ACCOUNT OF EFULENSIA (PASSIFLORACEAE)

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SUMMARY

The genus Efulensia C. H. Wright comprises two species in Equatorial Africa. One species, E. clematoides C. H. Wright, occurs in lowland forest from southern Nigeria to the eastern Congo basin, a second species, E. montana, here described as new, occurs in a restricted montane area in E. Zaïre and W. Uganda. Genus and species descriptions, synonyms, key to the species, figures, and distribution map.

INTRODUCTION

With the preparation of the family Passifloraceae for the Flora of Tropical East Africa a second, new, species was found among the material of what was currently known as Deidamia clematoides (C. H. Wright) Harms. In a separate article (Blumea 22, 1974: 37) I have come to the conclusion that the material from Equatorial Africa, originally described in the genus Efulensia C. H. Wright, should be regarded as a genus separate from Deidamia Thouars from Madagascar. Efulensia resembles Deidamia very much in habit by the 3- or 5-foliolate leaves. Efulensia differs, however, from that genus by the five stamens which are connate at the base and by the absence of an extrastaminal disk. Deidamia has 5—8 free stamens and a distinct, extrastaminal, annular disk.

EFULENSIA


Liana to 40 m, glabrous. Tendrils simple, axillary or replacing the central flower of the inflorescences, (incl. peduncle) 4—25 cm. Leaves 3- or 5-foliolate; petiole distinct; leaflets obovate or elliptic to oblong, entire, distinctly petiolulate. Glands on petiole 1 pair sub-opposite, situated near the base; on leaflets (sub)marginal, small, or absent. Inflorescences axillary, cymose, 2—100-flowered; peduncle distinct. Flowers hermaphroditic or functionally male, glabrous. Stipe distinct, jointed to short pedicel. Hypanthium saucer-shaped, 2—3 mm wide. Tepals reflexed in anthesis; sepals 5, free; petals 5, free. Corona single, 3.5—8 mm high, composed of threads connate at base into a short fleshy tube; threads near base inside with a zone of hair-like appendages c. 0.5 mm long. Androgyphophore c. 0.5 mm. Stamens 5; filaments 3—10 mm, united at base into a broad cup 1—1.5 mm high, in E. clematoides sometimes at the bottom of the cup with 5 small teeth alternating with the stamens; anthers dorsifixed, versatile, ellipsoid(-oblong), apiculate or not. Disk, besides small teeth, absent. Gymnophore 0.5—1 mm. Ovary subglobose to ellipsoid, 1-locular, with 3 (or 4) parietal placentas. Styles 3 (or 4), free or up to over half-way connate; stigmas subglobose,
glabrous, 1—1.5 mm diam. Fruits 1—6 per inflorescence, capsular, woody, 3 (or 4)—valved, subglobose, depressed globose, or ellipsoid, 1.5—4 cm long. Seeds 4—12 per capsule, subellipsoid, 6—8 mm, coarsely pitted.

Distribution: Equatorial Africa, from S. Nigeria to W. Uganda.

KEY TO THE SPECIES

a. Leaves 3-foliolate, petiolules in sicco distinctly jointed to the petiole. Inflorescences (2—)10—100-flowered. Fruits depressed globose or subglobose; valves 1.5—2 mm thick at sutures

b. Leaves 5-foliolate, petiolules in sicco not jointed to the petiole. Inflorescences 2—6—(6—8)—flowered. Fruits ellipsoid, top acute to obtuse; valves 2.5—3 mm thick at sutures

1. Efulensia clematoides C. H. Wright. — Fig. 1a-b; 2.


[Deidamia triphylla Harms, Bot. Jahrb. 23 (1897) 540, nom. nud.; 26 (1899) 239, nom. nud. (sub D. clematoides). — Type: Z. Zunker 1358 (BM, n.v.).]


Liana to 40 m. Tendrils (incl. peduncle) 4—25 cm. Leaves 3-foliolate; leaflets obovate or elliptic to oblong, top obtuse or mostly acute, or up to 1 cm acuminate, sometimes ± retuse, c. 1 mm mucronate, base broadly rounded (obtuse) to acute, 3—12 by 1.5—7.5 cm; petiole 2—8 cm; petiolules 0.3—1.8 cm, when dry distinctly jointed to the petiole. Glands on petiole 1—3 mm diam., situated in the lower 1/10—th (i.e. up to 5 mm from the base) of the petiole; glands on leaflets absent or minute (c. 0.2 mm diam.). 1 or 2—(5) on each side on the margin or submarginal. Inflorescences (2—)10—100-flowered; peduncle 3—20 cm. Flowers hermaphroditic (though only a part of the flowers develops into fruits). Stipe 10—20 mm. Sepals 6—10 by 2—3 mm, obtuse (to subaculate). Petals 5—8 by 1.5—3 mm, obtuse to acute. Corona 4—8 mm; threads 3—7 mm, tube 0.7—1.5 mm. Filaments 6—10 mm, united at base into a broad cup 1—1.5 mm high; in specimens from Cameroon inside at the bottom of the cup with 5 teeth-like appendages c. 0.5 mm long alternating with the stamens. Anthers 2—2.5—(3) mm, up to 0.5 mm apiculate. Ovary subglobose to ellipsoid, 2—3 by 1.5—2.5 mm. Styles 3(4), length 2.5—3 mm, nearly free (in certain specimens from Cameroon) or connate for 0.5—2 mm (free style arms 0.5—3 mm). Fruits 1—6 per inflorescence, subglobose or mostly depressed globose (flattened at top and base), rarely globose-ellipsoid with rounded ends, (excl. the 0.2—1 cm long gynophore) 1.5—2.5 by 1.7—3 cm; valves 1.5—2 mm thick at sutures. Seeds 4—12 per capsule, (7—)8 mm, with c. 4 pits across the length.


Fig. 1. a—b: *Efulensia clematoides* C. H. Wright. a. leaf (*Louis* 13665); b. infructescence (*Louis* 7971). — c. *E. montana* de Wilde, branch with flowers and fruits (*Lebrun* 3574, type). All × ½.
Ecology: Rain forest; in Zaïre frequently reported from marshy forest; 0—800 m.

Notes. 1. Specimens from Cameroon (De Wilde 1308, De Wit 7930, Breteler 2141) have 5 appendages in the staminal cup. These appendages can be regarded as of staminodial origin (see De Wilde, Blumea 22, 1974: 39, fig. 3b).

2. In specimens from Cameroon (De Wilde 1308, De Wit 7930) the styles are nearly free. In other material from Cameroon and all the specimens from Zaïre checked the styles are connate for up to 2/3rd.

3. The species, and hence the genus, occurs in S. Nigeria, but is not mentioned in Hutch. & Keay, Flora of West Tropical Africa.

4. In seedlings the first several leaves are opposite, later on the leaves become spirally arranged.

2. Efulensia montana De Wilde, sp. nov.; Blumea 22 (1974) 47, fig. 3c — Fig. 1c; 2.

Type: Lebrun 5574, Zaïre, Lac Edouard (IX), between Mushweri and l'Vrega (BR).

Scandens usque ad 20 m alta. Cirrhi 8—25 cm longi. Folia quinquefoliata; petiolus 1.5—8 cm longus. Foliolia elliptica oblonga, 1.5—10 cm longa; petioluli in sicco cum petiolo hauv artificiatis. Glandulae ad 1/5—1/3 supra basin petiolui insertae. Inflorescentiae 2—6(—8)-florae. Flores hermaphroditici vel functionali-iter masculini. Sepala 7—10 mm longa. Coroana fila 2—4 mm longa, tubo 1.5—2 mm alto. Antherae 2.5—3.5 mm longae. Ovarium ellipsoideum, 1.5—3.5 mm longum; styli c. 1.5 mm longi, per 0.5—1 mm connati. Fructus ellipsoideus apice basique obtusus usque subacutus, 2.2—4 cm longus, 1.5—2.3 cm latus; valvae ad sutorius 2.5—3 mm crassae. Semina c. 6 mm longa.

Liana to 20 m. Tendrils (incl. peduncle) 8—20(—25) cm. Leaves 5-foliolate, palmate to imparipinnate, lowest pair of leaflets inserted at a distance of up to 3 mm from top leaflets; leaflets elliptic to oblong, top mostly acute, up to 0.5 cm acuminate, rarely subobtuse, up to 1 mm mucronate, base subobtuse to acute, (1.5—)2.5—10 by (0.7—)1.2—3.5 cm; petiole (1.5—)2—8 cm; petiolules 0.3—1.2 mm, when dry not jointed to the petiole. Glands on petiole 0.5—2 mm diam., situated at 1/5—1/3rd (i.e. 0.5—2.5 cm) from the base of the petiole; glands on leaflets (o or 1) (or 2), c. 0.5 mm diam., at each side on the margin close to the base. Inflorescences 2—6(—8)—flowered; peduncle 5—13 cm. Flowers hermaphroditic or functionally male. Stipe 7—25 mm. Sepals 7—10 by 2.5—3 mm, obtuse. Petals 7—9 by 2—2.5 mm, acute to obtuse. Corona 3.5—6 mm; threads 2—4 mm, tube 1.5—2 mm. Filaments 3—6 mm, united at base into a broad cup c. 1 mm high. Anthers 2.5—3.5 mm,
c. 1 mm apiculate or not. Ovary in male flowers much reduced, 1.5—2 mm; in hermaphroditic flowers ellipsoid, 3—3.5 by c. 1.5 mm. Styles 3, length c. 1.5 mm, connate for 0.5—1 mm (free style arms 0.5—1 mm). Fruits 1—4 per inflorescence, ellipsoid, obtuse to subacute at both ends, (excl. the 0.5—1 cm long gynophore) 2.2—4 by 1.5—2.3 cm; valves 2.5—3 mm thick at sutures. Seeds 6—12 per capsule, c. 6 mm, with 3 or 4 pits across the length.


Ecology: Montane forest; 900—2000 m.