1309, Suppl.): 23. 2015; Aung et al. in

PhytoKeys 138: 96. 2020; Ormerod et al. in Phytotaxa 481 (1): 194. 2021.

— *Vanda parishii* Rchb.f., Xenia Orchid. 2: 138. 1868; Hook.f., Fl. Brit. India 6: 51. 1890; Grant, Orchids of Burma: 255. 1895.

— *Hygrochilus parishii* (Rchb.f.) Pfitzer in H.G.A.Engler & K.A.E.Prantl (eds.), Nat. Pflanzenfam., Nachtr. 1: 112. 1897; Seidenf. in Opera Bot. 95: 138, fig. 83, pl. XIVa. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 81. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 171 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 465. 2009; Fl. China Illustr. 25: fig. 608.1. 2010; Nyan Tun, Wild Orchids of Myanmar: 316 (incl. colour photo). 2014.

— *Vandopsis parishii* (Rchb.f.) Schltr. in Repert. Spec. Nov. Regni Veg. 11: 47. 1912.

— *Stauropsis parishii* (Rchb.f.) Rolfe in Orchid Rev. 27: 97. 1919.

— *Phalaenopsis marriottiana* (Rchb.f.) Kocyan & Schuit. var. *parishii* (Rchb.f.) Kocyan & Schuit. in Phytotaxa 161 (1): 67. 2014, nom. inval.

— *Phalaenopsis tigrina* M.He Li et al. in Phytotaxa 275 (1): 59. 2016, nom. superfl.

Specimens examined. CHIN STATE. Kanpetlet Township: 17 May 2007, *N. Tanaka et al. 051123* (MBK).

Distribution. E Himalaya, NE India, SW China, Thailand, Laos, Vietnam.

Phalaenopsis natmataungensis (T.Yukawa et al.) Dalström & Ormerod in Orchids (West Palm Beach) 79: 706. 2010; Aung et al. in PhytoKeys 138: 96. 2020; Ormerod et al. in Phytotaxa 481 (1): 195. 2021.

— *Doritis natmataungensis* T.Yukawa et al. in Acta Phytotax. Geobot. 60: 167. 2010.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1700–2030 m, 21 May 2004, *N. Tanaka et al. 031017* (MBK); 1740 m, 26 Apr. 2003, *J. Murata et al. 029689* (holotype: TNS; isotypes: MBK, TI); 1950 m, 21 May 2004, *N. Tanaka et al. 20040156* (MBK).

Distribution. Endemic to Natma Taung.

PHOLIDOTA Lindley

Pholidota articulata Lindl., Gen. Sp. Orchid. Pl.: 38. 1830; Hook.f., Fl. Brit. India 5: 844. 1890; Grant, Orchids of Burma: 161. 1895; Seidenf. in Opera Bot. 89: 96, fig. 54, pl. VIIc. 1986; de Vogel in Orchid Monogr. 3: 21, fig. 8, pl. 2a–b. 1988; Pearce & Cribb, Orchids of Bhutan: 349, fig. 84, pl. 15 [bottom-right]. 2002; Kress et al., in Contr. U.S. Natl. Herb. 45: 86. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 206 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 336. 2009; Fl. China Illustr. 25: fig. 465.3–4. 2010; Suddee in Fl. Thailand 12 (2): 596, fig. 321, pl. LII.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 382 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 94 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 96. 2020; Ormerod et al. in Phytotaxa 481 (1): 197. 2021.

— *Pholidota khasyana* Rchb.f. in Bonplandia 4: 329. 1856.

- *Coelogyne articulata* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 238. 1862.
- *Pholidota obovata* Hook.f., Fl. Brit. India 5: 845. 1890.
- *Pholidota lugardii* Rolfe in Bull. Misc. Inform. Kew 1893: 6. 1893; Grant, Orchids of Burma: 162. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 8 June 2008, *S. Yasuda 060011* (MBK); *060097* (MBK); 9 Aug. 2008, *S. Yasuda 060016* (MBK); 1400-1600 m, 26 June 2009, *N. Tanaka & T. Yukawa 081233* (MBK); 1552 m, 26 Feb. 2007, *K. Fujikawa 050124* (MBK); 2350 m, 24 May 2007, *N. Kuroiwa et al. 051190* (MBK); 2410 m, 25 Apr. 2003, *J. Murata et al. 029680* (MBK). Mindat Township: 15 May 2007, *N. Tanaka et al. 051117* (MBK); 2220 m, 28 Apr. 2003, *J. Murata et al. 029755* (MBK); ca. 2300 m, 16 May 2004, *N. Tanaka et al. 030606* (MBK); *030611* (MBK); ca. 2400-2500 m, 16 May 2004, *N. Tanaka et al. 030810* (MBK). Matupi Township: 2050 m, 15 July 2013, *Mu Mu Aung et al. 092505* (MBK); 2225 m, 22 July 2013, *Mu Mu Aung & Law Shine 092625* (MBK). Mindat District, township not specified: *R. Swinhoe 34* (K), det. E.F. de Vogel; 1525 m, 7 July 1956, *F. Kingdon-Ward 22454* (BM).

Distribution. N India, Nepal, Bhutan, SW China, Thailand, Laos, Vietnam, Cambodia, Malaysia, W Indonesia (Sumatra).

Pholidota convallariae (Rchb.f.) Hook.f. in Hooker's Icon. Pl. 19: t. 1880. 1889; Hook.f., Fl. Brit. India 5: 846. 1890; Grant, Orchids of Burma: 161. 1895; Seidenf. in Opera Bot. 89: 104, fig. 58, pl. VIIIc. 1986; de Vogel in Orchid Monogr. 3: 70, fig. 29, pl. 6d. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 86. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 207 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 338. 2009; Suddee in Fl. Thailand 12 (2): 599, fig. 323. 2014; Nyan Tun, Wild Orchids of Myanmar: 384 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 198. 2021.

- *Coelogyne convallariae* C.S.P.Parish & Rchb.f. in Flora 55: 277. 1872.
- *Pholidota convallariae* var. *breviscapa* Deori & J. Joseph in Bull. Bot. Surv. India 20: 159. 1979.

Specimens examined. CHIN STATE. Kanpetlet Township: 1 Apr. 2009, *S. Yasuda 060009* (MBK); 2285 m, Apr. 1939, *F.G. Dickason 8442* (AMES, K). Mindat District, township not specified: 3050 m, Apr. 1939, *F.G. Dickason 8602* (AMES, K); *R. Swinhoe K 101* (K), det. E.F. de Vogel.

Distribution. E Himalaya, NE India, SW China, Thailand, Vietnam, W Indonesia.

Pholidota imbricata Hook., Exot. Fl. 2: t. 138. 1825; Hook.f., Fl. Brit. India 5: 845. 1890; Grant, Orchids of Burma: 161. 1895; Seidenf. in Opera Bot. 89: 98, fig. 56, pl. VIIIA. 1986; de Vogel in Orchid Monogr. 3: 58, fig. 26, pl. 6a. 1988; Pearce & Cribb, Orchids of Bhutan: 352. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 86. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 207 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 336. 2009; Fl. China Illustr. 25: figs. 463.2–4 & 465.5–6. 2010; Suddee in Fl. Thailand 12 (2): 600, fig. 324, pl. LII.2. 2014; Nyan Tun, Wild Orchids of Myanmar: 385 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 198. 2021.

— *Ptilocnema bracteata* D.Don, Prodr. Fl. Nepal.: 33. 1825.

— *Pholidota bracteata* (D.Don) Seidenf. in Opera Bot. 89: 100. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 207 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Mindat District, township not specified: May 2004, *N. Tanaka s.n.* (TNS).

Distribution. Sri Lanka, India, Himalaya, SW China, Thailand, Laos, Vietnam, Cambodia, throughout Malesia to N Australia and the Pacific islands.

Pholidota pallida Lindl. in Edwards's Bot. Reg. 21: t. 1777. 1836; de Vogel in Orchid Monogr. 3: 65, fig. 27, pl. 6b–c. 1988; Pearce & Cribb, Orchids of Bhutan: 353. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 86. 2003; Chen & Wood in Fl. China 25: 337. 2009; Suddee in Fl. Thailand 12 (2): 602, fig. 325. 2014; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 199. 2021.

— *Pholidota calceata* Rchb.f. in Bonplandia 4: 329. 1856; Hook.f., Fl. Brit. India 5: 846. 1890.

— *Coelogyne pallida* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 238. 1861.

— *Pholidota imbricata* var. *sessilis* Hook.f., Fl. Brit. India 5: 846. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: 24 July 2008, *S. Yasuda 060078* (MBK); 2030–2295 m, 27 June 2009, *N. Tanaka & T. Yukawa 081276* (MBK); 2300–2500 m, 7 Dec. 2002, *J. Murata et al. 025642* (MBK); 2400 m, 21 Aug. 2013, *K. Fujikawa et al. 094113* (MBK). Mindat Township: 1740 m, 5 Aug. 2008, *K. Fujikawa et al. 053134* (MBK).

Distribution. N India, Nepal, Bhutan, SW China, Thailand, Laos, Vietnam, Cambodia.

Pholidota recurva Lindl., Gen. Sp. Orchid. Pl.: 37. 1830; Hook.f., Fl. Brit. India 5: 844. 1890; Seidenf. in Opera Bot. 89: 97, fig. 55, pl. VII d. 1986; de Vogel in Orchid Monogr. 3: 26, fig. 10. 1988; Pearce & Cribb, Orchids of Bhutan: 351. 2002; Suddee in Fl. Thailand 12 (2): 604, fig. 326, pl. LII.3. 2014; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 199. 2021.

— *Coelogyne recurva* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 237. 1861.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 97).

Distribution. Himalaya, NE India, ? SW China, Thailand, Laos, Vietnam, Cambodia.

Pholidota cf. rubra Lindl., Gen. Sp. Orchid. Pl.: 37. 1830; Hook.f., Fl. Brit. India 5: 847. 1890; Grant, Orchids of Burma: 162. 1895; de Vogel in Orchid Monogr. 3: 48, fig. 21. 1988; Pearce & Cribb, Orchids of Bhutan: 351. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 86. 2003; Suddee in Fl. Thailand 12 (2): 606, fig. 327, pl. LII.4. 2014; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 199. 2021.

— *Coelogyne rubra* (Lindl.) Rchb.f. in Ann. Bot. Syst. (Walpers) 6: 238. 1861.

Specimens examined. CHIN STATE. Kanpetlet Township: 2500 m, 24 Apr. 2003, *J. Murata et al.* 029665 (MBK).

Distribution. E Himalaya, NE India, Bhutan, Bangladesh, Thailand, Vietnam.

Note. In March 2016 the specimen was found in the fruiting stage. It is not known to us whether flowering material was initially available as the basis for the identification.

PINALIA Lindley

Pinalia acervata (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Chen et al. in Fl. China 25: 356. 2009; Fl. China Illustr. 25: fig. 336.4–5. 2010; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 200. 2021.

— *Eria acervata* Lindl. in J. Hort. Soc. London 6: 57. 1851; Hook.f., Fl. Brit. India 5: 796. 1890; Grant, Orchids of Burma: 133. 1895; Seidenf. in Opera Bot. 62: 106, fig. 61, pl. VIIId. 1982; Pearce & Cribb, Orchids of Bhutan: 379. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 137 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Kanpetlet Township: 1400-1600 m, 26 June 2009, *N. Tanaka & T. Yukawa* 081211 (MBK); 2560 m, 22 May 2012, *K. Fujikawa et al.* 089193 (MBK). Mindat Township: 1525 m, 4 June 1956, *F. Kingdon-Ward* 22319 (BM). Mindat District, township not specified: 18 Mar. 2009, *Kyaw Khaing* 0039 (TNS).

Distribution. Nepal, Bhutan, NE India, SW China, Thailand, Laos, Vietnam, Cambodia.

Pinalia amica (Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Chen et al. in Fl. China 25: 357. 2009; Fl. China Illustr. 25: figs. 336.8–9 & 479. 2010; Kang et al., Seed Pl. Natma Taung: 96 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 200. 2021.

— *Eria amica* Rchb.f., Xenia Orchid. 2: 162. 1870; Hook.f., Fl. Brit. India 5: 800. 1890; Seidenf. in Opera Bot. 62: 115, fig. 71, pl. VIIIId. 1982; Pearce & Cribb, Orchids of Bhutan: 380. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 138 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 262 (incl. colour photo). 2014.

— *Eria confusa* Hook.f. in Hooker's Icon. Pl. 19: t. 1850. 1889.

— *Eria andersonii* Hook.f., Fl. Brit. India 5: 795. 1890.

— *Pinalia confusa* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

— *Pinalia andersonii* (Hook.f.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

Specimens examined. CHIN STATE. Mindat Township: 1525 m, 26 Apr. 1956, *F. Kingdon-Ward* 22174 (BM). Mindat District, township not specified: 30 Mar. 2014, *Y.D. Kim s.n.*, photographic record.

Distribution. N India, Himalaya, SW China, Taiwan, Thailand, Laos, Vietnam, Cambodia.

Pinalia cf. **apertiflora** (Summerh.) A.N.Rao in Bull. Arunachal Forest Res. 26: 103. 2010; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 200. 2021.

— *Eria apertiflora* Summerh. in Bull. Misc. Inform. Kew 1929: 9. 1929; Seidenf. in Opera Bot. 62: 123, fig. 74, pl. IXd. 1982; Pearce & Cribb, Orchids of Bhutan: 384. 2002.

Specimens examined. CHIN STATE. Mindat District, township not specified: Mar. 1926, *R. Unwin* BG 3 (K), det. G. Seidenfaden, ident. uncertain.

Distribution. Nepal, NE India, Thailand, Vietnam.

Pinalia **bicolor** (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Aung et al. in PhytoKeys 138: 97. 2020; Ormerod et al. in Phytotaxa 481 (1): 200. 2021.

— *Eria bicolor* Lindl., Gen. Sp. Orchid. Pl.: 65. 1830; Hook.f., Fl. Brit. India 5: 793. 1890.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 97).

Distribution. Sri Lanka, S India.

Pinalia **bilobulata** (Seidenf.) Schuit. et al. in Bot. J. Linn. Soc. 186: 196. 2018; Ormerod et al. in Phytotaxa 481 (1): 201. 2021.

— *Eria bilobulata* Seidenf. in Opera Bot. 62: 123, fig. 76, pl. IXc. 1982; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 139 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Kanpetlet Township: 31 July 2008, *S. Yasuda* 060080 (MBK).

Distribution. Thailand, Laos, Vietnam.

Pinalia **eriopsidobulbon** (C.S.P.Parish & Rchb.f.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 202. 2021.

— *Eria eriopsidobulbon* C.S.P.Parish & Rchb.f. in Trans. Linn. Soc. London 30: 148. 1874; Hook.f., Fl. Brit. India 5: 796. 1890; Grant, Orchids of Burma: 138. 1895; Seidenf. in Opera Bot. 62: 113, fig. 67, pl. Iib. 1982.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 98).

Distribution. Thailand, Vietnam.

Pinalia cf. **excavata** (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Chen et al. in Fl. China 25: 355. 2009; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 202. 2021.

— *Eria excavata* Lindl., Gen. Sp. Orchid. Pl.: 67. 1830; Hook.f., Fl. Brit. India 5: 795. 1890; Pearce & Cribb, Orchids of Bhutan: 381, pl. 17 [bottom right]. 2002.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060053* (MBK); ca. 1900-2100 m, 23 May 2004, *N. Tanaka et al. 031148* (MBK); 2040 m, 19 May 2012, *K. Fujikawa et al. 089046* (MBK). Mindat District, township not specified: 1924, *R.E. Cooper 6088* (E); 13 May 2007, *Kyaw Khaing s.n.* (TNS).

Distribution. Nepal, Bhutan, NE India, SW China.

Pinalia lineoligera (Rchb.f.) Ormerod in Taiwania 57: 124. 2012; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 203. 2021.

— *Eria lineoligera* Rchb.f. in Gard. Chron., n.s., 24: 262. 1885; Seidenf. in Opera Bot. 62: 109, fig. 63. 1982.

Specimens examined. CHIN STATE. Kanpetlet Township: 13 July 2008, *S. Yasuda 060052* (MBK).

Distribution. Thailand.

Pinalia myristiciformis (Hook.) Kuntze, Revis. Gen. Pl. 2: 679. 1891; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 203. 2021.

— *Eria myristiciformis* Hook. in Bot. Mag. 89: t. 5415. 1863; Hook.f., Fl. Brit. India 5: 797. 1890; Grant, Orchids of Burma: 143. 1895; Seidenf. in Opera Bot. 62: 108, fig. 62, pl. VIIa. 1982; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003 [as *myristicaeformis*]; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 143 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060034* (MBK).

Distribution. Thailand.

Pinalia ovata (Lindl.) W.Suarez & Cootes in OrchideenJ. 16: 71. 2009; Chen et al. in Fl. China 25: 354. 2009; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 204. 2021.

— *Eria ovata* Lindl. in Edwards's Bot. Reg. 30: t. 29. 1844.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 98).

Distribution. Taiwan, S Japan, W Malesia.

Pinalia spicata (D.Don) S.C.Chen & J.J.Wood in Fl. China 25: 354. 2009; Fl. China Illustr. 25: fig. 475.4–6. 2010; Aung et al. in PhytoKeys 138: 98. 2020; Ormerod et al. in Phytotaxa 481 (1): 205. 2021.

— *Octomeria spicata* D.Don, Prodr. Fl. Nepal.: 31. 1825.

— *Eria convallarioides* Lindl., Gen. Sp. Orchid. Pl.: 70. 1830; Hook.f., Fl. Brit. India 5: 791. 1890; Grant, Orchids of Burma: 136. 1895.

— *Eria spicata* (D.Don) Hand.-Mazz. in Symb. Sin. 7: 1353. 1936; Seidenf. in Opera Bot. 62: 126, fig. 78. 1982; Pearce & Cribb, Orchids of Bhutan: 383, pl. 18 [bottom-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 78. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 146 (incl. colour photo). 2005.

Specimens examined. CHIN STATE. Kanpetlet Township: 21 July 2008, *S. Yasuda 060073* (MBK); 4 Aug. 2008, *S. Yasuda 060086* (MBK). Mindat Township: ca. 2500 m, 24 June 2009, *N. Tanaka et al. 081135* (MBK). Matupi Township: 2050 m, 15 July 2013, *Mu Mu Aung et al. 092511* (MBK).

Distribution. Nepal, NE India, Bhutan, SW China, Thailand, Laos, Vietnam.

PLEIONE D.Don

Pleione humilis (Sm.) D.Don, Prodr. Fl. Nepal.: 37. 1825; Cribb & Butterfield, The genus *Pleione*: 74, figs. 27–28, pl. 7. 1999; Pearce & Cribb, Orchids of Bhutan: 357. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 86. 2003; Chen et al. in Fl. China 25: 329. 2009; Nyan Tun, Wild Orchids of Myanmar: 386 (incl. colour photo). 2014; Kang et al., Seed Pl. Natma Taung: 97 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 99. 2020; Ormerod et al. in Phytotaxa 481 (1): 209. 2021.

— *Epidendrum humile* Sm., Exot. Bot. 2: 75. 1805.

— *Coelogyne humilis* (Sm.) Lindl., Coll. Bot.: t. 37. 1826; Hook.f., Fl. Brit. India 5: 840. 1890.

— *Pleione diantha* Schltr. in Orchis 9: 44. 1915.

Specimens examined. CHIN STATE. Kanpetlet Township: 12 Aug. 2008, *S. Yasuda 060038* (MBK); 2300–2500 m, 7 Dec. 2002, *J. Murata et al. 025653* (MBK). Mindat District, township not specified: 9 Aug. 2016, *Thet Yu Nwe TY 5* (RAF) [sterile].

Distribution. N India, Nepal, Bhutan, SW China.

Pleione × kingdonwardii P.J.Cribb & Butterf. in Bot. Mag. (Kew Mag.) 34 (2): 137. 2017 (*P. humilis* × ? *P. bulbocodioides*); Ormerod et al. in Phytotaxa 481 (1): 209. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 6 Mar. 2016, cult. *Butterfield s.n.*, *Kew Spirit Collection no. 2* (holotype: K); 7 Apr. 1956, *F. Kingdon-Ward 21966* (BM).

Distribution. Endemic to Natma Taung.

Pleione maculata (Lindl.) Lindl. & Paxton in Paxton's Fl. Gard. 2: 5. 1851; Seidenf. in Opera Bot. 89: 77, fig. 40, pl. 5C. 1986; Cribb & Butterfield, The genus *Pleione*: 36, figs. 1–4, pl. 1. 1999; Pearce & Cribb, Orchids of Bhutan: 357, pl. 16 [top-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 87. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 208 (incl. colour photos). 2005; Chen et al. in Fl. China 25: 327. 2009; Suddee & Cribb in Fl. Thailand 12 (2): 610, fig. 329, pl. LIII.1. 2014; Nyan Tun, Wild Orchids of Myanmar: 387 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 99. 2020; Ormerod et al. in Phytotaxa 481 (1): 209. 2021.

— *Coelogyne maculata* Lindl., Gen. Sp. Orchid. Pl.: 43. 1830; Hook.f., Fl. Brit. India 6: 841. 1890; Grant, Orchids of Burma: 176. 1895.

— *Coelogyne arthuriana* Rchb.f. in Gard. Chron., n.s., 15: 40. 1881.

— *Coelogyne maculata* var. *arthuriana* (Rchb.f.) H.J.Veitch, Man. Orch. Pl. 6: 57. 1890.

— *Pleione maculata* var. *arthuriana* (Rchb.f.) Rolfe in Orchid Rev. 11: 290. 1903.

Specimens examined. CHIN STATE. Mindat District, township not specified: above 2440 m, Dec 2005, *Saw Lwin SL s.n.* (SING).

Distribution. Himalaya, NE India, SW China, Thailand.

Pleione praecox (Sm.) D.Don, Prodr. Fl. Nepal.: 37. 1825; Grant, Orchids of Burma: 166. 1895; Seidenf. in Opera Bot. 89: 77, fig. 41, pl. Vd. 1986; Cribb & Butterfield, The genus *Pleione*: 44, figs. 5–9, pl. 2. 1999; Pearce & Cribb, Orchids of Bhutan: 358. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 87. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 208 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 327. 2009; Suddee & Cribb in Fl. Thailand 12 (2): 611, fig. 330, pl. LIII.2. 2014; Nyan Tun, Wild Orchids of Myanmar: 388 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 100. 2020; Ormerod et al. in Phytotaxa 481 (1): 210. 2021.

— *Epidendrum praecox* Sm., Exot. Bot. 2: 73. 1805.

— *Coelogyne praecox* (Sm.) Lindl., Coll. Bot.: t. 37. 1826; Hook.f., Fl. Brit. India 5: 840. 1890.

— *Coelogyne wallichiana* Lindl., Gen. Sp. Orchid. Pl.: 43. 1830.

— *Pleione wallichiana* (Lindl.) Lindl. & Paxton in Paxton's Fl. Gard. 2: 66. 1851.

— *Coelogyne reichenbachiana* T.Moore & Veitch in Gard. Chron. 1868: 1210. 1868; Hook.f., Fl. Brit. India 5: 841. 1890.

— *Coelogyne birmanica* Rchb.f. in Gard. Chron., n.s., 18: 840. 1882.

— *Pleione reichenbachiana* (T.Moore & Veitch) H.J.Veitch, Man. Orch. Pl. 6: 53. 1890; Grant, Orchids of Burma: 168. 1895.

— *Pleione birmanica* (Rchb.f.) Stein, Orchid.-Buch: 521. 1892.

Specimens examined. CHIN STATE. Kanpetlet Township: 14 Oct. 2008, *S. Yasuda 060013* (MBK); ca. 2286 m, 13 Nov. 2011, *Ling Shein Man 087819* (MBK); 2300–2500 m, 7 Dec. 2002, *J. Murata et al. 025646* (MBK). Mindat District, township not specified: 1450 m, 23 Oct. 1956, cult. ex *F. Kingdon-Ward 22739* (BM), det. P.F. Hunt; cult. Goteborg Bot. Gard. ex *Alsterlund s.n.* (? GB, not located).

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Thailand, Laos, Vietnam.

PORPAX Lindley

Porpax dickasonii (Ormerod) Schuit. et al. in Bot. J. Linn. Soc. 186: 199. 2018; Aung et al. in PhytoKeys 138: 100. 2020; Ormerod et al. in Phytotaxa 481 (1): 214. 2021.

— *Conchidium dickasonii* Ormerod in Taiwania 57: 117. 2012.

Specimens examined. CHIN STATE. Kanpetlet Township: 1500 m, 9 Aug. 2008, *S. Yasuda 060032* (MBK), ident. uncertain; 9 Aug. 2008, *S. Yasuda 060041* (MBK).

Distribution. Endemic to the Chin Hills.

Porpax lanii Seidenf. in Nordic J. Bot. 1: 206. 1981; Seidenf. in Opera Bot. 89: 120, fig. 69, pl. Xa. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 211 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 394 (incl. colour photo). 2014; Ormerod et al. in Phytotaxa 481 (1): 215. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 22 May 2012, *K. Fujikawa et al. 089194* (MBK).

Distribution. Thailand, Vietnam.

Porpax parviflorum (D.Don) Ormerod & Kurzweil in Phytotaxa 481 (1): 215. 2021.

— *Dendrobium parviflorum* D.Don, Prodr. Fl. Nepal.: 34. 1825.

— *Dendrobium muscicola* Lindl., Gen. Sp. Orchid. Pl.: 75. 1830.

— *Eria muscicola* (Lindl.) Lindl. in J. Proc. Linn. Soc., Bot. 3: 47. 1859. Hook.f., Fl. Brit. India 5: 789. 1890; Grant, Orchids of Burma: 142. 1895; Seidenf. in Opera Bot. 62: 32, fig. 14, pl. IIB. 1982; Pearce & Cribb, Orchids of Bhutan: 370. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003.

— *Pinalia muscicola* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

— *Conchidium muscicola* (Lindl.) Rauschert in Feddes Repert. 94: 444. 1983; Chen et al. in Fl. China 25: 347. 2009; Kang et al., Seed Pl. Natma Taung: 65 (incl. colour photos). 2017.

— *Porpax muscicola* (Lindl.) Schuit. et al. in Bot. J. Linn. Soc. 186: 200. 2018; Aung et al. in PhytoKeys 138: 100. 2020.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Kang et al. (2017: 65); 9 Aug. 2016, *Y.D. Kim s.n.*, photographic record.

Distribution. India, Himalaya, SW China, Thailand, Laos, Vietnam, Cambodia.

Note. Well-known as *Conchidium muscicola* or *Porpax muscicola*. However, being older the name *Porpax parviflorum* has priority.

RENANTHERA Loureiro

Renanthera imschootiana Rolfe in Bull. Misc. Inform. Kew 1891: 200. 1891; Kress et al. in Contr. U.S. Natl. Herb. 45: 87. 2003; Chen & Wood in Fl. China 25: 451. 2009; Nyan Tun, Wild Orchids of Myanmar: 395 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 101. 2020; Ormerod et al. in Phytotaxa 481 (1): 217. 2021.

— *Renanthera papilio* King & Prain in J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 64: 328. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 18 Apr. 2012, *Law Shine 088433* (MBK). Mindat Township: 1145 m, 1 May 1956, *F. Kingdon-Ward 22182* (BM); 1065 m, 1 May 1956, *Maung Gale-2 5494* (RAF).

Distribution. E Himalaya, NE India, SW China, Thailand, Vietnam.

RHYNCHOSTYLIS Blume

Rhynchostylis gigantea (Lindl.) Ridl. in J. Linn. Soc., Bot. 32: 356. 1896; Seidenf. in Opera Bot. 95: 217, fig. 135, pl. XXIII d. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 87. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 214 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 475. 2009; Nyan Tun, Wild Orchids of Myanmar: 396 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 101. 2020; Ormerod et al. in Phytotaxa 481 (1): 218. 2021.

— *Saccolabium giganteum* Lindl., Gen. Sp. Orchid. Pl.: 221. 1833.

— *Vanda densiflora* Lindl. in Paxton's Fl. Gard. 2: 21. 1851; Hook.f., Fl. Brit. India 6: 53. 1890; Grant, Orchids of Burma: 253. 1895.

— *Gastrochilus giganteus* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 661. 1891.

— *Anota densiflora* (Lindl.) Schltr., Orchideen Beschreib. Kult. Zücht.: 587. 1914.

— *Anota gigantea* (Lindl.) Fukuy. in Trans. Nat. Hist. Soc. Taiwan 34: 111. 1944.

Specimens examined. CHIN STATE. Mindat District, township not specified: fide Aung et al. (2020: 101).

Distribution. S China, Thailand, Laos, Vietnam, Cambodia, W Malesia.

Rhynchostylis retusa (L.) Blume, Bijdr. Fl. Ned. Ind.: 286. 1825; Hook.f., Fl. Brit. India 6: 32. 1890; Grant, Orchids of Burma: 290. 1895; Seidenf. in Opera Bot. 95: 214, fig. 133, pl. XXIII b. 1988; Pearce & Cribb, Orchids of Bhutan: 552, fig. 124, pl. 30 [bottom-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 87. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 215 (incl. colour photos). 2005; Chen & Wood in Fl. China 25: 474. 2009; Fl. China Illustr. 25: fig. 613.3–4. 2010; Nyan Tun, Wild Orchids of Myanmar: 397–398 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 101. 2020; Ormerod et al. in Phytotaxa 481 (1): 218. 2021.

— *Epidendrum retusum* L., Sp. Pl.: 953. 1753.

— *Aerides retusa* (L.) Sw. in J. Bot. (Schrader) 2: 233. 1800.

— *Sarcanthus guttatus* Lindl. in Edwards's Bot. Reg. 17: t. 1443. 1831.

Specimens examined. CHIN STATE. Kanpetlet Township: 29 May 2008, *S. Yasuda 060047* (MBK); *060054* (MBK).

Distribution. Sri Lanka, India, Nepal, Bhutan, Bangladesh, SW China, Andaman and Nicobar Islands, Thailand, Laos, Vietnam, Cambodia, Malaysia, W Indonesia, Philippines.

SATYRIUM Swartz

Satyrium nepalense D.Don, Prodr. Fl. Nepal.: 26. 1825; Hook.f., Fl. Brit. India 6: 168. 1890; Grant, Orchids of Burma: 373. 1895; Pearce & Cribb, Orchids of Bhutan: 193. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 88. 2003; Chen et al. in Fl. China 25: 165. 2009; Nyan Tun, Wild Orchids of Myanmar: 402 (incl. colour photo). 2014 [as *S. ciliatum* Lindl.]; Kang et al., Seed Pl. Natma Taung: 98 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 102. 2020; Ormerod et al. in Phytotaxa 481 (1): 221. 2021.

var. **nepalense**

Specimens examined. CHIN STATE. Kanpetlet Township: 2 Dec. 2002, *J. Murata et al. 025421* (MBK); 4 Dec. 2005, *Ling Shein Man 003* (MBK, TI); 2 Aug. 2007, *Ling Shein Man 055326* (MBK); 24 May 2008, *M. Matsumoto 080988* (MBK); 16 Nov. 2012, *Law Shine 091644* (MBK); 1150-1200 m, 6 Dec. 2002, *J. Murata et al. 025621* (MBK); ca. 1676 m, 4 Nov. 2002, *Ling Shein Man & Cho Cho Win 024422* (MBK); ca. 1750 m, 23 Oct. 2011, *Ling Shein Man 087653* (MBK); ca. 1750-2000 m, 1 Dec. 2002, *J. Murata et al. 025112* (MBK, TI); 1816 m, 15 Feb. 2007, *K. Fujikawa et al. 051014* (MBK); ca. 1945 m, 4 Dec. 2012, *K. Fujikawa et al. 090067* (MBK); *090530* (MBK); 2270 m, 12 Oct. 2008, *S. Yasuda 053639* (MBK); 2400 m, 21 Aug. 2013, *K. Fujikawa et al. 094148* (MBK); 2680-3053 m, 27 Aug. 2013, *K. Fujikawa et al. 094527* (MBK); 2800 m, 13 Aug. 2008, *S. Yasuda 053615* (MBK); 3000 m, 13 Aug. 2008, *K. Fujikawa et al. 053481* (MBK); ca. 3000 m, 29 Oct. 2011, *Ling Shein Man 087765* (MBK); 3016 m, 17 Feb. 2007, *K. Fujikawa et al. 051036* (MBK); 1830 m, 30 Aug. 1956, *Maung Gale-2 & Chit Ko Ko 5719* (RAF). Mindat Township: 13 Dec. 2011, *Law Shine 088396* (MBK); 2355 m, 9 Sep. 2011, *H. Funakoshi et al. 085234* (MBK); 2450-2545 m, 31 Aug. 2013, *K. Fujikawa et al. 094770* (MBK); 2550 m, 1 Sep. 2013, *K. Fujikawa et al. 094855* (MBK); 1430 m, 19 Mar. 1956, *F. Kingdon-Ward 21819* (BM); 1450 m, 22 Oct. 1956, *F. Kingdon-Ward 22738* (BM). Mindat District, township not specified: 2590 m, 9 Nov 1962, *Maung Gale 9164* (E); 2000 m, 14 Aug. 2016, *Thet Yu Nwe TY 62* (RAF).

Distribution. Pakistan, Sri Lanka, India, Nepal, Bhutan, N Thailand, SW China.

var. **ciliatum** (Lindl.) Hook.f., Fl. Brit. India 6: 168. 1890; Pearce & Cribb, Orchids of Bhutan: 195, fig. 48, pl. 6 [bottom-left]. 2002; Chen et al. in Fl. China 25: 166. 2009; Fl. China Illustr. 25: fig. 225.1–16. 2010; Ormerod et al. in Phytotaxa 481 (1): 221. 2021.

— *Satyrium ciliatum* Lindl., Gen. Sp. Orchid. Pl.: 341. 1838.

Specimens examined. CHIN STATE. Mindat District, township not specified: 2135 m, 2 Sep. 1956, *F. Kingdon-Ward* 22655 (BM); 2590 m, 26 Oct. 1956, *F. Kingdon-Ward* 22766 (BM).

Distribution. N India, Himalayas, S and SW China.

SPATHOGLOTTIS Blume

Spathoglottis pubescens Lindl., Gen. Sp. Orchid. Pl.: 120. 1831; Hook.f., Fl. Brit. India 5: 814. 1890; Grant, Orchids of Burma: 191. 1895; Seidenf. in Opera Bot. 89: 60, fig. 29. 1986; Kress et al. in Contr. U.S. Natl. Herb. 45: 88. 2003; Chen & Bell in Fl. China 25: 288. 2009; Fl. China Illustr. 25: fig. 413.3–4. 2010; Kurzweil in Fl. Thailand 12 (2): 630, fig. 341, pl. LIV.4. 2014; Nyan Tun, Wild Orchids of Myanmar: 408 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 102. 2020; Ormerod et al. in Phytotaxa 481 (1): 224. 2021.

— *Spathoglottis khasyana* Griff., Not. Pl. Asiat. 3: 323. 1851.

— *Spathoglottis bensoni* Hook.f., Fl. Brit. India 5: 814. 1890; Grant, Orchids of Burma: 189. 1895; Kress et al. in Contr. U.S. Natl. Herb. 45: 88. 2003.

— *Spathoglottis pubescens* var. *berkeleyi* Hook.f., Fl. Brit. India 5: 814. 1890; Grant, Orchids of Burma: 191. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Sep. 2002, *Ling Shein Man & Cho Cho Win* 024419 (MBK, TI); 2006, *Ling Shein Man* 052210 (MBK); 700 m, 10 Sep. 2011, *H. Funakoshi et al.* 085272 (MBK); 750-1200 m, 5 Dec. 2002, *J. Murata et al.* 025578 (MBK); 1200 m, 21 Oct. 2008, *Om Ling Htang* 053641 (MBK); 1500 m, 2 Oct. 2008, *S. Yasuda* 053622 (MBK); 1740 m, 15 Sep. 1956, *Maung Gale-2 & Chit Ko Ko* 5859 (RAF). Mindat Township: 1450 m, 16 Aug. 1956, *F. Kingdon-Ward* 22567 (BM).

Distribution. E Himalaya, NE India, Bangladesh, China, Nicobar Islands, Thailand, Laos, Vietnam, Cambodia.

SPIRANTHES Richard

Spiranthes sinensis (Pers.) Ames, Orchidaceae 2: 53. 1908; Seidenf. in Dansk Bot. Ark. 32 (2): 105, fig. 65. 1978; Pearce & Cribb, Orchids of Bhutan: 116, fig. 29, pl. 5 [top-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 88. 2003; Chen et al. in Fl. China 25: 85. 2009; Fl. China Illustr. 25: figs. 123 & 129.7–9. 2010; Pedersen in Fl. Thailand 12 (1): 267, fig. 156, pl. XXII.2. 2011; Kang et al., Seed Pl. Natma Taung: 99 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 102. 2020; Ormerod et al. in Phytotaxa 481 (1): 225. 2021.

— *Neottia sinensis* Pers., Syn. Pl. 2: 511. 1807.

— *Spiranthes flexuosa* (Sm.) Lindl. in Bot. Reg. 10: sub t. 823. 1824.

— *Spiranthes australis* (R.Br.) Lindl. in Bot. Reg. 10: sub t. 823. 1824; Hook.f., Fl. Brit. India 6: 102. 1890.

— *Spiranthes himalayensis* Survesw. et al. in PhytoKeys 89: 118. 2017.

Specimens examined. CHIN STATE. Kanpetlet Township: 13 Aug. 2008, *S. Yasuda 053617* (MBK); 2270 m, 10 Oct. 2008, *S. Yasuda 053629* (MBK); 2680 m, 22 Aug. 2013, *K. Fujikawa et al. 094255* (MBK). Mindat Township: 2450-2545 m, 31 Aug. 2013, *K. Fujikawa et al. 094723* (MBK). Matupi Township: 2550 m, 23 July 2013, *Mu Mu Aung & Law Shine 092697* (MBK). Mindat District, township not specified: 1830 m, 28 Aug. 1956, *Mg Gale-2 & Chit Ko Ko 5720* (RAF), det. herbarium DD; 1525-1830 m, 1 Sep. 1956, *F. Kingdon-Ward 22656* (BM); 2440-2590 m, 12 Nov. 1956, *F. Kingdon-Ward 22848* (BM, K); 14 Aug. 2016, *Thet Yu Nwe TY 69* (RAF).

Distribution. Throughout temperate, subtropical and tropical Asia ranging to the SW Pacific Ocean islands; Australia, New Zealand, Middle East, E Europe.

STRONGYLERIA (Pfitzer) Schuiteman et al.

Strongyleria pannea (Lindl.) Schuit. et al. in Bot. J. Linn. Soc. 186: 201. 2018; Aung et al. in PhytoKeys 138: 102. 2020; Ormerod et al. in Phytotaxa 481 (1): 226. 2021.

— *Eria pannea* Lindl. in Edwards's Bot. Reg. 28 (Misc.): 64. 1842; Hook.f., Fl. Brit. India 5: 804. 1890; Grant, Orchids of Burma: 144. 1895; Seidenf. in Opera Bot. 62: 45, fig. 20, pl. IIIb. 1982; Pearce & Cribb, Orchids of Bhutan: 374. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 77. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 144 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 272 (incl. colour photo). 2014.

— *Eria teretifolia* Griff., Itin. Pl. Khasyah Mts.: 202. 1848.

— *Eria calamifolia* Hook.f., Fl. Brit. India 6: 191. 1890; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003.

— *Pinalia pannea* (Lindl.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

— *Mycaranthes pannea* (Lindl.) S.C.Chen & J.J.Wood in Fl. China 25: 348. 2009; Aung et al. in PhytoKeys 138: 91. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: 17 May 2007, *N. Tanaka et al. 051126* (MBK, TNS); *051127* (MBK); 1552 m, 26 Feb. 2007, *K. Fujikawa 050121* (MBK); 1750 m, 26 Apr. 2003, *J. Murata et al. 029704* (MBK). Mindat Township: 1220-1525 m, 11 May 1956, *F. Kingdon-Ward 22218* (BM), det. Alsterlund; 1370 m, 18 Mar. 1956, *F. Kingdon-Ward 21818* (BM), det. Alsterlund; 1525 m, Apr. 1956, *Maung Gale-2 & Chit Ko Ko 5560* (RAF). Mindat District, township not specified: 1924, *R.E. Cooper 6087* (E, SING).

Distribution. E Himalaya, NE India, S and SW China, Thailand, Laos, Vietnam, Cambodia, Malaysia, W Indonesia.

THELASIS Blume

Thelasis khasiana Hook.f., Fl. Brit. India 6: 87. 1890; Seidenf. in Opera Bot. 89: 159, fig. 102, pl. XIVc. 1986; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 229 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 366. 2009; Aung et al. in PhytoKeys 138: 103. 2020; Ormerod et al. in Phytotaxa 481 (1): 228. 2021.

— *Thelasis pygmaea* (Griff.) Blume var. *khasiana* (Hook.f.) Schltr. in Mém. Herb. Boissier 8 (21): 71. 1900.

Specimens examined. CHIN STATE. Mindat District, township not specified: 1525 m, 18 July 1956, *F. Kingdon-Ward 22504* (BM).

Distribution. NE India, SW China, Thailand, Vietnam.

THUNIA H.G.Reichenbach

Thunia alba (Lindl.) Rchb.f. in Bot. Zeitung (Berlin) 10: 764. 1852; Seidenf. in Opera Bot. 89: 14, fig. 2, pl. Ic. 1986; Grant, Orchids of Burma: 206. 1895; Pearce & Cribb, Orchids of Bhutan: 321, fig. 77a–l, pl. 12 [top-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 234 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 315. 2009; Fl. China Illustr. 25: fig. 447.4–6. 2010; Suddee in Fl. Thailand 12 (2): 654, fig. 353, pl. LVI.3. 2014; Nyan Tun, Wild Orchids of Myanmar: 423–425 (incl. colour photos). 2014; Aung et al. in PhytoKeys 138: 103. 2020; Ormerod et al. in Phytotaxa 481 (1): 230. 2021.

var. **alba**

— *Phaius albus* Lindl. in N.Wallich, Pl. Asiat. Rar. 2: 85. 1831; Hook.f., Fl. Brit. India 5: 818. 1890 [as *Phajus*].

— *Thunia marshalliana* Rchb.f. in Linnaea 41: 65. 1877.

— ? *Thunia candidissima* Rchb.f. in Gard. Chron., ser. 3, 4: 34. 1888.

— *Phaius marshallianus* (Rchb.f.) N.E.Br. in Bull. Misc. Inform. Kew 1889: 101. 1889.

— *Thunia alba* var. *marshalliana* (Rchb.f.) B.Grant, Orchids of Burma: 207. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 8 June 2008, *S. Yasuda 060102* (MBK); 9 Aug. 2008, *S. Yasuda 060048* (MBK); *060049* (MBK). Mindat Township: 2200 m, 24 May 2012, *K. Fujikawa et al. 089202* (MBK). Mindat District, township not specified: 1924, *R.E. Cooper 6068* (E); 1220–1370 m, 6 June 1956, *F. Kingdon-Ward 22320* (BM).

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Thailand, Vietnam, Peninsular Malaysia.

Note. Var. *bracteata* (Roxb.) N.Pearce & P.J.Cribb differs by lacking a yellow patch on the lip. It has not been recorded in the Natma Taung area as yet.

Thunia bensoniae Hook.f. in Bot. Mag. 94: t. 5694. 1868; Seidenf. in Opera Bot. 89: 12, pl. 1b. 1986; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 235 (incl. colour photo). 2005; Suddee in Fl. Thailand 12 (2): 655, pl. LVI.5. 2015; Nyan Tun, Wild Orchids of Myanmar: 426 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 103. 2020; Ormerod et al. in Phytotaxa 481 (1): 230. 2021.

— *Phaius bensoniae* (Hook.f.) Hemsl. in Gard. Chron., n.s., 18: 565. 1882.

- *Phaius albus* var. *bensoniae* (Hook.f.) Hook.f., Fl. Brit. India 5: 818. 1890.
- *Thunia winniana* L.Linden, Lindenia 8: 43. 1894.
- *Thunia alba* var. *bensoniae* (Hook.f.) B.Grant, Orchids of Burma: 208. 1895.

Specimens examined. CHIN STATE. Matupi Township: 1180 m, 20 July 2013, *Mu Mu Aung et al.* 092604 (MBK).

Distribution. NE India, Thailand.

THUNIOPSIS L.Li et al.

Thuniopsis subsessilis (Rolfe) Ormerod et al. in Gard. Bull. Singapore 72 (1): 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 231. 2021.

- *Arundina subsessilis* Rolfe in Bull. Misc. Inform. Kew 1914: 374. 1914.
- *Dilochia subsessilis* (Rolfe) S.Thomas in Kew Bull. 48: 401. 1993; Kress et al. in Contr. U.S. Natl. Herb. 45: 76. 2003; Aung et al. in PhytoKeys 138: 83. 2020.
- ? *Thunia cleistogama* D.P.Ye & H.Jiang, The wild orchids in Yunnan: 248. 2010, nom. nud.
- ? *Thuniopsis cleistogama* L.Li et al. in PLoS ONE 10 (8): 12. 2015; Aung et al. in PhytoKeys 138: 103. 2020.

Specimens examined. CHIN STATE. Kanpetlet Township: 6 Aug. 2016, *Y.D. Kim s.n.*, photographic record.

Distribution. ? SW China.

Note. It has been shown that the long-lost Myanmar endemic *Arundina subsessilis* belongs to the recently described Chinese genus *Thuniopsis*, and is very similar to or conspecific with *T. cleistogama* (Kurzweil et al. 2020).

TRICHOTOSIA Blume

Trichotosia dasyphylla (C.S.P.Parish & Rehb.f.) Kraenzl. in H.G.A.Engler (ed.), Pflanzenr., IV, 50, II, B, 21: 138. 1911; Seidenf. in Opera Bot. 62: 12, figs. 1–2, pl. Ia. 1982; Pearce & Cribb, Orchids of Bhutan: 390, fig. 91. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 239 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 358. 2009; Fl. China Illustr. 25: fig. 481. 2010; Nyan Tun, Wild Orchids of Myanmar: 431 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 234. 2021.

- *Eria dasyphylla* C.S.P.Parish & Rehb.f. in Trans. Linn. Soc. London 30: 147. 1874; Hook.f., Fl. Brit. India 5: 808. 1890; Grant, Orchids of Burma: 136. 1895.
- *Pinalia dasyphylla* (C.S.P.Parish & Rehb.f.) Kuntze, Revis. Gen. Pl. 2: 679. 1891.

Specimens examined. CHIN STATE. Kanpetlet Township: 26 July 2008, *S. Yasuda* 060079

(MBK). Matupi Township: 1760 m, 11 July 2013, *Mu Mu Aung et al. 092415* (MBK).

Distribution. Nepal, NE India, SW China, Thailand, Laos, Vietnam.

TROPIDIA Lindley

Tropidia angulosa (Lindl.) Blume, Coll. Orchid.: 122. 1859; Hook.f., Fl. Brit. India 6: 92. 1890; Seidenf. in Dansk Bot. Ark. 32 (2): 108, fig. 67. 1978; Pearce & Cribb, Orchids of Bhutan: 71, fig. 17. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Chen et al. in Fl. China 25: 195. 2009; Fl. China Illustr. 25: figs. 259.1–3 & 260. 2010; Pedersen in Fl. Thailand 12 (2): 659, fig. 355. 2014; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 235. 2021.

— *Cnemidia angulosa* Lindl. in Edwards's Bot. Reg. 19: sub t. 1618. 1833.

— *Cnemidia semilibera* Lindl. in Edwards's Bot. Reg. 19: sub t. 1618. 1833; Grant, Orchids of Burma: 356. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 750-1375 m, 6 Sep. 2013, *K. Fujikawa et al. 095066* (MBK).

Distribution. India, Bhutan, Bangladesh, S and SW China, Taiwan, Andaman Islands, Thailand, Vietnam, Peninsular Malaysia, W Indonesia, Philippines.

Tropidia curculigoides Lindl., Gen. Sp. Orchid. Pl.: 497. 1840; Hook.f., Fl. Brit. India 6: 93. 1890; Grant, Orchids of Burma: 367. 1895; Seidenf. in Dansk Bot. Ark. 32 (2): 110, fig. 68. 1978; Pearce & Cribb, Orchids of Bhutan: 73. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 241 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 195. 2009; Fl. China Illustr. 25: fig. 259.4–5. 2010; Pedersen in Fl. Thailand 12 (2): 661, fig. 356. 2014; Kang et al., Seed Pl. Natma Taung: 100 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 235. 2021.

Specimens examined. CHIN STATE. Mindat District, township not specified: 26 July 2015, *Y.D. Kim s.n.*, photographic record; fide Kang et al. (2017: 100).

Distribution. India, Himalaya, S and SW China, Taiwan, Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia to N Australia and New Caledonia.

VANDA R. Brown

Vanda ampullacea (Roxb.) L.M.Gardiner in Phytotaxa 61 (1): 48. 2012; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 236. 2021.

— *Aerides ampullacea* Roxb., Fl. Ind. ed. 1832, 3: 476. 1832.

— *Saccolabium ampullaceum* (Roxb.) Lindl., Sert. Orchid.: t. 17. 1838; Hook.f., Fl. Brit. India 6: 64. 1890; Grant, Orchids of Burma: 277. 1895.

- *Gastrochilus ampullaceus* (Roxb.) Kuntze, Revis. Gen. Pl. 2: 661. 1891.
- *Ascocentrum ampullaceum* (Roxb.) Schltr. in Repert. Spec. Nov. Regni Veg. Beih. 1: 975. 1913; Seidenf. in Opera Bot. 95: 314, fig. 205, pl. XXXVIId. 1988; Pearce & Cribb, Orchids of Bhutan: 498, fig. 109, pl. 27 [top-right]. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 65. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 14 (incl. colour photo). 2005; Chen & Wood in Fl. China 25: 502. 2009; Fl. China Illustr. 25: fig. 617.5. 2010; Nyan Tun, Wild Orchids of Myanmar: 30 (incl. colour photos). 2014.
- *Ascocentrum ampullaceum* var. *aurantiacum* Pradhan, Indian Orchids: Guide Identif. & Cult. 2: 561. 1979.
- *Saccolabium ampullaceum* var. *moulmeinense* B.S.Williams, Orch.-Grow. Man., ed. 4: 257. 1871; Grant, Orchids of Burma: 277. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 9 Aug. 2008, *S. Yasuda 060014* (MBK).

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Andaman Islands, Thailand, Laos, Vietnam.

Vanda bensonii Bateman in Bot. Mag. 92: t. 5611. 1866; Hook.f., Fl. Brit. India 6: 51. 1890; Grant, Orchids of Burma: 249. 1895; Seidenf. in Opera Bot. 95: 197, fig. 121, pl. XXd. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 89. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 242 (incl. colour photo). 2005; Nyan Tun, Wild Orchids of Myanmar: 438–442 (incl. colour photos). 2014; Kang et al., Seed Pl. Natma Taung: 101 (incl. colour photos). 2017; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 236. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: 1790 m, 26 Apr. 2003, *J. Murata et al. 029705* (MBK), ident. uncertain; ca. 2300–2450 m, 4 June 2002, *N. Tanaka et al. 023277* (MBK), ident. uncertain. Mindat Township: 1370 m, 12 Mar. 1956, *F. Kingdon-Ward 21803* (BM); 1525 m, May 1956, *Maung Gale-2 5493* (RAF), ident. uncertain.

Distribution. NE India, Thailand.

Vanda coerulescens Griff., Not. Pl. Asiat. 3: 352. 1851; Hook.f., Fl. Brit. India 6: 50. 1890; Grant, Orchids of Burma: 251. 1895; Seidenf. in Opera Bot. 95: 208, fig. 130, pl. XXIIc. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 90. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 243 (incl. colour photos). 2005; Chen & Bell in Fl. China 25: 473. 2009; Fl. China Illustr. 25: fig. 616.1–2. 2010; Nyan Tun, Wild Orchids of Myanmar: 449 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 104. 2020; Ormerod et al. in Phytotaxa 481 (1): 238. 2021.

- *Vanda caerulescens* Lindl. in J. Hort. Soc. London 6: viii. 1851, orth. var.
- *Vanda coerulescens* var. *lowiana* Rehb.f. in Gard. Chron., n.s., 8: 102. 1877.
- ? *Vanda parviflora* var. *albiflora* Hook.f., Fl. Brit. India 6: 50. 1890.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 790 m, 27 Apr. 2003, *J. Murata et al. 029721* (MBK).

Distribution. E Himalaya, NE India, Bangladesh, SW China, Thailand.

Vanda denisoniana Benson & Rchb.f. in Gard. Chron. 1869: 528. 1869; Hook.f., Fl. Brit. India 6: 51. 1890; Grant, Orchids of Burma: 252. 1895; Seidenf. in Opera Bot. 95: 198, fig. 122, pl. XXIIa. 1988; Kress et al. in Contr. U.S. Natl. Herb. 45: 90. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 243 (incl. colour photos). 2005; Nyan Tun, Wild Orchids of Myanmar: 450 (incl. colour photo). 2014; Aung et al. in PhytoKeys 138: 105. 2020; Ormerod et al. in Phytotaxa 481 (1): 239. 2021.

Specimens examined. CHIN STATE. Kanpetlet Township: ca. 1680-1315 m, 22 May 2004, *N. Tanaka et al.* 031040 (MBK).

Distribution. SW China, Thailand, Laos, Vietnam.

? **Vanda stangeana** Rchb.f. in Bot. Zeitung (Berlin) 16: 351. 1858; Hook.f., Fl. Brit. India 6: 54. 1890.

Distribution. NE India.

Note. This species, a native of Assam and the E Himalaya, is listed here because of a literature reference in Kingdon-Ward's account of the flora and vegetation of Mt. Victoria (Kingdon-Ward 1959: 60). We do not know whether a specimen exists which would enable us to check this identification.

ZEUXINE Lindley, nom. cons.

Zeuxine affinis (Lindl.) Benth. ex Hook.f., Fl. Brit. India 6: 108. 1890; Seidenf. in Dansk Bot. Ark. 32 (2): 88, fig. 55. 1978; Pearce & Cribb, Orchids of Bhutan: 110. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 90. 2003; Vaddhanaphuti, Field Guide Wild Orchids of Thailand, ed. 4: 247 (incl. colour photo). 2005; Chen et al. in Fl. China 25: 75. 2009; Fl. China Illustr. 25: figs. 99.8–10 & 108. 2010; Pedersen in Fl. Thailand 12 (1): 283, fig. 165, pl. XXIV.1. 2011; Aung et al. in PhytoKeys 138: 105. 2020; Ormerod et al. in Phytotaxa 481 (1): 242. 2021.

— *Monochilus affinis* Lindl., Gen. Sp. Orchid. Pl.: 487. 1840; Grant, Orchids of Burma: 358. 1895.

— *Hetaeria mollis* Lindl. in J. Proc. Linn. Soc., Bot. 1: 184. 1857 [as *Aetheria mollis*].

Specimens examined. CHIN STATE. Kanpetlet Township: 20 Jan. 2013, *Law Shine* 096457 (MBK); 28 Feb. 2013, *M. Matsumoto* 091232 (MBK); 1200 m, 10 Feb. 2013, *Ling Shein Man* 096277 (MBK); 1371 m, 15 Jan. 2012, *Ling Shein Man* 088229 (MBK); 1465 m, 28 Feb. 2013, *S. Sangvirotjanaphat et al.* 091142 (MBK); 1575 m, 24 Feb. 2014, *P. Srisanga et al.* 097295 (MBK); 1816 m, 15 Feb. 2007, *K. Fujikawa et al.* 051014A (MBK); 2000 m, 26 Dec. 2012, *Ling Shein Man* 096022 (MBK). Mindat Township: 18 Apr. 2012, *Law Shine* 088403 (MBK); 1430 m, 8 Mar. 1956, *F. Kingdon-Ward* 21758 (BM), det. Alsterlund.

Distribution. N India, Nepal, Bhutan, Bangladesh, S and SW China, Taiwan, Japan, Andaman Islands, Thailand, Laos, Vietnam, Peninsular Malaysia.

Zeuxine flava (Wall. ex Lindl.) Trimen, Syst. Cat. Fl. Pl. Ceylon: 90. 1885; Hook.f., Fl. Brit. India 6: 108. 1890; Seidenf. in Dansk Bot. Ark. 32 (2): 84, fig. 52. 1978; Pearce & Cribb, Orchids of Bhutan: 111, fig. 28. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 90. 2003; Chen et al. in Fl. China 25: 74. 2009; Fl. China Illustr. 25: fig. 104. 2010; Pedersen in Fl. Thailand 12 (1): 288, fig. 168, pl. XXIV.3. 2011; Aung et al. in PhytoKeys 138: 105. 2020; Ormerod et al. in Phytotaxa 481 (1): 243. 2021.

— *Monochilus flavus* Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 487. 1840; Grant, Orchids of Burma: 358. 1895.

Specimens examined. CHIN STATE. Kanpetlet Township: 2285 m, Apr. 1939, *F.G. Dickason 8448* (AMES, K).

Distribution. N India, Nepal, Bhutan, Bangladesh, SW China, Thailand, Vietnam.

Zeuxine longilabris (Lindl.) Trimen, Syst. Cat. Fl. Pl. Ceylon: 90. 1885; Hook.f., Fl. Brit. India 6: 107. 1890; Seidenf. in Dansk Bot. Ark. 32 (2): 91, fig. 57. 1978; Aung et al. in PhytoKeys 138: 105. 2020; Ormerod et al. in Phytotaxa 481 (1): 243. 2021.

— *Monochilus longilabris* Lindl., Gen. Sp. Orchid. Pl.: 487. 1840.

Specimens examined. CHIN STATE. Kanpetlet Township: 850 m, 4 Dec. 2002, *J. Murata et al. 025539* (MBK).

Distribution. Sri Lanka, India, Nepal, Bangladesh, Thailand, Cambodia.

Zeuxine strateumatica (L.) Schltr. in Bot. Jahrb. Syst. 45: 394. 1911; Seidenf. in Dansk Bot. Ark. 32 (2): 79, fig. 48. 1978; Pearce & Cribb, Orchids of Bhutan: 115. 2002; Kress et al. in Contr. U.S. Natl. Herb. 45: 90. 2003; Chen et al. in Fl. China 25: 72. 2009; Fl. China Illustr. 25: fig. 101. 2010; Pedersen in Fl. Thailand 12 (1): 297, fig. 173. 2011; Aung et al. in PhytoKeys 138: 105. 2020; Ormerod et al. in Phytotaxa 481 (1): 244. 2021.

— *Orchis strateumatica* L., Sp. Pl.: 943. 1753.

— *Neottia strateumatica* (L.) R.Br., Prodr. Fl. Nov. Holland.: 319. 1810, nom. inval.; Hook.f., Fl. Brit. India 6: 103. 1890.

— *Zeuxine sulcata* (Roxb.) Lindl. ex Wight, Cat. Ind. Pl.: 123. 1836 [not seen].

Specimens examined. CHIN STATE. Kanpetlet Township: 1650 m, 5 Nov. 2008, *S. Yasuda 053668* (MBK).

Distribution. Very widespread from the Middle East throughout tropical and extratropical Asia; naturalised in Hawaii, USA and the Caribbean.

Acknowledgements

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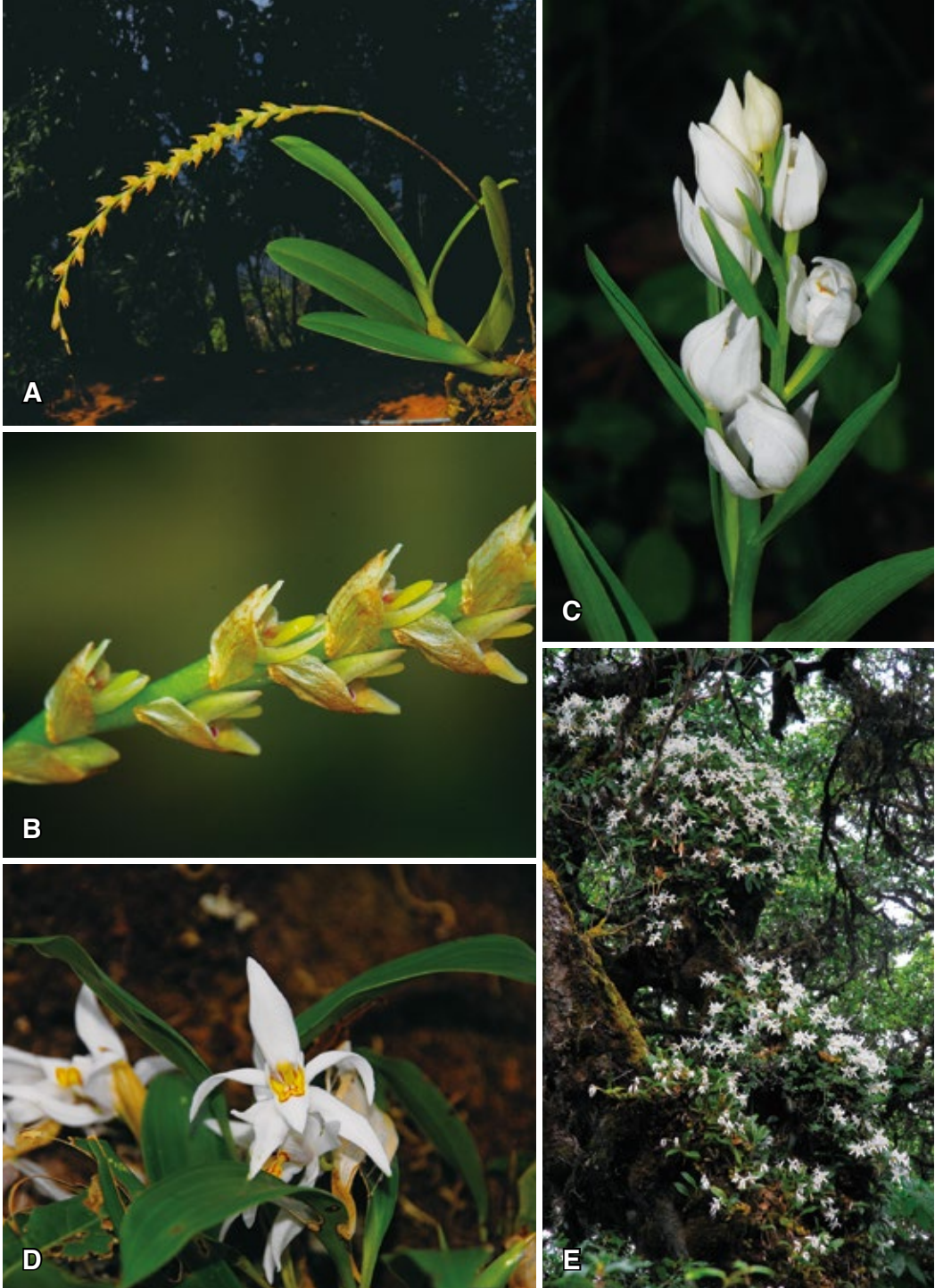
Plates



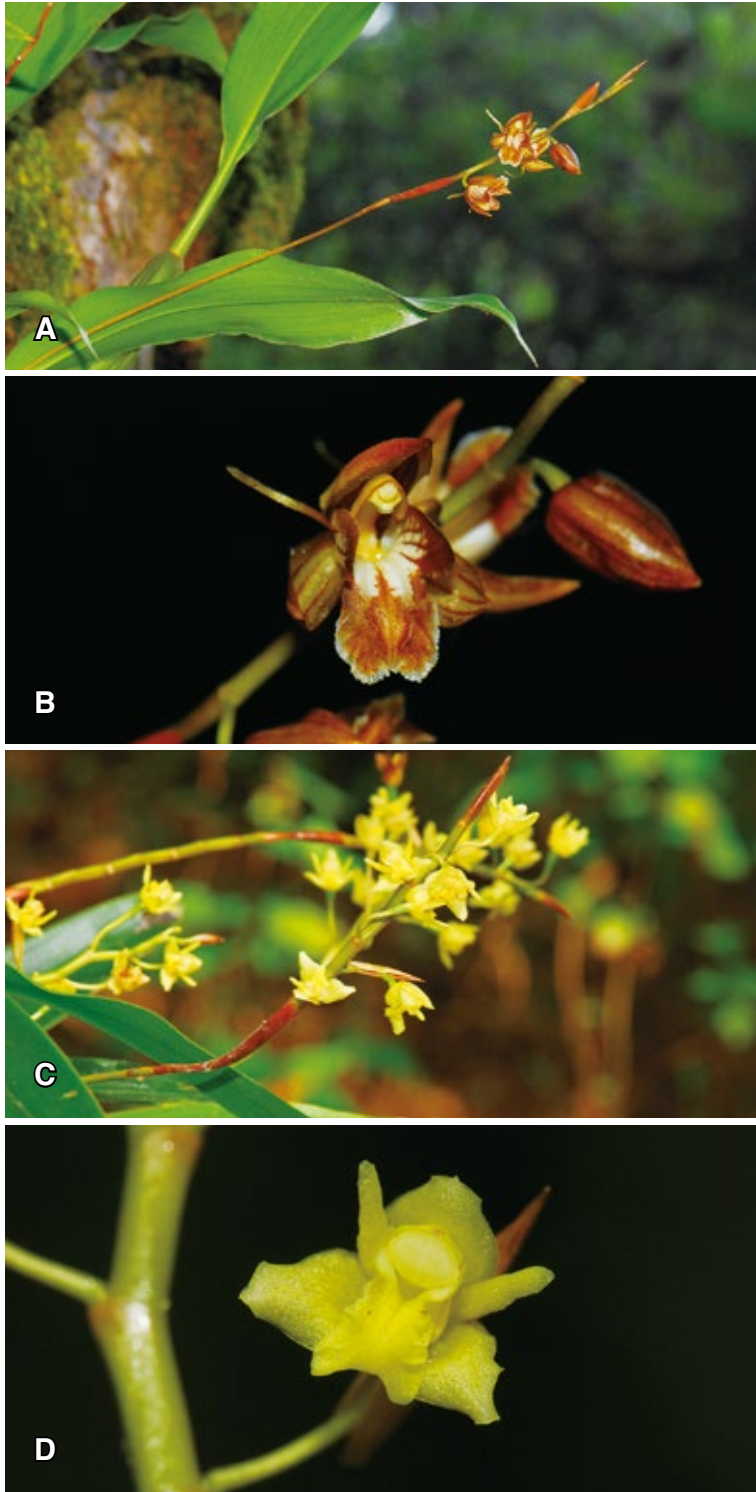
Renanthera imschootiana Rolfe (May 19, 2014, photo by Santi Watthana)



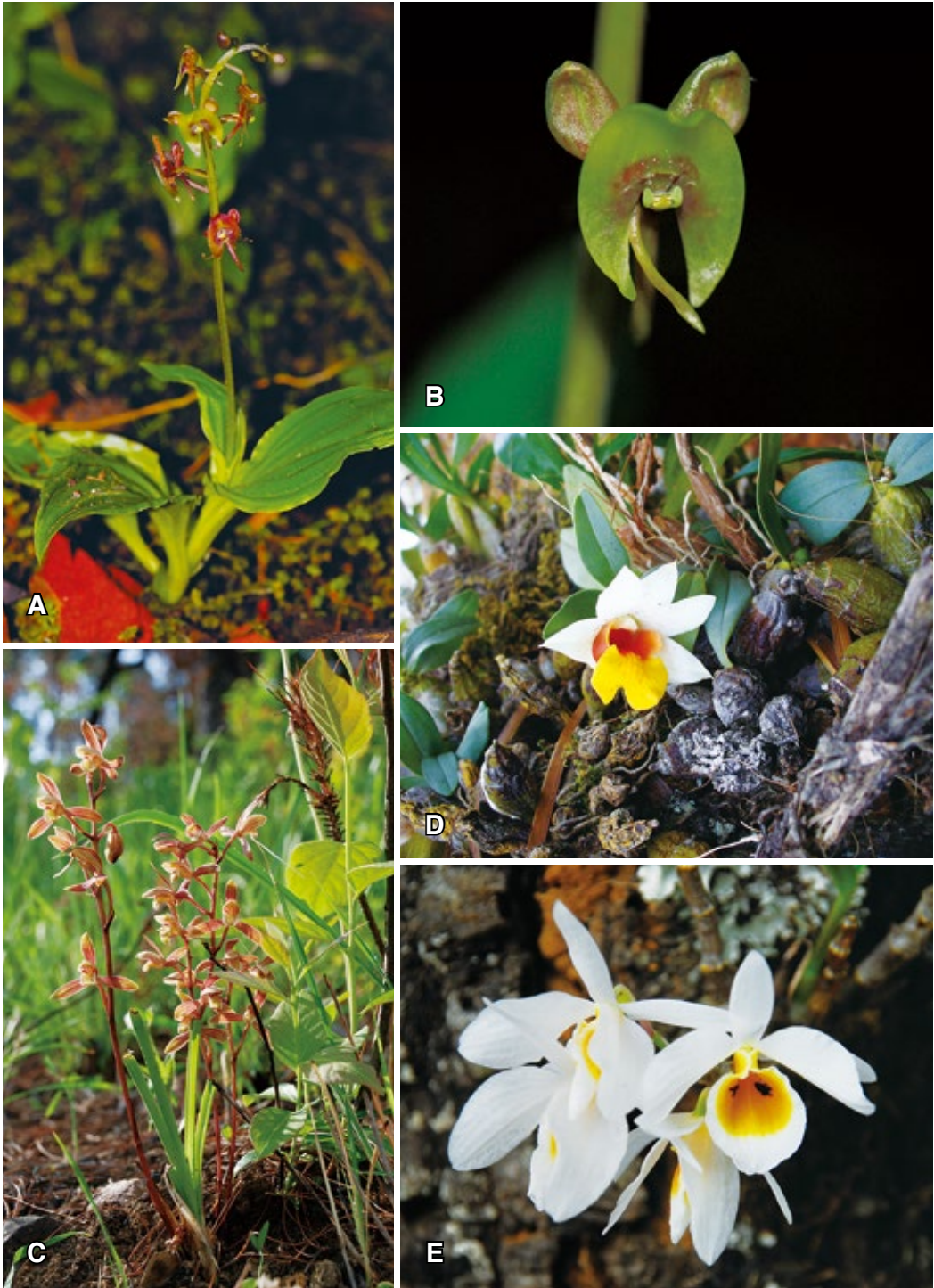
A. *Ania viridifusca* (Hook.) Tang & W.T.Wang ex Summerh. (Mar. 14, 2014, photo by M. Rodda).
 B. *Arachnis clarkei* (Rchb.f.) J.J.Sm. (Feb. 16, 2012). C. *Bulbophyllum lobbii* Lindl. (July 18, 2014).
 D. *Bulbophyllum secundum* Hook.f. (May 24, 2012, photo by S. Watthana).
 E. *Bulbophyllum pectinatum* Finet (July 18, 2014).



A & B. *Bulbophyllum sunipia* J.J.Verm., Schuit. & de Vogel (May 20, 2012, photos by S. Watthana).
C. *Cephalanthera damasonium* (Mill.) Druce (May 24, 2012, photo by S. Watthana).
D & E. *Coelogyne corymbosa* Lindl. (May 19, 2014 & May 26, 2012, photos by S. Watthana).



A & B. *Coelogyne micrantha* Lindl. (May 24, 2012, photos by S. Watthana).
C & D. *Coelogyne prolifera* Lindl. (May 24, 2012, photos by S. Watthana).



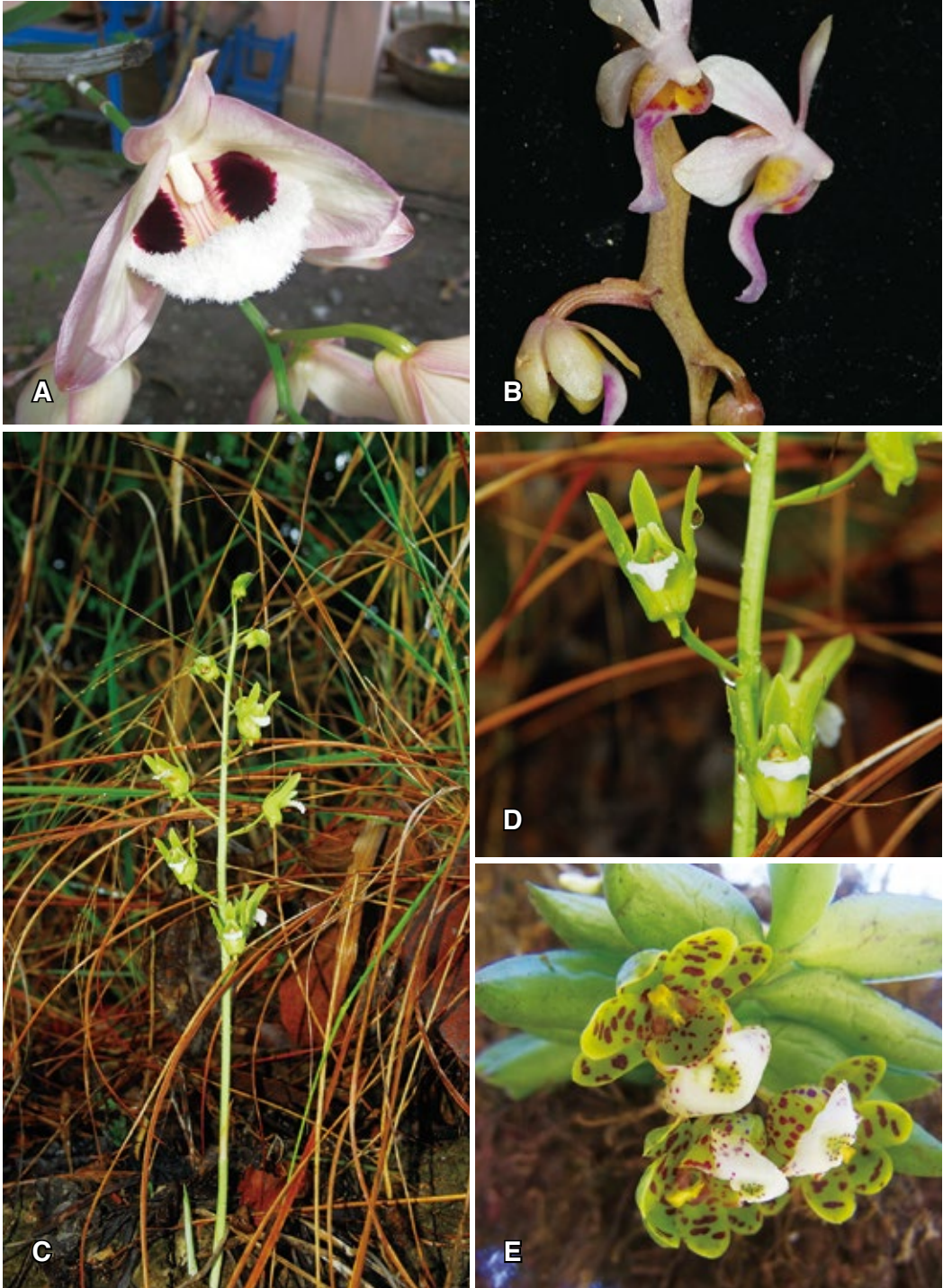
A & B. *Crepidium acuminatum* (D. Don) Szlach. (May 19, 2014, photos by S. Watthana).
C. *Cymbidium ensifolium* (L.) Sw. (June 15, 2012). **D.** *Dendrobium bellatulum* Rolfe (Nov. 16, 2011).
E. *Dendrobium bensoniae* Rehb. f. (May 19, 2014, photo by S. Watthana).



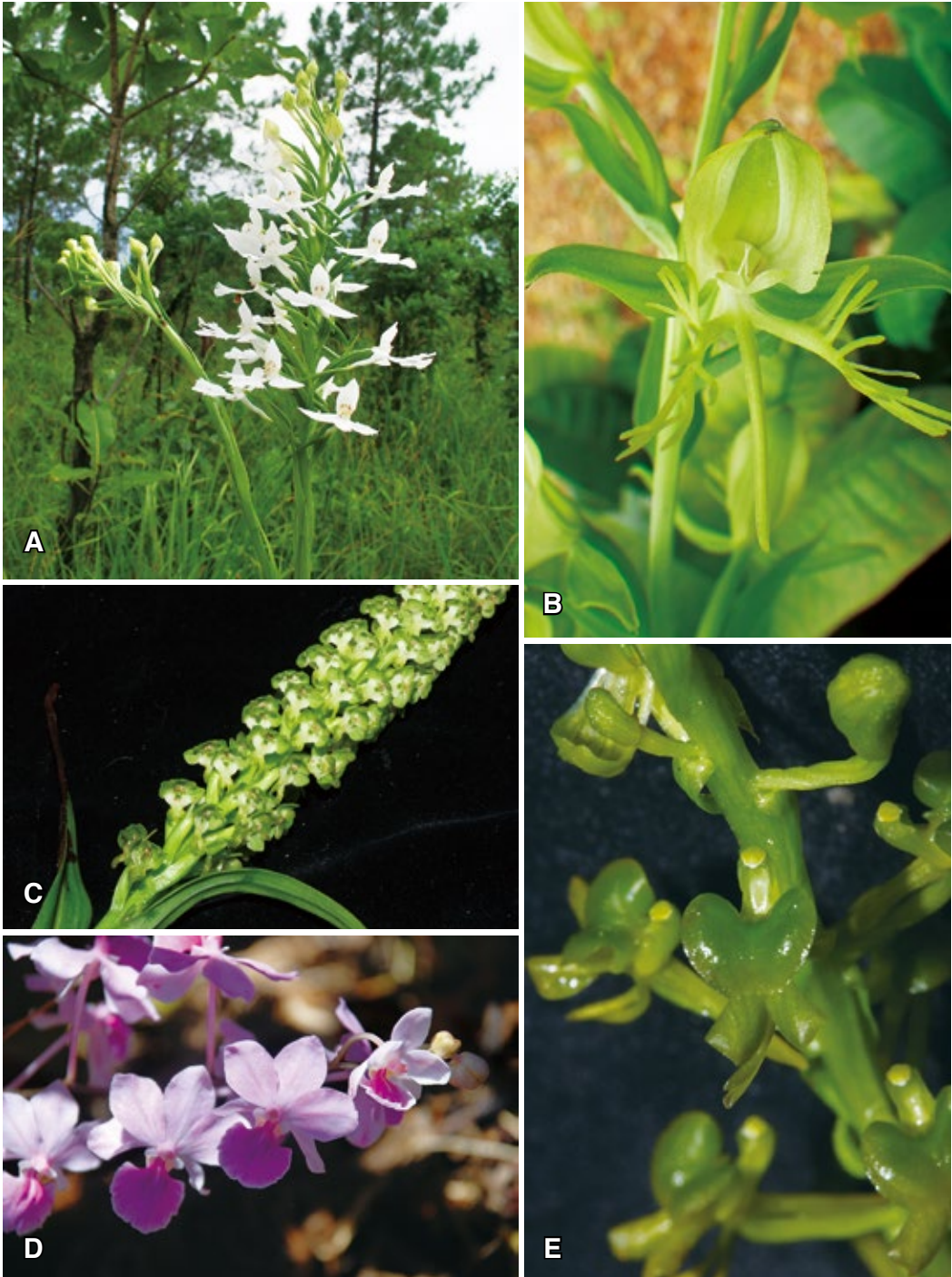
- A. *Dendrobium* cf. *chrysanthum* Wall. ex Lindl. (May 6, 2007).
 B. *Dendrobium chrysotoxum* Lindl. (Apr. 23, 2007).
 C. *Dendrobium crystallinum* Rchb.f. (May 24, 2012, photo by S. Watthana).
 D. *Dendrobium denudans* D.Don (Sep. 29, 2015).
 E. *Dendrobium dickasonii* L.O.Williams (May 24, 2012, photo by S. Watthana).
 F. *Dendrobium heterocarpum* Wall. ex Lindl. (Feb. 1, 2017).



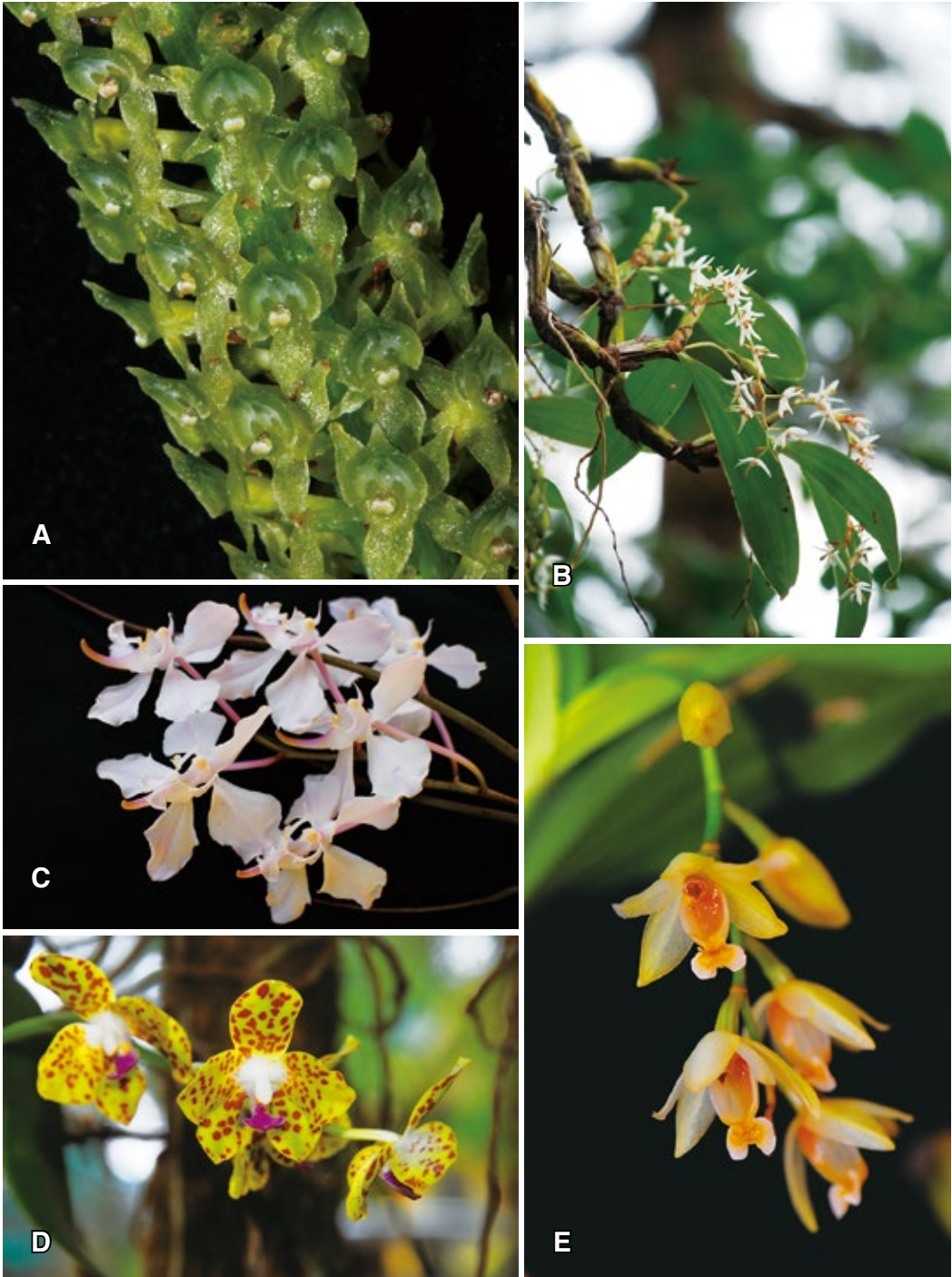
A. *Dendrobium infundibulum* Lindl. (May 24, 2012, photo by S. Watthana).
 B. *Dendrobium laterale* L.O. Williams (May 24, 2012, photo by S. Watthana).
 C. *Dendrobium porphyrochilum* Lindl. (May 29, 2014, photo by S. Watthana).
 D. *Dendrobium primulinum* Lindl. (Mar. 4, 2010).



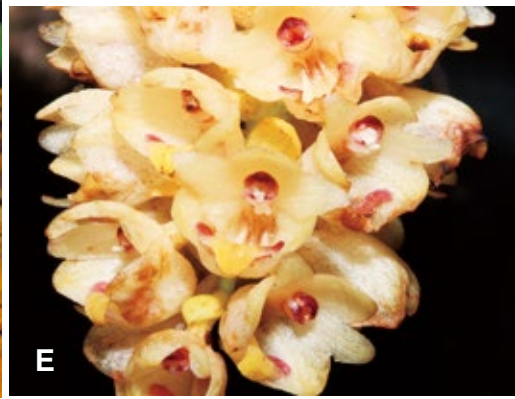
A. *Dendrobium pulchellum* Roxb. ex Lindl. (June 24, 2008).
 B. *Diploprora truncata* Rolfe ex Downie (Mar. 9, 2014, photo by M. Rodda).
 C & D. *Eulophia nuda* Lindl. (May 27, 2014, photos by S. Watthana).
 E. *Gastrochilus distichus* (Lindl.) Kuntze (Feb. 18, 2012).



- A. *Habenaria dentata* (Sw.) Schltr. (Nov. 20, 2008).
 B. *Habenaria yuana* Tang & F.T.Wang (Sep. 24, 2013).
 C. *Herminium kamengense* A.N.Rao (Aug. 10, 2016, photo by H. Kurzweil).
 D. *Holcoglossum amesianum* (Rchb.f.) Christenson (Feb. 21, 2012).
 E. *Liparis odorata* (Willd.) Lindl. (Aug. 13, 2016, photo by H. Kurzweil).



- A. *Malaxis cylindrostachya* (Lindl.) Kuntze (Aug. 14, 2016, photo by H. Kurzweil).
 B. *Otochilus albus* Lindl. (May 24, 2012).
 C. *Papilionanthe vandarum* (Rchb.f.) Garay (Mar. 6, 2014, photo by M. Rodda).
 D. *Phalaenopsis hygrophila* J.M.H.Shaw (May 19, 2014, photo by S. Watthana).
 E. *Pholidota articulata* Lindl. (May 19, 2014, photo by S. Watthana).



A & B. *Pholidota pallida* Lindl. (Aug. 10, 2016, photos by H. Kurzweil).

C. *Pinalia acervata* (Lindl.) Kuntze (May 22, 2014, photo by S. Watthana).

D & E. *Pinalia spicata* (D. Don) S.C. Chen & J.J. Wood (Aug. 9, 2016, photos by H. Kurzweil).



A



D



B



E



C

A. *Pleione humilis* (Sm.) D.Don (Feb. 18, 2012).

B. *Porpax lanii* Seidenf. (May 19, 2014, photo by S. Watthana).

C. *Renanthera imschootiana* Rolfe (May 23, 2012, photo by S. Watthana).

D. *Strongyleria pannea* (Lindl.) Schuit., Y.P.Ng & H.A.Pedersen (May 19, 2014, photo by S. Watthana).

E. *Thunia alba* (Lindl.) Rchb.f. (May 22, 2012).

I n d e x

Italics are used for synonyms. Numbers in boldface type refer to plates.

A			
ACAMPE	9	<i>Arundina bambusifolia</i>	13
<i>Acampe dentata</i>	9	<i>Arundina chinensis</i>	13
Acampe ochracea	9	<i>Arundina graminifolia</i>	13
ACANTHEPHIPIUM	9	<i>Arundina subsessilis</i>	95
Acanthephippium striatum	9	<i>Ascocentrum ampullaceum</i>	97
<i>Aceras angustifolium</i>	63	<i>Ascocentrum ampullaceum</i> var. <i>aurantiacum</i>	97
<i>Aclinia</i> sp.	43	<i>Ascotainia angustifolia</i>	10
ACRIOPSIS	9	<i>Ascotainia hennisiana</i>	10
Acriopsis indica	9	<i>Ascotainia viridifusca</i>	10
AERIDES	10		
<i>Aerides ampullacea</i>	96	B	
<i>Aerides biswasiana</i>	76	<i>Bletia graminifolia</i>	13
<i>Aerides difformis</i>	80	<i>Bolborchis crociformis</i>	70
<i>Aerides retusa</i>	90	BRACHYCORYTHIS	13
<i>Aerides vandarum</i>	77	<i>Brachycorythis acuta</i>	13
ANIA	10	<i>Brachycorythis</i> cf. <i>helferi</i>	14
<i>Ania angustifolia</i>	10	<i>Brachycorythis galeandra</i>	14
<i>Ania viridifusca</i>	10, 102	<i>Brachycorythis obovalis</i>	13
<i>Anisopetalum careyanum</i>	15	BULBOPHYLLUM	14
ANOECTOCHILUS	11	<i>Bulbophyllum alopecurus</i>	22
Anoectochilus albolineatus	11	<i>Bulbophyllum angusteellipticum</i>	16
<i>Anota densiflora</i>	90	<i>Bulbophyllum bifurcatoflorens</i>	19
<i>Anota gigantea</i>	90	<i>Bulbophyllum careyanum</i>	14
ANTHOGONIUM	11	<i>Bulbophyllum careyanum</i> var. <i>ochracea</i>	15
Anthogonium gracile	11	<i>Bulbophyllum</i> cf. <i>refractum</i>	18
<i>Anthogonium griffithii</i>	11	<i>Bulbophyllum congestum</i>	17
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Enumeration of Orchidaceae

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