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TWO NEW SPECIES IN THE GENUS *DUPARQUETIA* (LEGUMINOSAE–DUPARQUETIOIDEAE)

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Two new species in the monospecific genus *Duparquetia* (Leguminosae–Duparquetioideae) are described: *Duparquetia alba* and *Duparquetia minima*. The new species are diagnosed by flower characters such as the presence or absence of glands on the edge of sepals and petals, and the colour, shape and position of the sepals, petals and stamens. Photographs of the new species are provided, as is a key to all species and a map showing their distribution.

Keywords. Africa, Fabaceae, forest, liana, taxonomy, tropics.
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Introduction

The African genus *Duparquetia* Baill. is recognised in the monogeneric and monospecific subfamily Duparquetioideae in the legume family (LPWG, 2017; Estrella *et al.*, 2018) and is morphologically and genetically clearly distinguished from any other genus within the Leguminosae (see LPWG, 2017; Banks *et al.*, 2006; Prenner & Klitgaard, 2008). The complicated flower structure is described in detail by Prenner & Klitgaard (2008) (see also **Figure 1**). However, some flower characters that are attributed to the genus and its only species, *Duparquetia orchidacea* Baill., are not present in the putative new species studied here. The stalked glands on the edge of sepal and petals and the conspicuous red pattern on the petals (Pellegrin, 1949; Prenner & Klitgaard, 2008) are not diagnostic at genus level.

Materials and methods

A morphological study was carried out of herbarium material kept at BR, BRLU, K and WAG (herbarium codes follow Index Herbariorum, updated continuously). In addition, images were examined from the online databases of the Muséum national d'Histoire naturelle in Paris (Sonnerat), the Missouri Botanical Garden (Tropicos) and Global Plants on JSTOR (https://plants.jstor.org). Photographs of living plants were also studied on iNaturalist (https://www.inaturalist.org). GeoCAT (Bachman *et al.*, 2011) was used to calculate the Area of Occupancy (AOO) and Extent of Occurrence (EOO) in assessing the conservation status of the species.

Results

This research revealed the presence of two morphologically distinct and previously undescribed *Duparquetia* species. The two new species are morphologically distinct and geographically separated from *Duparquetia orchidacea*, which is widely distributed in tropical

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Central and West Africa (Table). A short genus description and a description for each of the three species now recorded in the genus are provided below.

Taxonomic treatment

Duparquetia Baill., Adansonia 6: 189 (1865).
Unarmed woody lianas. *Stipules* in lateral position, free. *Leaves* imparipinnate, pulvinate; leaflets opposite, exstipellate. *Inflorescences* erect, a terminal raceme, or panicle of racemes. *Flowers* bisexual, zygomorphic; bract and 2 bracteoles small, caducous; sepals 4, free, unequal, the lower sepal enclosing most of the bud, the upper sepal about the same size as lower sepal, in bud upper sepal partly covered by lower sepal, the 2 lateral sepals petaloid and bilobed, the inner lobes usually shorter than the outer lobes; petals 5, free, unequal in size and shape, the three upper ones about the same size, the lower ones clearly smaller; stamens 4, filaments free, anthers oblong, more or less curving down, basifixed, with strap-like appendages on top, opening by terminal pores, all, or only the middle pair, connate; carpel single, with 4 ridges, with 2 to several ovules. *Fruits* straight, oblong, woody, with 4 narrow wings, dark red turning brown at maturity, almost glabrous outside, densely hairy inside, dehiscent by the lengthwise twisting pod valves, with 2 or several seeds. Figure 1.

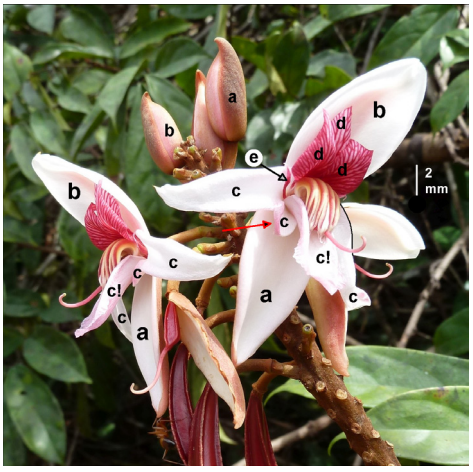

Figure 1. Flowers of *Duparquetia*, showing the different sepals and petals: **a**, single lower sepal covering the larger part of the flower in bud; **b**, single upper sepal partly covered in bud by the lower sepal; **c**, two bilobed lateral sepals that are often confused with petals; **c!**, the large inner lobe of one of the two lateral sepals touching the style and anthers from below, with the much shorter lower inner lobe from the other lateral sepal just visible below it (red arrow); **d**, three conspicuous upper petals; **e**, two smaller lower petals that can be hard to see and are sometimes caducous (they can be more conspicuous than on this photograph, but they are always clearly smaller than the other petals of the same flower). In this figure, *Duparquetia orchidacea* flowers are used as examples. Photograph of *Jongkind* et al. 9690, taken by Carel Jongkind. The scale bar is approximate.

Distribution. West and western Central Africa. Found in three clearly disjunct areas: Liberia and southwest Ivory Coast, southwest Ghana, and from southeast Nigeria to Angola (Figure 2).

Habitat and ecology. Tropical forests, often near water.

Notes. The outer lobes of the two lateral sepals are almost identical to each other, but the inner lobes are usually different in size and shape. The upper inner lobe is usually larger than the lower, but both inner lobes can sometimes be equal in size and shape. In the flower to the right in Figure 1, the upper inner lobe (**c!**) belongs to the lateral sepal to the right. In this flower the much smaller lower inner lobe, from the lateral sepal to the left, is visible just below it. The size of these lobes, especially the smaller one, can vary greatly even between flowers in a single inflorescence.

Duparquetia orchidacea Baill., Adansonia 6: 190 (1865). – Lectotype: Gabon, anno 1864, *Griffon du Bellay* 339 (lectotype designated by Aubréville, 1968) (first step); *Griffon du Bellay* 339 P [P00390900] lectotype designated here (second step); isolectotype P [P00390899]).

Oligostemon pictus Benth., Trans. Linn. Soc. London 25(2): 305, t. 39 (1865). – Lectotype: Cameroon, Cameroon River, i 1863, fl., fr., *Mann* 2210, Sheets 1/1 and 1/2 K (two sheets of a single gathering) [K000092569 and K000092570] (designated here); isolectotype: P [P03489687]. Figure 3.

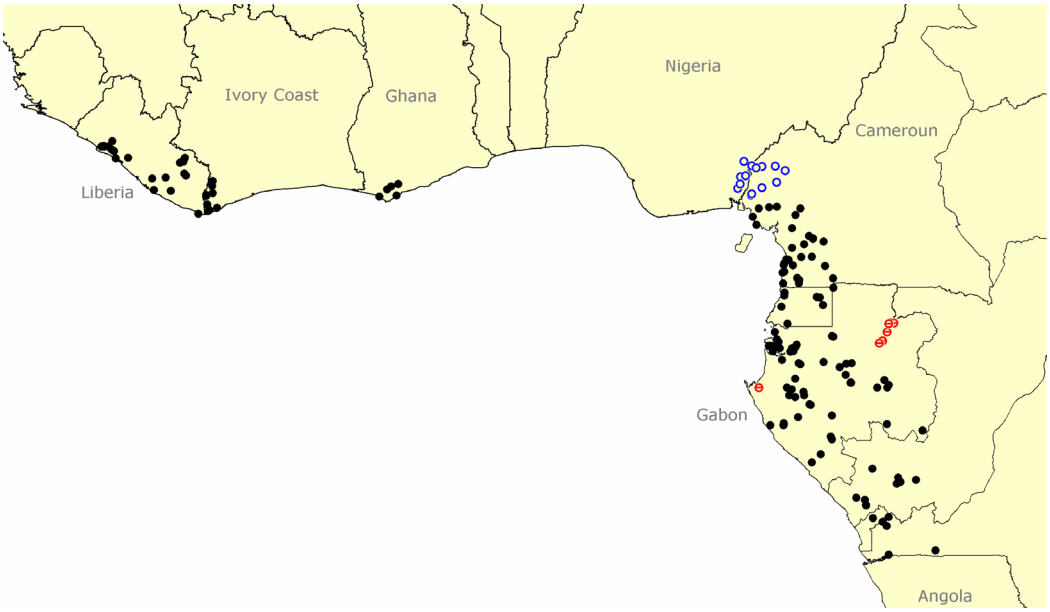

Figure 2. Map of parts of West and Central Africa, showing the distribution of *Duparquetia* species: *D. orchidacea* (solid black dots), *D. alba*, sp. nov. (blue circles) and *D. minima*, sp. nov. (red circles with stroke).

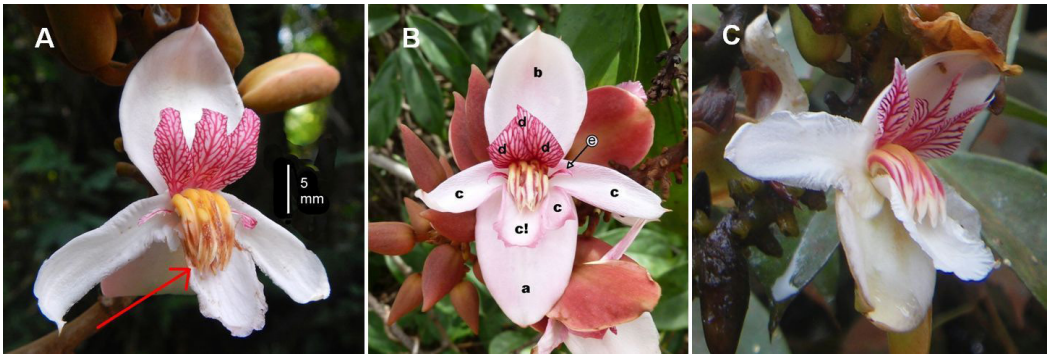

Figure 3. *Duparquetia orchidacea*. A, Flower from Cameroon, with arrow showing where anthers touch inner lobe of lateral sepal. B, Flower from Liberia: **a**, lower sepal; **b**, upper sepal; **c**, two bilobed lateral sepals; **c!**, the large inner lobe of the lateral sepal. C, Flower from Gabon. Photographs of *van der Burgt* 1967 (A), *Jongkind* et al. 9690 (B), and *Lachenaud* et al. 1593 (C), taken by Xander van der Burgt, Carel Jongkind, and Olivier Lachenaud, respectively.

Shrub, or liana climbing to 30 m or more. *Leaves* pinnate, (3–)5- to 9-foliolate, petiole 2–9 cm long, rachis 6–11.5 cm long, petiolules 5–8 mm long; blade 5.5–18 × 2.5–12 cm, with 5–7 secondary veins, base acute to rounded, apex acuminate, almost glabrous above, below with appressed hairs especially on the larger veins, stipules caducous, c.8 × 3 mm, narrowly triangular. *Inflorescences* up to 30 cm long, axes with a more or less dense golden-brown indumentum. *Flower* bract and bracteoles 2–3 × 1–1.5 mm, caducous; upper and lower sepals ovate, 15–30 × 10–20 mm, lower sepal slightly larger and enclosing the flower in bud, outer surface golden brown to reddish brown, upper sepal less hairy and pale when covered in bud by the lower sepal, inner surface of both sepals glabrous, white or pale pink; lateral sepals white or pale pinkish, slightly to strongly bilobed, both outer lobes almost equal, 13–25 × 5–14 mm, upper inner lobe slightly longer than the stamens, lower inner lobe from just noticeable to as long as the upper lobe, edge of lateral sepals in Cameroon and most of Gabon with stalked glands, just like the petals; upper three petals 8–20 × 3–7 mm, ovate, white with highly visible red venation, apex acute; the two lower petals 6–12 × 0.5–3 mm, strap-like, partly red; stamens with 2–5 mm long filaments; anthers 5–17 × 3–4 mm, curved, in a more or less compact single row (a synandrium), touching the inner lobe of lateral sepal; ovary hairy. *Fruit* 6–16.5 × 2–4 cm, with 2 to several seeds. *Seeds* c.2.5–3 × 1.5–2 cm, oblong to ovoid, testa brown.

Distribution. West and western Central Africa, from sea level to c.450 m elevation, in three clearly disjunct areas: Liberia and southwest Ivory Coast, southwest Ghana, and from southeast Nigeria to Angola (Figure 2).

Habitat and ecology. Tropical forests, often near water.

Notes. The flowers of *Duparquetia orchidacea* from west of Nigeria all lack the conspicuous glands on the edge of petals and lateral sepals, whereas these glands are usually easily spotted on most of the Central African plants. In more southern parts of Central Africa, plants have been found without these glands. The function of these glands is not clear. Ants that damage the anthers can be seen on the anthers of glandular and non-glandular flowers. A correlation between the absence or presence of these glands and other characters, such as differences in indumentum or leaf(let) size and shape, could not be found.

All anthers are found in a compact row, a synandrium. Prenner & Klitgaard (2008: 1350) mention that there are exceptions, but these exceptions are here representing the two new species.

In the original publication of *Duparquetia orchidacea* (Baillon, 1865), several syntypes were cited: *Duparquet* 18, *Griffon du Bellay* 339, *Mann* 751 and *Mann* 2210. However, in the *Flore du Gabon* (Aubréville, 1968) the collection *Griffon du Bellay* 339 (P) was cited as the holotype. It is clear that Aubréville effectively lectotypified the name with *Griffon du Bellay* 339 (P) (following ICN Articles 7.11 and 9.10; Turland *et al.*, 2025). However, there are two specimens of this gathering in P, and therefore this must be considered a first-step lectotypification (Article 9.17). Here we carry out a second-step lectotypification and designate the specimen in P, *Griffon du Bellay* 339 with barcode P00390900, as lectotype.

Bentham writes in the original publication of *Oligostemon pictus* (Bentham, 1865) that the species he describes was collected by Mann “on the Cameroon river”, and he describes a plant with flowers and young fruits. Mann collected this species twice from this location, as *Mann* 751 and *Mann* 2210, but in the Kew herbarium only *Mann* 2210 (a specimen composed of two preparations from a single gathering) includes young fruit. As such, and following ICN Article 8.3 (Turland *et al.*, 2025), it is selected as the lectotype.

Selection of the c.180 specimens examined. Liberia. just outside Zwedru on the Putuh road, fl., 18 i 1967, *Bos* 2855 (WAG); along road from Greenville to Zwedru, fl., 13 xi 2010, *Jongkind* et al. 9690 (WAG); 4 miles east of Kakata, along the road to Gibi Hills, fl., 7 xi 1968, *JWA Jansen* 990 (BR, K, WAG).

Ivory Coast. from Tabou 30 km to Bérébу, fl., 12 x 1973, *de Koning* 2408 (BR, WAG); FC de la Ht Dodo, close to Kouadjokro, fl., 3 v 1999, *Jongkind* et al. 4464 (BR, WAG).

Ghana. Subri River Forest Reserve, fl., 19 x 1971, *Deaw* Sp 334 (WAG); Axim – Ankobra ferry, fl., fr., 16 ix 1978, *Enti* FE-1817 (WAG).

Cameroon. 15 km from Kribi, Edea road, fl., fr., 7 i 1969, *Bos* 3582 (BR, WAG); near Ambam, fl., 13 iii 2016, *van der Burgt* 1967 (BR, K, WAG); between Batokke and Bakingeli, on the base of Mt Cameroon, fl, 11 x 1965, *Leeuwenberg* 6896 (WAG); Campo, 1 km S of Mabiogo, fl., 16 ii 1994, *Wieringa & Haegens* 2238 (WAG).

Equatorial Guinea. Bata – Ayamiken Road km 18–19, fl., 12 xi 1991, *Cavalho* 4804 (P, WAG); près de la frontière gabonaise, à l’est de Cogo, fl., 4 v 1989, *McPherson* 14028 (WAG).

Gabon. concession Maurel & Prom près du Lac Ezanga, fl., 24 xi 2013, *Lachenaud* et al. 1593 (BR, WAG); c.30 km E of Lastoursville, fl., 21 xi 1993, *Breteler* et al. 12253 (WAG); S of Estuaire du Gabon along Remboué River, fl., 24 x 1991, *McPherson* 15446 (BR, MO *n.v.*, WAG); Forêt des Abeilles, fl., 2 xii

1993, *McPherson* 16287 (BR, MO *n.v.*, WAG); c.32 km W of Mintsic, fl., 8 xi 1987, *Reitsma & Reitsma* 2541 (WAG); Tchad II, fl., 26 xi 2015, *Wieringa* et al. 8619 (WAG).

Congo Brazzaville. Région de Kouilou, Mayombe à Goumina, fl., 20 x 1990, *Dowsett-Lemaire* 1312 (BR, K); Région de Kibangou, fl., 17 ix 1965, *Sita* 1192 (K, WAG).

Congo Kinshasa. Lovo, fl., fr., 27 xi 1959, *Compere* 904 (BR); Boma, fl., 6 x 1895, *Dewèvre* 421 (BR).

Angola. Cabinda, Alsyra-Buco-Zau, fl., 27 ix 1916, *Gossweiler* 6716 (COI scan).

Duparquetia alba Jongkind, **sp. nov.**

Duparquetia alba differs from *D. orchidacea* and the new species described below by the absence of conspicuous dense thick red lines on the petals, and additionally from *D. orchidacea* by the anthers that are raised and do not make contact with the inner lobe(s) of the lateral sepals (vs touching the inner lobes of the lateral sepals) and by the outer anthers that are lower than the inner ones (vs one compact row). – Type. Cameroon, Southwest Region, Ndian, Besingi, south of Mundemba, near village Besingi, just downstream of high bridge over Idu river, 4°55'20"N, 8°54'23"E, 50 m elevation, fl., fr., 20 v 2007, *van der Burgt, Motoh, Njibili & Elangwe* 924 (holotype K [K000460369]; isotypes MO *n.v.*, YA *n.v.*, WAG [WAG.1634037]). Figure 4.

Shrub, or liana climbing to at least 20 m high. *Leaves* pinnate, (3–)5- to 9-foliolate, petiole 2–9 cm long, rachis 6–11.5 cm long, petiolules 7–8 mm long, petiole, rachis and petiolules with appressed brownish hairs; blade 5.5–19 × 2.5–9 cm, with 5–7 secondary veins, acute to rounded at base, acuminate at apex, almost glabrous above, below with appressed hairs especially on the larger veins; stipules caduceus. *Inflorescence* densely flowered, up to 35 cm long, rachis densely short hairy. *Flower* bracts up to 4 mm long, bud covered with a dense brownish indumentum; upper sepal 20 × 13–17 mm, usually turning from convex to concave when opening, lower sepal 20 × 11–13 mm, convex, both hairy and brownish on the outside, white to pinkish and hairy near the edge on the inside; lateral sepals white, at least one clearly bilobed but usually both, both outer lobes almost equal, 17–20 × 5.5–8 mm, the upper inner lobe as long as, or slightly shorter than, the stamens, lower inner lobe from just noticeable to as long as the upper lobe, with conspicuous stalked glands along the edge; petals almost white or with pale pinkish veins, especially the lower ones with conspicuous white stalked glands along the edge, middle upper petal 16–18 × 6–4 mm, the 2 asymmetrical petals next to it 14–18 × 6–10 mm, lower petals c.14 × 2.5 mm; stamens with filament c.4 mm long, outer anthers lower than middle ones, reddish, strongly curved, not touching inner lobe of lateral sepal, middle anthers yellow, almost straight, c.13 mm long; ovary hairy on the base and along the edges. *Fruit* up to 17 × 2.5 × 2 cm. *Seed* c.2.5 × 1.5 cm, slightly flattened.

Distribution. Endemic to southeast Nigeria and western Cameroon (Figure 2).

Habitat and ecology. In, or at the edge of, forest at 50–320 m elevation. Flowering all year round.

Figure 4. *Duparquetia alba* Jongkind, sp. nov. A, Flower with parts annotated: **a**, single lower sepal covering the larger part of the flower in bud; **b**, single upper sepal partly covered in bud by the lower sepal; **c**, two bilobed lateral sepals that are often confused with petals; **d**, three conspicuous upper petals. Photographs of *van der Burgt* 924 (A, B), taken by Xander van der Burgt, and field photograph (C), from the bank of the Ndian River, Cameroon, taken by Duncan Thomas.

Etymology. The specific epithet refers to the almost white flowers.

Proposed IUCN conservation category. *Duparquetia alba* has an estimated EOO of 11,429 km^2 and an AOO of 84 km^2. Even though a minor part of its distribution falls within protected areas, it is threatened by ongoing degradation or destruction of its habitat due to agriculture, illegal logging and wood harvesting, all of which will result in inferred continuing decline in its habitat quality. Based on current information, it is assessed as 'Endangered' [EN B1ab(iii)+B2ab(iii)] according to IUCN *Red List Categories and Criteria* (IUCN, 2012).

Notes. In this species the anthers are raised above the inner lobe(s) of the lateral sepals, whereas in the flowers of *Duparquetia orchidacea* the anthers (almost) touch the inside of

these sepal lobe(s). This can be seen on many photographs of *Duparquetia orchidacea* taken in several countries (see Figure 3). In both new species, the anthers do not form a single row, and the lower anthers differ from the upper anthers in colour and shape. This is not the case in *Duparquetia orchidacea*, where the anthers are in a single row and the same shape and colour.

Additional specimens examined. Nigeria. Calabar, Buden Dunlop Estate, near Calabar River, fl., 13 viii 1959, *Binuyo* FHI 41447 (BR, K, WAG); Oban Group Forest Reserve, fl., 16 ix 1961, *Binuyo* FHI 45403 (K, P scan); Oban, Mile 61, fl., 13 iii 1955, *Coombe* 177 (BR, K, P scan); Oban Forest Reserve, 15 x 1973, fl., *Daramolo* FHI 72368 (K); Calabar, Akin, 30 iv 1952, fl., *Ejiofor* FHI 21886 (K); road between Calabar and Oban, SW of Aningeye, 50 m, fl., 20 vi 1981, *Gentry & Pilz* 32848 (BR, MO *n.v.*, WAG); Cross River Division, fl., fr., i 1900, *Holland* 249 (K); north of Oban, fl., 28 vii 1973, *Lowe* 2645 (K); Awi FR, 14 viii 1974, fl., *Okeke* FHI 72700 (K); Victoria – Kumba motor road on mile 43.5, fl., 20 iv 1954, *Olorunfemi* FHI 30533 (K); Aningeje, Kwa Falls, fl., 30 viii 1954, *Olorunfemi* FHI 34209 (FHI scan); near Aking bridge after mile 53 on Calabar – Mamfe road, fl., 17 ii 1964, *Onyeachusim & Latilo* FHI 54004 (BR, K); near mile 54 on Calabar – Mamfe road, fl., 17 ii 1964, *Onyeachusim & Latilo* FHI 54009 (K); 5 km S of Ikom on road to Ugep, fl., 27 iv 1977, *Pilz* 2027 (K, WAG); Oban, anno 1912, fl., *Talbot* 1709 (K); road from Calabar to Oban, near milestone 36, fl., 16 iv 1971, *PPC van Meer* 1327 (FHI scan, WAG).

Cameroon. Bechati, near rocky mountain stream flowing westwards to village Bechati, fl., fr., 25 ix 2006, *van der Burgt* 862 (K, WAG); 15 km radius of Nguti, fl., 19 iii 1991, *D.J. Harris* 2805 (WAG); 26 km on road from Widikum to Mamfe, fl., 26 iii 1978, *Lowe* 3680 (K); 29 km West of Mamfe, fl., 27 iii 1978, *Lowe* 3683 (FHI scan); Along the Eyumojok–Ekok road, c.3 km NW of Nsanaragati, fl., fr., 16 xii 1986, *Manning* 1228 (K, MO *n.v.*, WAG); Southwest Region, c.30 km E Manfé sur route Manfé-Eyumojock, fl., 25 ix 1984, *Onana* 43 (P); Bamenda, Mamfe, fl., 7 ix 1952, *Savory UCI* 492 (K); forest relicts in cultivated aeas, Mundemba town, fl., vi/vii 1984, *DW Thomas & Mambo* 4221 (BR, K, MO *n.v.*); near Mundemba town, fl., 12 v 1986, *DW Thomas* 6122 (BR, K, MO *n.v.*, WAG); forest at Banyu last moto, between Sekim and Banyu, fl., 25 iv 1988, 400 m, *Thomas & Mambo* 8217 (K, MO *n.v.*, WAG).

Duparquetia minima Jongkind, **sp. nov.**

Duparquetia minima differs from *D. orchidacea* and *D. alba* by its leaves with 3–5 leaflets (vs (3–)5–9 leaflets) and by its pinkish to white mature flower bud covered with scattered hairs (vs brownish with dense indumentum). Additionally, the petals and sepals without stalked glands on the edge (vs stalked glands in *Duparquetia alba* or with or without in *D. orchidacea*), and the anthers in the completely opened flower are a clear distance above the inner lobe(s) of the lateral sepals (as in *D. alba* but not in *D. orchidacea*, where they touch the lateral sepals). – Type: Gabon, west bank of Ovindo River, opposite Mayibout I, 12 km from Bélinga, fl., fr., x 1987, *Louis, Sterck & Elias* 2449 (holotype WAG [WAG.1633954]; isotype BR [BR0000017323697], K [K003108572], LBV *n.v.*, MO *n.v.*). Figure 5.

Liana. *Leaves* with 3–5 leaflets, nearly glabrous, petiole 2–5 cm long, rachis 2–4.5 cm long, petiolules 2.5–5 mm long; blade 4–19 × 2.5–7 cm, with 3–5 secondary veins, base rounded, apex acuminate; stipules caducous. *Inflorescence* up to 32 cm long, densely flowered, rachis

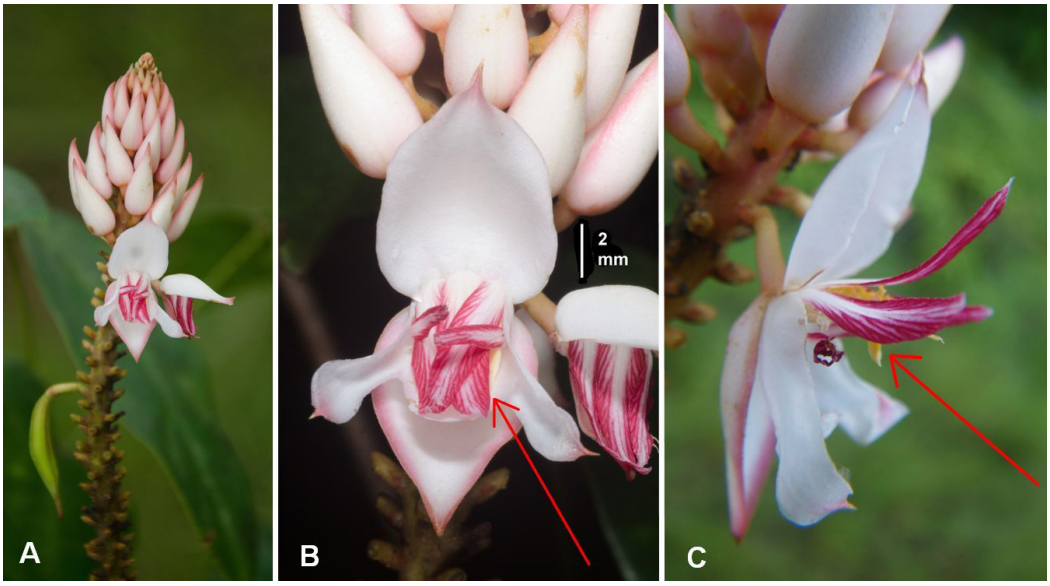

Figure 5. *Duparquetia minima* Jongkind, sp. nov. A, Inflorescence; B, flower with the stamens sandwiched between the three reddish upper petals above and the inner lobes of the white lateral sepals below, with the two reddish lower petals still standing above the upper petals (anthers just visible near point of arrow); C, flower with stamens and upper petals that have moved upwards while the inner lobes of the lateral sepals stayed behind (arrow pointing at anthers between the upper petals). Photographs of *Lachenaud* 2292, taken by Olivier Lachenaud.

with a more or less dense golden-brown indumentum; bracts triangular, up to 1 mm. *Flower* bud pinkish to white, surface visible between the hairs; without glands on edge of lateral sepals and petals; sepals white to pinkish, upper sepal 7–12 × 4–8 mm; lower sepal 7–11.5 × 5–7 mm; at least one of the two lateral sepals clearly bilobed but usually both, outer side lobes almost equal, 7–9 × 1.5–2 mm, upper inner lobe slightly longer than the stamens, lower inner lobe from just noticeable to as long as the upper lobe; petals with conspicuous dense thick red line pattern, three upper petals 8–12 × 2–3.5 mm; two lower petals 6–8 × 0.3–0.5 mm; stamen filaments c.2 mm long; anthers c.3.5–6 mm long, yellow, moving up and away from the inner lobes of the lateral sepals after anthesis (see *Notes*), outer anthers lower than middle ones, strongly curved, middle anthers almost straight; ovary hairy on the base and along the edges. *Fruit* 7 × 1.5 cm.

Distribution. Endemic to Gabon but also very likely to occur across the border in Congo Brazzaville. It is found along the Ivindo River and its larger tributaries between the border with Congo Brazzaville in the northeast and around Makokou in the southwest. It was also found once far downstream in the estuary of the Ogooué River at c.20 m elevation (*Lachenaud* 2292, Figure 2).

Habitat and ecology. *Duparquetia minima* is found in riverine vegetation mostly between 450 and 500 m elevation and once almost at sea level. Recorded as flowering in February and March, in June, and from September to November.

Etymology. The specific epithet refers to the relatively small leaves, flowers and fruits of this species.

Proposed IUCN conservation category. *Duparquetia minima* has an estimated EOO of 11,865 km^2 and an AOO of 40 km^2. It is threatened by ongoing clearing of riverbanks for expanding villages and cities, logging and wood harvesting, all of which will result in inferred continuing decline in its habitat quality. Based on current information, it is assessed as 'Endangered' [EN B1ab(iii)+B2ab(iii)] according to IUCN *Red List Categories and Criteria* (IUCN, 2012).

Notes. The single specimen of *Duparquetia minima* that was found far downstream from all the other specimens does not appear to be morphologically different from the much larger upstream population. It seems likely that it is a relatively new isolated population or that it is still connected to the main population by other populations in between that have not yet been found.

The images of *Duparquetia minima* (**Figure 5**) suggest that in this species a pollinator has to force the anthers up to reach between the anthers and petals at one side and the pistil and inner lobe(s) of the lateral sepals at the other side. There are flowers where the stamens are still sandwiched between the petals and the inner lobes of the lateral sepals (**Figure 5B**), whereas in **Figure 5C** the lower petals that were on top of the other petals, have moved aside and the anthers and upper petals have moved upwards. The many available photographs of the flowers of *Duparquetia orchidacea* do not show anything similar.

The illustration of *Duparquetia orchidacea* in the *Flore du Gabon* by N. Hallé (Aubréville, 1968: Pl. VII, 4–5 and 7–8), later also presented in the *Flore du Cameroun* (Aubréville, 1970), shows important flower characters of *D. minima*. A photograph from another flowering plant of *Duparquetia minima* can be found in *Plantes à fleurs du Gabon* (Vande Weghe, 2015).

Additional specimens examined. Gabon. Ogooué-Maritime: Rivière de Kendié en aval de Mbilapé, rive ouest, 00°49'31"S 009°07'56"E, fl., 23 xi 2016, *Lachenaud* 2292 (BRLU, MO *n.v.*, P image!). Ogooué-Ivindo: Oyem (= Ntian), 40 km N Makokou, Ivindo River, fl., 23 ii 1961, *N Hallé* 1304 (P image!, WAG); 6 km N de Makokou, bord de l'Ivindo, fl., 3 iii 1961, *N Hallé* 1389 (P image!); Makokou, ripicole Ivindo, fl., 19 x 1964, *N Hallé* 2680 (P image!, US image!); bord d'Ivindo, fl., 20 vi 1966, *N Hallé* 3980 (BR, P image!); 11 km SSW of Makokou, near Ivindo R., right bank, fl., 12 xi 1977, *Leeuwenberg* 11520 (WAG); Lower Sing valley, next to Sing river, fl., 9 ix 1990, *Minkébé series* W 527 (WAG).

Key to the species of Duparquetia

1a. Petals with a conspicuous pattern of red lines. Stalked glands on the margins of the sepals and petals present or absent _____ 2

1b. Petals white or with pinkish veins. Stalked glands on the margins of the sepals and petals always present. Nigeria and Cameroon _____ **D. alba**

2a. Mature flower bud pinkish to almost white on the outside. Leaves with 3–5 leaflets. Sepals and petals without conspicuous glands on the edge. Gabon _____ **D. minima**

2b. Mature flower buds (reddish-)brown on the outside. Leaves with (3–)5–9 leaflets. Petals with or without conspicuous stalked glands on the edge. Liberia to Angola *D. orchidacea*

Table. Morphological and geographical differences between *Duparquetia alba*, *D. minima* and *D. orchidacea*

Feature	*D. alba*	*D. minima*	*D. orchidacea*
Leaflets/leaf	(3–)5–9	3–5	(3–)5–9
Flower bud (exposed part of the sepals in bud)	Brown	Pinkish to white	Golden brown to reddish brown
Petal colour	White or with pale pinkish venation	White and red	White with red venation
Stalked glands at edge of lateral sepals and petals	Yes	No	Yes in Cameroon and most of Gabon. No in western Africa and in its southern distribution in Central Africa
Anthers in one row	No	No	Yes
Anthers touching inner lobe of lateral sepal	No	Seems to be changing or moving from yes to no during the flowering period (see *Notes* for the species)	Yes
Geography	Southeastern Nigeria and western Cameroon	Gabon	Liberia–Angola

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References

Aubréville A. 1968. Flore du Gabon. Vol. 15. Légumineuses – Césalpinioidées. Paris: Muséum national d'Histoire naturelle.

Aubréville A. 1970. Flore du Cameroun. Vol. 9. Légumineuses – Césalpinioidées. Paris: Muséum national d'Histoire naturelle.

Bachman S, Moat J, Hill AW, Torre J de la, Scott B. 2011. Supporting Red List threat assessments with GeoCAT: geospatial conservation assessment tool. In: Smith V, Penev L, editors. e-Infrastructures for data publishing in biodiversity science. ZooKeys. 150: 117–126. https://doi.org/10.3897/zookeys.150.2109.

Baillon HE. 1865. Études sur l'herbier du Gabon du Musée des colonies Françaises. Adansonia. 6: 177–230.

Banks H, Feist-Burkhardt S, Klitgaard BB. 2006. The unique pollen morphology of *Duparquetia* (Leguminosae: Caesalpinioideae): developmental evidence of aperture orientation using confocal microscopy. Annals of Botany. 98(1): 107–115. https://doi.org/10.1093/aob/mcl115.

Bentham G. 1865. Description of some new genera and species of tropical Leguminosae. Transactions of the Linnean Society of London. 25(2): 305, t. 39.

Estrella M de la, Forest F, Klitgaard B, Lewis GP, Mackinder BA, Queiroz LP de, Wieringa JJ, Bruneau A. 2018. A new phylogeny-based tribal classification of subfamily Detarioideae, an early branching clade of florally diverse tropical arborescent legumes. Scientific Reports. 8: 6884. https://doi.org/10.1038/s41598-018-24687-3.

Index Herbariorum. Updated continuously. Index Herbariorum: A Global Directory of Public Herbaria and Associated Staff. New York Botanical Garden's Virtual Herbarium. http://sweetgum.nybg.org/ih/ [Accessed October 2024.]

IUCN. 2012. IUCN Red List Categories and Criteria. Version 3.1. 2nd edition. IUCN Species Survival Commission. Gland, Switzerland, and Cambridge: International Union for Conservation of Nature. http://www.iucnredlist.org/technical-documents/categories-and-criteria.

LPWG (Legume Phylogeny Working Group). 2017. A new subfamily classification of the Leguminosae based on a taxonomically comprehensive phylogeny. Taxon 66(1): 44–77. https://doi.org/10.12705/661.3.

Pellegrin F. 1949. Les Légumineuses du Gabon. Mémoires de l'Institut d'études centrafricaines. No. 1. Brazzaville: Librairie Larose.

Prenner G, Klitgaard BB. 2008. Towards unlocking the deep nodes of Leguminosae: floral development and morphology of the enigmatic *Duparquetia orchidacea* (Leguminosae, Caesalpinioideae). American Journal of Botany. 95(11): 1349–1365. https://doi.org/10.3732/ajb.0800199.

Turland NJ, Wiersema JH, Barrie FR, Gandhi KN, Gravendyck J, Greuter W, Hawksworth DL, Herendeen PS, Klopper RR, Knapp S, Kusber WH, Li DZ, May TW, Monro AM, Prado J, Price MJ, Smith GF,

Zamora Señoret JC. 2025. International Code of Nomenclature for algae, fungi, and plants (Madrid Code). Regnum Vegetabile 162. Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226839479.001.0001

Vande Weghe JP, Bidault E, Stévart T. 2015. Plantes à fleurs du Gabon. National Botanic Garden of Belgium.