
Studies on the flora of the Guianas. II

A new species of *Asterophorum* (Tiliaceae) from Suriname

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SUMMARY

A new species of *Asterophorum*, *A. mennegae*, is described from the Sipaliwini Savanne (Suriname). The position of *Asterophorum* within the family is briefly reviewed, and a key to the 2 species is given.

INTRODUCTION

During an investigation of the vegetation of the Sipaliwini Savanne in southern Suriname, a small tree was collected by Oldenburger, Norde and Schulz which proved to be an undescribed species of the genus *Asterophorum* Sprague (Tiliaceae). This species is described here.

DESCRIPTION

Asterophorum mennegae* M.J. Jansen-Jacobs et L.Y.Th. Westra, sp. nov

Arbor 7 m alta (fide collectorum), ut videtur dioeca. Ramuli novelli sparsim stellato-pubescentes, annotini glabri. Stipulae filiformes, ca 1–2 mm longae, caducae. Folia petiolata, chartacea, anguste elliptica vel anguste elliptico-obovata, ca 15–30 cm longa et ca 4–6 cm lata, pilis stellatis sparsim in venis ceterum glabra, acuminata, basi rotundata vel subcordata, venis secundariis in utroque latere ca 6–8. Inflorescentiae umbellae axillares ca 5–7 florum, pedunculis ca 1–1.5 cm longis suffultae, dense stellato-pubescentes; bractae filiformes, ca 2–3 mm longae. Flores pedicellis ca 2–4 mm longis, solum

* Named in honour of Dr. A.M.W. Mennega, plant taxonomist and wood anatomist, and our esteemed colleague.

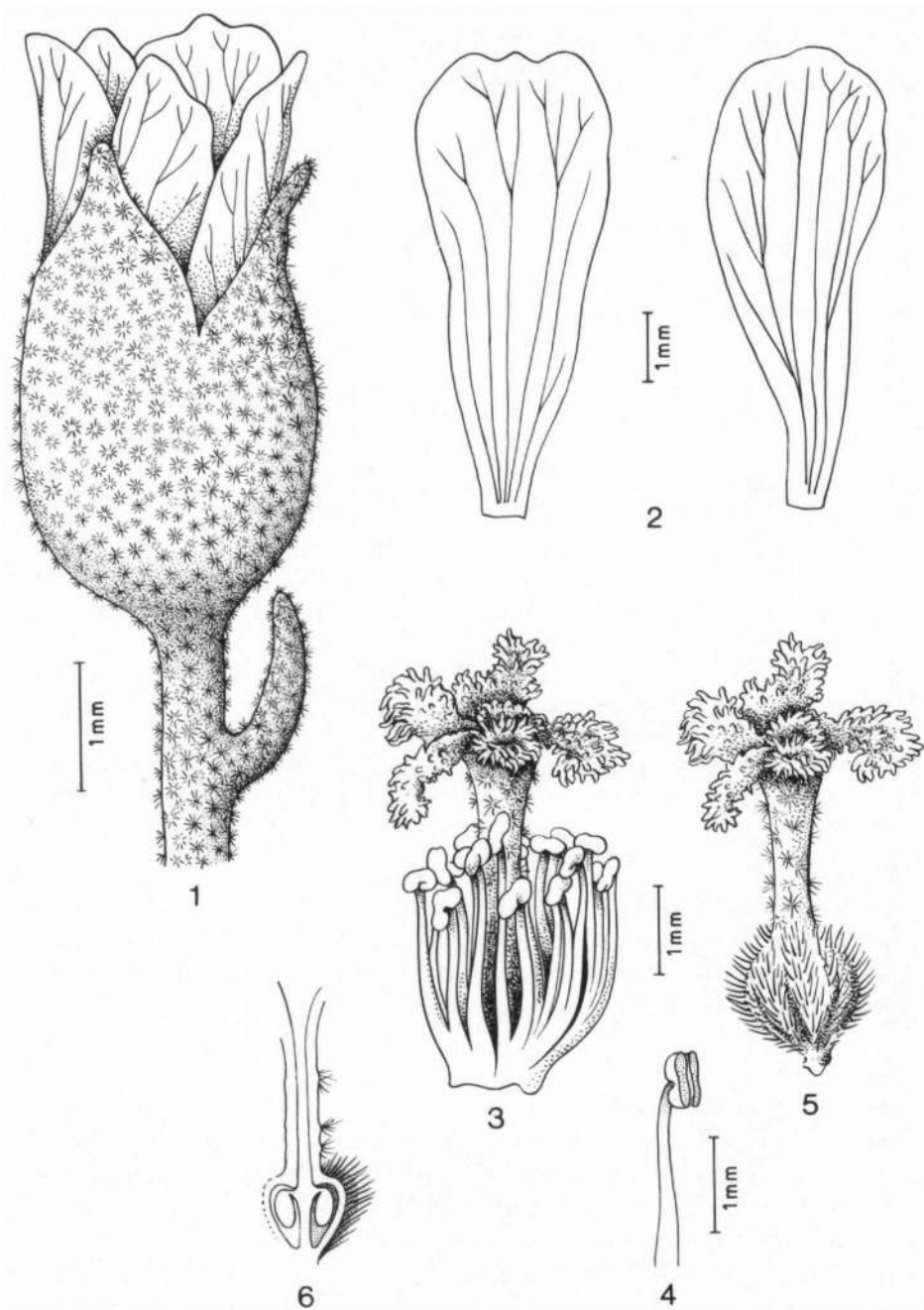


Fig. 1. *Asterophorum mennegae*; 1. flower; 2. petals; 3. flower with calyx and petals removed; 4. staminode; 5. pistil; 6. longitudinal section of the pistil, showing position of ovules.

pistillati visi. Calyx campanulatus ad urceolatus, ca 4–5 mm longus, trilobatus
 lobis inaequalibus triangularibus ca 2 mm longis et ca 1.7–2.5 mm latis acutis
 vel acuminatis, extus dense stellato-pubescent, intus apice excepto glaber.
 Petala 5, obovata, ca 5.8–6.5 mm longa et ca 2.2–2.5 mm lata, glabra, rotun-
 data vel leviter tridentata, basin versus sensim attenuata. Staminodia in
 phalangibus 5 in quoque phalange ca 16, filamenta ca 2–3 mm longa, antherae
 biloculares, medifixae, reniformes, longitudinaliter dehiscentes, steriles.

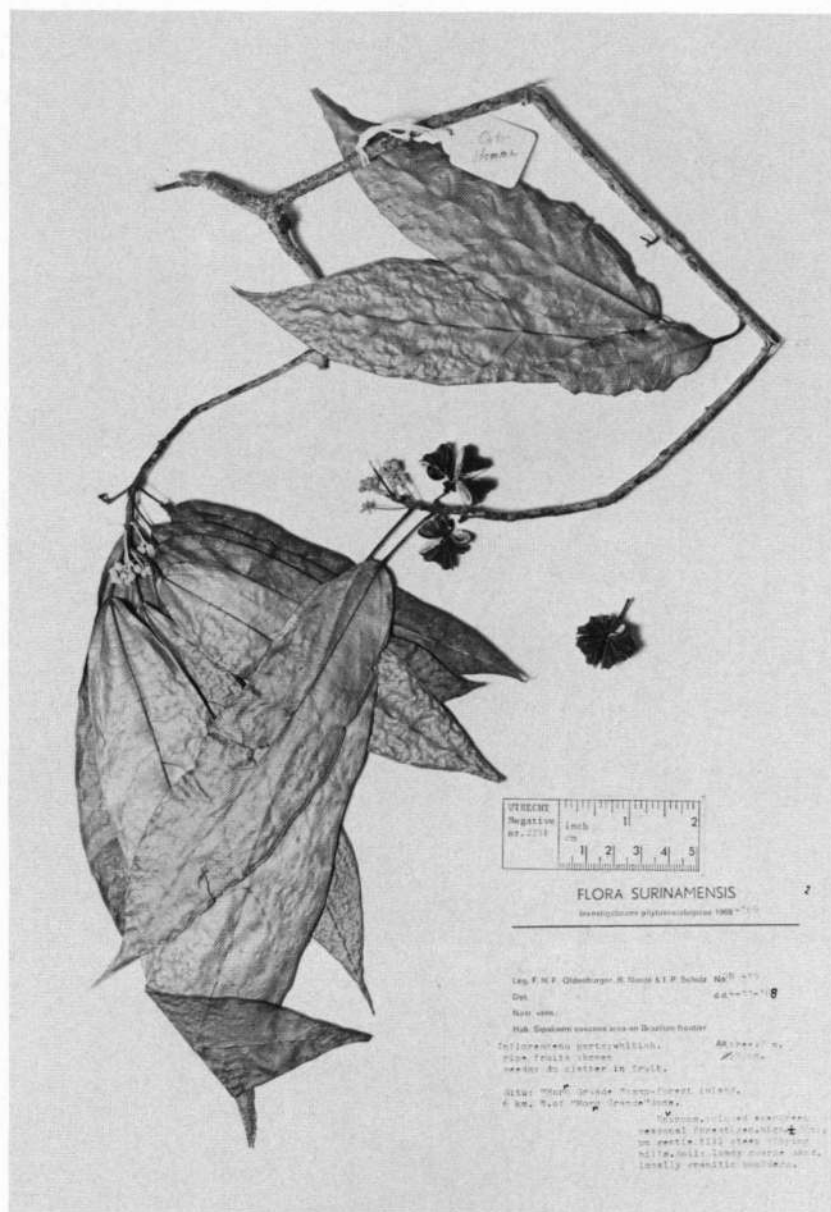


Fig. 2. *Asterophorum mennegae*. Holotype specimen, sheet 1, Suriname, Sipaliwini Savanne, Oldenburger et al. 415.

Pistillum ca 4–5 mm longum, ovarium ovoideo-globosum, 5-sulcatum, ca 1.4 mm longum, dense stellato-tomentosum, stylus ca 1.8 mm longus, stellato-pubescent, stigma 5-lobatum, ca 2.5 mm in diam. lobis papilloso-tuberculatis. Fructus depresso globosus ad discoideus, 5-lobatus, ca 2.5–3 cm in diam., 5-locularis, loculicide dehiscens valvis primum in apice carpophori suspensis



Fig. 3. *Asterophorum mennegae*. Detail of Holotype: inflorescences.

demum secedentibus, semina in quoque loculo 1, ovoideo-ellipsoidea, ca 8 mm longa, variegata.

Small tree, 7 m tall. Branchlets sparsely stellate-pubescent, becoming glabrous. Leaves alternate, simple, crowded at the end of the branchlets; stipules filiform, 1–2 mm long, stellate-pubescent, caducous; petioles slender,

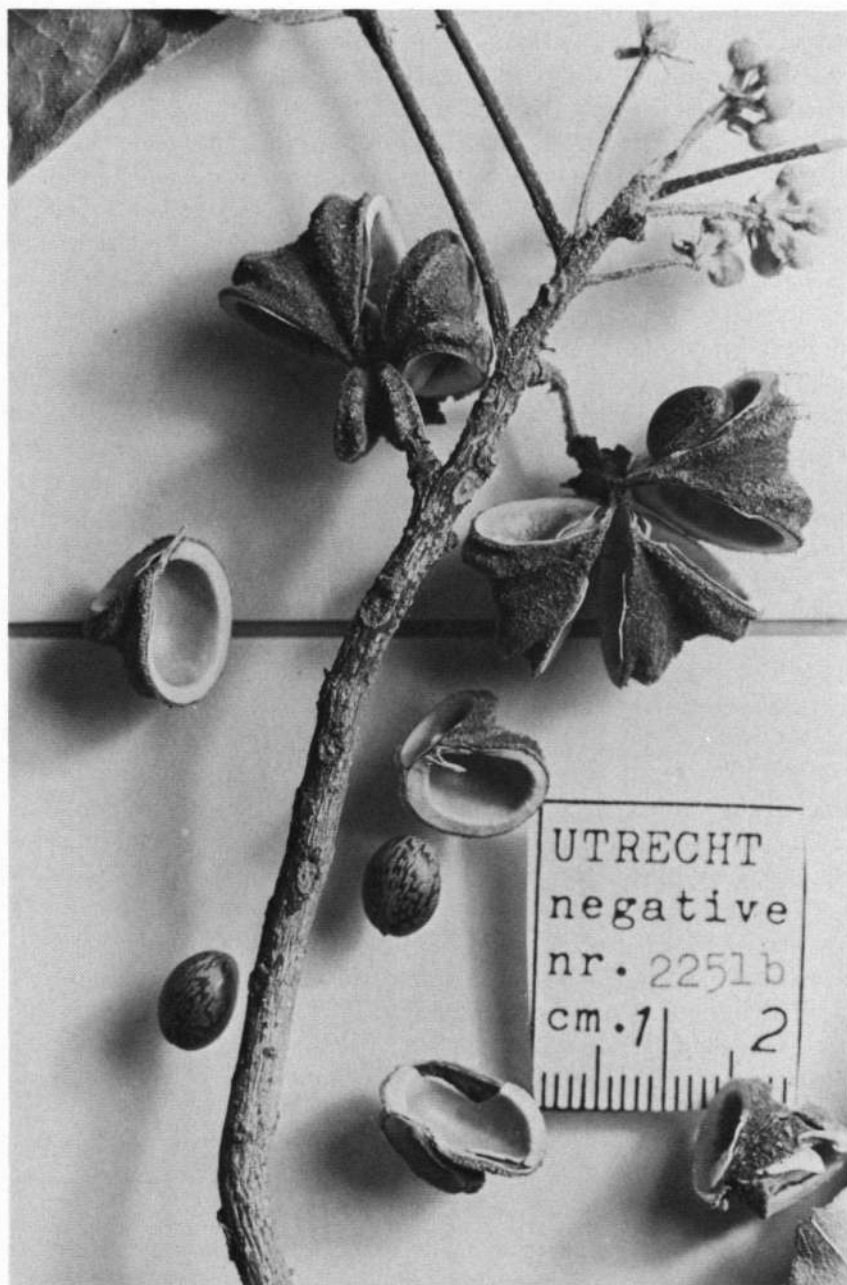


Fig. 4. *Asterophorum mennegae*. Detail of Holotype: fruits.

1.5–4.5 cm long, sparsely stellate-pubescent; blade chartaceous, narrowly elliptic or narrowly elliptic-obovate, 15–30 cm long and 4–6 cm wide, entire, acuminate, base rounded or subcordate, glabrous on both sides, except for a few stellate hairs on the veins especially on the abaxial face, 3–5-palmiveined, with ca 6–8 secondary veins on each side of the costa, primary and secondary veins prominulous on both sides. Inflorescences axillary 5–7-flowered umbels, 2–2.5 cm long, densely stellate-pubescent; peduncles 1–1.5 cm long, bracts filiform, 2–3 mm long. Flowers apparently dioecious (only pistillate ones seen); pedicels 2–4 mm long. Calyx campanulate-urceolate, 4–5 mm long, 3-lobed, the lobes unequal in width, triangular, 2 mm long and 1.7–2.5 mm wide, acute to acuminate, densely stellate-pubescent outside, glabrous inside except near the apex. Petals 5, aestivation quincuncial, somewhat fleshy, glabrous, obovate, 5.8–6.5 mm long and 2.2–2.5 mm wide, apex rounded or slightly 3-dentate, gradually narrowed towards the base. Staminodes arranged in 5 phalanges, ca 16 in each phalange, glabrous, filaments varying in length from 2 to 3 mm, anthers apparently containing no pollen, 2-celled, medifixed, reniform, 0.5 mm long, longitudinally dehiscent. Pistil 4.5 mm long, ovary obovoid-globose, 5-sulcate, 1.4 mm long and 1.4 mm in diam., densely stellate-tomentose, 5-celled, each cell with 1 pendulous ovule attached to the inner angle, style 1.8 mm long, stellate-pubescent, stigma 5-lobed, large, 2.5 mm in diam., the lobes papillose-tuberculate. Fruit 5-lobed, depressed-globose to disc-shaped, 2.5–3 cm in diam., about 1 cm high, woody, densely short brown-pubescent, 5-locular, loculicidally dehiscent, the valves remaining attached to the apex of the carpophore at first, eventually separating; seed 1 in each locule, ovoid-ellipsoid, 8 mm long, smooth, variegated with light- and dark-brown.

TYPE: Suriname, Sipaliwini Savanne, Oldenburger, Norde and Schulz 415, fl. fr. Nov. (holotype, U; isotypes, K, MO, NY, P, VEN).

COMMENT

The genus *Asterophorum* Sprague belongs to the subfamily of the BROWNLOWIOIDEAE of the TILIACEAE which is characterized by its campanulate calyx, whereas other members of the TILIACEAE have free sepals. The BROWNLOWIOIDEAE (9 genera) have their main distribution in tropical parts of Asia and Africa, they are represented in tropical America only by *Asterophorum* Sprague, *Christiana* DC and *Carpodiptera* Griseb., the latter two occurring both in Africa and America. *Asterophorum* is closest to *Christiana*, especially in flower characters; the difference is best seen in the young fruit which has 5 connate carpels in *Asterophorum* and 5 almost free, only basally connate, carpels in *Christiana*.

Up till now, *Asterophorum* was only represented by *A. eburneum* Sprague from Ecuador. The differences between the 2 species of *Asterophorum* now known are best explained by the following key:

- a. Umbels arranged in panicles arising from the uppermost axils. Fruit sub-turbinate, height and diameter about equal (1 ± 1)

A. eburneum

b. Umbels solitary in the uppermost axils. Fruit depressed-globose to disc-shaped, height much exceeded by the diameter (1:>2)

A. mennegae

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