MATERIALS TO THE REVISION OF THE GENUS SEIDENFIA (ORCHIDACEAE, MALAXIDINAE), WITH A DESCRIPTION OF A NEW SPECIES

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Abstract: Materials to the taxonomic revision of the genus Seidenfia Szlach. (Orchidaceae, Malaxidinae) are compiled. A new species from South India is described and illustrated, and its taxonomic affinity is briefly discussed.

Key words: Magnoliophyta, Orchidales, Malaxidinae, Seidenfia, taxonomy, Asia

INTRODUCTION

The genus Seidenfia Szlach. has been separated from the highly polymorphic genus Malaxis Sw. by Szlachetko (1995). Generally, the gynostemium structure of Seidenfia Szlach. is similar to that of Crepidium Bl., but these genera are easily differentiated based on flower structure, particularly lip morphology. The lip of Crepidium is sessile, prominently auriculate, with only the apical margins denticulate or entire. The characteristic feature of Crepidium is the presence of a simple or complicated callus-fovea complex near the lip base. The lip of Seidenfia is not auriculate; its basal part is channelled, forming a kind of claw with thickened margins; the lamina is widely and abruptly expanded above the channel, and the lamina margins are more or less denticulate.


While working with herbarium materials of Malaxis Sw. and Crepidium Bl. sensu lato from Asia we found some specimens which in our opinion represent a new species. It is described and illustrated below.

The results of our investigations on morphology and in the literature may be summarized as follows:

Seidenfia Szlach.


Terrestrial, rarely epiphytic [S. seychellarum (Kraenzl.) Szlach.] or lithophytic [sometimes S. versicolor (Linsd.) Szlach.] herbs. Roots usually a few cm long, filiform, at base of pseudobulbs. Pseudobulbs fusiform to ovate, covered at basal portion by a few tubular scales, commonly apiculate, acute to acuminate and sheathing the leaf bases. Lowermost leaf much smaller than upper ones. Leaves usually 2–7, alternate, sometimes only apparently nearly opposite [S. densifolia (A. Rich.) Szlach.], petiolate. Leaf petiole canalicate, widening towards the base into the sheath,
greenish to flavescent, sometimes purple-tinged. Leaf sheath often lax, colored as leaf petiole. Leaf blade usually lanceolate to ovate, plicate, oblique, thin-textured, green or sometimes purple, paler beneath, veins prominent and usually darker on underside. Inflorescence terminal, elongate, many-flowered, racemose; length of rachis between base of peduncle and lowermost flower increasing with age. Floral bracts linear to lanceolate, usually becoming reflexed and adpressed to the rachis. Ovary oblong, obovate to oblong-elliptic, with 6 ribs, greenish to purplish, pedicellate. Flowers nonresupinate, small to medium-sized, 5–7 days lived, greenish, yellow, orange, reddish to purple, violet (even with maroon or brownish tint). Color of flowers in same species often varies, also depends on age of flowers and intensity of light in their habitats. Sepals and petals commonly incurved, lateral sepals reflexed towards the dorsal one and sometimes over the lip. Lip obscurely 3-lobed, broadly cuneate, reniform, flabeliform to triangular in outline; lateral lobes without auricles, apical margins usually toothed [except S. discolor (Lindl.) Szlach.]; midlobe single, broad, obtuse to acute; base of lip narrow and long, commonly with bilateral lobes; concave in center with thickened margins, covered partially by a thick roof.

Gynostemium erect, with 2 fleshy, finger-like projections on both sides of anther. Anther dorsal, erect, movable. Connective narrow. Locules 2, opening ventrally. Pollinia 4, pyriform or obovoid, outer pollinium of each pair commonly slightly larger than the inner. Rostellum shelf-like, truncate. Viscidium absent.

Plants growing on decaying leaves, clay or humus, also on humus-covered or mossy rocks; in wet, sometimes moist habitats, often along water courses, usually under shade, in evergreen or semi-evergreen tropical forest, subtropical montane forest, bamboo forest or deciduous forest, sometimes in more open habitats (on edges of forests, along roads or even among shrubs or grasses, forest cleared for cultivation); in lowlands to submontane level. Color of plants (leaves and flowers) often depends on intensity of sunlight and seems to be inversely proportional to light intensity.

**GENOTYPE:** Malaxis rheedii Sw. [= Seidenfia rheedii (Sw.) Szlach.]

**ETYMOLOGY.** Named in honor of Dr. Gunnar Seidenfaden (Seidenf.), eminent Danish orchidologist.

The genus so far embraces 9 species distributed in Sri Lanka and India, with a single species in the Seychelles.

**KEY TO THE SPECIES**

1. Gynostemium with horn on dorsal surface ................ .......................... S. crenulata
2. Gynostemium without any horn ............................................... 2
3. Plants with almost ovate pseudobulbs .................. 3
4. Plants with fusiform pseudobulbs .................. 4
5. Leaves almost ovate in outline, short-petiolate ........ .......................... S. densiflora
6. Leaves lanceolate, long-petiolate .......................... S. lancifolia
7. Lip without teeth at apical margin .. S. discolor
8. Lip toothed at apical margin ............................................... 5
9. Teeth short and broad, triangular .......................... 6
10. Teeth long and narrow, attenuate .................. 7
11. Lip triangular in outline .......................... S. malabarica, sp. nov.
12. Lip reniform in outline .......................... S. seychellarum
13. Mid-tooth shorter than the nearest, lateral teeth .......................... 8
14. Mid-tooth similar in length to the nearest, the longest, lateral teeth .......................... S. rheedii

Section **Crenulatae** Szlach. & Marg., sect. nov.

**TYPE:** Seidenfia crenulata (Ridl.) Szlach.

This section is characterized by a unique horn-like appendage at the base of the dorsal surface of the gynostemium. Similar projections are observed in all species of Pseudolipars Finet. In our opinion, however, they are the result of convergence rather than close relationships.

This is a monotypic section.
Seidenfia crenulata (Ridl.) Szlach. Fig. 1

Seidenfia crenulata (Ridl.) Szlach. Fig. 1
Pseudobulbs fusiform. Leaves 1–3, 3.8–5.0 cm long, 1.4–1.6 cm wide, sheathing at base, the lowermost ovate, the upper ones lanceolate-ovate, acuminate to acute, ca 5-veined. Inflorescence ca 10 cm long, many-flowered, racemose, flowers only at short apical part of raceme. Floral bracts

Fig. 1. Seidenfia crenulata (Ridl.) Szlach. a – plant, b – flower, c – lateral sepal, petal, dorsal sepal, d – lip, e – gynostemium, f – floral bract (drawn from holotype – Beddome 8108 – BM).
3.5–4.0 mm long, *ca* 1 mm wide, lanceolate, acute, 1-nerved. Flowers greenish. Tepals 1-veined. Dorsal sepal 2.8–3.2 mm long, 1.0–1.2 mm wide, lanceolate, acute, slightly incurved. Petals *ca* 3 mm long, 0.9–1.1 mm wide, oblong, obtuse, incurved. Lateral sepals 2.1–2.3 mm long, *ca* 2 mm wide, broadly ovate, short attenuate, obtuse to acute, concave, incurved, reflexed towards dorsal sepal. Lip *ca* 2 mm long, 2.5–3.0 mm wide, flabelliform to reniform, adnate to base of gynostemium, narrowly concave at middle part; apical margin with *ca* 11 triangular, short and broadly obtuse teeth, the external one shortest and smallest. Gynostemium 1.0–1.2 mm long, with large,

Fig. 2. *Seidenfia densiflora* (A. Rich.) Szlach. a – plant (drawn from W-R 58373); b – flower, c – lateral sepal, petal, dorsal sepal, d – lip, e – gynostemium, f – floral bract, g – pseudobulb (drawn from holotype – Perrottet 878 – P).
prominent horn on dorsal surface. Pollinia 0.30–0.35 mm long, 0.08–0.10 mm wide.

**DISTRIBUTION.** Endemic to India. Very rare, only in S part of country (Deccan): Madras: Tamil Nadu, Kerala (Nilgiris).

**ECOLOGY.** In wet, tropical forest.

**Section Seidenfia**

**TYPE: Seidenfia rheedii (Sw.) Szlach.**

This section differs from the previous one in lacking the horn-like projection at the back of the gynostemium.

**Seidenfia densiflora** (A. Rich.) Szlach.  
Fig. 2  

Pseudobulbs 8–15 cm long, 1.5 cm in diameter, globose at base. Leaves 2(3), alternate, only apparently nearly opposite, 2.5–7.5 cm long, 0.8–1.8 cm wide, sessile or shortly petiolate; leaf blade ovate to ovate-lanceolate, plicate, acuminate or acute, with distinctly wavy margins, 5-nerved. Inflorescence 5–10 cm long, 60–80-flowered, dense, flowers form a very dense and purple raceme. Peduncle 2.5–7.5 cm long, with a few deflexed, sterile bracts. Floral bracts as long as flower, lanceolate, acute, deflexed. Ovary with pedicel ca 4 mm long. Flowers yellow, greenish-yellow or red, purple to violet, small, commonly slightly spreading. Sepals ca 6 mm long, ca 1.1–1.7 cm wide, linear-oblong, falcate; the dorsal one narrower, lateral ones deflexed. Petals ca 4.7–5.0 mm long, 0.8–1.0 mm wide, linear, obtuse, falcate. Lip ca 2 mm long, 1.8–2.0 mm wide, subquadrate, short, cuneate or subreniform, pectinately toothed. Gynostemium 1.0–1.1 mm long. Anther ca 0.5 mm long, ca 0.6 mm wide. Pollinia ca 0.4 mm long, 0.3 mm wide. Fruit small, pedicellate, pyriform capsule.

**DISTRIBUTION.** Sri Lanka, South India (Kamataka, Kerala, Tamil Nadu). Rare. Alt.: 210–2300 m.

**ECOLOGY.** Under shade of trees in tropical, wet, evergreen forests, among grasses on hills. Flowering in March to December. Fruiting October.

**REPRESENTATIVE SPECIMENS.** SRI LANKA. Ratanapura distr.: Ratanapura, Thwaites 2743A (P!, K!); Kandy distr.: Norwood, Lushington 9872 (PDA-fide Jayaweera); Makeliya, sine coll., s.n. (PDA-fide Jayaweera). INDIA. Deccan: Madras, Wight s.n. (type of *Micr. versicolor* Wight, HOLOTYPE: K!), Wight 1632. (type of *Micr. versicolor* Wight var. luteola, HOLOTYPE: K!), Shembaganur, van Melderren 1193 (K!), sine coll., 1653 (K!); Nilgiris distr.: Wadeahatta, Dodabetta, Nilgiri, Barnes 1192, 1328 (K!), Gamble 15348, 17533 (K!), Hohenacker 1321 (BM!, K!, P!, W); King s.n., Lobb 2063 (K!), Metz 1321 (P!), Miers s.n. (BM!); Perrottet 1099 (P!), 8206 (W-R 15172 – lost); Schmidt s.n. (K!); Thomson 2063, s.n. (K!); Wight 170(K!), s.n. (BM!, K!), 2063 (K!, P!, W-R!); Gough. s.n. (US!); Koathagerry, Wight 2943 (AMES, C, K!, P!); Ootacamund, Beddone 8106 (BM!); Brandis 294 (W-R 7346 – lost); Perrottet s.n. (W-R 15171 – lost); Bourne 4614, 5384, (K!); Majaburam Adams s.n. (K!); Koonor, Gamble 12259 & 12436 (K!); Travancore, Johnson 1652 (K!); Madura distr.: Kodakannal, Bourne 590, 1062, 1035 & 2935 (K!); Sauliere S. J. 16 (K!); N. Karna, Sirsi, Hallberg & Me Cann 34975 (fide Santapau & Kapadia); Khasia Hills, sine coll. (K-L, W-R!– only left/ down specimen); South India: Beddone 8095 (BM!). Locality unknown. Sine dat., s.n. (W-R! – 58373).

**NOTE.** Taxon variable in flower color.

**Seidenfia discolor** (Lindl.) Szlach.  
Fig. 3  
**TYPE:** SRI LANKA. Macrae 3 (LECTOTYPE: K) & Thwaites C. P. 2375 (ISOLECTOTYPE: K). – *Malaxis discolor* (Lindl.) Kuntze, Rev. Gen. 2: 673. 1891.

Pseudobulbs fusiform. Leaves 3.4–7.5 cm long, 3–4 cm wide, continuous with sheathing bases, lower ones broadly ovate to ovate, upper
ones narrowly ovate, acuminate, plicate, undulate, unequal-sided, maroon, purplish, purple-fuchsia or dark green but purple underneath, 5–7-veined, veins prominent below. Inflorescence long-peduncled, purplish, 6 cm long, flower-bearing portion ca 3 cm long and light green, racemose. Sterile bracts persistent. Floral bracts 2.5–5.0 mm long, 0.6–1.2 mm wide, subulate, reflexed, acuminate, tapering to a point, 1-nerved. Flowers ca 0.4 cm long, 0.3 cm in diameter, resupinate, younger yellow to orange, fading to purplish red when old. Sepals 3-veined. Dorsal sepal 2.5–3.6 mm long, 1.0–1.5 mm wide, oblong-ovate, obtuse, de-curved. Petals 2.4–3 mm long, 0.6–0.8 mm wide,
lanceolate, obtuse, 1-veined. Lateral sepals 2.1–2.6 mm long, 0.9–1.5 mm wide, obliquely oblong, obtuse, reflexed above lip. Lip 1.6–2.4 mm long, 2.2–3.0 mm wide, subreniform, 5-veined, adnate to gynostemium base, apex blunt, obtuse or rounded, margin entire. Gynostemium 1.1–1.3 mm long, slightly broader at apex, narrowing below and bending forward slightly, with long obtuse projecting arms at apical part. Pollinia 0.30–0.35 mm long, ca 0.08 mm wide. Capsule 0.7–1.1 cm long, clavate.

**DISTRIBUTION.** Endemic to Sri Lanka. Alt.: 60–1830 m.

**ECOLOGY.** Rather common, along with other herbs under shade (ca 57% of normal light) of trees in tropical wet evergreen forests, often near streams. Growing with *Eulophia sanguinea* Hook. f. and *Seidenfia intermedia* (A. Rich.) Szlach., on decaying leaves. Flowering in August.


**Seidenfia intermedia** (A. Rich.) Szlach.  Fig. 4


Pseudobulbs fusiform. Leaves 2–4, 3.8–10.0 cm long, 2.5–5.0 cm wide, continuous with sheathing bases, the lowermost broadly ovate, the upper ovate, acuminate, sometimes slightly plicate, margins crispate, 5–7-veined. Inflorescence 6–21 cm long, many-flowered, racemose. Floral bracts 3.5–5.0 mm long, 1.0–1.3 mm wide, lanceolate, attenuate, acute, 1-nerved. Ovary with pedicel ca 4 mm long. Flowers ca 1.2 cm across, yellow, yellowish or pink, purple to brownish purple. Tepals 1-veined. Dorsal sepal 2.8–3.2 mm long, 1.2–1.4 mm wide, oblong-ovate, obtuse to acute. Lateral sepals 2.0–2.4 mm long, 1.5–1.7 mm wide, broadly ovate to ovate, obtuse to acute, concave, reflexed under lip. Petals ca 3 mm long, 0.9–1.1 mm wide, lanceolate, obtuse. Lip 2.3–2.6 mm long, 3.2–3.6 mm wide, flabelliform, adnate to base of gynostemium, widely concave at middle part, apical margin with ca 21 teeth, external ones short and small, falcate, attenuate, acute; the middle tooth the widest, commonly the shortest, obtuse to rounded, sometimes retuse. Gynostemium 1.3–1.6 mm long. Pollinia 0.30–0.35 mm long, 0.08–0.1 mm wide.

**DISTRIBUTION.** South India: Kamataka, Kerala, Tamil Nadu. Endemic, rare. Alt.: 1400–1900 m.

**ECOLOGY.** In tropical forest. Flowering in May, June, August.

Representative specimens. INDIA. MALABAR AND CONCAN: Bababoodan Hills, Kanara, Stocks & Law, sine no (type of Microstylis stocksii Hook.f., HOLOTYPE: K!, ISOTYPES: K!, BM!, P!, W-R 41010 – lost), Stocks & Law 902 (K!); Ootacamund, Wight s.n., (W-R 41011 – lost); Ghats, Stocks 150 (K-L!); Nilgiris Hills, Gamble 12001 (K!), Naduvattam, Barnes 1232, Bourne 6148 (K!); Billigirirangan Hills, near Dupabari, Barnes 1906 (K!); Kodaikanal, Pambar, Saldanha S.J. 4286 (K!). LOCALITY UNKNOWN: Thwaites C. P. 2375 (W-R! – 41041); Wight s.n. (K!), sine coll., s.n. (K!).

**Seidenfia lancifolia** (Thwait.) Szlach.  Fig. 5

Pseudobulbs 1.0–1.2 cm long, 0.4 cm in diameter, fusiform. Leaves 5–6, distichous, petiolate, petiole 1–2 cm long, sheathing the pseudobulb, blade 4–8 cm long, 0.6–0.9 cm wide, lanceolate, acute, 3-nerved, margins waxy. Inflorescence 16–17 cm long, peduncle 3.5–5.0 cm long, green, 4-edged, racemose. Flowers 4.2–5.0 mm long, 3 mm wide, yellow, ocher to deep orange, some-
times light to dark violet. Floral bracts 3.6–4.1 mm long, ca 1.7 mm wide, triangular-ovate, acuminate to acute, 1-veined. Dorsal sepal 2.8–3.0 mm long, ca 0.8 mm wide, linear-oblong, obtuse. Petals ca 2.8 mm long, ca 0.7 mm wide, linear-oblong, truncate, 1-nerved. Lateral sepals ca 2.6 mm long, ca 1.2 mm wide, falcately oblong, obtuse, 3-nerved. Lip ca 1.9 mm long, ca 3.2 mm wide, 3-nerved, pectinately 7–11-toothed; middle tooth triangular, short and broad, sometimes with retuse apex; the other teeth attenuate, commonly obtuse. Gynostemium ca 1.2 mm long, 0.5 mm wide, slender. Anther 0.36 mm long, 0.44 mm wide. Pollinia 0.3 mm long, 0.14 mm broad.

**DISTRIBUTION.** Endemic to Sri Lanka. Alt.: up to 60 m.

**ECOLOGY.** In shady places, in crevices of rocks, as isolated clumps along water courses in tropical wet evergreen forests. Flowering in June.
Seidenfia rheedi (Sw.) Szlach. Fig. 6

Pseudobulbs fusiform 5.0–25 cm long, 0.9–1.4 cm in diameter. Leaves 4–7, 4.4–18.0 cm long, 2.6–8.4 cm wide, sessile, the lower broadly ovate to ovate, the youngest the narrowest—ovate-lanceolate, plicate, acute to acuminate, margins softly wavy, 5–7-veined, with base continuing into purple-tinged sheaths 2–5 cm long. Inflorescence 60–100-flowered, racemose, peduncle 6.5–10.0 cm long; flower-bearing portion 6–18 cm long, length of rachis between peduncle and lowermost flower increasing with age. Floral bracts 4–8 mm long, 0.9–1.3 mm wide, lanceolate to oblong-lanceolate, acuminate, deflexed, 1-veined. Ovary with pedicel about 3 mm long. Flowers 6.5 mm in diameter, greenish yellow, yellow to orange-yellow or purple to maroon, with sweet pungent smell. Dorsal sepal 3.5–4.0 mm long, 0.8–1.3 mm wide, oblong, linear-lanceolate, obtuse, 3-veined. Petals 3.4–3.7 mm long, 0.6–0.9 mm wide, lanceolate, truncate, sometimes retuse, 1-veined. Lateral sepals 2.4–3.8 mm long, 1.2–1.5 mm wide, obliquely oblong-lanceolate, obtuse, 3-nerved, deflexed. Lip 2.0–2.3 mm long, 2.2–2.8 mm wide, broadly cuneate to narrowly flabelliform, pectinate, 9–13-toothed, teeth subequal in length, oblong triangular, commonly acute to obtuse at apex.

DISTRIBUTION. Sri Lanka, India (Gujarat, Kerala). Rare. Alt. up to 1860 m.

ECOLOGY. Terrestrial; growing in shady places, on clay, in submontane or midlevel tropical wet evergreen forests, extending to subtropical mountain forests. Flowering July-September, fruiting September-November.

REPRESENTATIVE SPECIMENS. SRI LANKA. Near Norton Bridge, Simpson 9762 (BM!); Walker s.n., I, II (K!); sine coll., sine dat. (K!-3 specimens in upper part of sheet). INDIA. Kodaikanal, Sebastine 25019 (L!); South India, Beddone 8096 (BM!-2 left specimens), Beddone 8097 (BM! – only left and right specimens). LOCALITY UNKNOWN: sine coll., sine dat., (W-R! 41030 – only right top specimen); Kew Cult.: sine loc., s.n. (W-R! 41032).

NOTE. Taxon variable in size and flower color.

Seidenfia versicolor (Lindl.) Marg. & Szlach., comb. nov. Fig. 7


Pseudobulbs fusiform 7.5–30.0 cm long, 0.9–2.2 cm in diameter. Leaves 2–5, 5–15 cm wide, sessile, the lower one ovate, the upper one the narrowest, broadly round at base of blade, sometimes nearly obcordate (older leaves), plicate, acute to acuminate, margin wavy, sometimes very slightly, 5(7)-veined, greenish, sometimes tinged with purple, with prominent purple or even pink-tinged veins; purple color seems to be inversely proportional to light intensity. Base of leaf blade continuing into purple-tinged sheaths 3–6 cm long. Inflorescence 40–80-flowered, racemose; peduncle 3.5–10.0 cm long, 6-ribbed,
purplish with a single leafy bract; flower-bearing portion 4–8 cm long, length of rachis between peduncle and lowermost flower increasing with age, with persistent, deflexed bracts. Flowers 3.0–5.5 mm in diameter, small; when young and under full sunlight greenish, yellow, orange; in shade or with age turning red or purplish, even brownish; sometimes lip tinged with yellow but sepals and petals purplish, or vice versa; odorous. Floral bracts 2.5–10.0 mm long, 0.7–1.5 mm wide, ovate-lanceolate to lanceolate, acuminate or acute, deflexed, 1-veined. Dorsal sepal 2.0–3.6 mm long, 1–1.6 mm

**Fig. 6.** *Seidenfia rheedii* (Sw.) Szlach. a – plant, b – flower, c – lateral sepal, petal, dorsal sepal, d – lip, e – gynostemium, f – floral bract, g – pseudobulb (drawn from lectotype – *Champion s.n.* – K-L).
wide, oblong to lanceolate, obtuse to acute, 3-veined. Petals 2.0–3.5 mm long, 0.6–1.0 mm wide, oblong-ovate to lanceolate, obtuse to retuse at apex, 1-veined. Lateral sepals 1.5–2.8 mm long, 1.0–1.8 mm wide, asymmetrical-ovate, obtuse, deflexed, 3-nerved. Lip 1.2–2.8 mm long, 2.1–3.2 mm wide, subquadrate to reniform, pectinate, 9–13-toothed, middle tooth short and wide, distinctly shorter than the nearest, lateral tooth blunt and trifid at apex. Gynostemium 1–2 mm long, 0.8–1.2 mm wide at top. Anther 0.4–0.5 mm long, 0.5–0.7 mm wide. Pollinia 0.3–0.4 mm long, 0.12–0.15 mm broad. Capsule 0.7 cm long, 0.4 cm in diameter, short pedicellate, pyriform or oblong-ovate, purple on furrow, green on ridges.

**Distribution.** Sri Lanka, India. Alt. 390–1830 m.

**Ecology.** Terrestrial or lithophytic; growing in shade, sometimes in partial shade, in wet or moist habitat, in bamboo forest, in undergrowth of deciduous forest, semievergreen forest, edges of forest, land cleared for coffee, along roads among shrubs, humus-covered rock surface, on mossy rocks, often along a stream. Flowering June-November, fruiting September to January.
Representative specimens. SRI LANKA. MATALE DISTR. Karakolagastenna, Illukkumbura, Jayasuria, Dassanayake & Balasubramanium 429 (US!); Anuradhapura Distr., Ritigala Strict Natural Reserve, Jayasuria 1159 (US!); Wergamatota (Mahawelatota?), Sledge 954 I and II (K!); s sine loc., Walker 844 (K! – only lower right specimen); INDIA. HASSAN DISTR., Mysore, Saldanha 14236 (US!); Bisle, Saldanha 13601 (US!); Chikkannahalli-Arealhalli, Jarrett & Ramamoorthy HFP 1040 (US!); Saldanha & Ramamoorthy HFP 472 (US!); between Hebbsale and Devarunde, Nicolson, Saldanha & Ramamoorthy HFP 221 (US!); Kadamane, Siradi, Ramamoorthy HFP 1896 (US!); Saklespur-Byakaravalli, Saldanha & Ramamoorthy HFP 437 (US!); Uchandi, Nicolson, Saldanha & Ramamoorthy HFP 184 (US!); NILGIRS DISTR., Mercana, Barnes 1384 (K1, spirit. coll. – K1!), Gudalur Ghat Pilgrims, Barnes 1770 (K1!, L1!), Kambakkam Hills, Grownat Tambaram, Barnes 1990 (BM!); spirit. coll. – K1!, Naduvattam, Barnes 1237 (K1!), Wynaad, Barnes 1219, 1383, s.n. (K1!); MADRAS DISTR., Perumbukanal. Bourne 2934 I and II (K1!), Periga, Bourne 371 (K1!); MADURA DISTR., Kodaiakanal. Sauliere 105 (K1!), Sauliere s.n. (BM1!); Ramburuer, Barber 7570 (K1!), Tamilnadu Hills, Dindigul, Mathew 41723 (C, K1!), Wight 903, s.n. (K1!); KARPUT DISTR., Orissa, Potangi, Mooney 3850 (K1!); NAMAKAL DISTR., Kolli Hills, Salem, Mattew & Paramasivan 24121 (K1!); CENTRAL PROV., Thwaites CP 2375 (BM!); s. loc.: Gibson s.n., Wallich 1832 (K1!), locality unknown: sine coll., sine dat. (W-R! 41034).

Note. Taxon variable in size and color of plants and color of flowers.

Seidenfia seychellarum (Kraenzl.) Szlach. Fig. 8


Fusiform pseudobulbs 33–47 cm tall. Leaves ca 4, 3.8–17.5 cm long, 2.5–6 cm wide, the lower ovate, the upper oblong-ovate to lanceolate-ovate, attenuate to acuminate, sometimes slightly plicate, ca 5–7-veined, veins prominent below. Inflorescence 17–25 cm long, many-flowered, racemose. Flowers 1.6–2.5 mm in diameter, green. Floral bracts 3.5–5.0 mm long, lanceolate, attenuate, acute, 1-nerved. Sepals and petals 3-veined, middle vein thicker. Dorsal sepal ca 4 mm long, ca 1.3 mm wide, oblong-ovate to lanceolate-ovate, acute, incurved and falcate. Petals ca 3.4 mm long, ca 0.9 mm wide, slightly asymmetrical, lanceolate, obtuse, incurved, strongly falcate. Lateral sepals 3.1 mm long, ca 1.5 mm wide, asymmetrical-ovate, obtuse to acute, concave, incurved and falcate, reflected toward dorsal sepall. Lip ca 2.6 mm long, ca 3.8 mm wide, reniform, adnate to base of gynostemium, broadly concave at middle part, apical margin ca 11-toothed, teeth triangular, obtuse, external smaller and shorter, the middle one shortest and widest, broadly obtuse, sometimes absent. Gynostemium ca 1.6 mm long. Rosettes slightly acute at apical margin. Stamina distinctly reflected behind rostellum. Pollinia ca 0.4 mm long, 0.08–0.10 mm wide.

Distribution. Endemic to Seychelles. Alt. up to 400 m.

Ecology. In relict Dillenia-Northea forests with cinnamon and much Colea, in damp shady humus in crevices between boulders.

Representative specimens. SEYCHELLES. MAHE ISLAND: Trois Freres, Jeffrey & Zelia 552 (K1!, P1!); La Reserve Mahe Foret, Evrard 11652 (BR!).

Seidenfia malabarica Marg. & Szlach., sp. nov. Fig. 9

Folia ovali-lanceolata. Labellum triangulare, margine ca 9-denticulatis in parte apicali, denticulis brevibus, late triangularibus, denticulo mediano maximo.

Fusiform pseudobulbs 11–16 cm tall, slender. Leaves 3.9–10.0 cm long, 1.8–4.2 cm wide, 2–5, the lower ovate, the upper oblong to lanceolate-ovate, attenuate or acuminate, with sheathing bases, 5–7-veined, veins prominent below. Inflorescence with 10 to more than 20 flowers, slender, racemose; peduncle 5–7 cm long, flower-bearing portion 3.5–4.5 cm long. Flowers medium-sized,
yellow, sometimes purplish, lip yellow-orange to purple. Floral bracts 3.0–4.5 mm long, 1.2–1.5 mm wide, oblong-triangular, acute, 1-nerved. Dorsal sepal 4.8–5.0 mm long, 0.8–1.2 mm wide, oblong-lanceolate, obtuse to acute, slightly incurved. Petals 4–4.5 mm long, 0.8–1 mm wide, slightly asymmetrical, oblanceolate, obtuse to acute, softly incurved, reflexed towards dorsal sepal. Lateral sepals ca 3 mm long, 1.3–1.5 mm wide, asymmetrical-ovate, acute, slightly concave, incurved and falcate, reflexed towards dorsal sepal and slightly above lip. Lip 2.5–3.0 mm long, 3.5–4.0 mm wide, broadly triangular in outline, adnate to base of gynostemium, cavity small and narrow, apical margin 7–9-toothed, teeth broadly triangular, subequal in size, acute to obtuse, the middle tooth biggest, apiculate or sometimes retuse at apex. Gynostemium 1.0–1.2 mm long. Anther 0.4–0.5 mm long, 0.6–0.7 mm wide. Pollinia 0.3–0.4 mm long, 0.1–0.15 mm wide.
TYPE: INDIA, MALABAR, Concan, Stocks & Law s.n. – (HOLOTYPE: W-R!)

ETYMOLOGY. In reference to the place of origin.

DISTRIBUTION. South India

ECOLOGY. Tropical forest. Flowering in September.

NOTE. In the newly described *S. malabarica* the leaves are ovate-lanceolate, the lip is triangular, ca 9-dentate along apical margin, teeth wide, broadly triangular, the median tooth being the largest. It differs from its close relatives *S. versicolor* (Lindl.) Mar. & Szlach and *S. rheedii* (Sw.) Szlach. in the shape of the lip.

Fig. 9. *Seidenfia malabarica* Marg. & Szlach. a – plant, b – flower, c – lateral sepal, petal, dorsal sepal, d – lip, e – gynostemium, f – floral bract, g – pseudobulb (drawn from lectotype – *Stocks & Law s.n. – W-R*).
Representative specimens. India. Malabar: Concan, Stocks, Law s.n. (BM!), Hooker & Thomson 28 (P!); Niligiris Hills, Gudalur Ghat, E. Barnes 1770 (K!); Billigirirangan Hills, Attikan, E. Barnes 2195 (spirit. coll. – K!); Mysore, Bababudan Hills, E. Barnes 2306 A (spirit. coll. – K!); E. Barnes s.n. (spirit. coll. – K!).

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References


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