

Alatiliparis (Orchidaceae, Malaxidinae), a new orchid genus with two new species from Sumatra

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A new orchid genus *Alatiliparis* Marg. & Szlach. is described to accommodate *A. filicornes* Marg. & Szlach. *sp. nova* and *A. otochilus* Marg. & Szlach. *sp. nova*. *Alatiliparis* is compared with the closely allied *Liparis* L. C. Rich. All new taxa are described and illustrated in line drawings.

Key words: *Alatiliparis*, *Liparis*, Malaxidinae, Orchidaceae, taxonomy

Collecting materials for a revision of the paleotropical members of the subtribe Malaxidinae (Orchidaceae) we came across unusual specimens from Sumatra, kept in Rijksherbarium in Leiden. Our attempts to refer them to any described species failed. We were not even able to place the specimens in any hitherto described genus. At first glance the plants appeared to represent *Liparis* L. C. Rich., but a closer study revealed features that belied that placement. The most striking feature was the gynostemium structure, which we had never seen before. The gynostemium of these unusual specimens is

short, slightly arcuate, with rather an obscure apical clinandrium, a motile anther and a truncate rostellum, distinctly folded between thecae. At the base of the column part the gynostemium has two wing-like structures, the shape of which is difficult to describe. Another unusual character was the lip form. It was sessile, with a conical structure just above the base, having a small cavity at the top. After finding in the Royal Botanic Gardens in Kew an alcohol-preserved collection from Sumatra with similar features, we concluded that a new genus had to be described to accommodate the two species.

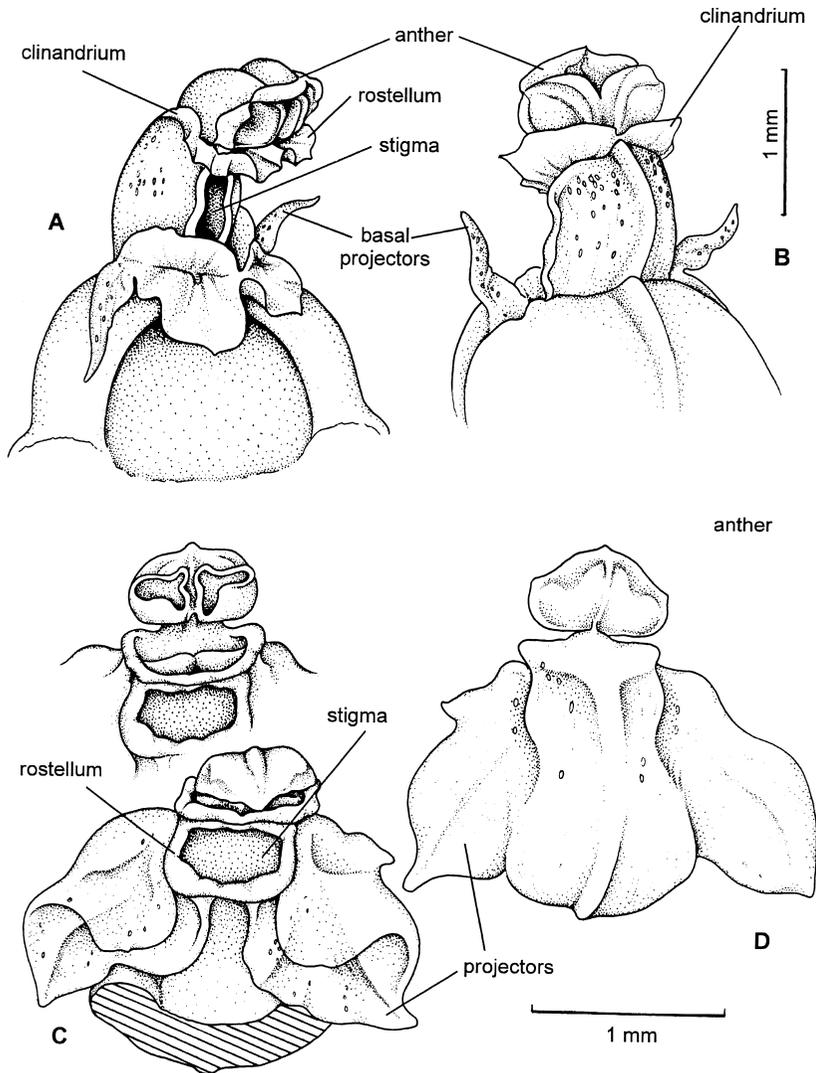


Fig. 1. Gynostemium structure in genus *Alatiliparis* Marg. & Szlach. — **A** and **B:** *Alatiliparis filicornes* Marg. & Szlach. (from the holotype). **A:** Ventral view. **B:** Lateral view. — **C** and **D:** *Alatiliparis otochilus* Marg. & Szlach. (from the holotype). **C:** Dorsal view. **D:** Ventral view.

***Alatiliparis* Marg. & Szlach., gen. nova**
(Fig. 1)

Plantae a habitu Liparidi similes. Inflorescentia elongata. Flores convoluta. Labellum basi cum nectario conico. Sepali ovales. Petali anguste lanceolati. Gynostemium basi cum processis distinctis planis marginibus undulatis. Anthera dorsalis movens. Pollinia 4.

GENERITYPE: *Alatiliparis filicornes* Marg. & Szlach. (see below).

Plants small. Roots short (usually some cm long), filiform, produced at base of pseudobulbs. Pseudobulbs oblong ovate to conical, fleshy, nodose, bearing scars of old leaf bases or scales,

replaced annually by a new shoot arising from basal portion of old pseudobulb. Leaves 2–3(–4), youngest leaf biggest and longest. Leaf sheath broad and lax, ovate, green to flavescent, often with a thinner marginal part, sometimes wavy near base. Leaf petiole obscure and short, widening towards base into a sheath, boundary-line between petiole and sheath usually distinct. Leaf blade lanceolate to oblanceolate, acute, thin, green, with a prominent light main vein beneath. Inflorescence terminal, elongate, with several flowers, racemose, lax; peduncle relatively short. Rachis slightly and gently zigzag, flowers alternate along 2 longitudinal, usually large ridges. Floral bracts oblong triangular, distinctly oblique at base, asymmetrically obcordate, attenu-

ate, acute, vein broad, distinct, very prominent beneath, especially near base of bract, below transforming into a large ridge of rachis. Flowers ca. 1 cm in diameter, resupinate, yellowish to salmon-red. Tepals widely spreading. Sepals free, subequal, broad, 1-nerved; dorsal sepal oblong-ovate to nearly triangular, broadly rounded to obcordate at base, acute at apex; lateral sepals obliquely ovate, usually distinctly attenuate, acute to apiculate. Petals at least slightly shorter than sepals, narrowly lanceolate, long-attenuate, acute, softly sinuate. Lip spurless, ovate to oblong-ovate in general outline, unlobed or obscurely 3-lobed, separated from gynostemium by an incurved fold, with an orbicular nectary at base (0.6–0.8 mm in diameter), sometimes with oblong lateral lobes near base; basal and middle parts of lip thick, with 3 distinct, parallel median veins; apical portion thin, sagittate, long-attenuate, with gently wavy margins. Fruit an ovoid or obovoid, 6-ribbed, greenish, pedicellate capsule. Gynostemium erect, with 2 basal, ovate, often attenuate, thin and delicate projections. Column part short, softly incurved, basal portion broad and concave. Stigma ovate in outline, concave, surrounded by a thick ridge. Anther cordate or broadly ovate, dorsal, movable, easily falling off, connective narrow; thecae opening ventrally. Rostellum thick, truncate, erect. Pollinia four, narrowly clavate, viscidium absent.

ETYMOLOGY: *Alati-* = winged (Latin). "*Liparis* with prominently winged gynostemium", in reference to the most characteristic feature of the new genus.

The genus contains two species from Sumatra. They can be distinguished as follows:

1. Lip unlobed, with a filiform callus below apex
..... *A. filicornes*
1. Lip with ear-like basal side lobes, lacking a callus
below apex *A. otochilus*

***Alatliparis filicornes* Marg. & Szlach., sp. nova** (Fig. 2)

Labellum lobis lateralibus nullis, processo angusto patenti subapicali praedito. Sepali anguste ovals. Petali angustissimi. Gynostemium basi cum processis minutis apice angustis. Clinandrium undulatum basi staminis.

TYPE: Indonesia. North Sumatra, Gunung Leuser Nature Reserve, Atjeh, Camp Simpang and vicinity, 3–5 km upstream Lau Ketambe, about 35 km NW of Kutatjane, 3.VIII.1972 W. J. J. O. de Wilde & B. E. E. de Wilde-Duyffjes 13967 (holotype L).

Plants 10–17 cm high. Pseudobulbs 3–8 mm long, 1.5–3 mm in diameter, covered by leaf sheaths and few scales. Leaves usually 2; leaf petiole 2–4 mm long, 1.6–2.3 mm wide; leaf sheath 2–7 mm, 2.2–3.5 mm in diameter, marginal portion thin, delicate and partly wavy; leaf blade 15–32 mm long, 3–8 mm wide, lanceolate to oblanceolate, acute, in lowermost leaf sometimes much reduced, light green. Inflorescence 20–30-flowered. Floral bracts 3.5–4 mm long, 1.5–1.8 mm wide. Ovary 1–2 mm long, 0.5–0.7 mm in diameter, pedicel 3.5–4.5 mm long, 0.3–0.5 mm in diameter. Flowers ca. 9 mm long, 3–4.5 mm wide, salmon-red. Dorsal sepal 4–4.3 mm long, 1.5–1.7 mm wide, oblong-ovate, attenuate, acute. Lateral sepals ca. 4 mm long, 1.7–1.9 mm wide, slightly oblique, ovate-lanceolate, attenuate, acute. Petals 3.8–4 mm long, ca. 0.4 mm wide, linear-oblong, broader near base, apex obtuse, slightly sinuate. Lip 3–3.5 mm long, 1.3–1.5 mm wide, without lateral lobes, oblong ovate-lanceolate in general outline, apex attenuate, near boundary-line between basal (thick) and apical (thin) portion of lip a delicate, narrow, horn-like and usually incurved process present. Wing-like projections near base of gynostemium relatively small, nearly orbicular, terminated with long-attenuate apices, margins wavy. Clinandrium with small and delicate, wavy folds.

ETYMOLOGY: *Fili-* = thread (Latin); *-cornu* = horn (Latin). In reference to the filiform callus on the lip.

ECOLOGY: Epiphyte, on mossy dead twigs over river. Flowering July–August, fruiting August–September.

DISTRIBUTION: Known from the type collection only. Alt. 400–600 m.

***Alatliparis otochilus* Marg. & Szlach., sp. nova** (Fig. 3)

Labellum cum lobis lateralibus auriculatis. Sepali late ovals, plicati. Petali lanceolati. Gynostemium basi cum processis magnis.

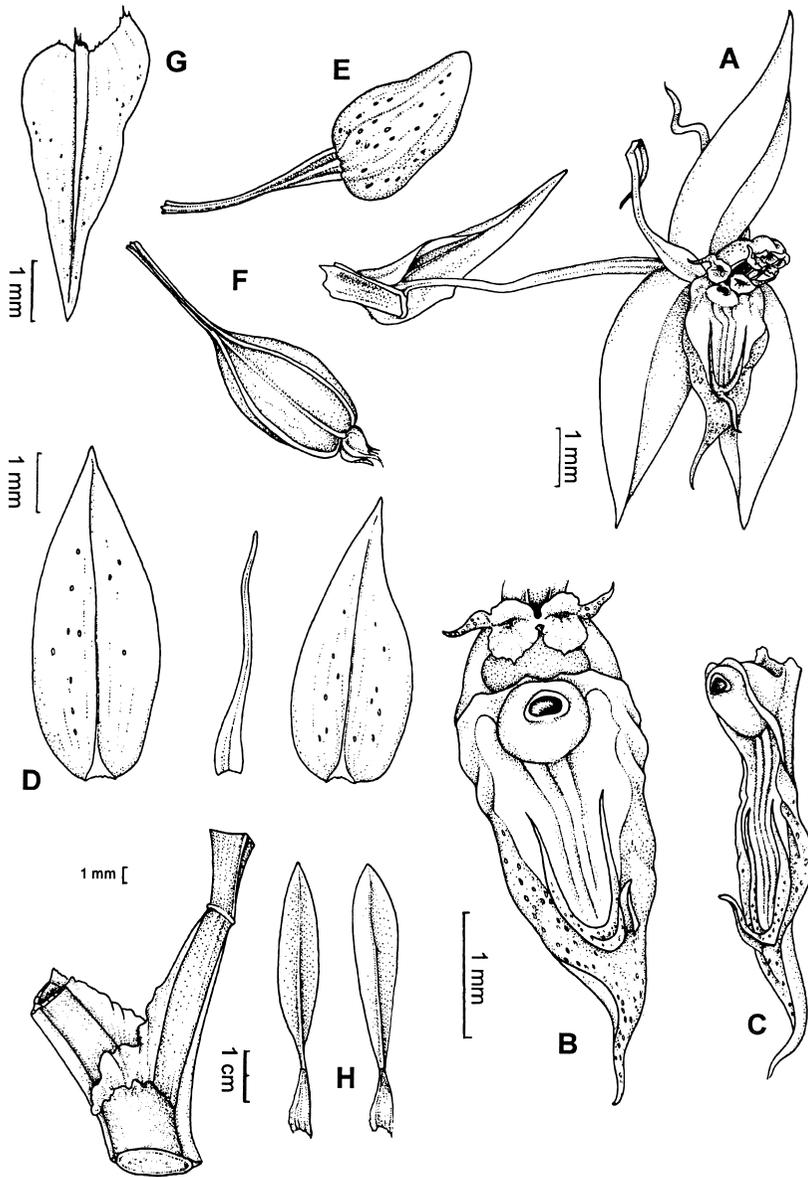


Fig. 2. *Alatiliparis filicornes* Marg. & Szlach. (from the holotype). — **A:** Flower. — **B:** Lip in front view. — **C:** Lip in lateral view. — **D:** Tepals. — **E:** Bud. — **F:** Fruit. — **G:** Floral bract. — **H:** Leaves. — **I:** Part of pseudobulbs with leaf sheaths and petiole.

TYPE: Indonesia, Sumatra, Gunung Sanggalau, 3.VIII.1972 C. G. Matthew s. n. (holotype K)

Plants 14–18 cm high. Pseudobulbs 3–7 mm long, 1–2.2 mm in diameter, covered by leaf sheaths and few scales. Leaves 2–3(–4); leaf petiole 3–6 mm long, 2–3.8 mm wide; leaf sheath 8–14 mm, 3–7 mm in diameter, marginal portion thin, margins partly wavy; leaf blade 3–6.5 cm long, 0.6–1.6 cm wide, lanceolate, acute, in lowest leaf usually much reduced, light green. Floral bracts 3–12 mm long, 1.5–2.6 mm wide.

Ovary 1.2–2.6 mm long, 0.5–0.8 mm in diameter, pedicel 3.5–5 mm long, 0.3–0.5 mm in diameter. Inflorescence 10–20-flowered. Flowers 12–13 mm long, 8–10 mm wide, yellowish to yellow. Dorsal sepal about 7 mm long, 4–5 mm wide, broadly ovate to triangular with a nearly obcordate base, shortly attenuate, acute to obtuse. Lateral sepals 6–6.6 mm long, 3–3.7 mm wide, oblique, ovate, longly attenuate, acute. Petals 5.5–6 mm long, less than 1 mm wide, narrowly lanceolate, long-attenuate, apex obtuse, slightly

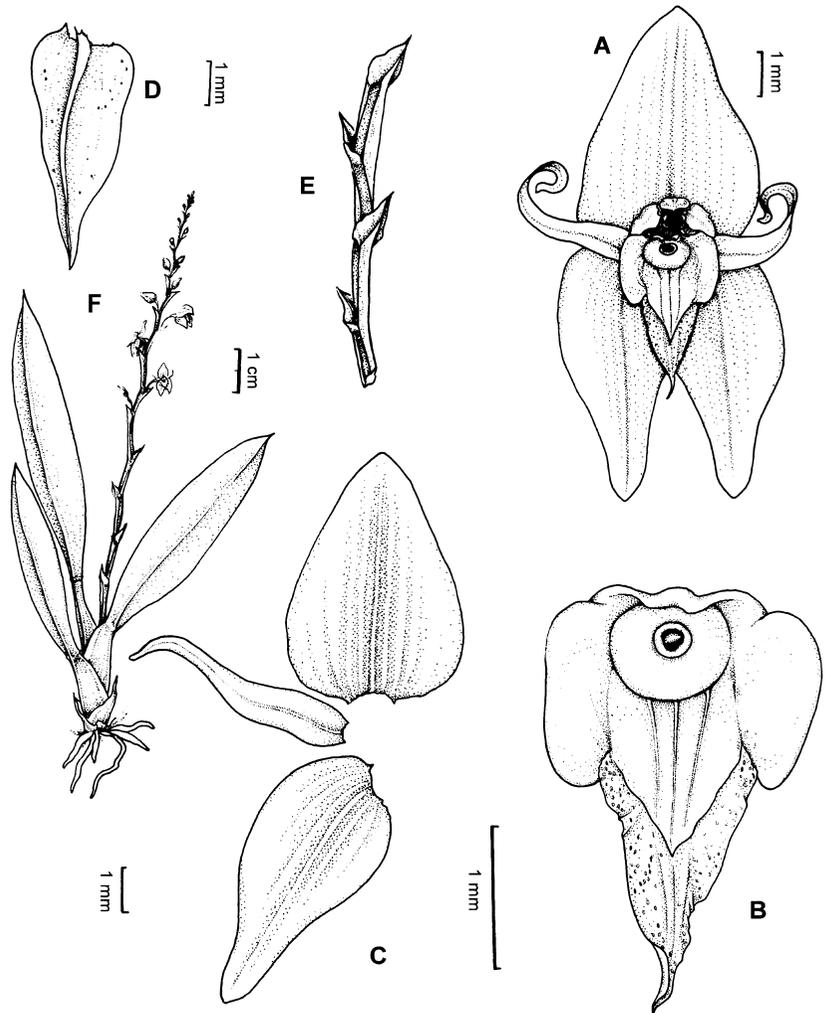


Fig. 3. *Alatiliparis otochilus* Marg. & Szlach. (from the holotype). — **A:** Flower. — **B:** Lip. — **C:** Tepals. — **D:** Floral bract. — **E:** Part of rachis with floral bracts. — **F:** Plant with inflorescence.

sinuate. Lip 2.9–3.2 mm long, 1.8–2 mm wide, with ear-like lateral lobes in lower half; boundary-line between basal (thick) and apical (thin) portion of lip distinct. Projections near gynostemium base large, ovate, shortly attenuate, strongly incurved along, margins partly somewhat wavy.

ETYMOLOGY: *Oto-* = ear (Greek); *-chilus* = -lipped (Greek). In reference to the lip form.

HABITAT: Epiphyte, on mossy dead twigs. Flowering November–December.

DISTRIBUTION: Known so far from the type collection only. Alt. about 1050 m.

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