PART XI
A REVISION OF MOTANDRA A. DC. (APOCYNACEAE)

A. De Candolle (1844) described the genus Motandra, basing it on M. guineensis which had already been described in Lichten by Taunton in 1827. The name Motandra comes from the Greek aqua or aqua, penicillium, referring to the penicillate hairs at the apex of the authors.

Several new species were described about 1900, some of which have turned out to be synonymous with M. guineensis, while others belong to the closely related genera Butissa and Oncinottia.

The two other species which are maintained here, M. lupari De Wild. & T. Durand and M. poecilophylla are published in 1901 and 1916 respectively.

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Received 17-X-1983
Date of publication 20-IV-1984

INTRODUCTION

The present publication is a monograph of Motandra, a genus of three species restricted to continental tropical Africa. The study is based mainly on herbarium material but the author has had the opportunity to study M. guineensis in the field in Ivory Coast and in Cameroon. The present monograph is part of the revision of Apocynaceae in a series "Flora of West Central Africa" (A. P. M. De Kruijff).

The genus Motandra is restricted to West and Central Africa. The most widely distributed species, M. guineensis inhabits mostly secondary deciduous forests or gallery forests from Guinea (Conakry) to Uganda and south to Angola. M. lupari and M. poecilophylla are restricted to the moist basaltic forests and secondary forests of Western Central Africa. The area of distribution of both of the latter species partly overlaps that of M. guineensis.

HABIT AND GROWTH

All Motandra species are lianas or climbing shrubs. As the present author observed in the field, M. guineensis shows the architectural model of Tacazze (Halle & Ouldhan 1970: 125; — A Willsom 1976: 242). This species grows either to the right or to the left, or is not twining.

FLOWERING SEASONS

Motandra species flower towards the end of the rainy and the beginning of the rainy season and fruits mature in the dry season.
INTRODUCTION

The present publication is a monograph of Motandra, a genus of three species restricted to continental tropical Africa. The study is based mainly on herbarium material but the author has had the opportunity to study M. guineensis in the field in Ivory Coast and in Cameroun.

HISTORY OF THE GENUS

A. de Candolle (1844) described the genus Motandra, basing it on M. guineensis which had already been described in Echites by Thonning in 1827. The name Motandra comes from the Greek μοντών or μονός, penicillum, referring to the penicillate hairs at the apex of the anthers.

Several new species were described about 1900, some of which have turned out to be synonymous with M. guineensis, while others belong to the closely related genera Baissea and Oncinotis.

The two other species which are maintained here, M. lujaei De Wild. & T. Durand and M. poecilophylla Wernham, were published in 1901 and 1916 respectively.

GEOGRAPHICAL DISTRIBUTION

The genus Motandra is restricted to West and Central Africa. The most widely distributed species, M. guineensis inhabits mostly secondary deciduous forests or gallery forests from Guinea-(Conakry) to Uganda and south to Angola. M. lujaei and M. poecilophylla are restricted to the more humid rain forests and secondary forests of Western Central Africa. The area of distribution of both of the latter species partly overlaps that of M. guineensis.

HABIT AND GROWTH

All Motandra species are lianas or climbing shrubs. As the present author observed in the field, M. guineensis shows the architectural model of Troll (Halle & Oldeman 1970: 125; — & Tomlinson 1978: 242). This species winds either to the right as to the left, or is not twining.

FLOWERING SEASONS

Motandra species flower towards the end of the dry and the beginning of the rainy season and fruits mature in the dry season.

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RELATIONSHIP TO OTHER GENERA

Motandra belongs to the subtribe Baisseinae of the tribe Ichnocarpeae of the Apocynoideae. The present author is of the opinion that the subtribe Baisseinae is a well defined natural unit, but he is not yet sure about the delimitation of the Ichnocarpeae, which could certainly be placed in the Apocynoideae. He will come back to the subject in one of his forthcoming publications.

Baisseinae Pichon ex De Kruif, subtribus nova; Pichon 1950: 112 (French description only).


Lianas, climbing shrubs or rhizomatous creepers with white latex in all parts. Spines, tendrils and stipules absent. Glands present at the adaxial side of the petiole. Secondary veins curved towards the margin, anastomosing; domatia or pits usually present in the axils of some secondary veins. Inflorescences axillary or terminal – sometimes both at the same time. Calyx lobes imbricate, almost free, often with colleters at the base. Corolla tube inside with tufts of hairs alternating with the stamens, corolla lobes in bud overlapping to the right. Stamens: anthers connivent in a cone around the gynoecium, adaxially pubescent, polliniferous in the upper part only, sagittate at the base, acuminate at the apex, coherent with the pistil head by a retinacle (an orbicular or nearly oblong patch inside on the connective). Pistil: ovary hemi-inferior; carpels two, connate at the extreme base only, abruptly narrowed into the style, surrounded by a disk, which is adnate to the ovary at the base only, with 5 sometimes obscure lobes, alternating with the stamens; pistil head consisting of a cylindrical lower portion, to which the 5 anthers adhere, a slightly 5-winged central portion and a bilobed apex. Fruit composed of 2 follicles, connate at the base, adaxially dehiscent with a longitudinal slit. Seeds narrowly ellipsoid, more or less laterally compressed, not beaked, with an apical coma; endosperm in a thin layer completely surrounding the embryo.

Type genus: Baissea A. DC.

3 genera:
Baissea A. DC. (14 species in tropical Africa).
Motandra A. DC. (3 species in tropical Africa).
Oncinotis Benth. (7 species in tropical Africa and Madagascar).
GENUS DIAGNOSIS


Type species: M. guineensis (Thonning) A. DC.

Climbing shrubs or lianas; white latex present. Branches unarmed, slightly sulcate when dry. Branchlets terete. Stipules none. Leaves opposite or subopposite, those of a pair equal, without colleters in the axils; petiole often rounded beneath and channeled above when dry, otherwise terete, glandular along the adaxial side; blade ovate to obovate or narrowly so, acuminate at the apex, rounded or less often slightly cordate at the base, entire, sparsely pubescent to almost glabrous on both sides; midrib pubescent, glabrescent on both sides, impressed above and prominent beneath; on each side 5–8 (–9) conspicuous secondary veins, which are curved towards the margin, anastomosing, impressed above and prominent beneath; with tufts of hairs (domatia) in the axils of some secondary veins; tertiary venation inconspicuous, reticulate. Inflorescence terminal, thyrsoid, many-flowered. Bracts, and – if present – bracteoles, sepal-like or leafy, inside glabrous. Flowers 5-merous, actinomorphic or with only sepals unequal. Sepals imbricate, connate up to 1 mm at the base, subacuete to obtuse at the apex, entire, outside densely pubescent, inside glabrous, ciliate, with inside at the base 0–3 colleters per sepal, situated at the margins; colleters elliptic to ovate or narrowly so. Corolla: tube with 5 deep dents, which are appearing as incrasations inside, from about half the length to the base of the lobes; tube outside shortly pubescent, except the portion covered by the sepals, inside glabrous, except for tufts of stiff hairs, alternating with the stamens; lobes in bud contorted and overlapping to the right, obtuse to subacute at the apex, recurved, entire, slightly ciliate. Stamens included, connivent in a cone, inserted on a slightly thickened ring at the base of the corolla tube; filaments obscurely s-shaped, abaxially glabrous, adaxially pubescent, most densely so in the upper half; anthers introrse, narrowly triangular, basifixed, acuminate and with penicillate hairs at the apex, sagittate at the base and at both tips provided with a subglobose incrassation which is up to 0.1 mm in diameter; cells two, discrete, parallel, dehiscent throughout by a longitudinal slit; between the tails inside on the connective an orbicular patch, the retinacle, 0.1–0.2 mm in diameter, with long hairs along the margin, adhering to the pistil head. Pistil: ovary hemi-inferior; carpels two, connate at the extreme base only, ovoid, laterally compressed, entirely or only apically densely pubescent, abruptly narrowed into the style, surrounded by a disk, adnate to the ovary at the base only, which is composed of a ring and 5 oblong lobes, alternating with the stamens; style obconical to almost cylindrical, composed of two connate strands; pistil head glabrous, consisting of a slightly 5-winged upper and a cylindrical lower portion, to the latter of which the 5 retinacles adhere; pistil head at the apex with two appendices which are united at the base, glabrous. Placentas adaxial, ovuliferous at the abaxial side.
only. Fruits pendulous, composed of two (sub-)equal, spreading follicles, con­nate at their extreme base, dehiscent along an adaxial line of dehiscence, almost fusiform, with longest diameter below the middle, at the apex acute and when dry often curled; exocarp woody, with several conspicuous or obscure longitudinal wings, except at the adaxial side; endocarp stiff, thinly parchementaceous, smooth inside. Seeds attached to the adaxial side of the fruit, with at the apex a dense tuft of simple hairs (coma), which is directed towards the apex of the fruit; grain flat, elliptic to ovate, glabrous, rounded at both ends, thickened at the margin with the hilum at the base and with a raphe ascending to the apex; testa very thin, smooth or minutely rugose; endosperm fleshy, in a very thin layer, which completely surrounds the embryo; embryo straight; cotyledons ovate or broadly so, cordate or less often cuneate at the base, rounded or sometimes slightly acuminate at the apex, glabrous on both sides, with 5–7 secondary veins; rootlet terete, rounded at the apex, glabrous.

Distribution: 3 species in West and Central Africa.

KEY TO THE SPECIES

1. Inflorescence congested; bracts conspicuous, mostly larger than the sepals, 1–16 × 0.2–10 mm; corolla 6.3–12.2 mm long, tube 4.2–10.2 mm long, lobes 2–2.7 × 1–1.5 mm; follicles 4–6 × as long as wide, 4.5–7.5 × 0.6–1.8 × 0.6–1.5 cm, longitudinally winged, wings 1–2 mm wide in the mature fruit; seeds up to 25 in each follicle. From Equatorial Guinea to Angola (Cabinda).

2. M. lujaei

Inflorescence rather lax; bracts inconspicuous, sepal-like, 0.5–1.8 × 0.2–1 mm.

2. M. lujaei

2. Corolla 1.4–3 mm long, tube 1.5–2 mm long, lobes 1–1.5 × 0.7–1.2 mm; follicles 12–20 × as long as wide, 3–10 × 0.3–0.6 × 0.3–0.7 cm, obscurely longitudinally winged; wings up to 1 mm wide in the mature fruit; seeds up to 8 in each follicle. From Southern Cameroon to Congo (Brazzaville).

3. M. poecilophylla

Corolla 4.8–10.6 mm long, tube 2.5–4 mm long, lobes 2.3–7 × 1–2.1 mm; follicles 2–9.5 × as long as wide, 4–18 × 1–3.5 × 1–3.5 cm, conspicuously longitudinally winged; wings 0.5–5 mm wide in the mature fruit; seeds numerous. West and Central Africa.

1. M. guineensis
SPECIES DESCRIPTIONS

1. Motandra guineensis (Thonning) A. DC. 1844: 423; Bentham 1876: 74, pl. 1185; Schumann 1895: 164; Hiern 1898: 672–673; Hua 1902: 480–481; Stapf 1902: 224–225; Irvine 1930: 295; Hutchinson & Dalziel 1931: 47; Robijns 1947: 79–80 Irvine 1961: 628; Huber 1963: 80. Fig. 1; Phot. 1; Map 1


   **Type:** Ghana: Aquapim (= Akwapim), Thonning 262 (C, holotype; isotype: P-JU 7118).

   **Homotypic synonyms:** Echites paniculata Thonning ex A. DC. 1844: 423 (not of Poiret 1811: 536–537, nor of Roxburgh 1832: 17–18). Baissea guineensis (Thonning) Roberty 1953: 1428.

   **Heterotypic synonyms:** M. rostrata Schumann 1900: 307; Stapf 1902: 226; Schumann 1903: 318–319; Stapf 1904: 613. Type: Nigeria: Lagos State: Ishaga-ma, Schlechter 12312 (holotype not seen, destroyed in B; lectotype: K; other isotypes seen: BR, PRE, Z).


   Climbing shrub or liana, 0.50–40 m high climbing over shrubs and in trees, 5–40 m long or more. Trunk 1–10 cm in diameter; bark brown, first smooth, later longitudinally fissured. **Branches** pale brown, with small orange-brown lenticels; branchlets densely dark brown-pubescent, slightly glabrescent, sometimes with small pale brown lenticels at the woody base. **Leaves:** petiole 3.5–10 (–13) mm long, rusty brown-pubescent, glabrescent, along the adaxial side with small spherical glands on 0.3–1.5 mm long pubescent stalks, of which 2 mostly larger, 0.8–1.5 mm long stalked, and forming a pair; blade (1.8–) 2–4 (–5) × as long as wide, 3.5–14 × 1.4–4.6 cm, membranaceous to papery, or thinly coriaceous, medium to dark green above, paler beneath, glossy, sometimes ciliate with long hairs; blade often in the first pair or the first two pairs of a branchlet, suborbicular, rounded or emarginate at the apex and smaller, sometimes those of these pairs very unequal; domatia consisting of a tuft of pale brown hairs, sometimes absent. **Inflorescence** rather lax, 2.5–15.5 × 1.5–7 (–9) cm. Peduncle and branches rusty brown-pubescent, glabrescent. **Pedicels** 1–5 (–8) mm long, densely rusty brown-pubescent, glabrescent. **Bracts,** and – if present – **bracteoles,** ovate to triangular or narrowly so, 0.8–1.8 × 0.2–0.6 mm, subacute at the apex, outside rusty brown-pubescent, glabrescent, inside at the base often with 1–3 colleters, elliptic to ovate or narrowly so. **Flowers** sweet-scented. **Sepals** rusty brown, triangular, 1–3.8 × as long as wide, 1.0–1.9 × 0.3–1.2 mm; colleters 0–2 per sepal. **Corolla** in the mature bud 4–9 × as long as the calyx, 4.8–10.6 mm long; tube white to greenish-white, obconical, of which the basal 1–2 mm urceolate, 1.8–3.2 × as long as the calyx, 2.5–4 mm long, 2.5–3 mm in diameter.

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at the apex, 0.9–2 mm at the base; inside with tufts of hairs at 0.9–1.9 mm from the base; lobes white to greenish-white, narrowly ovate to narrowly obo-vate, 0.9–2 × as long as the tube, 2.5–5.5 × as long as wide, 2.3–7 × 1–2.1 mm, obscurely veined, outside glabrous or puberulous, usually only at the base, inside glabrous. Stamens inserted at 0.2–0.4 mm from the base of the tube; fila-ments 0.8–1.2 mm long; anthers 1.4–2.6 × as long as the filaments, 1.5–2.5 mm long, at the apex with 0.4–1 mm long hairs; tails 0.4–0.5 mm long; fertile portion 0.7–1 mm long. Pistil 2.5–3.1 mm long; carpels 0.8–1.2 × 0.5–0.9 × 0.2–0.3 mm, superior portion 0.4–0.7 mm long; disk: ring 0.1–0.3 mm high, lobes 0.3–0.7 × 0.3–0.5 mm, glabrous or only at the apex pubescent, sometimes with collettes, resembling those of the sepals, between the lobes; style 0.2–0.7

**Phot. 1. Motandra guineensis (Thonning) A. DC. (De Kruif 685, phot. Leeuwenberg).**

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**Fig. 1. Motandra guineensis (Thonning) A. DC.:** 1. flowering branch, ½ ×; 2. part of branch, ¼ ×; 3. leaf base with petiole from above, 4 ×; 4. domatium, 4 ×; 5. flower, 4 ×; 6. opened flower showing 2 stamens and the pistil; the anther of the right stamen detached from the clavuncula; part of corolla, calyx, and 3 stamens removed, 20 ×; 7. stamen, adaxial side, 6 ×; 8. stamen, abaxial side, 6 ×; 9. transverse section of ovary, 10 ×; 10. pistil with longitudinal section of ovary, 10 ×; 11. fruit, ¼ ×; 12. immature fruit, 2 ×; 13. seed, ¼ ×; 14. embryo, 2 ×. (1. Bimuyo FHI41203; 2. De Kruif 665; 3. De Kruif 685; 4, 11. De Kruif 722; 5–10. Leeuwenberg 11974; 12–14. Gossweiler 5223B).

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mm long, glabrous; pistil head: upper portion 0.3–0.5 × 0.3 mm, lower portion 0.2–0.5 × 0.3 mm; appendices 0.5–1 mm long, free portion 0.3–0.7 mm long. Each placenta with 25–40 ovules. *Fruits* often with many lenticels, often subtended by the persistent calyx and bracts; follicles shaping an angle of about 130–180°, 2–9.5 × as long as wide, 4–18 × 1–3.5 × 1–3.5 cm; exocarp 1–2 mm thick, longitudinally winged; wings undulate, in the mature fruit 0.5–5 mm wide; exocarp at the outer surface with a 2–4 mm thick, deciduous, rusty brown tomentum, which may hide the wings. *Seeds* numerous; coma 29–78 mm long; grain 11–18.5 × 5–8.5 mm; testa smooth or minutely rugose; cotyledons broadly ovate, 4.9–9.5 × 3–8 mm; rootlet 2.5–3.5 mm long.

**Map 1. Motandra guineensis** (Thonning) A. DC.

**Distribution:** West and Central Africa from Guinea (-Conakry) to Uganda and south to Angola.

**Ecology:** Mostly light or secondary deciduous forests or gallery forests and in secondary regrowth, on sand, clay and rocky outcrops; alt. 0–1200 m.

**A selection of the about 350 specimens examined:**

**Guinea (-Conakry):** Komé (fl. May) Paroisse 164 (P); Macenta (fl. Mar.) Jacques-Félix 1549 (P); Kaoulendougou, near Nzo (fl. Mar.) Chevalier 21073 (P).

**Mali:** Kaba (Kangaba) (fl. May) Chevalier 13133 & 13242 (P).

**Sierra Leone:** Konno Town (fl.) Burbridge 481 (K); near Yiffin (fl. Mar.) Morton & Gledhill SL 1150 (K, MO, WAG); Bunumbu (fl. Apr.) Deighton 3949 (K).

**Liberia:** Cess R., near Baitown (fr. Aug.) Baldwin 9013 (K).

**Ivory Coast:** Odienne (fr. Oct.) adam 27087 (MO); km 27 road Tai-Guiglo (imm. fr. July) Garnier PG/UB 32 (K); 17 km S of Daloa (fl. Mar.) Leeuwenberg 3058 (BR, C, COI, E, FHO, FI, GOET, K, L, LD, M, MO, P, PRE, U, UC, WAG, Z); km 13 road Divo-Tiassalé (Oct.) De Kruijf 665 (UCI, WAG); Nzi-Noua, km 20 road Ndouci-Yamoussoukro (fl. Apr.) De Kruijf 23 (UCI, WAG);

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Bouroukro, on road Tanda-Koun-Fao (Oct.) *De Kruif* 680 (UCI, WAG); 8 km S. of Anissseu, along road to Akoupé (imm. fr. Oct.) *De Kruif* 685 (UCI, WAG).

**GHANA:** Tain Tributaries Block II For. Res. (fr. Dec.) Adams 2785 (K); Dedeswa (fl. FEB.) Chipp 145 (BM, FHO, K, Z); Bobira For. Res. (fl. Feb.) Leuwenberg 11974 (WAG); Akin (= Achim) (fl.) Dudgeon 4 (P); Aquapim (= Akwapin) (fl.) Thoning 262 (C, PJU, type); Shiare (fl. Apr.) Hall 1373 (K).

**TOGO:** Missahohé (fr. Nov.) Mildbread 7379 (HBG, K); Asrama, 30 km E. of Nuatja (fr. Sept.) J. W. A. Jansen 2658 (Wag).

**BENIN REPUBLIC:** Adjé Ouéré (fr. May) *Le Testu* 1115 (BM, K, P); ibid. (fr. Dec.) *Le Testu* 272 (BM, P); Bassila Forest (fr. Dec.) Poisson 100 (K); Pobé (Sept.) Adjanohoun 102 (K, P).


**CENTRAL AFRICAN REPUBLIC:** Bayanga (fl. Feb.) Wraber 26 (K); Boukoko (fl. Mar.) Tisserant 1111 (BM, BR, LISC, P, WAG); Bangui (fr. Oct.) Breyné 1593 (BR); Les Moroubas (fl. Mar.) Tisserant 1462 (BM, P, WAG); Yalinga (fl. Mar.) Le Testu 4608 (BM, BR, LISC, MO, P, WAG).

**GABON:** Tchibanga (fl. Oct.) *Le Testu* 1799 (BM, P).


**SUDAN:** Lotti Forest, Torit Distr. (fl. Mar.) Jackson 1281 (BM).

**UGANDA:** Bugoma Forest (buds, imm.) Dawe 260 (K, paratype of *M. altissima*); Bunjako (fl.) Dawe 260 (K, lectotype of *M. altissima*).


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Fig. 2. *Motandra lujaei* De Wild. & T. Durand: 1. flowering branch, $\frac{2}{3} \times$; 2. fruiting branch, $\frac{2}{3} \times$; 3. leaf base with petiole from above, $4 \times$; 4. domatia, $2 \times$; 5. flower, $6 \times$; 6. opened flower showing 1 stamen and the pistil; part of corolla, calyx and 4 stamens removed, $6 \times$; 7. stamen, adaxial side, $10 \times$; 8. seed, $\frac{2}{3} \times$. (1-7. Gossweiler 6009; 2, 4, 8. N. Hallé & Le Thomas 161; 3. Luja 274).
Note: The lectotype of *M. pyramidalis*, Welwitsch 5964, is a composite number, consisting of 2 collections not far from each other, viz. Ambaca road and Alto Queta.


Climbing shrub or liana, 1–10 m high climbing over shrubs and in trees. Branches dark to medium brown when dry, with small lenticels; branchlets densely dark brown-pubescent, glabrescent, sometimes with small lenticels at the base. Leaves: petiole 3–10 mm long, rusty brown-pubescent, sometimes with long hairs, glabrescent, along the adaxial side with small spherical glands on 0.5–1.5 mm long stalks; blade (1.8–) 2–4 × as long as wide, 3.5–13 × 1.2 × 4.9 cm, papery; blade often in the first pair or the first two pairs of a branchlet suborbicular, rounded or emarginate at apex and smaller, sometimes those of these pairs very unequal; domatia consisting of a tuft of pale brown hairs. Inflorescence congested, 1.5–5 (–7.5) × 1–2.5 cm. Peduncle and branches dark brown-pubescent, sometimes also with some long hairs, glabrescent. Pedicels 1–4 mm long, dark brown-pubescent. Bracts numerous, ovate or narrowly so, 1–16 × 0.2–10 mm, obtuse to acuminate at the apex, cuneate to cordate at the base, outside dark brown-pubescent; bracteoles – if present – sepal-like. Sepals dark brown, ovate to triangular, 1.5–2 × as long as wide, 2–2.3 × 1.2–1.5 mm; colleters 0–3 per sepal. Corolla in the mature bud 2.5–6 × as long as the calyx, 6.3–12.2 mm long; tube white, less often yellow or dark brown, cylindrical, or nearly so, wider near the base, 1.9–5.1 × as long as the calyx, 4.2–10.2 mm long, 1–2.2 mm in diameter; inside with tufts of hairs at 1.9–2.8 mm from the base; lobes white, less often yellow or dark-brown, ovate to triangular, 0.2–0.5 × as long as the tube, 1.6–2 × as long as wide, 2–2.7 × 1–1.5 mm, outside densely pubescent and there often with glabrous patches, inside slightly pubescent or glabrous. Stamens inserted at about 0.2 mm from the base of the tube; filaments 1.2–1.6 (–2) mm long; anthers 1.2–2 × as long as the filaments, 2–2.5 mm long, with 0.1–0.5 mm long hairs at the apex; tails 0.4–0.5 mm long; fertile portion 1–1.2 mm long. Pistil 3–3.7 mm long; carpels 1–1.3 × 0.5–1.2 × 0.3–0.4 mm, superior portion 0.7–1 mm long; disk: ring 0.3–0.4 mm high, lobes 0.6–0.8 × 0.4–0.5 mm, pubescent; style 0.7–1.2 mm long, glabrous or sometimes slightly pubescent; pistil head: upper portion 0.2–0.5 × 0.3 mm, lower portion 0.3–0.4 × 0.3 mm; appendices 0.8–1 mm long, free portion 0.5–0.7 mm long. Each placenta with 10–25 ovules. Fruits often with many lenticels, often subtended by the persistent calyx and bracts; follicles shaping an angle of about 180°, 4–6 × as long as wide, 4.5–7.5 × 0.6–1.8 × 0.6–1.5 cm; exocarp up to 1 mm thick, longitudinally winged; wings undulate, in the mature fruit 1–2 mm wide; exocarp at the outer surface with a 1–2 mm thick,
deciduous, dark brown tomentum, which may hide the wings. Seeds up to 25 in each follicle; coma 15–30 mm long; grain 12–15 × 4–8 mm; testa minutely rugose; cotyledons ovate, 8–9.5 × 5–6 mm; rootlet 3–4 mm long.

Map 2. Motandra lujaci De Wild. & T. Durand

Distribution: Equatorial Guinea to Angola (Cabinda).
Ecology: Rain forests or secondary forests, also in open places; alt. 0–900 m.

Specimens examined:

**EQUATORIAL GUINEA:** Rio Muni: sin. loc (fl.) Tessmann 945 (K).

Gabon: Minvoul (fl.) Cottès 30 Aug. 1906 (P); Acourenzorc (fl. Mar.) Le Testu 9060 (BM, LISC, P); Bélinga (fl. Oct.) Caballé 259 (WAG); ibid. (fr. July) N. Hallé 4199 (P); ibid. (fr. July) N. Hallé & Le Thomas 161 (P); 10 km NE of Lalara (fl. Sept.) Breteler & De Wilde 411/78 (WAG); Makokou (fl. June) Faron 7541 (P); ibid. (fl. Oct.) Hladik 1561 (P); ibid. (fl. Feb.) Hladik 2575 (WAG); Lastoursville (fl. Apr.) Le Testu 7165 (BM, G, P); ibid. (fl. Apr.) Le Testu 18 Apr. 1929 (BM); ibid. (fl. Nov.) Le Testu 5 Nov 1929 (BM, BR, LISC, MO, US); km 16 road Lastoursville-Moanda (fl., fr. Sept.) Breteler & De Wilde 759/78 (WAG)


Type: Cameroun: Bitye, Bates 649 (BM, holotype; isotype: MO).

Fig. 3; Map 3

Climbing shrub or liana, 1–5 m high climbing, up to at least 6 m long. **Branches** greyish-brown, not lenticellate; branchlets with a deciduous, rusty brown, short tomentum, turning sparsely pubescent with age. **Leaves:** petiole 5–8 mm long, with a deciduous, rusty brown, short tomentum; blade 1.5–3.5 (–4) × as long as wide, 3–11 × 1.9–3.7 cm, papery to thinly coriaceous when dry, pale to medium green above, paler and sometimes with whitish-green patches beneath, glossy; blade sometimes rounded or emarginate at the apex and smaller, usually so in the first two pairs of leaves of a branchlet; domatia consisting of a tuft of rusty brown hairs. **Inflorescence** rather lax, 7–27 × 2–7 cm. Peduncle and branches with a deciduous, rusty brown, short tomentum. Pedicels 2–4 mm long, rusty brown-tomentellous. Bracts, and – if present – bracteoles, ovate to triangular or broadly so, 0.5–0.9 × 0.4–1 mm, subacute at the apex, outside rusty brown-tomentellous, inside at the base often with 1–3 colleters, elliptic to ovate. **Sepals** rusty brown, ovate to triangular or rhombic, 0.7–1.4 × as long as wide, 0.7–1.1 × 0.6–1.1 mm; colleters 0–3 per sepal. **Corolla** in the mature bud 1.5–4 × as long as the calyx, 1.4–3 mm long; tube white, sometimes with a yellowish-white throat, slightly obconical of which the basal 1 mm urceolate, 1.6–2.6 × as long as the calyx, 1.5–2 mm long; 0.7–1 mm in diameter at the apex, 1.2–1.5 mm at the base; inside with tufts of hairs at 0.7–1.2 mm from the base; lobes white, broadly ovate to broadly triangular, 0.5–0.7 × as long as the tube, 0.9–1.5 × as long as wide, 1–1.5 × 0.7–1.2 mm, obscurely veined, outside pubescent, usually only at the base, inside glabrous. **Stamens** inserted at about 0.2 mm from the base of the tube; filaments 0.5–0.7 mm long; anthers 1.5–2.6 × as long as the filaments, 1.1–1.5 mm long, with 0.2–0.6 mm long hairs at the apex; tails 0.3–0.4 mm long; fertile portion 0.6–0.7 mm long. **Pistil** 2–2.8 mm long; carpels 0.6–1 × 0.3–0.5 × 0.2–0.3 mm, superior portion 0.4–0.7 mm long; disk: ring 0.1–0.2 mm high, lobes 0.2–0.5 × 0.1–0.5 mm,

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FIG. 3. *Motandra poecilophylla* Wernham: 1. flowering branch, \( \frac{3}{4} \times \); 2. fruiting branch, \( \frac{3}{4} \times \); 3. leaf base with petiole from above, \( 2 \times \); 4. domatia, \( 2 \times \); 5. flower, \( 10 \times \); 6. opened flower showing 1 stamen and the pistil; part of corolla, calyx, and 4 stamens removed, \( 20 \times \); 7. stamen, adaxial side, \( 20 \times \); 8. seed, \( \frac{2}{3} \times \); (1. *Florence* 1697; 2–8. *Letouzey* 8276)
glabrous or only at the apex pubescent; style 0.2–0.4 mm long, glabrous; pistil head: upper portion 0.2–0.5 × 0.3 mm, lower portion 0.2–0.4 × 0.3 mm; appendices 0.6–1.2 mm long, free portion 0.3–0.9 mm long. Each placenta with 5–8 ovules. Fruits often subtended by the persistent calyx; follicles shaping an angle of about 90–180°, 12–20 × as long as wide, 3–10 × 0.3–0.6 × 0.3–0.7 cm; exocarp very thin, obscurely longitudinally winged, at the outer surface with an up to 1 mm thick, deciduous, rusty brown tomentum. Seeds up to 8 in each follicle; coma 20–35 mm long; grain 10–14 × 2–4 mm; rootlet 3–4 mm long.

**Map 3. Motandra poecilophylla** Wernham.

**Distribution:** From Southern Cameroun to Congo.

**Ecology:** Rain forests or secondary forests, also in open places; alt. 0–700 m.

**Specimens examined:**

**Cameroun:** 15 km S of Ebolowa (fl., fr. Feb.) De Wilde & De Wilde-Duyfjes 1988A (WAG), 1988B (BR, K, MO, P, WAG, YA); N’Koemvone, km 14 road Ebolowa-Ambam (fl. Oct.) J. J. F. E. de Wilde 7591A (WAG); Ekok (fr.) Mildbraed 5693 (HBG); between Kondébilong and Méyila, 53 km SE. of Mbalmayo (fl. May) Asonganyi 80 (WAG, YA); near Oveng, 30 km WNW of Sangmélima (fl., fr. July) Letouzey 11433 (BR, K, P, WAG, YA); Sangmélima (buds, June) Hédin 1271 (P); ibid. (buds, Mar.) Meijer 15289 (WAG); Mézésé, 20 km ENE of Sangmélima (fl. Oct.) Letouzey 8163 (BR, P, YA); near Méyos-Méla, 30 km ENS of Djoum (fl., fr. Nov.) Letouzey 8276 (BR, K, P, WAG, YA); Bitie (fl. Dec.) Bates 649 (BM, MO, type); ibid. (fl., fr. Oct.) Bates 1476 (HBG); ibid. (fl. Nov.) Bates 1526 (HBG); ibid. (fl. July) Hédin 1232 (P); Mékas, 72 km SE of Akonolinga (fl. July) Asonganyi 241 (WAG, YA); near curve of the Dja R. (fl. May) Mildbraed 5414 (HBG); along road Minton I-Alati (fl. Jan.) Letouzey 11754 (P, YA).

**Equatorial Guinea:** Rio Muni: Campo area (fl. Mar.) Tessmann 508 (K).

**Gabon:** Bélinga (buds, Dec.), N. Hallé 3599 (P); Lastoursville (fl., imm., fr., Mar.) Le Testu 7061 (BR, LISC, MO, P, WAG); ibid. (fl., fr. Apr.) Le Testu 7170 (BR, HBG, LISC, P, WAG); ibid. (fl., fr. Feb.) Le Testu 7940 (BM, BR, LISC, P, WAG); 10 km S of Makokou (fl., imm. fr. Mar.) Florence 1697 (WAG); SE of Makokou (fl. Feb.) N. Hallé 1045 (P); Lindémé (fl. Apr.) Le Testu 8018 (BR, HBG, P, WAG); sin. loc. (fl. July) N. Hallé & Le Thomas 3 (P).

**Congo-(Brazzaville):** along road Mossendjo-Gabon (fl., fr. May) F. Hallé 1837 (P, WAG).

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NOMEN NUDUM

M. stapfiana Mildbr. 1922: 80, 89. = M. poecilophylla Wernham. Specimens cited: Mildbraed 5414 (HBG) and 5693 (HBG).

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ACKNOWLEDGEMENTS

I would like to thank staff and collaborators of the Department of Plant Taxonomy of Wageningen Agricultural University for all their help in connection with this monograph, especially Dr. A. J. M. Leeuwenberg for his kind supervision, Miss Y. F. Tan for her fine drawings, Miss Drs. F. J. H. van Dilst and Dr. C. E. Jarvis for the correction of the text. I am also very grateful to the directors and keepers of the following herbaria for putting their material at my disposal: A, B, BM, BR, C, COI, E, FHO, FI, G, GB, GH, GOET, HBG, K, L, LD, LE, LISC, LISJC, LISU, M, MO, NY, P, PRE, S, U, UC, UCI, US, W, WAG, WU, YA, Z.

I received a grant from the Wageningen Agricultural University Fund to support my field work in Ivory Coast; the Netherlands Foundation for the Advancement of Tropical Research (WOTRO) provided a grant that enabled me to carry out field work in Cameroun.
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