

**49f. *Geonoma pinnatifrons* subsp. *oxycarpa* (Martius) Henderson, comb. & stat. nov.**

Basionym: *Geonoma oxycarpa* Martius (1843: 30). Type: HAITI. "Palma humilis, cocifera, latifolia, minor, Plum., t. LVI, LVII, LVIII" (holotype P, n.v.).

*Leaf* pinnae 3(2–4) per side of rachis. *Inflorescences* peduncular bracts inserted no data; peduncles 22.8(19.0–26.5) cm long, 7.1(6.5–7.6) mm in diameter; rachillae 10.0(9.0–11.7) cm long, 2.7(2.5–2.9) mm in diameter; *fruits* no data.

**Distribution and habitat:**—From 18°19'–19°45'N and 72°15'–73°52'W in northern and southwestern Haiti at 750 m in lowland rainforest (Fig. 32).

**49g. *Geonoma pinnatifrons* subsp. *platybothros* (Burret) Henderson, comb. & stat. nov.**

Basionym: *Geonoma platybothros* Burret (1931a: 200). Type: COLOMBIA. Magdalena: Santa Marta, 24 February 1899, H. Smith 2340 (holotype B, destroyed, isotypes F!, K!, MO!, NY!, P!, US!).

*Leaf* pinnae 5(4–5) per side of rachis. *Inflorescences* peduncular bracts inserted 5.5 cm above the prophyll; peduncles 31.5(21.0–42.0) cm long, 4.0(2.8–5.6) mm in diameter; rachillae 12.4(10.5–14.0) cm long, 2.2(1.7–2.7) mm in diameter; *fruits* 5.7(5.3–5.9) mm in diameter.

**Distribution and habitat:**—From 10°35'–11°10'N and 73°23'–74°03'W on the Sierra Nevada de Santa Marta in Colombia at 1371(370–1909) m elevation in lowland or montane rainforest (Fig. 32).

**49h. *Geonoma pinnatifrons* subsp. *ramosissima* (Burret) Henderson, comb. & stat. nov.**

Basionym: *Geonoma ramosissima* Burret (1930a: 249). Type: COLOMBIA. Antioquia: Cieneguetas, 27 July 1880, W. Kalbreyer 1892 (holotype B, destroyed). Neotype (selected by Bernal *et al.* 1989): COLOMBIA. Antioquia: Mun. Frontino, Corregimiento de Murri, road from Nutibara to La Blanquita, Rio Cuevas, 950 m, 23 March 1982, R. Bernal & C. Galeano 306 (neotype COL!, isoneotype NY!).

*Leaf* pinnae 15(12–17) per side of rachis. *Inflorescences* peduncular bracts inserted 1.3(1.0–1.5) cm above the prophyll; peduncles 19.3(16.5–22.0) cm long, 18.2(15.2–21.2) mm in diameter; rachillae 11.4(7.0–16.0) cm long, 1.6(1.1–2.3) mm in diameter; *fruits* 3.8(3.5–4.0) mm in diameter.

**Distribution:**—From 3°55'–7°00'N and 75°54'–77°37'W on the Pacific Coast and western slopes of the Western Cordillera in Colombia, at 427(0–1150) m elevation in lowland to montane rainforest (Fig. 32).

There is geographic discontinuity but too few specimens to test for differences, and too few to test for geographical variation. Three specimens (Bernal 306, Betancur 2818, Forero 7370) from higher elevations on the western slopes of the Western Cordillera appear intermediate between this subspecies and *G. interrupta* subsp. *magnifica*, and may represent hybrids. They have the flower pits densely hairy internally distally only, as in *G. interrupta*.

**49i. *Geonoma pinnatifrons* subsp. *vaga* (Grisebach & Wendland in Grisebach) Henderson, comb. & stat. nov.**

Basionym: *Geonoma vaga* Grisebach & Wendland in Grisebach (1864: 517). *Geonoma saga* Spruce (1871: 109), orth. var. *Geonoma pinnatifrons* Willdenow var. *vaga* (Grisebach. & Wendland) Burret (1930a: 246). Lectotype (here designated): TRINIDAD & TOBAGO. Trinidad: Mount Tamana, 28 April 1841, W. Purdie 23 (lectotype K!).

*Leaf* pinnae per side of rachis no data. *Inflorescences* peduncular bracts inserted 1.5(0.7–2.5) cm above the prophyll; peduncles 22.6(13.0–37.0) cm long, 5.8(4.0–11.0) mm in diameter; rachillae 12.4(8.4–18.9) cm long, 2.3(1.7–3.0) mm in diameter; *fruits* 5.5(5.0–6.0) mm in diameter.

**Distribution and habitat:**—From 10°38'–11°18'N and 60°34'–63°10'W on the Peninsula de Paria, Venezuela, the Northern Range, Trinidad, and Tobago at 740(400–900) m elevation in lowland rainforest (Fig. 33).

Although there is geographic discontinuity there are too few specimens and too many missing data to test for differences amongst areas.

49e. *Geonoma pinnatifrons* subsp. *mexicana* (Liebman ex Martius) Henderson, comb. & stat. nov.

Basionym: *Geonoma mexicana* Liebman ex Martius (1853: 316). Type: MEXICO. Oaxaca: Lobani, Chinantla, 900 m, no date, *F. Liebman 10804* (holotype C!, isotypes MO!, P!, US!).

Leaf pinnae 4(3–7) per side of rachis. Inflorescences peduncular bracts inserted 3.8(1.8–7.4) cm above the prophyll; peduncles 28.4(19.0–37.0) cm long, 7.0(3.8–10.7) mm in diameter; rachillae 12.3(7.0–18.0) cm long, 2.3(1.6–3.3) mm in diameter; fruits 4.1(3.7–4.5) mm in diameter.

Distribution and habitat:—From 7°43'–18°01'N and 79°55'–96°40'W in Mexico, Guatemala, Belize, Honduras, Nicaragua, Costa Rica, and western Panama (Bocas del Toro, Coclé, Herrera) at 553(50–1100) m elevation in lowland or montane rainforest (Fig. 32).

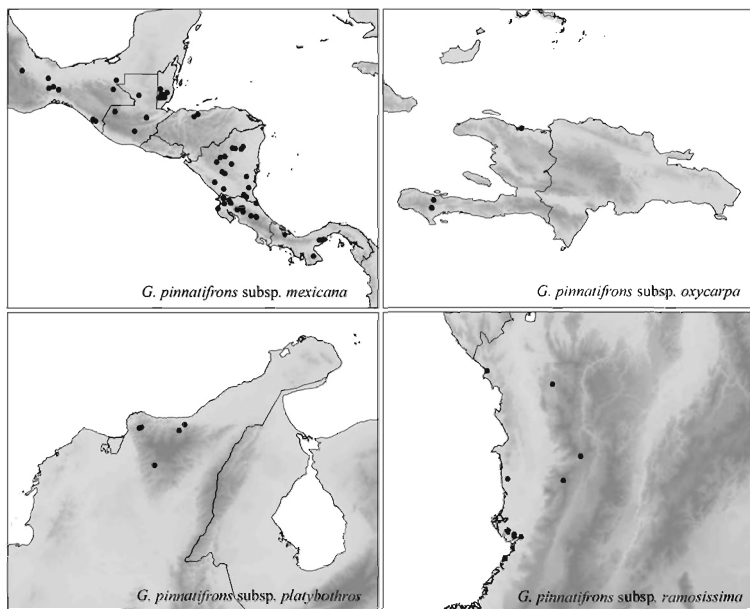


FIGURE 32. Distribution maps of *Geonoma pinnatifrons* subsp. *mexicana*, *G. pinnatifrons* subsp. *oxycarpa*, *G. pinnatifrons* subsp. *platybothros*, and *G. pinnatifrons* subsp. *ramosissima*.

Four specimens (*Cook 35, 728, Doyle 10, Hernández 1171*) from scattered localities in Mexico, Guatemala, and Costa Rica have many more pinnae than usual and the leaf appears regularly pinnate. One possible explanation for this is that these specimens represent a mixture of inflorescences from *G. pinnatifrons* subsp. *mexicana* and leaves from *G. interrupta* subsp. *magnifica*. The latter has many more pinnae and occurs sympatrically with *G. pinnatifrons* subsp. *mexicana*. Leaf measurements from these four specimens are omitted.