

15. *Geonoma deneversii* Henderson, sp. nov. (Appendix IV, Plates 21–24)

A speciebus affinis staminibus plus quam sex differt.

Type: PANAMA. Bocas del Toro: E of Gualaca-Chiriquí Grande road, 10 mi. N of continental divide, 1 mi. along side road E, 8°55'N 82°05'W, 100–500 m, 19 January 1989, G. de Nevers, F. Almeda & G. McPherson 8823 (holotype NY!, isotypes BH!, K!, MO!).

Plant height no data; stems 1.3 m tall, solitary; internodes no data. *Leaves* 20 per stem, irregularly pinnate, not plicate, bases of blades running diagonally into the rachis; sheaths no data; petioles drying green or yellowish; rachis 104.5 cm long, 5.4 mm in diameter; veins raised and rectangular in cross-section adaxially; pinnae 3 per side of rachis; basal pinna 87.0 cm long, 18.7 cm wide, forming an angle of 31° with the rachis; apical pinna 25.5 cm long, 27.5 cm wide, forming an angle of 27° with the rachis. *Inflorescences* unbranched; prophylls and peduncular bracts ribbed with elongate, unbranched fibers, both bracts tubular, narrow, elongate, closely sheathing the peduncle, more or less persistent; prophylls 35.5 cm long, not short and asymmetrically apiculate, the surfaces not ridged, without unequally wide ridges; peduncular bracts 31.0 cm long, well-developed, inserted 2.7 cm above the prophyll; peduncles 92.5 cm long, 5.2 mm in diameter; rachillae 1, 31.0 cm long, 9.9 mm wide, the surfaces without spiky, fibrous projections or ridges, drying brown or yellow-brown, without short, transverse ridges, not filiform and not narrowed between the flower pits; flower pits spirally arranged, glabrous internally; proximal lips with a central notch before anthesis, often the two sides of the notch overlapping, not recurved after anthesis, not hood-shaped; proximal and distal lips drying the same color as the rachillae, not joined to form a raised cupule, the proximal lip margins overlapping the distal lip margins; distal lips well-developed; staminate and pistillate petals not emergent, not valvate throughout; staminate flowers deciduous after anthesis; stamens more than 6; thecae diverging at anthesis, inserted directly onto the apiculate filament apices; anthers not short and curled at anthesis, usually elongate, spiraled and twisted or sometimes remaining straight; non-fertilized pistillate flowers deciduous after anthesis; staminodial tubes lobed at the apex, the lobes spreading at anthesis, acuminate; staminodial tubes projection no data; *fruits* no data.

Distribution and habitat:—At 8°55'N and 82°05'W on the Caribbean slope in Panama (Bocas del Toro) at 250 m elevation in lowland rainforest (Fig. 15).

Taxonomic notes:—*Geonoma deneversii* differs from similar species (*G. camana*, *G. chlamydstachys*, *G. chococola*) in its staminate flowers with more than six stamens. It is also the only species of this group to occur in Central America.

Subspecific variation:—No trait varies within this species, and only one specimen is known.

16. *Geonoma deversa* (Poiteau) Kunth (1841: 321). *Gynestum deversum* Poiteau (1822: 390). Type: FRENCH GUIANA. Without locality, no date, A. Poiteau s.n. (holotype P!).

Plants 2.4(0.5–5.0) m tall; stems 2.4(0.3–7.0) m tall, 1.0(0.5–1.8) cm in diameter, solitary or clustered, cane-like or not cane-like; internodes 1.9(0.5–7.5) cm long, yellowish and smooth. *Leaves* 11(6–18) per stem, undivided or irregularly pinnate, sometimes regularly pinnate and the pinnae with 1 main vein only, not plicate, bases of blades running diagonally into the rachis; sheaths 12.5(5.0–27.5) cm long; petioles 20.6(4.2–82.0) cm long, drying green or yellowish; rachis 42.0(17.2–92.5) cm long, 3.2(1.4–7.0) mm in diameter; veins not raised or slightly raised and triangular in cross-section adaxially; pinnae 5(1–28) per side of rachis; basal pinna 28.5(10.5–60.5) cm long, 6.4(0.5–27.0) cm wide, forming an angle of 42(20–93)° with the rachis; apical pinna 19.9(8.8–35.5) cm long, 12.4(0.6–26.7) cm wide, forming an angle of 28(14–45)° with the rachis. *Inflorescences* branched 1–3 orders; prophylls and peduncular bracts not ribbed with elongate, unbranched fibers, flattened, deciduous; prophylls 6.8(3.0–13.0) cm long, not short and asymmetrically apiculate, the

Leaves undivided; petioles drying reddish-brown; veins raised and rectangular in cross-section adaxially; rachis 29.4(22.0–42.5) cm long; pinnae 1 per side of rachis. *Inflorescences* staminate flowers deciduous after anthesis; non-fertilized pistillate flowers deciduous after anthesis.

Distribution and habitat:—From 3°10'–3°59'N and 76°58'–77°20'W in western Colombia (Valle) at 74(50–120) m elevation in lowland rainforest (Fig. 15).

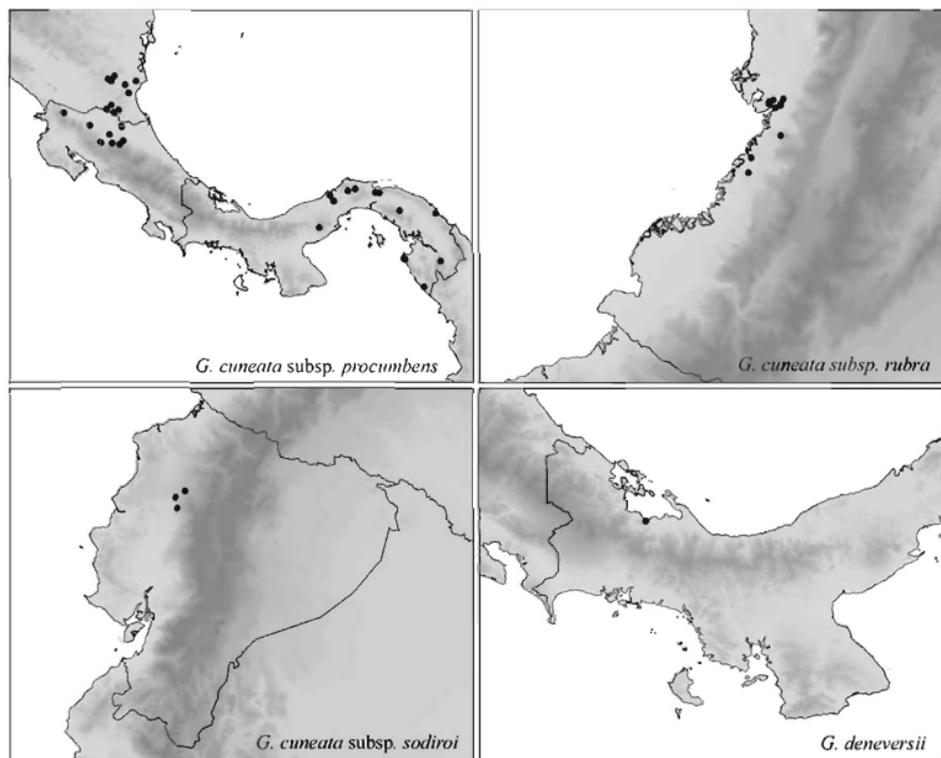


FIGURE 15. Distribution maps of *Geonoma cuneata* subsp. *procumbens*, *G. cuneata* subsp. *rubra*, *G. cuneata* subsp. *sodiroi*, and *G. deneversii*.

14i. *Geonoma cuneata* subsp. *sodiroi* (Dammer ex Burret) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma sodiroi* Dammer ex Burret (1930a: 165). *Geonoma cuneata* var. *sodiroi* (Dammer ex Burret) Skov ex Govaerts & Dransfield (2005: 114). Type: ECUADOR. Pichincha: Santo Domingo, October 1885, *L. Sodiro 187/1* (holotype P!).

Leaves pinnate; petioles drying green or yellowish; veins not raised or slightly raised and triangular in cross-section adaxially; rachis 30.3(16.1–44.5) cm long; pinnae 6(5–7) per side of rachis. *Inflorescences* staminate flowers deciduous after anthesis; non-fertilized pistillate flowers deciduous after anthesis.

Distribution and habitat:—From 0°15'–0°34'S and 79°09'–79°20'W in western Ecuador at 475(300–650) m elevation in lowland rainforest (Fig. 15).

The single specimen from Centinela (*Dodson 14822*) is smaller than the other two.