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Geonoma chlamydostachys, a New Species from Colombia

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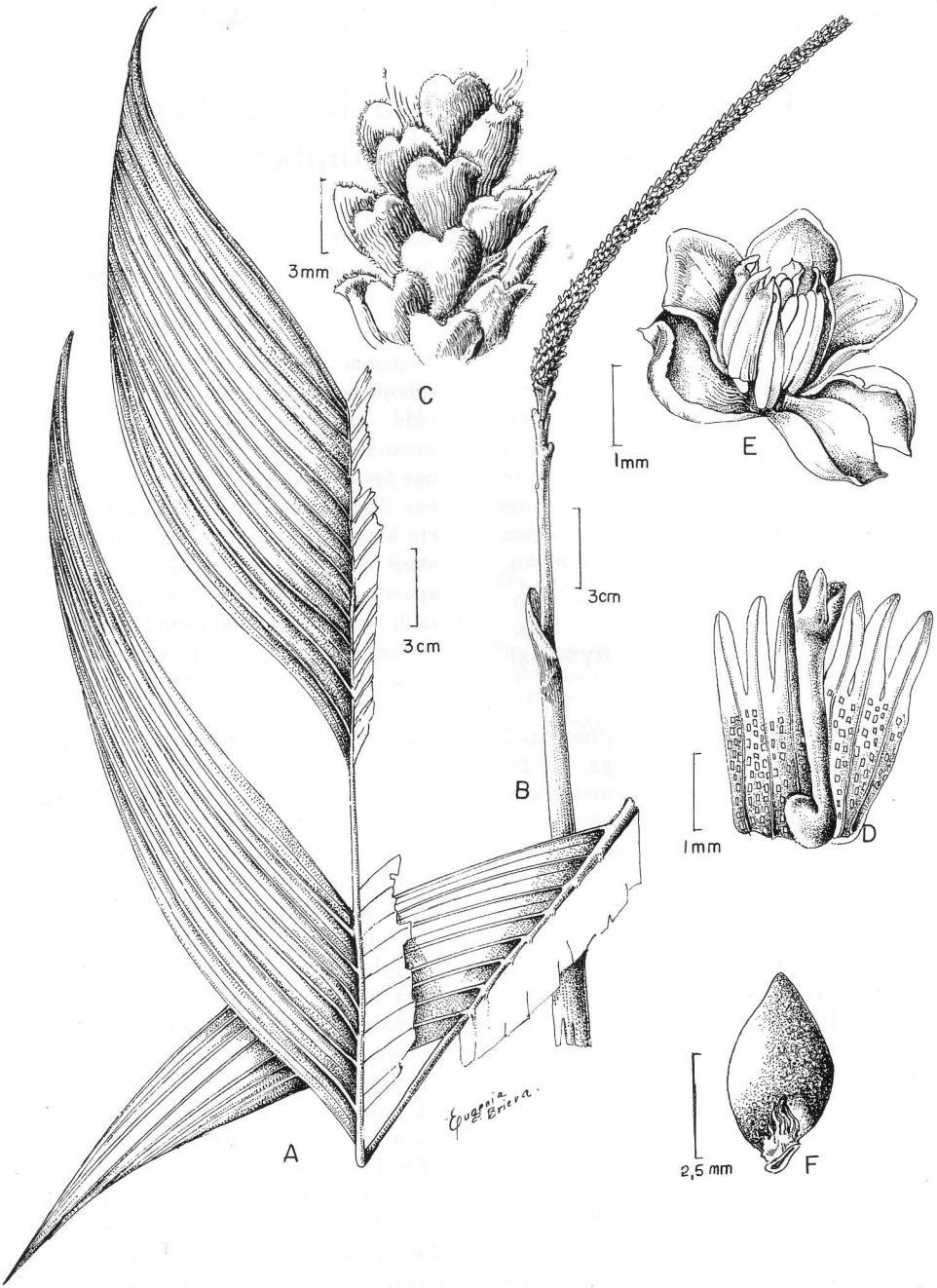
The region of the middle Magdalena River, in northwestern Colombia, has a very rich, interesting and little known flora, which is being rapidly devastated before a considerable number of its elements are scientifically known. The study of some recent palm collections from that region has disclosed a new species of *Geonoma*, which is described below.

Geonoma chlamydostachys Galeano, **sp. nov.** (Fig. 1)

Caudex solitarius, 1–2.5 m altus, ca. 2 cm diam. Lamina ambitu oblonga, 45–60 cm longa, 25–30 cm lata. Segmenta plerumque 3 in quoque latere. Nervi primarii 26–32 utrinsecus, cum rachi angulum 45–50° formantes. Inflorescentia spicata, pedunculo 35–43 cm longo, spica 15–32 cm longa, 7–8 mm diam.; foveae in seriebus 8 dispositae, labio inferiore valde protracto; tubus staminodialis in dentes 6 lineares profunde divisus. Fructus ovatus, acutus, 10–12 mm longus, ca. 6 mm diam. Typus: Colombia, Rio Claro, *Hernández et al. 685* (Holotypus HUA).

Solitary palm. Stem 1–2.5 m high, ca. 2 cm in diam., conspicuously ringed. Leaves reddish when young; sheath 10–15 cm long, thin, covered with ferruginous easily removable indumentum; petiole 10–15 cm long, the abaxial surface strongly convex and covered with a scattered indumentum like that of the sheath; rachis 45–60 cm long, produced at the apex into a slender thread; blade oblong in outline, 25–30 cm wide, usually with 3 pinnae on each side, these similar, subopposite, 4–6 cm apart, long-acuminate, each with 8–14 primary veins; sometimes with 1–4 uninerved, linear pinnae between the wide pinnae; middle pinnae 24–30 cm long, apical pinnae ca. 20 cm long along the upper margin; primary veins 26–32 on each side, 0.7–1 cm apart, emerging at about 45–50° from the rachis, prominent and rounded above, less prominent, acute and scarcely pilose below; secondary veins immersed above, more prominent than the primary ones and with scaly caducous hairs below. Inflorescence spicate; prophyll 15 × 1–1.5 cm, linear, thin, covered with a dense brown-ferruginous persistent tomentum; peduncular bract 20–26 cm long, its shape and indumentum like those of the prophyll, inserted ca. 1 cm above; peduncle 35–43 cm long, 3–4 mm wide, compressed, with scaly reddish-brown persistent hairs, toward the apex with 3–4 small bracts, less than 1 cm long; spike 15–32 cm long, 7–8 mm in diam.; pits densely arranged in 8 somewhat oblique series, each pit 2–3 mm wide, bilabiate, the upper lip entire, short, the lower one ovate, slightly striate, briefly bifid, long protracted, about 3 mm long, completely covering the pit or sometimes exceeding it, the surface covered with a thin, brown-ferruginous, persistent indumentum. Staminate flowers near anthesis 4–5 × 2–2.5 mm; sepals oblong-lanceolate, obtuse, keeled toward the apex, ciliate at the margin, 3.5–4 × ca. 2 mm; petals lanceolate to obovate-lanceolate, slightly nerved, acute and thickened at



1. *Geonoma chlamydostachys* Galeano. A, Leaf; B, Spike showing part of the peduncle and the peduncular bract; C, Detail of the spike; D, Pistillate flower showing the staminodial tube unfolded, and the pistil; E, Staminate flower before anthesis; F, Ripe fruit. A–C from *Hernández & Hoyos 89*; D–F from *Hernández et al. 685*.

the apex, 4–5 mm × 1.5 mm; stamens 6, the filaments 4 mm long, connate for ca. 2.5 mm; thecae linear, free, ca. 2 mm long, apparently sharply reflexed from the filaments; pistillode pyramidal, ca. 1 mm long, briefly trifid at the apex. Pistillate flowers near anthesis 3.5–4 mm long, elongate; sepals oblong-lanceolate; petals linear-lanceolate, acute and thickened at apex, 3.5–4 mm × 1 mm; staminodial tube 1–1.5 mm long, digitately 6–lobed, each lobe 1–1.5 × ca. 0.2 mm; gynoecium ca. 1 mm long; style 3 mm long, deeply trifid. Fruits ovoid, acute at apex, 10–12 × ca. 6 mm, the surface slightly granulate; seed ovoid, acute at apex, dark brown, shining.

Distribution and Habitat: known only from southeast Departamento de Antioquia, in the zone of influence of middle Magdalena River, at 300–1,000 m altitude, in disturbed moist forest.

Specimens Examined: Colombia: Departamento de Antioquia: Municipio de San Luis, Río Claro, 400–1,000 m alt., 13 Jan 1983, *Hernández et al. 685* (holotype HUA); same locality, 480 m alt., 12 Oct 1981, *Hernández & Hoyos 89* (COL, HUA); same locality, 600 m alt., 24 Jun 1982, *Hernández & Hoyos 415* (COL, HUA); same locality, 325–450 m alt., 1984, *Cogollo 1280* (JAUM); same locality, 330–500 m alt., 1 May 1984, *Cogollo & Borja 1633* (JAUM); same locality, 21 Feb 1982, *Rentería et al. 3038* (JAUM).

Geonoma chlamydostachys belongs to section *Taenianthera* (Burret) W. Boer, according to the last interpretation of the genus *Geonoma* (Wessels-Boer 1968). The species of this section, formerly regarded as constituting a genus of their own (Burret 1930), were considered by Wessels-Boer to be a natural group characterized by the combination of several characters, particularly the acaulescent or short-stemmed habit, the spicate, long-peduncled inflorescence, the densely arranged flowerpits, and the digitately lobed staminodial tube of the pistillate flowers.

Eight species were previously known in section *Taenianthera* (Wessels-Boer 1968, De Granville 1975); five of them, *Geonoma acaulis* Mart., *G. camana* Trail, *G. macrostachys* Mart., *G. poiteauana* Kunth, and *G. tamandua* Trail are distributed in the Amazon basin, the last two species being known also from the Guiana shield. The remaining three species have a more limited distribution; *G. oldemanii* J. J.-de Granville is known only from French Guyana, and *G. paradoxa* Burret and *G. chococola* W. Boer are known from the Pacific coastal area in western Colombia. *G. chlamydostachys*, discovered in northwestern Colombia is, thus, the northernmost species in the section.

Only two species of section *Taenianthera*, *G. macrostachys* and *G. chococola*, resemble *G. chlamydostachys*. The new species can be distinguished from *G. macrostachys* mainly by its leaves with the veins emerging from the rachis at a wider angle (45–50° vs 20–35°), and by the fruits being ovoid instead of subglobose. From *G. chococola*, which is a more massive palm, the new species can be distinguished, at first glance, by its much smaller leaves (rachis 45–60 cm long vs 90–140 cm long), its more slender spike (7–8 mm diam. vs 10–15 mm diam.), with pits arranged in a lesser number of vertical series (8 vs 11–12), and the much smaller and pointed fruits (10–12 mm long, ca. 6 mm diam. vs ca. 20 mm long, ca. 15 mm diam.).

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PALM BRIEF

Barcella odora

In 1874 the Scottish botanist James Trail collected a palm on the Rio Padauiri, a tributary of the Rio Negro in Brazil. He thought this palm was a species of the genus *Elaeis*, the oil palm, and in 1877 described it as *Elaeis* (subgenus *Barcella*) *odora*.

Actually Trail's palm is quite distinct from *Elaeis*. It is acaulescent with a few erect pinnate leaves, up to 2 m long, and with non-spiny petioles. The inflorescence is borne on a long peduncle, and although the prophyll is below ground level, the peduncular bract is erect and woody, and persists while the fruits are forming (Fig. 1). Inflorescences have either all staminate flowers or both staminate and pistillate (Fig. 2). In the latter case the staminate flowers open first, and, as noted by Trail, have a strong sweet scent which attracts numerous bees, wasps, and flies. These differences persuaded Drude, in his treatment of the Palmae for Flora Brasiliensis in 1881, to recognize this palm as a distinct genus, and so it became *Barcella odora* (Trail) Drude.

For the hundred years following Trail's discovery *Barcella odora* was only known from its original locality. However, in recent years it has been found in other areas, and is now known to occur in certain localities over a very large area north of the Rio Negro. This area stretches from the Rio Padauiri in the west almost four hundred kilometers east to the Manaus-Boa Vista road. The habitat of the palm is campinarana, a kind of low, dense, shrubby vegetation found on white sand, transitional between savanna and forest. *Barcella* is extremely abundant in the campinaranas.

The derivation of the name *Barcella* was not given by Trail. Harold Moore guessed that it may have come from the Latin word for boat in its diminuitive form, "barca-ella," in reference to Trail's form of transport. It seems more likely that Trail took the name from the nearby town of Barcelos, a town more important then than it is now, and just downstream from where the Padauiri flows into the Negro. The common name for the palm is piassaba brava, piacaba preta, or piacabarana. The name piacaba or piassaba is usually given to another Brazilian palm, *Leopoldinia piassaba*, and to the strong fibers it yields. *Barcella* also has fibers, in its petioles, and these persist on the ground even after the leaf has died and rotted away. But the fibers of *Barcella* are of little economic value, and hence the name piacabarana, or false piacaba.

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