

Distribution and habitat. Known only from the type locality, at the center of the Chocó Department, at about 100 m elevation. This area has an annual rainfall close to 10 000 mm (Eslava Ramírez 1994), and has been classified as *bosque pluvial tropical* in Holdridge's life zone system (IGAC 1977).

Common name. Chacarará.

Etymology. The epithet *rostrata* alludes to the long beak (rostrum) of the fruits, the longest of any species of *Bactris*.

Comments. *Bactris rostrata* is characterized by its large, strongly rostrate fruits; the rostrum is apparently the largest of any *Bactris* species. The species belongs to the "purple-fruited group" (Henderson 2000) an informal arrangement of 28 species characterized by the lack of a staminodial ring and by the presence of juice sacs attached to the mesocarp fibers. The group includes middle-sized palms over 2 m tall, with stems more than 1 cm diameter, and with branched inflorescences, usually with more than 7 rachillae. Fruits are diverse in texture and color, but they are never red. Within this group, *B. rostrata* has similarities with *B. coloniata* L. H. Bailey, *B. macroacantha* Mart., *B. setiflora* Burret, *B. turbinocarpa* Barb. Rodr., *B. fissifrons* Mart., and *B. corossilla* H. Karst., which also have strongly rostrate fruits. In particular, the first three of these species have the greatest similarities. Table 1 summarizes the differences between *B. rostrata* and these three species.

Due to its general resemblance to *B. coloniata*, it might be thought that *B. rostrata* is a hybrid of that species with any of the several *Bactris* species that grow in the area (*B. barronis* L. H. Bailey, *B. brongniartii* Mart., *B. coloradonis* L. H. Bailey, *B. gasipaes* Kunth, *B. hondurensis* Standl., *B. maraja* Mart., *B. setulosa* H. Karst.). However, there are no traits in the new species that suggest

introgression of any of these species. The only one of them that belongs to the "purple-fruited group" is *B. maraja*, which has small, purplish-black, shortly rostrate fruits, and white spines on the sheath and the petiole.

Geonoma santanderensis Galeano & R. Bernal, sp. nov. (Fig. 3).

Type. COLOMBIA. **Santander:** Suaita, San José de Suaita, ca. 6° 10'N, 73° 27', 1700-1900 m, 30 Jul 2001, G. Galeano, J. Betancur, N. Castaño, L. Clavijo & N. García 6884 (holotype, COL; isotypes, HUA, NY, UIS).

Diagnosis. *Geonomae monospathae* affinis, sed bractea peduncularis prophyllis fere aequilonga, spica longioris atque fructibus ellipsoideis, apice acutis, distincta.

Description. Caespitose, with 2-4 stems 1-1.5 m tall, 0.8-1 cm diameter, light brown, conspicuously ringed. Leaves 6-8; sheath 15-18 cm long, fibrous on the margins, densely covered with reddish-brown to dark brown scales; petiole 16-26 cm long, ca. 3-4 mm wide at the apex, covered with a thin indumentum of deciduous brown scales; blade pinnate, 20-36 x 15-16.5 cm; rachis 18-25 cm long, sparsely covered with thin, dark, deciduous scales; pinnae 3-9 on each side, narrow intermixed with wide, straight to sigmoid, long-acuminate; basal pinnae 8-12 cm long, middle pinnae 8-14 cm long, the apical ones 8-13 cm long; primary veins 22-24 on each side, emerging at 40-55° from the rachis, slightly prominent and glabrous above, prominent, and with brown scales below; only one secondary vein between two primary veins, flattened and inconspicuous above, prominent and with brown scales below. Inflorescence spicate, erect, interfoliar to infraxillary in fruit, up to 6-8 nodes below the oldest leaf; prophyll 4-8 cm long, 4-6 mm wide, papiraceous, striate, with thin, deciduous indumentum of reddish-brown scales; peduncular bract inserted 4-10

mm above the insertion of the prophyll, slightly shorter than it and almost completely covered by it, 4-7 cm long, 4-6 mm wide, membranaceous and fibrous; peduncle 5-7 cm long, 1-2 mm diameter at the apex, minutely verrucose and with deciduous, scattered, reddish-brown scales; spike 7-11 cm long, 2.5-3 mm diameter in flower, up to 4 mm diameter in fruit, cylindrical, not narrowed between the flowerpits, the apex with an acumen ca. 5 mm long, minutely verrucose, covered with reddish and furfureaceous trichomes, green in flower, reddish in fruit; pits bilabiate, in 5 spirally arranged rows, the pits in each row separated 3-4 mm; upper lip short but projected and conspicuous; lower lip projected and bifid. Staminate flowers 4-5 mm long, whitish; sepals 3-3.5 mm long, lanceolate-elliptic, acute, carinate; petals 3.5-3.6 x ca. 1 mm, connate at base for ca. 1.5 mm, lanceolate, acute; filaments connate in a tube ca. 2 mm long; anthers strongly reflexed from the filaments. Pistillate flowers elliptic-oblong, 4-4.5 mm long; sepals elliptic-lanceolate, obtuse, thick; petals 3.5 mm long, connate for 2 mm at base; staminodial ring shortly crenulate; pistil oblong-elliptic. Fruits ellipsoid, acute at apex, 8-9 x 4-5 mm, black at maturity, minutely striate-verrucose.

Distribution and habitat. Known only from the type locality on the northwestern side of the Eastern Cordillera in Colombia, an area classified as very wet premontane forest (bosque muy húmedo premontano) in Holdridge's life zone system (IGAC 1977). This is the same forest area where *Aiphanes graminifolia* (described above) was found. In contrast with the latter, *G. santanderensis* is a very common species in the forest understorey.

Common name. San Pabla; cubarra de Castilla. No uses have been recorded.

Etymology. This species is named after the Department of Santander, where it was discovered.

Comments. This new species cannot be keyed out in Wessels Boer's (1968) treatment of the geonomoid palms. It shows some resemblance in morphology and in its high elevation habitat, to *G. monospatha*, recently described from Panama (de Nevers & Grayum 1998). Nevertheless, *G. monospatha* has a very small, almost absent peduncular bract (a character shared only with *G. stricta*), whereas *G. santanderensis* has a well developed peduncular bract, similar to the prophyll and almost enclosed by it (as, e. g., in *G. arundinacea* and *G. aspidiifolia*). Also, *Geonoma monospatha* has leaves that are proportionally longer (2.5-3.1 times as long as wide vs. < 2.5 times), shorter spikes (2-4 vs. 7-11 cm), petals and sepals twice as short, and smaller fruits (4.8-5.2 vs. 8-9 mm long) that are globose (vs. ellipsoid) and rounded at apex (vs. acute).

Additional specimens examined. COLOMBIA. **Santander:** Suaita, San José de Suaita, ca. 6° 10'N, 73° 27', 1700-1900 m, 28 Jul 2001, *G. Galeano et al.* 6811 (AAU, COL, K, MO).

Geonoma wilsoni Galeano & R. Bernal, sp. nov. (Fig. 4-5)

Type. COLOMBIA. **Caquetá:** Municipio de Florencia, Florencia-Suaza road, km 35, vereda Las Brisas, 1° 44'N, 75° 44'W, 1600-1700 m, 8 Aug 2001, *R. Bernal & W. Malagón* 2900 (holotype, COL; isotypes, AAU, COAH, HUA, MO, NY).

Diagnosis. Ab omnibus speciebus generis foliis lamina simplicis vel pinnae in quoque latere duabus, rachidis perbrevis, apice profunde bifida, atque inflorescentia simplex differt.