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A New Species of Chelyocarpus (Palmae, Coryphoideae) From Peruvian Amazonia

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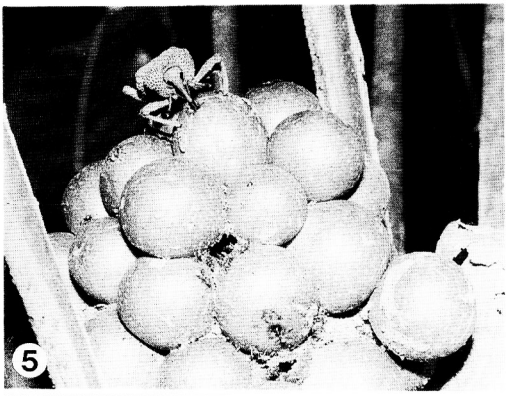
Species richness of palms is very high in "terra firme" forests of the Amazon basin, particularly in the central and western regions (Kahn et al., in press). Diversity at the generic level is clearly highest in the western part: 31 of the 35 native Amazonian genera are found in Peruvian forests, among them, twelve (*Aiphanes*, *Catoblastus*, *Chamaedorea*, *Chelyocarpus*, *Dictyocaryum*, *Iriartea*, *Itaya*, *Pholidostachys*, *Phytelephas*, *Prestoea*, *Wendlandiella*, and *Wettinia*) do not reach central and eastern Amazonia.

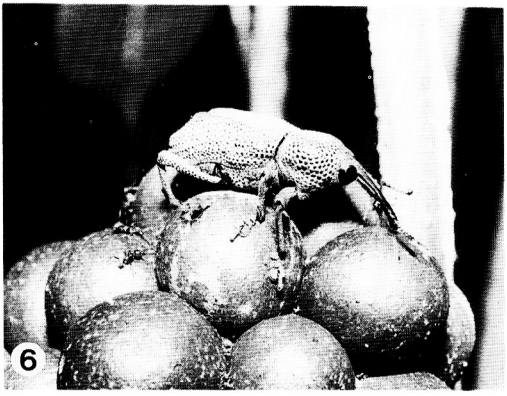
Two of the three species of *Chelyocarpus* occur in Peruvian Amazonia, as does the only species of the related genus *Itaya* (Moore 1972). Thus, discovering a new Peruvian *Chelyocarpus* is not very surprising, especially when the species is found in forests rarely explored by botanists. This new palm is, however, strikingly distinct from the three previously-known species.

Chelyocarpus repens F. Kahn et K. Mejia sp. nov. (Figs. 1–6).

Caulis procumbens ad 1 m longus, foliis 10–20. Lamina 0.7 m longa, 1.2 m lata, bipartita, laterilater in 4–6 segmenta elongato-cuneata partita, supra viridis, subtus alba. Inflorescentia erecta, 0.35 m longa, bracteis sterilibus 2; rhachis 5–8 cm longa ad apicem compressa; rami 2 cm longi. Flores 4 mm alti; perianthium uniseriatum plerumque 6-lobatum, 2.5 mm altum; stamina 4–8 plerumque 6; carpella 3–5 raro 1, 2, 6. Fructus globosus, 2.5 cm diametro, epicarpio laevi. Embryo subter dimidium. Typus: Peru, *Kahn & Mejia 1974* (holotypus USM; isotypus NY).

Trunk pale-brown, procumbent, up to 1 m long and 6–8 cm diam., sometimes erect, up to 0.6 m high. Roots produced at the lower side along the trunk, with secondary, white, short, spiny roots. Leaves 10–20; sheath 0.25–0.3 m long, densely pale-brown appressed villous; petiole up to 1.8 m long, biconvex and rhombic in section with obtuse margins distally, furfuraceous lepidote on the lower side; hastula deltoid, up to 1.5 cm high 1 cm wide; blade green above, white below, lower surface covered with a continuous layer of thin, white, membranaceous scales, these rubbing off on contact, 0.75 m high 1.2 m wide, divided to within 1.5 cm of the base, laterally divided into 4–6 elongate-cuneate many-ribbed segments, to 0.75 m long and 0.2 m wide, the external often acute, each many-ribbed segment divided into 2–7 acute 1-ribbed segments, 2–8 cm long and 1.5–4 cm wide, these with the midrib prominent below with up to 3 lateral nerves and several finer tertiary nerves on each side. Inflorescence erect, 1 or 2, rarely more, among petiole bases, ca. 0.35 m long, branching to 1 or 2 orders; peduncle 0.24–0.28 m long, strongly flattened, pale-brown appressed villous, turning glabrate, bearing a prophyll at 0.18–0.20 m from the base, pale-brown tomentose then glabrate, 9–11 cm long, and a peduncular bract at 0.22–0.28 m from the base, whitish floccose tomentose at anthesis, 5–7 cm long; rachis flattened, 5–8 cm long, 1–2.5 cm wide at base, with 25–35 first order





2. *Chelyocarpus repens*, an understory palm in Amazonian terra firme forests of Peru. Its procumbent stem creeps under the litter. 3. Inflorescence of *Chelyocarpus repens*. 4. Infrutescence of *Chelyocarpus repens*. 5. A curculionid has perforated the fruit and is eating the endosperm. 6. After the meal . . . .

branches, to 0.5 cm long, strongly flattened and wider next to the rachis, each subtended by a slender, flattened, tomentose bract, up to 1.8 cm long; rachillae up to 2 cm long, adnate to the first order branch, densely covered by flowers. Some flowers borne on rachis and branches.

Flowers strongly scented, creamy turning dark brown when dry, sessile, 4 mm high, with a slender bract, 2.5 mm long; perianth uniseriate, 2.5 mm high, often irregularly 6-lobed, each lobe irregularly denticulate; stamens 4–8, usually 6, filaments broad and thick basally, tapered to the exserted anthers, often connate basally or throughout; carpels 1–6, most frequently 3, ca. 1.5 mm high; style short, recurved; stigma papillate; perianth in fruit 2.5 mm high. Fruit greenish, globose, 2.5 cm high; epicarp rather smooth, not tessellate, mesocarp whitish, thin. Seed depressed globose to globose, ca. 1.8 cm high; embryo in the lower third. Only one carpel giving fruit, rarely two, then fruits connate basally.

Distribution and Ecology: Type locality is near Jenaro Herrera village (4°55′S; 73°40′W) in the lower Ucayali River basin, Loreto, Peru. This species was also collected in Yaguasyacu River (2°40′S; 72°00′W), tributary of Ampiyacu River (Plowman et al., no. 6772), Loreto, Peru. In the type locality, this understory palm occurs in high density on slopes (206 palms, among them 18 seedlings, were counted on 0.62 ha) in "terra firme" forest on acrisol (FAO), also found in limit with seasonal swamp forest, but in low density.

Specimens Examined: Kahn & Mejia 1974 (holotype USM, isotype NY), fl. fr., 13 Nov. 1986; *K & M 1973* (NY), fl. fr., 13 Nov. 1986; *K & M 1972* (BH, K), fl., 13 Nov. 1986; *K & M 2049* (P), fl. 6 May 1987; *Blanc 825* (USM), fr., Aug. 1985; *Mejia 707* (K), fr., Aug. 1985; *K & M 2003* (INPA), fr., 15 Dec. 1986; *K & M 2004* (MPEG), fr., 15 Dec. 1986; *K & M 2005* (AMAZ), fr. 15 Dec. 1986; *K & M 2006* (CAY), fr. 15 Dec. 1986; *K & M 2008* (AAU), fr., 15 Dec. 1986; *K & M 2021* (BH), fr., 20 Mar. 1987; *K & M 2068* (P), fr., 21 July 1987. All these vouchers were collected in the type locality. *Plowman et al. 6772* (BH), fr., Mar. 1977 (see above).

Chelyocarpus repens differs from the three other species. *C. chuco* (Martius) H. E. Moore, *C. dianeurus* (Burret) H. E. Moore, and *C. ulei* Dammer (Moore 1972) by its uniseriate perianth, its higher number of carpels, its smaller, erect inflorescence with only one peduncular bract and by its procumbent, short stem, creeping in the litter and rooting at the lower side. This character is recorded in the epithet.

C. repens is a beautiful, elegant palm with slender erect petioles, and palmate blades which are silvery-white below. This procumbent species could have a potential as an indoor ornamental. However, the species is not frequent. It has been collected in only two localities in Peruvian Amazonia. Moreover, fruits are not abundant, with at most 20–50 per infrutescence, and many fruits are perforated by a curculionid beetle which eats the endosperm and destroys the seed (Figs. 5, 6). Near Jenaro Herrera village, increasing deforestation by shifting cultivation and pasture extension threatens the type population with extinction.

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