

A new species of *Astrocaryum* (Palmae) from Acre, Brazil

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ABSTRACT

KAHN, F. & E. J. LINHARES FERREIRA (1995). A new species of *Astrocaryum* (Palmae) from Acre, Brazil. *Candollea* 50: 321-328. In English, English and French abstracts.

A new species of the genus *Astrocaryum* (Palmae, Arecoideae, Cocoeae) from the western region of Brazilian Amazonia is described. A key including allied species is given.

RÉSUMÉ

KAHN, F. & E. J. LINHARES FERREIRA (1995). Une nouvelle espèce d'*Astrocaryum* (Palmae) d'Acre, Brésil. *Candollea* 50: 321-328. En anglais, résumés anglais et français.

Une nouvelle espèce du genre *Astrocaryum* (Palmae, Arecoideae, Cocoeae) de la région occidentale de l'Amazonie brésilienne est décrite. Une clé dichotomique permet de la différencier des espèces les plus proches.

KEY-WORDS: PALMAE — *Astrocaryum* — Taxonomy — Brazil.

The upper Moa River valley is the westernmost region of Brazil, located at about one hundred air kilometres from Pucallpa, Department of Ucayali, Peru. This tributary of the Jurua River is nearer from the Andes than Iquitos, the capital of Peruvian Amazonia, is. Palm flora in this region includes Subandean genera, such as *Aiphanes*, *Aphandra*, *Catoblastus*, *Chamaedorea*, *Chelyocarpus*, *Dictyocaryum*, *Iriarteia*, *Phytelphas*, *Wettinia*, and most Amazonian genera which also occur in the neighbouring Peruvian Amazonia (KAHN & GRANVILLE, 1992; KAHN & MOUSSA, 1994a, b). Four species of *Astrocaryum* have been found along the Moa River valley: *A. chambira* Burret, *A. chonta* Martius, *A. jauari* Martius, and a new species here described.

Astrocaryum faranae F. Kahn & E. Ferreira, *spec. nov.* (Fig. 1-3).

Ab *A. carnosum* Kahn & Millán differt floris pistillati calyce truncato non plicato ad apicem, corolla calyce longiore non plicata ad apicem, aculeatis epicarpium usque 14 mm. longis.

Type: Brazil. Upper Moa River, Acre, *Francis Kahn & Farana Moussa 3560* (Holotype CEN; isotypes, G, NY, P).

A medium-sized, multistemmed palm, usually 2-3 adult axes together. Stem up to 4 m in height, 18-20 cm in diameter, covered with spiny persistent sheaths of the dead leaves. Leaves up to 10; sheath and petiole 75-110 cm long, gray-tomentose, adaxial side with gray-tomentose, black, up to 3 cm long spines, abaxial side with flattened, gray to black, 1-10 cm long spines in sparse groups

CODEN: CNDLAR
ISSN: 0373-2967 50(2) 321 (1995)

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BOTANIKES DE GENÈVE 1995

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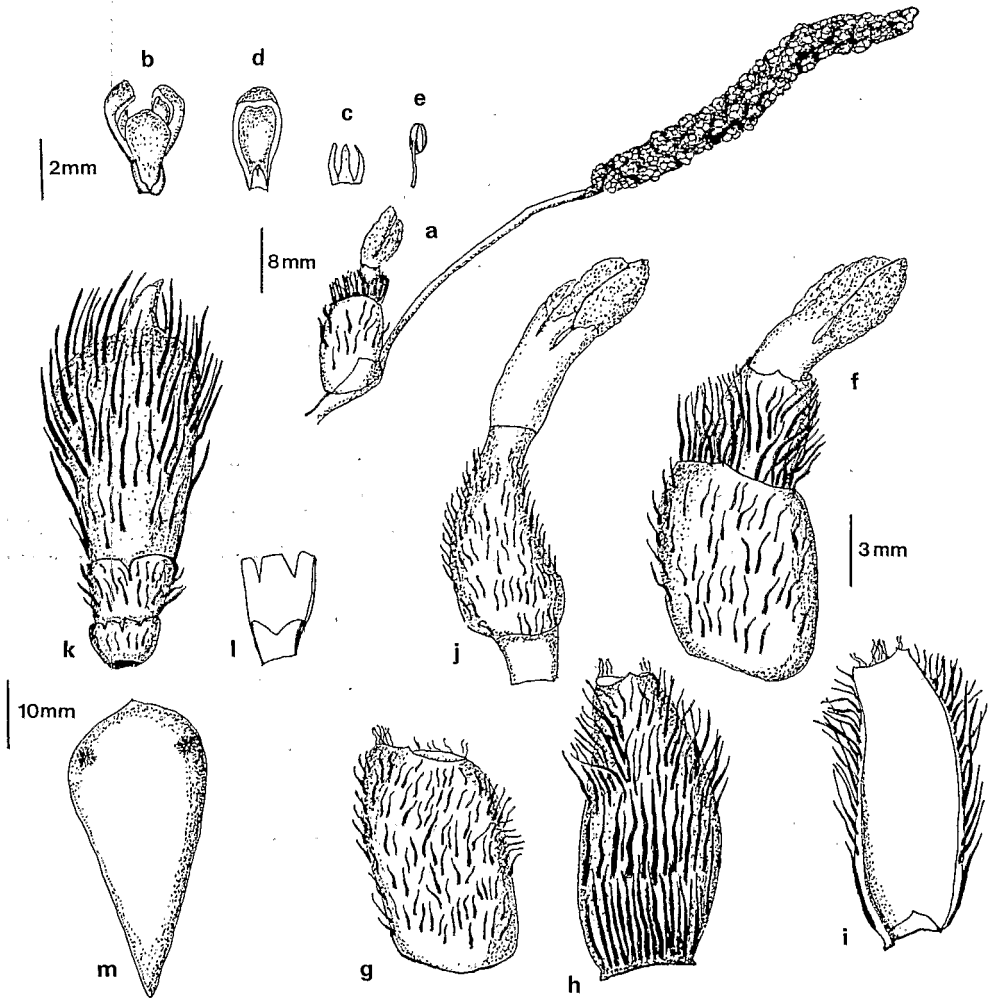


Fig. 1. — *Astrocaryum faranae*: a, rachilla; b, staminate flower; c, sepals; d, petal with pistillode at base; e, stamen — (b-e: same scale); f, pistillate flower; g, calyx; h, corolla; i, staminodial ring low and membranous in corolla; j, pistil — (f-j: same scale); k, fruit; l, staminodial ring in corolla at fruit maturity; m, endocarp — (k-m: same scale).

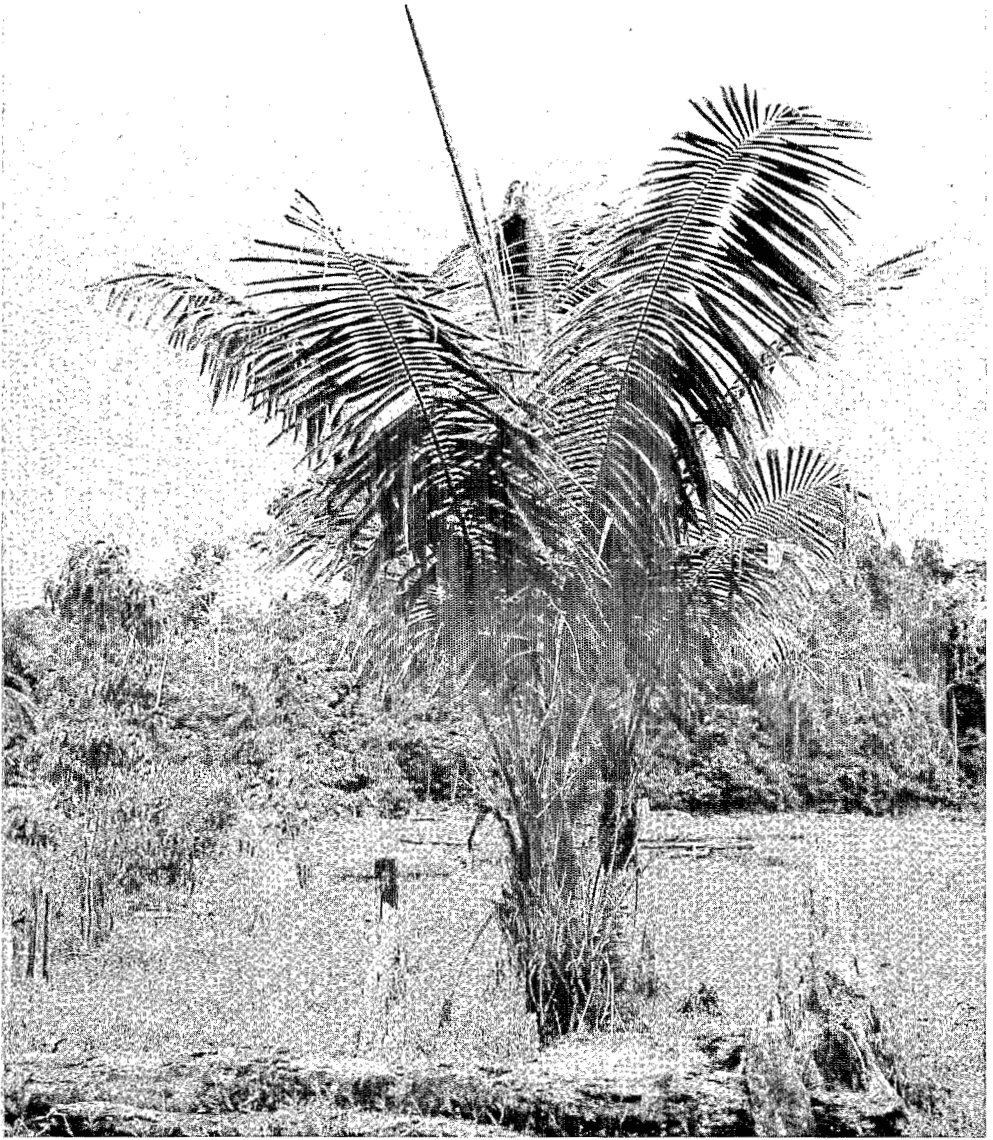


Fig. 2. — *Astrocaryum faranae* in the field (Photo F. Kahn).



Fig. 3. — Infructescence of *Astrocaryum faranae* (Photo F. Kahn).

of 1-3; *rachis* 315-370 cm long; *pinnae* 91-97 per side, regularly arranged in one plane, abaxial side covered in a white indumentum; *basal pinnae* 64-86 cm long, 0.9-1.6 cm wide; *median pinnae* 94-100 cm long, 4.5-5.1 cm wide; *apical pinnae* 29-39 cm long, 1.2-5 cm wide. *Inflorescence* and *infructescence* erect. *Prophyll* 50 cm long, 10 cm wide, flattened, setose, with brown to black, up to 2 cm long spines. *Peduncular bract* 45-75 cm long, inserted up to 35 cm from the rachis, with dense terete to flattened, brown-tomentose, shiny black, up to 1.5 cm long spines, a few others up to 3 cm long at the apex. *Peduncle* 74-80 cm long, unarmed, green at base, covered in a gray-brown indumentum above the bract insertion; *rachis* 14-35 cm long; *rachillae* many, proximal part 1.5-4.5 cm long, glabrous, distal part bearing staminate flowers 3.0-5.5 cm long, one pistillate flower inserted basally on the rachis, apical part of the rachis without pistillate flowers. *Staminate flower* with *sepals* minute, 1.2 ± 0.2 mm long; *petals* brown, 2.8 ± 0.2 mm long; *stamens* 6; *anthers* 0.9 ± 0.1 mm long; *filaments* up to 1.8 mm long; *pistillode* minute, 3-parted. *Pistillate flower* with *calyx* tubular, truncate, 3-denticulate, 8.6 ± 0.8 to 11.0 ± 1.1 mm long, with brown, 2-3 mm long spines; *corolla* longer than the calyx, obclavate to elongato-urceolate, 3-denticulate, 13.5 ± 1.0 to 14.3 ± 1.3 mm long, with dense, brown to black, 3 mm long spines; *staminodial ring* membranous, irregularly 6-dentate, 2.7 ± 0.5 mm long, often with setae at the margin; pistil conoidal, floccose, with whitish to brown, 2 mm long spines; *stigmas* 3, 9 ± 1 mm long. *Fruit* turbinate to obovate, 1.2-2.4 cm wide in the upper part, 4.2-8.0 cm long including a curved, tapered, 0.6-2.3 cm long rostrum; *epicarp* yellowish brown-tomentose, armed with shiny black, up to 1.4 cm long spines, these very dense in the upper part; *mesocarp* 2 mm thick, fibrous, fleshy and orange at maturity; *endocarp* round at top, pointed at base; *perianth* with *calyx* tubular, 6-15 mm long, crenate to lacinate, with 1-2 mm long spines in the upper half, *corolla* campanulate, crenate to lacinate, 12-28 mm long, with up to 3 mm long spines; *staminodial ring* deeply divided into 2-3 lobes, these 1-3-pointed, creamy or with longitudinal brown strips, 3.6-7.5 mm long. *Eophyll* slightly bifurcate.

Specimens examined. — **Brazil:** Acre, Mun. Mancio Lima, upper rio Moa, near Igarapé Vitor $7^{\circ}35'S$, $73^{\circ}45'W$, 14 Oct. 1989 (fr), *Henderson 1125* (CEN, INPA, NY); Acre, rio Jurua, 19 Mar. 1992 (fr), *Ferreira 167* (UFAC); Acre, Mun. Mancio Lima, upper rio Moa, at 5 hours by 40 HP from Cruzeiro do Sul, 16 Feb. 1994 (fl, fr), *Kahn & Moussa 3560* (CEN, G, NY, P).

Ecology. — Understory of terra firme forests.

Uses. — Not reported.

Vernacular name. — Murumuru, huicungo.

Since BURRET (1934), the genus *Astrocaryum* has not been revised. A preliminary treatment of this genus in Amazonia (KAHN & MILLÁN, 1992) dealt with 24 species, 5 in the subgenus *Pleiogynanthus* and 19 in the subgenus *Monogynanthus* (3 in the section *Munbaca* and 16 in the section *Ayri*).

A new flora of Amazonian palms treats several species as varieties of *A. murumuru* Martius — e.g. *A. macrocalyx* Burret and *A. javarense* Trail ex Drude (HENDERSON, 1994). This author is strongly influenced by the morphological similarity of the vegetative parts in the subgenus *Monogynanthus* section *Ayri*, and does not take into account the clear differences which exist between these species mainly in the pistillate flowers (calyx and corolla form, size, spines, staminodial ring form and size) as well as in the fruits (form and size, epicarp pilosity, spines, texture, mesocarp fleshy or not, form and size of perianth and staminodial ring at fruit maturity).

The section *Ayri* was divided in four groups of species according to the characters of the pistillate flowers (KAHN & MILLÁN, 1992). *A. faranae* clearly belongs to group 2 with *A. carnosum* Kahn & Millán, *A. javarense* Trail ex Drude, *A. huicungo* Dammer ex Burret, *A. ferrugineum* Kahn & Millán, *A. scopatum* Kahn & Millán, and *A. ciliatum* Kahn & Millán. All these species present a calyx covered with flexuosus, 2-4 mm long spines.

Astrocaryum faranae is akin to *A. carnosum*. Both present a staminodial ring which is low, irregularly 6-toothed, membranous, not adnate in the corolla, and a fruit with a fleshy mesocarp. This last character is, however, clearly more developed in *A. carnosum*. These species differ each other from the following characters:

ACKNOWLEDGEMENTS

This work was supported by the international agreement between ORSTOM (Institut français de recherche scientifique pour le développement en coopération) and CENARGEN/EMBRAPA (Centro de Pesquisa de Recursos Genéticos e Biotecnologia/Empresa Brasileira de Pesquisa Agropecuária).

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