

12. *Astrocaryum ferrugineum* F. Kahn et B. Millán, sp. nov. (Fig. 33-36).

Palma solitaria horridissima, floris pistillati calyce hirsuto, 3-dentato, obclavato, limbi pagina abaxiali pilosa.

Henderson A. 674, Manaus, Brazil (Holotype: NY; Isotype: K).

A medium-sized, single-stemmed palm. Stem 2-8 m high, 17-25 cm in diameter, unarmed with prominent leaf scars; sheaths of dead leaves persistent on about 1 m under the crown. Leaves 10-16; sheath and petiole 60 cm long, densely armed with shiny black, up to 25 cm long spines; rachis 4.9 m long, armed with flattened black spines, shorter and less dense towards the apex; pinnae 105-120 per side, regularly arranged in a horizontal plane, abaxial side covered in a whitish indumentum with brown to rusty-red hairs; basal pinnae forming a V-shape open towards the stem, 90 cm long, 5 cm wide; median pinnae perpendicular to the rachis, 98-138 cm long, 5-5.5 cm wide; apical pinnae forming a V-shape open outwards, 72 cm long, 5.5 cm wide. Inflorescence erect, infructescence arching; prophyll 70 cm long, 12 cm wide, flattened, setose; peduncular bract inserted 30-35 cm from the rachis, with yellowish to brown, 5-11 mm long setae, in medium to high density, with intermixed flattened, 10-15 mm long, black spines, these up to 3 cm long, in higher density at apex; peduncle to 1 m long, light brown-setose, very densely armed above and below the bract insertion with flattened, grayish-floccose, black, obliquely erect, 2-6 cm long spines; rachis up to 40 cm long; rachillae many, proximal part glabrous, 3-5.5 cm long, distal part bearing staminate flowers 7-10 cm long, densely pilose with slender hairs, one pistillate flower at base inserted on rachis. Staminate flower with sepals slender, 1.5 ± 0.1 mm long, slightly connate basally; petals brown, 2.6 ± 0.1 mm long, slightly connate basally; stamens 6; anthers 1.1 ± 0.1 mm long; filament 1.3 mm long; pistillode slender, 1-parted, 0.8-1 mm long. Pistillate flower with calyx obclavate, 6-8 mm wide in the lower third, 3 mm wide at mouth, 11.7 ± 1 mm to 14-15 mm long, 3-dentate, with 0.5-5 mm long setae; corolla shorter than calyx, oblong, 3-dentate with margin ciliate, 9.6 ± 0.8 mm to 11-12 mm long, with many flexuous, light brown to black, 3-4 mm long spines; staminodial ring entire, 6-denticulate, 4.7 ± 0.6 mm to 6 mm long; pistil conoidal, 9-16 mm long covered with 1.5 mm long spines; stigmas 3, 5-7 mm long. Fruit turbinate, depressed basally, 4.5-6 cm long including a 0.7 cm long rostrum, 2.7-3.8 cm in diameter; pericarp densely covered with black, 3-4 mm long setae; mesocarp dry; endocarp bony; perianth with corolla cup-shaped, margin irregularly dentate, 17-22 mm long, staminodial ring entire, dentate, 11-15 mm long, calyx several-lobed, 10-19 mm long.

Specimens observed:

BRAZIL - Castro 635 (P), 12 oct 1983; Henderson 674 (K, NY), 10-21 Nov 1986; Kahn & Couturier 2295, 16 Nov 1987: km 26 Manaus-Itacoatiara road, Reserva Ducke. Kahn & Moussa 3227, 3228 (P), 12 Dec 1991; km 12 Manaus-Itacoatiara road. MacKenzie s.n. (P), Balbina.

Distribution: In the central northern parts of the Amazon basin.

Ecology: In terra firme forests on sandy-clayey soils.

Uses: Not reported.

Vernacular name: murumuru da terra firme (Br).

Notes: This species can hardly be confused with another. It is the most densely armed of all the Amazonian species of the section *Ayri*, and the only one which presents such a pilosity on abaxial side of the blade. The dead leaves, which persist obliquely from their point of insertion to the ground (see Fig. 33), also characterize this species.



Fig. 33 - *Astrocaryum ferrugineum* in a forest of central Amazonia, near Manaus, Brazil.

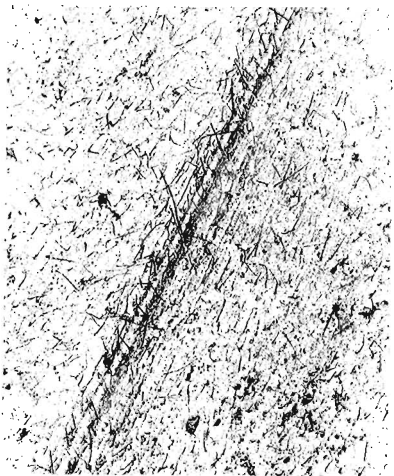


Fig. 34 - *Astrocaryum ferrugineum* - pilosity on abaxial side of the blade.

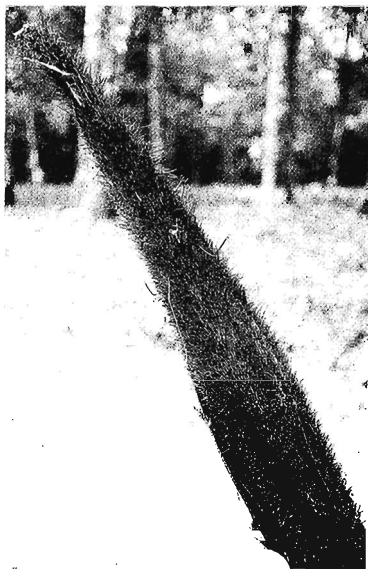


Fig. 35 - *Astrocaryum ferrugineum* - peduncular bract.

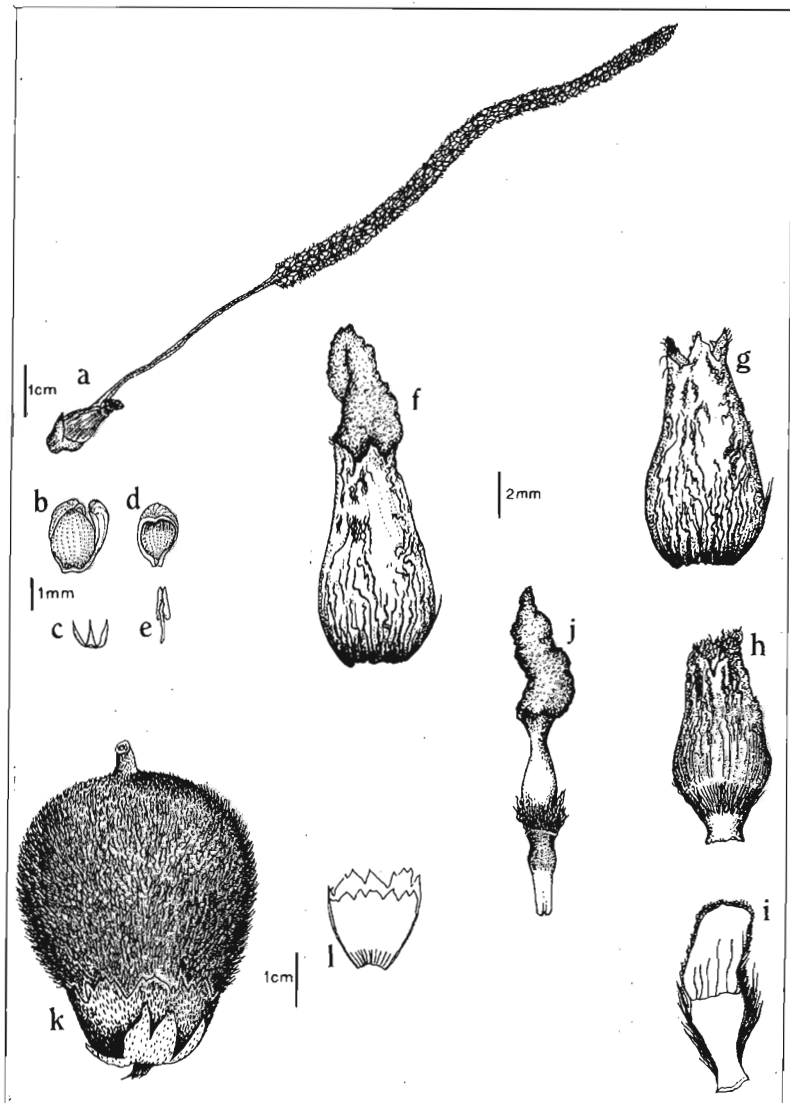


Fig. 36 - *Astrocaryum ferrugineum* - a. rachilla; b. staminate flower; c. calyx; d. petal; e. stamen; f. pistillate flower; g. calyx; h. corolla; i. staminodial ring in corolla; j. pistil; k. fruit; l. perianth in fruit: corolla with staminodial ring. (Material used: Henderson 674; MacKenzie s.n.; Kahn & Couturier 2295)