

13. *Astrocaryum ciliatum* F. Kahn et B. Millán, sp. nov. (Fig. 37, 38, 39).

Palma solitaria, acaulis vel caudice humili. Flore pistillato hirsuto; calyce corollam valde superans; corollae limbo confertim aculeato; annulo staminodiali membranaceo, deminuto. Fructus cupula, insigniter ciliata.

Galeano G. & Huitoto J. 1315, Colombia (Holotype: COL; Isotypes: HA, NY)

Astrocaryum sciophilum auct. non (Miquel) Pulle: Galeano, Tropenbos-Colombia, vol. 1: 51-52, fig. 9, 1991.

A *subcaulescent, single-stemmed* palm. *Stem* in old trees up to 5 m high, 10-15 cm in diameter, covered with dead leaf sheaths. *Leaves* 7-12, erect; *sheath* and *petiole* up to 1.5 m long, armed with flattened, slightly winged, black, 5-10 cm long spines, petiole green; *rachis* 285-475 cm long, sparsely to densely armed with flattened spines; *pinnae* 47-84 per side, regularly arranged in one plane, with 1-2 parallel ribs near the margins on each side of the midrib, abaxial side covered in a whitish indumentum; *basal pinnae* 32-82 cm long, 0.5-2 cm wide; *median pinnae* 81-86 cm long, 3-3.5 cm wide; *apical pinnae* 30-32 cm long, 1-3 cm wide. *Inflorescence* and *infructescence* erect; *prophyll* not seen; *peduncular bract* up to 50 cm long, 8 cm wide, brown-setose, with black, up to 1 cm long spines, armed at apex with terete to flattened, flexuous, up to 3 cm long spines, these in high density beneath a narrow, setose, 3-5 cm long acumen; *peduncle* up to 90 cm long, oval, 1.2-2 cm wide, covered in a brown-red indumentum, armed between bract insertion and rachis with flexuous, brown-floccose, shiny black, up to 3 cm long spines; *rachis* 10-17 cm long; *rachillae* many, proximal part glabrous, 2-4 cm long, distal part bearing staminate flowers 4-6 cm long, one pistillate flower directly inserted on rachis. *Staminate flower* not seen. *Pistillate flower* totally covered with a bract at rachis base, this shorter above; *calyx* elongato-urceolate, 3-denticulate, slightly 3-lobed, 11.5-12.5 mm long, 9-9.5 mm wide in the lower third, 4-4.5 mm wide at mouth, covered with flexuous, light brown to black, up to 4 mm long spines; *corolla* tubular, 3-denticulate, slightly 3-lobed, 7.5 mm long, yellowish to brown-tomentose, densely armed in the upper part and at the margin with flexuous, black, up to 2.5 mm long spines, and with less dense, light brown spines towards the base; *staminodial ring* membranous, dentate, ca. 1 mm long; *pistil* cylindrical, 12.5 mm long not including stigmas, ca. 4 mm wide, brown, armed with brown to black, 1-2 mm long spines; *stigmas* 3. *Fruit* turbinate to pear-shaped, 4.6-5.2 cm long including a 0.6-1 cm long rostrum, 2.6-3.0 cm wide; *pericarp* brown-red, densely and minutely setose to spiny; *mesocarp* fibrous, dry; *endocarp* bony; *perianth* with *corolla* obconoidal, 14-18 mm long, whitish to brown tomentose, the upper part covered with flattened, flexuous, brown to black, 1-4 mm long setae or spines, margin crenulate, densely ciliate, *staminodial ring* inconspicuous, minutely denticulate, 6-12 mm long, *calyx* tawny, irregularly lobed, 10-12 mm long, with small, flexuous, brown to black spines, these not persistent at maturity.

Specimens observed:

COLOMBIA - Galeano et al. 902 (COL), 18 Apr 1986; Galeano & Huitoto 1315 (COL), 24 Sep 1987; Torres et al. 3183 (COL, NY), 14 Apr 1986: 200-300 m, Amazonas, corregimiento de Araracuara. Galeano & Miraña 1812 (COL), 17 Sep 1988, 250 m, Amazonas, Cahuinari River. Galeano et al. 2216, 17 Mar 1990 (COL), 180 m, Leticia-Tarapacá road, ca. 7 km N of Leticia.

Distribution: In the northwestern parts of the Amazon basin.

Ecology: In terra firme forest understory.

Uses: Liquid endosperm of unripe fruit is drunk (Galcano 1991); sap is used for curing snake bite (La Rotta et al., 1989, in: Galeano, 1991).

Vernacular names: coco peludo, coco, cumare de guara (C).

Notes: This species will be easily identified (1) from the limb of corolla in pistillate flower which is densely spiny, (2) from the setose to spiny, almost entire margin of corolla in fruit, (3) from the median pinnae with 1-2 parallel ribs near the margins on each side of the midrib, and (4) from the apical pinnae usually one-pointed in adult plant. It cannot be confused with *Astrocaryum sciophilum* and *Astrocaryum sociale* which do not present such characters: corolla limb is not densely spiny in pistillate flower, it is crenate to irregularly dentate, neither crenulate, nor densely ciliate in fruit; pinnae are clearly plicate, and apical pinnae are multi-pointed; the peduncular bract is strongly armed on its whole length, not only beneath the apex, and there is no narrow, unarmed acumen. Moreover the proximal part of rachillae is hirsute in these latter species, while it is glabrous in *Astrocaryum ciliatum*.

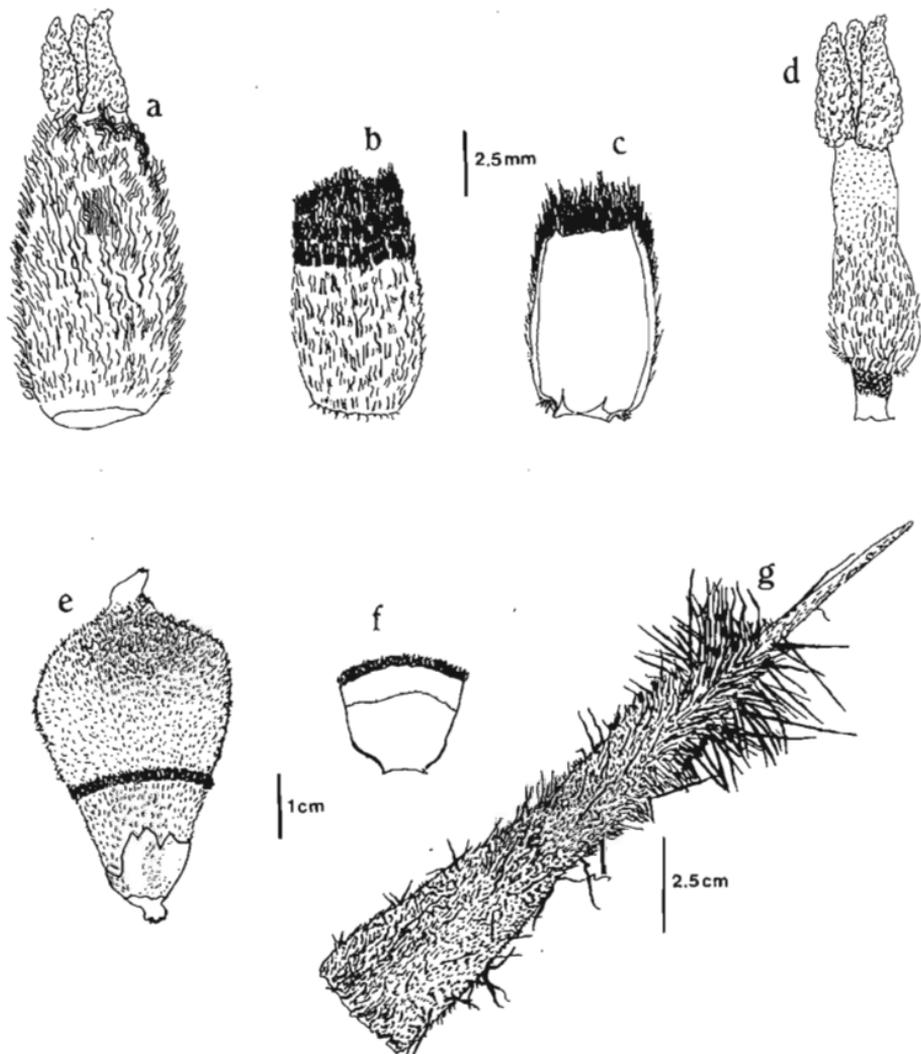


Fig. 37 - *Astrocaryum ciliatum* - a. pistillate flower; b. corolla; c. staminodial ring in corolla; d. pistil; e. fruit; f. perianth in fruit: corolla with staminodial ring; g. upper part of peduncular bract. (Material used: Galeano & Miraña 1812; Galeano & Huitoto 1315)

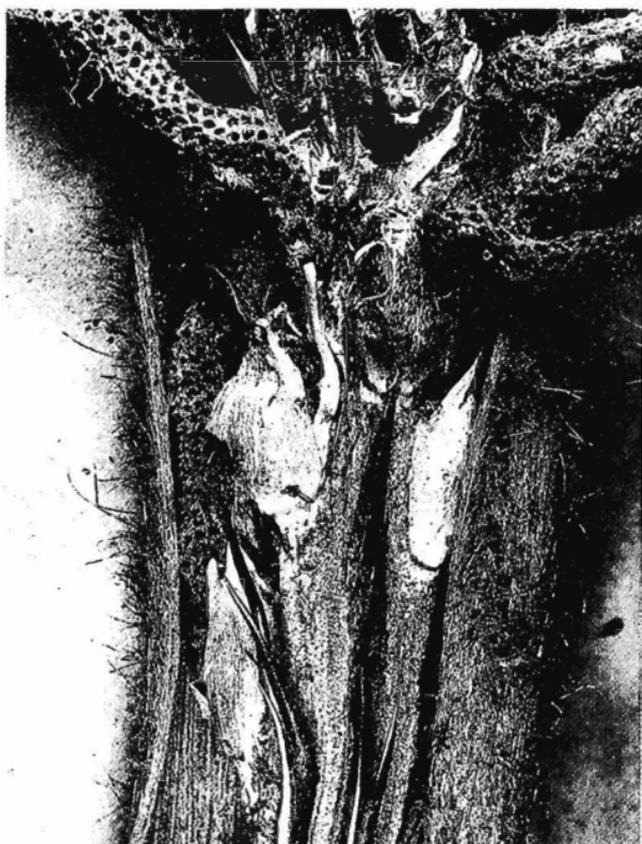


Fig. 38 - *Astrocaryum ciliatum* - Inflorescence: base of the rachis with pistillate flowers entirely covered with bracts.

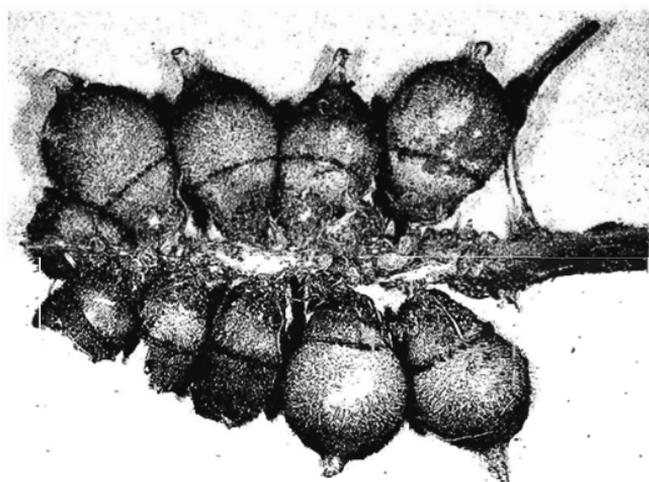


Fig. 39 - *Astrocaryum ciliatum* - Infructescence.