20. Astrocaryum perangustatum F. Kahn et B. Millán, sp. nov. (Fig. 49, 50).

A sectionis Ayri speciebus fructu perangustato differt.


A medium-sized, single-stemmed palm. Stem up to 4 m high, 20-23 cm in diameter, with some spines in groups, partially or totally covered with dead leaf sheaths. Leaves 8-14; sheath and petiole green, black-setose, 117-190 cm long, sheath fibrous at margins, densely armed with black, terete to flattened, slightly flexuous, grayish-floccose, 4-6 cm long, spines, and with others, up to 40 cm long, intermixed on abaxial side, petiole short, densely armed on upper lateral parts of convex abaxial side; rachis up to 4.5 m long, black-setose, armed with a few flattened, up to 4 cm long spines, usually in groups of 2-3; pinnae 92-110 per side, regularly arranged in one plane, abaxial side golden, satiny; basal pinnae 88-91 cm long, 1.5-4 cm wide; median pinnae 117-132 cm long, 9-11 cm wide; apical pinnae 34-41 cm long, 2.5-5 cm wide. Inflorescence erect; prophyll 66-87 cm long, 24-26 cm wide; abaxial side flattened, adaxial side convex with out sides flattened; peduncular bract 116-127 cm long, 36 cm wide when open, inserted 52-54 cm from rachis, abaxial side with a grayish-brown indumentum, or yellowish without indumentum, with a few light brown setae and some flattened, flexuous, whitish-floccose, 1 cm long spines in the upper part; peduncle 1.2 m long, 5.1-5.5 cm x 4.4-4.5 cm in cross-section beneath rachis, 9.2-12.2 cm x 7.1-9 cm at base, with some small, flexuous, whitish-floccose, 0.5 cm long spines between rachis and bract insertion; rachis 57-61 cm long; rachillae many, proximal part 0.3-5 cm long, distal part bearing staminate flowers 8-11 cm long, with transparent, clavate hairs, one pistillate flower inserted 1 cm from the rachis. Staminate flower with sepals connate basally, 1.1 ±0.2 mm long; petals 3.5 ±0.3 mm long; stamens
6; anthers 1.5 ± 0.1 mm long; filament 1.7 ± 0.2 mm long; pistillode short, 3-parted. Pistillate flower with calyx urceolate to cylindrical, 9.2±0.5 to 11.4±0.7 mm long, glabrous, 3-dentate; corolla 3-denticulate with limb ciliate, 8.3±0.5 to 10.9±0.8 mm long, with flattened, yellowish, flexuous, 1-2 mm long setae; staminodial ring entire, 4 mm long, 6-denticulate (or laciniate 3-9.5 mm long, rigid, spiny at margin); pistil tomentose, whitish, with 1-1.5 mm long spines; stigmas 3, 4-5 mm long. Fruit turbinate to oblong, asymmetrical, very narrow basally, 7.1-8.7 cm long including a 0.5-1 cm long rostrum, 2.5-2.6 cm wide, with a 0.5-1-(2) cm long pedicel; pericarp covered with dense, shiny brown, 4 mm long spines; mesocarp fleshy, thin at maturity; endocarp bony, acuminate basally; perianth with corolla irregularly dentate, 19-24 mm long, with a few setae, staminodial ring crenulate, 14-16 mm long, calyx glabrous, 3-5 lobed, 9-13 mm long.

Fig. 49 - Astrocaryum perangustatum in an open area in the Palcazu River valley.
Specimens observed:

Distribution: In the central and southeastern piedmont of Peru, 380-800 m in elevation.

Ecology: In understory of forests on steep slopes, frequent in open areas.

Uses: Liquid endosperm of unripe fruit is drunk.

Vernacular names: chonta (P)

Notes: Astrocaryum perangustatum is characterized by the fruit being remarkably narrow basally, and the pinnae very wide (up to 11 cm), golden and satiny beneath.

21. Astrocaryum gratum F. Kahn et B. Millán, sp. nov. (Fig. 51).

A medium-sized, single-stemmed palm. Stem 3-10 m high, 17-20 cm in diameter, with some spines in groups; sheaths of dead leaves persistent on about 1 m under the crown. Leaves 8-12; sheath and petiole up to 2 m long, purplish, fibrous at margins, densely setose, armed with dense, flattened, black, up to 15 cm long spines on abaxial side, these shorter on lateral sides of petiole; rachis 4.6-5 m long, black-setose, with up to 3 cm long spines in groups of 2-3; pinnae 90-110 per side, regularly arranged in one plane; basal pinnae 105-131 cm long, 1.9-3 cm wide; median pinnae 134-145 cm long, 5-7 cm wide; apical pinnae 40-61 cm long, 2.5-12.5 cm wide. Inflorescence and infructescence erect; prophyll 1 m long, 11-12 cm wide, abaxial side with densely setose, dark brown, 3-5 mm long setae, adaxial side smooth or with dense, short setae; peduncular bract 90 cm long, inserted 40 cm from rachis, with scattered black and dense tawny setae, and flattened, black, 2-3 cm long spines at apex; peduncle 1.3 m long, section oval, 4 x 3 cm near rachis, 7 x 4 cm at base; rachis up to 70 cm long; rachillae many, proximal part glabrous, 2-4.5 cm long, distal part bearing staminate flowers in low density, 11.5-15 cm long, covered with transparent, clavate to globose hairs, one pistillate flower inserted 0.5-1 cm from the rachis. Staminate flower with sepalos 0.6-0.7 ± 0.1 mm long; petals 2.8 to 2.9 ± 0.2 mm long, slightly connate basally; stamens 6; anthers 1.3-1.5 ± 0.1 mm long; filament up to 1.3 mm long; pistillode 3-parted. Pistillate flower with calyx ovoid to pear-shaped, slightly 3-dentate, with a few minute setae, margin ciliate, 6.4 ± 0.4 to 9.6 ± 0.7 mm long; corolla urceolate, slightly shorter than calyx, 5.4 ± 0.4 to 9.1 ± 0.5 mm long, with setae or 0.5 mm long spines, margin ciliate; staminodial ring 0.9 to 2.5 ± 0.4 mm, very short or reduced to 6 teeth; pistil wide basally and tapering into a slender style, brown-tomentose, with white setae; stigmas 3, 3-4 mm long. Fruit turbinate to obovate, depressed, 3.9-6.7 cm long, 2.7-3.9 cm wide, with a pedicel, up to 3.5 cm long; pericarp orange with brown to black, flexuous, 1-3 mm long setae; mesocarp fleshy, up to 1.2 cm thick; endocarp bony, turbinate, slightly acuminate and curved basally, 2.6-4.3 cm long, 1.7-2.3 cm wide; perianth with corolla cup-shaped, crenate, lacinate, or irregularly lobed, 9-18 mm long, staminodial ring wavy, 6-denticulate, 4-10 mm long, calyx deeply lobed, 5-12 mm long.
Fig. 50 - Astrocaryum perangustatum - 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: Kahn 3232; Smith 4045)