



## **Stichorkis - Synonymy, taxonomic notes**

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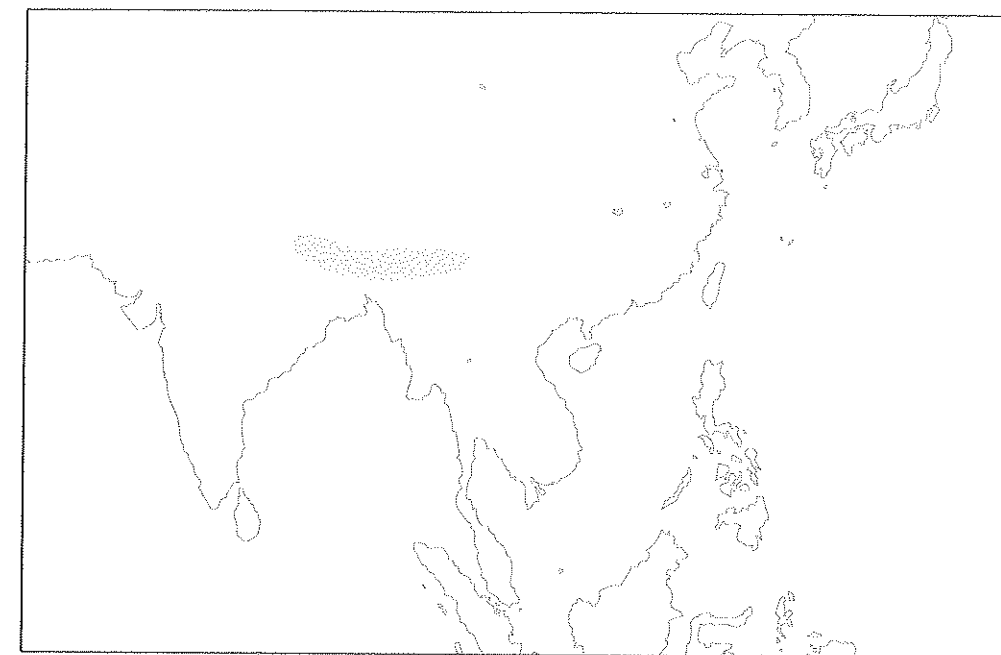
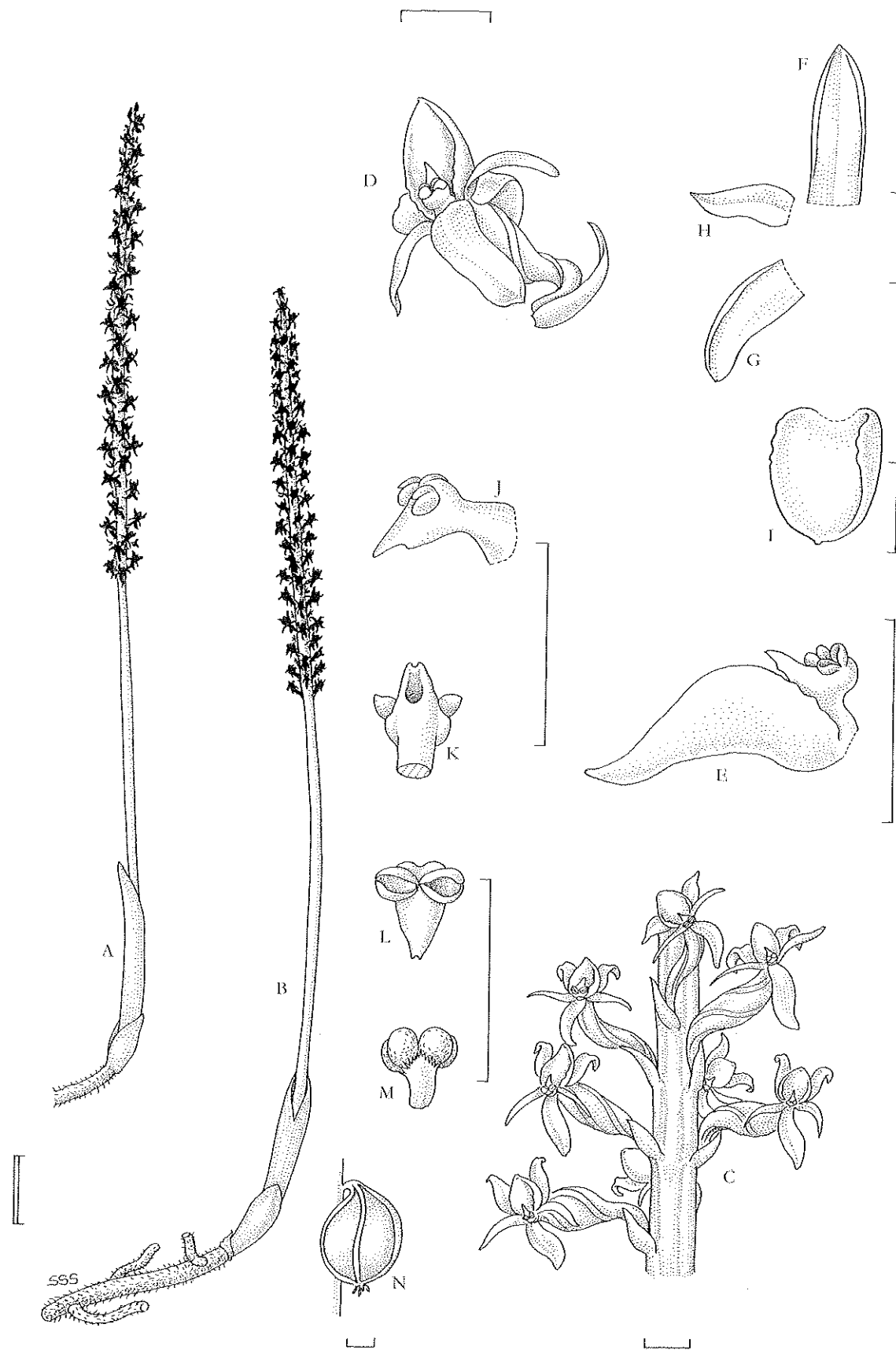


Fig. 383.2. Distribution map of *Risleya*.

Fig. 383.1. *Risleya atropurpurea* King & Pantl. A, B. Habit; C. Inflorescence; D. Flower; E. Labellum and column; F. Dorsal sepal; G. Lateral sepal; H. Petal; I. Labellum; J. Column, side view; K. Column, dorsal view; L. Anther cap; M. Pollinarium; N. Capsule. Single bar = 1 mm, double bar = 1 cm. Drawn by Susanna Stuart-Smith, A-L, N from *Pantling 451* (K), M from *Wilson 4575* (K). Reproduced with permission from N. R. Pearce and P. J. Cribb (2002), *The Orchids of Bhutan*. The Royal Botanic Garden Edinburgh and Royal Government of Bhutan.

fleshy, drying black. *Dorsal sepal* erect, free. *Lateral sepals* similar but oblique. *Petals* free, smaller than sepals, oblique. *Labellum* erect, entire, cucullate. *Column* clavate; anther dorsal on column apex, two-chambered, pollinia waxy, four in two unequal pairs, attached to a large viscidium; rostellum elongate, ovate, shallowly emarginate at apex. *Ovary* cylindrical. (PC)

**Distribution** (Fig. 383.2)

A monospecific genus confined to Sikkim and Bhutan in the eastern Himalayas and western China. (PC)

**Cytogenetics**

No chromosome counts for *Risleya* have been recorded. (AP)

**Ecology**

*Risleya atropurpurea* grows in *Sphagnum* bogs and patches at 3500–4400 m. (PC)

**Pollination**

Nothing is known about pollination in *Risleya*. (AP)

**Uses**

There are no known uses for *Risleya*, and it is not commonly in cultivation. (AP)

**Taxonomic notes**

*Risleya* is closely related to *Malaxis*, especially the temperate *M. monophyllas*. Two species of *Malaxis* are holomycotrophic, and their relationship to *Risleya* warrants further investigation. (PC)

384. STICHORKIS

*Stichorkis* Thouars, *Nouv. Bull. Soc. Philom.*, n. 19 (1809) 318.

Lectotype: *Stichorkis disticha* (Lam.) Pfitz., designated by Rasmussen, *Bot. Not.*, 132, 385–91 (1979).

*Stichorchis* Thouars, *Orch. Hes Austr. Afr.*, Prem. Tabl. Esp., Tabl. des Genres and t. 90 (1822), orth. var. of *Stichorkis*.

*Distichis* Lindl., *Veg. Kingdom*, 181 (1847), *nom. nud.*

*Cestichis* Lindl. ex Pfitz., *Entr. Anordn. Orch.*, 56 (1887).

*Liparis* Rich. sect. *Distichae* Ridl., *J. Linn. Soc., Bot.*, 22, 244–97 (1886). Type species: *Liparis disticha* (Thouars) Lindl.

*Disticholiparis* Marg. & Szlach., *Orchidee (Hamburg)*, 55, 175 (2004), *nom. illeg.* Type species: *Disticholiparis disticha* (Thouars) Marg. & Szlach. (basonym: *Malaxis disticha* Thouars).

**Derivation of name**

From the Greek *stichos*, row or rank, and *orchis*, orchid, in reference to the two distichous rows of bracts that characterize this genus. (PC)

**Description** (Fig. 384.1)

Epiphytic or rarely terrestrial *herbs*. Rhizome creeping, covered by tubular scales. *Stem* pseudobulbous, erect, one-noded, clustered or not, covered when young by 2–5 sterile sheaths, one-leaved at apex. *Leaf* erect, linear or oblanceolate, conduplicate. *Inflorescence* erect, racemose, rachis laterally flattened, shorter than peduncle; floral bracts distichous, imbricate. *Flowers* non-resupinate, opening in succession, usually yellow, green, or orange, often translucent. *Sepals* recurved, dorsal sepal free, lateral sepals sometimes fused for part or all of length. *Petals* free, often linear and unlike sepals, erect. *Labellum* often reflexed, entire or lobed, usually with a pad-like callus, concave at the base, lacking a spur. *Column*



Fig. 384.1. *Stichorkis anopheles* (J.J. Wood) J.J. Wood. A. Habit; B. Flower, side view; C. Dorsal sepal; D. Lateral sepal; E. Petal; F. Labellum; G. Pedicel with ovary and column. H. Anther cap; I. Pollinia; J. Capsule. Single bar = 1 mm, double bar = 1 cm. Drawn by Eleanor Catherine from *Sumat* in *Wood 871* (holotype, K).



Fig. 384.2. Distribution map of *Stichorkis*.

incurved-arcuate, laterally winged near apex; anther attached by a slender filament, biloculate, pollinia waxy, ovoid, bilaterally flattened, four in two pairs, each with a small viscidium; stigma concave; rostellum thin-textured, blunt. (PC)

**Distribution** (Fig. 384.2)

A genus of some 38 species, well represented in Madagascar, the Mascarenes, the Malay Archipelago, the Philippines, New Guinea, Australia, and the southwest Pacific islands. (PC)

**Cytogenetics**

No chromosome counts for *Stichorkis* have been recorded. (AP)

**Ecology**

Species are epiphytes or less commonly lithophytes or terrestrials in lowland, hill, lower, and upper montane forests, usually in light to deep shade, from sea level to 2500 m. (PC)

**Pollination**

Nothing is known about pollination in *Stichorkis*. (AP)

**Uses**

No uses have been reported for *Stichorkis*, and it is not commonly cultivated. (AP)

**Taxonomic notes**

Du-Petit Thouars described *Stichorkis* and *Leptorkis* as segregates of *Malaxis* Sw. in Thouars (1809). *Stichorkis* has most often been included in *Liparis* Rich. (conserved over *Leptorkis* Thouars), but it is here recognized as distinct. *Stichorkis* was stated to comprise two species, one of which was already described by Lamarek as *Angraecum cespitosum* (actually 'Angrec en gazon' = *Epidendrum cespitosum* Lam.). In Thouars (1822), the other species was described as *Stichorkis distichis* Thouars, with *Malaxis disticha* as alternative, and depicted together with *Stichorkis cestichis* Thouars (alternatively *Malaxis cespitosa* (Lam.) Thouars).

The Thouarsian new-style epithets '*distichis*' and '*cestichis*' which appear as single capitalized words at the lower left corner of the illustrations of Thouars (1822) were mistaken for generic names by Lindley. Pfitzer (1888) accepted *Stichorkis* as a distinct genus but used Lindley's erroneous name '*Cestichis*'. Pfitzer (1897) corrected this mistake and made four combinations with *Stichorkis* [*sic*]. Ames (1905, 1908), apparently unaware of Pfitzer's correction, used *Cestichis* Lindl. ex Pfitz. for some Asiatic species. Schlechter (1911) used '*Cestichis*' as a name for a subgenus.

Rasmussen (1979) reviewed some of the nomenclatural problems caused by the confusion over the two sets of names used by Thouars and suggested a conservation of *Liparis* against *Stichorkis*, but he recognized that this concept represents a well-defined group of species and lectotyped *Stichorkis* with *Malaxis disticha* Thouars. Based on the same species, Ridley

(1886) recognized *Liparis* section *Distichae* with an epiphytic habit, one-leaved pseudobulbs, a linear to oblanceolate leaf, a flattened rachis with distichous, imbricate bracts, and flowers opening in succession.

Based upon the morphological characters listed above, the genus *Disticholiparis* was recently established by Margonska and Szlachetko (2004) for this group of distinctive species. Unfortunately, they were unaware of Rasmussen's lectotypification of *Stichorkis*.

The DNA analyses of Salazar (unpublished) and Cameron (2005) indicate that *Liparis* is polyphyletic, the species of *L.* sect. *Distichae* forming a clade sister to both *Oberonia* and another group of epiphytic *Liparis* with linear leaves. On the basis of their results, *Stichorkis* is accepted here. (PC, FR)

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