

TWO NEW SPECIES OF *DISPERIS* (ORCHIDACEAE, ORCHIDOIDEAE) FROM CENTRAL WEST AFRICA

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Abstract. Two new species of *Disperis* – *D. fayi* from the Central African Republic and *D. szolc-rogozinskiana* from Cameroon – are described, illustrated and compared with their putative closest relatives.

Key words: Orchidaceae, Orchidoideae, *Disperis*, new species, Africa

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The genus *Disperis* Sw. (Orchidaceae, Orchidoideae) encompasses terrestrial, epiphytic or lithophytic herb, with subterranean, tuberoid, erect, delicate stems, with 1–3 amplexicaul leaves placed usually near the middle of the stem, opposite to alternate, sometimes bract-like or completely reduced. The inflorescence, usually few-flowered, bears usually horizontal flowers of various sizes. The dorsal sepal and petals are joined together, forming a saccate to spurred hood hiding the lip and the gynostemium. The lip is greatly modified, the claw is usually linear, of different lengths, united basally with the gynostemium, usually curved apically, and terminating in a small, linear limb with simple or two bi-lobed appendages (Szlachetko & Olszewski 1998; Pridgeon *et al.* 2001). The gynostemium is greatly modified. The stigma is bilobed, the two lobes being well separated near the sides of the lip claw. The rostellum is trilobed, the middle lobe is reduced, but both lateral lobes are very large, often slightly twisted in their apical parts, each terminating in a large viscidium (Szlachetko & Rutkowski 2000).

The genus embraces about 90 species in southern and tropical Africa; *ca* 20 species are found in Madagascar, the Mascarenes and the other Indian Ocean islands. *Disperis* also ranges into Asia, with one or two species which are endemic to India, Thailand, China, the Philippines, the Malay Archipelago and New Guinea (Pridgeon *et al.* 2001).

While revising herbarium materials to the orchid flora of Central West Africa, we came across some specimens that did not fit the description of any species known so far. We describe them below as new.

Disperis fayi Szlach. & Kowalk., *sp. nov.* Fig. 1

Species haec ab omnibus speciebus Africanis centro-occidentali ungue 1 mm longo, limbo rotundato-elliptico basi appendice subquadrato praedito recedit.

TYPE: Central African Republic, *Fay* 5739 (HOLOTYPE – K!).

Tubers 0.7–1.5 cm in diameter, globose to ovoid, hairy. Stem 14–17 cm tall, slender, erect. Leaves 2, alternate, up to 2.5 cm long and 2 cm wide, ovate-cordate, acute to shortly acuminate at the apex, dark green above with white venation, purple on undersurface. Inflorescence 2–3-flowered, short, subumbellate. Floral bracts up to 13 mm long, leaflike, shortly acuminate. Ovary up to 18 mm long, erect. Dorsal sepal 8 mm long, 0.9 mm wide, linear-lanceolate, acute. Petals 8.5 mm long, 2.8 mm wide, obliquely oblong elliptic-ovate, subobtusate. Lateral sepals 14 mm long, 4.5 mm wide, obliquely broadly ovate, subacute, with very small, obscure sacs near the base, connate together on the basal 2 mm. Lip 4 mm long in total, claw 1 mm long, linear, limb 2.5 mm long, 1.5 mm wide, rotundate-elliptic, obtuse at

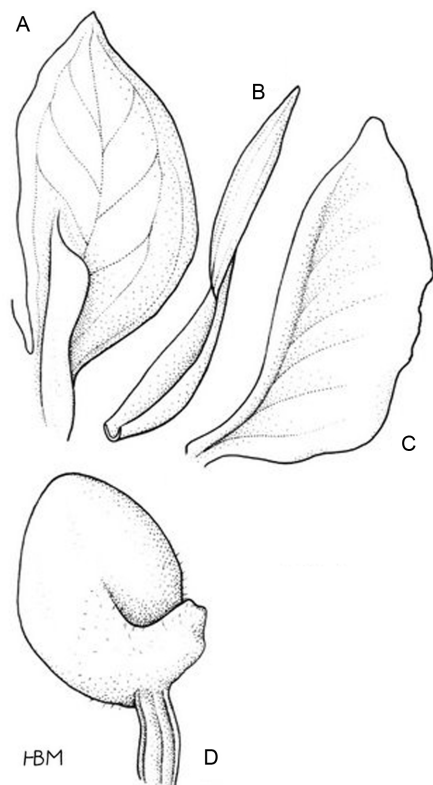


Fig. 1. *Disperis fayi* Szlach. & Kow. A – lateral sepal, B – dorsal sepal, C – petal, D – limb on claw (Fay 5739, K).

the apex, densely ciliate-papillate on the upper surface, provided with an appendage 1 mm long at the base of the limb, subquadrate, erect, stiff, truncate at the apex.

ETYMOLOGY. Dedicated to John Fay who first collected the specimen that originated the description of this species.

ECOLOGY. Terrestrial on thin gravelly clay loam on quartzite outcrop, saturated in wet season, dense primary vegetation on steep E-facing slope, with *Anogeissus leiocarpa* Guill. & Perr., *Maranthes kerstingii* (Engl.) Prance ex F. White and *Adiantum* spp. Flowering in August.

GENERAL DISTRIBUTION. Known so far from the type collection only. Alt. 600 m.

REPRESENTATIVE SPECIMENS. CENTRAL AFRICAN REPUBLIC. Manovo-Gounde-St. Floris Natl. Park, small seasonal creek coming off plateau 10 km E

of Piste de Crete, 8°41'N, 21°18'E, alt. 600 m, 18 Aug. 1983, Fay 5739 (K!).

NOTES. From all other species known in the study area, *D. fayi* differs in lip structure – the claw is scarcely 1 mm long, the limb is rotundate-elliptic and possesses a basal, subquadrate projection.

Disperis szolc-rogozinskiana Szlach. & Kowalk., *sp. nov.* Fig. 2

Species haec D. togoensi Schltr. *proxima sed appendice auriculatae ovato-cordato acutove et galea obovata apice truncata vel incisa, apicem latissima iam dignoscenda.*

TYPE: Cameroon, Jacques-Félix 4338 (HOLOTYPE – P!; ISOTYPE – K!).

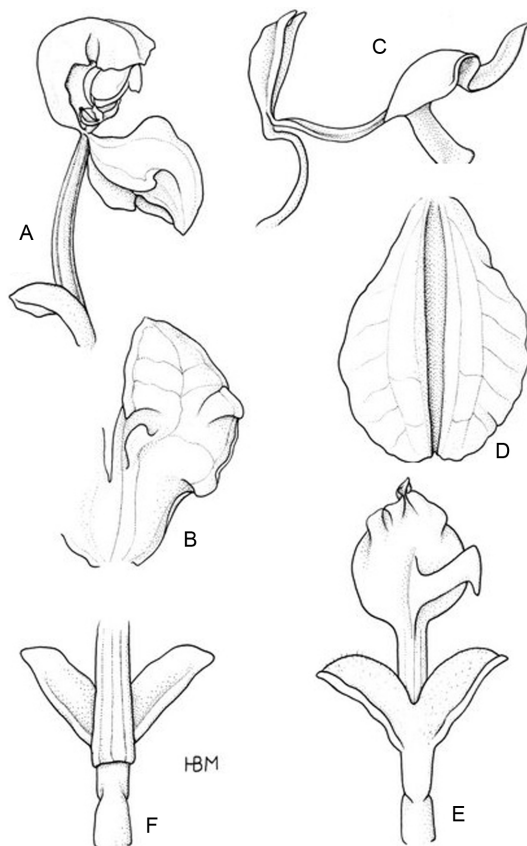


Fig. 2. *Disperis szolc-rogozinskiana* Szlach. & Kow. A – flower, B – lateral sepal, C – lip, side view, D – dorsal sepal and petals, E – lip, view from above, F – claw, details (Jacques-Félix 4338, K).

Tubers 0.7–1.5 cm long, 0.4–0.7 cm in diameter, ovoid to ellipsoid, woolly. Stem 7–17 cm tall, erect, glabrous. Leaves 2, alternate, 0.7–1.7 cm long, 0.4–1.4 cm wide, sessile, ovate-cordate, subobtusate to acute. Inflorescence 1–2 cm long, 1–3-flowered. Floral bract 3.5–8.0 mm long, ovate to lanceolate-ovate, acute. Ovary 6–15 mm long, slender cylindrical, erect. Hood 10 mm long and 7 mm wide, obovate in general outline with attenuate base, slightly notched at apex, widest above the middle, strongly arcuate, shallowly concave. Dorsal sepal 9 mm long, 1 mm wide, linear-lanceolate, acute, shorter than petals. Petals 10 mm long, 3.5 mm wide, obliquely obovate, obtuse. Lateral sepals 8 mm long, 4 mm wide, obliquely elliptic-ovate, sub-obtusate, joined together along the basal third of their length, bearing small sacs each, to 1 mm long near the middle at the inner margins. Lip 5.5 mm long in total, claw 3 mm long, linear, bent sharply back near the middle and there with two diverging papillate lobes, 1.7 mm long, 0.5 mm wide, the claw terminating in a limb 2 mm long and 1.5 mm wide, cordate-circular, convex, apiculate, with erose and folded apical margins, bearing a perpendicular, elliptic, papillate keel in the center.

ETYMOLOGY. Dedicated to Stanisław Szolc-Rogoziński, a Polish explorer of S Cameroon during 1882–1886.

ECOLOGY. In forests. Flowering in June–July.

GENERAL DISTRIBUTION. Known so far only from Cameroon.

REPRESENTATIVE SPECIMENS. CAMEROON. Hossere Gode, 18 km NNW Poli, *Fotius 2107* (P!); Ngoundere a Meiganga, June 1939, *Jacques-Félix 4279* (K!, P!); Plateau Mbere, Jul. 1939, *Jacques-Félix 4338* (K!, P!).

NOTES. No doubt this species is related to *D. togoensis* Schltr. but is easily distinguishable by having an ovate-cordate, acute lip appendage; by its obovate hood, truncate to notched at the apex, and widest in the upper half. In *D. togoensis* the lip appendage is transversely elliptic, obtuse to notched at the apex; the hood is ovate, acute, with a cordate base, widest in the lower part.

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