

However, this specimen, with its veins raised and rectangular in cross-section adaxially and leaf and inflorescence morphology certainly represents the earliest name for this species. *Geonoma multisepta* is a member of a group of related species including *G. macrostachys*, *G. paradoxa*, *G. poiteauana*, and *G. schizocarpa*, and is the only one of which to have more than six stamens.

Subspecific variation:—No trait varies within this species, nor is there any geographic disjunction.

41. *Geonoma occidentalis* (Henderson) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma brevispatha* var. *occidentale* Henderson (1995: 264). Type: PERU. Madre de Dios: Río Tambopata, Explorer's Inn at junction with Rio La Torre, 12°50'S, 69°17'W, 3 November 1991, A. Henderson & F. Chávez 1633 (holotype USM!, isotypes CUZ!, NY!).

Plants 2.7(1.5–4.0) m tall; stems 1.6(1.1–3.0) m tall, 1.3(0.9–1.7) cm in diameter, solitary or clustered, not cane-like or cane-like; internodes 1.6(0.8–3.6) cm long, yellowish and smooth. *Leaves* 11(5–18) cm long, irregularly pinnate, not plicate, bases of blades running diagonally into the rachis; sheaths 15.0 cm long; petioles 37.4(25.5–55.0) cm long, drying green or yellowish; rachis 43.8(35.0–57.5) cm long, 3.5(2.7–4.4) mm in diameter; veins not raised or slightly raised and triangular in cross-section adaxially; pinnae 4(2–7) per side of rachis; basal pinna 23.6(17.5–32.0) m long, 2.8(1.0–6.0) cm wide, forming an angle of 60(33–90)° with the rachis; apical pinna 14.4(11.5–17.5) cm long, 14.8(8.8–23.4) cm wide, forming an angle of 36(30–42)° with the rachis. *Inflorescences* branched 2–3 orders; prophylls and peduncular bracts not ribbed with elongate, unbranched fibers, flattened, deciduous or persistent; prophylls 9.7(6.1–11.0) cm long, short, asymmetrically apiculate, the margins curved around the stem, the surfaces flat with dense, felty, brown tomentum, prophyll equal to and early deciduous with the peduncular bract, the surfaces not ridged, without unequally wide ridges; peduncular bracts 9.5 cm long, well-developed, inserted 0.3(0.1–0.5) cm above the prophyll; peduncles 6.4(3.3–9.5) cm long, 6.8(3.8–10.2) mm in diameter; rachillae 24(13–33), 25.0(15.0–33.5) cm long, 1.8(1.2–2.6) mm in diameter, the surfaces without spiky, fibrous projections or ridges, drying brown, with faint to pronounced, short, transverse ridges, not filiform and not narrowed between the flower pits; flower pits decussately arranged throughout the rachillae, the groups of pits closely spaced, glabrous internally; proximal lips without a central notch before anthesis, not recurved after anthesis, hood-shaped at anthesis, sometimes splitting post-anthesis; proximal and distal lips drying the same color as the rachillae, joined laterally with no clear gap between them, often forming a raised cupule, the margins not overlapping; distal lips well-developed; staminate and pistillate petals not emergent, not valvate throughout; staminate flowers deciduous after anthesis; stamens 6; thecae diverging at anthesis, inserted almost directly onto the filament apices, the connectives bifid but scarcely developed; anthers short and curled over at anthesis; non-fertilized pistillate flowers deciduous after anthesis; staminodial tubes crenulate or shallowly lobed at the apex, those of non-fertilized pistillate flowers not projecting and persistent after anthesis; *fruits* 7.2(6.2–8.5) mm long, 5.9(5.4–6.6) mm in diameter, the bases without a prominent stipe, the apices not conical, the surfaces not splitting at maturity, without fibers emerging, bumpy from the numerous, subepidermal, tangential, short fibers present, these coming to a point at fruit apices; locular epidermis without operculum, smooth, without pores.

Distribution and habitat:—From 4°29'–17°50'S and 62°53'–73°35'W in the western Amazon region in Brazil, Peru, and Bolivia at a mean elevation of 312(150–950) m in lowland rainforest (Fig. 28).

Taxonomic notes:—This taxon was treated as a variety of *Geonoma brevispatha* by Henderson (1995). In the present study, this name is treated as an excluded name, and the taxon to which Henderson was referring is called *Geonoma pohliana* subsp. *weddelliana*. The similarity between the two taxa is superficial and there are many differences between them, notably in the prophylls (not available to Henderson, 1995) and in the fruits.

Subspecific variation:—Two traits vary within this species (stem branching, stem type). There is no geographic disjunction—the gap in Bolivia is likely to be an artifact of insufficient collecting. There are three outlying specimens from Brazil (Acre, Rondônia) and Peru (Loreto).

developed, inserted 0.8(0.2–2.5) cm above the prophyll; peduncles 60.8(31.0–99.5) cm long, 3.7(2.3–5.1) mm in diameter; rachillae 1, 23.5(14.0–36.5) cm long, 7.4(5.4–9.4) mm in diameter, 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 or not diverging at anthesis, inserted onto poorly to well-developed, non-split, jointed connectives, connectives when well-developed alternately long and short; anthers short at anthesis, remaining straight and parallel; non-fertilized pistillate flowers deciduous after anthesis; staminodial tubes lobed at the apex, the lobes spreading at anthesis, acuminate, those of non-fertilized pistillate flowers not projecting and persistent after anthesis; *fruits* 11.2(9.6–13.2) mm long, 7.4(6.2–7.9) mm in diameter, the bases without a prominent stipe, the apices not conical, the surfaces not splitting at maturity, without fibers emerging, not bumpy, not apiculate; locular epidermis with operculum, smooth, without pores.

Distribution and habitat:—From 1°47'N–2°17'S and 74°53'–77°45'W in the western Amazon region of Colombia and Ecuador at 338(200–1150) m elevation in lowland or montane rainforest (Fig. 28).

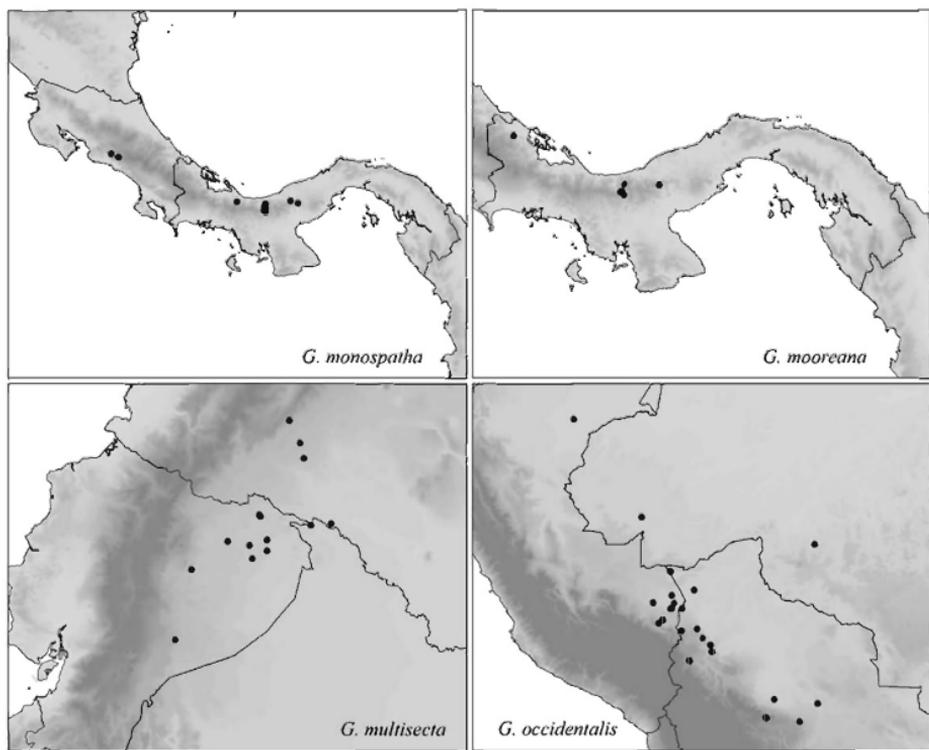


FIGURE 28. Distribution maps of *Geonoma monospatha*, *G. mooreana*, *G. multisecta*, and *G. occidentalis*.

Taxonomic notes:—Skov (1994), in describing *Geonoma polyandra*, overlooked the earlier name of *G. multisecta*. This was understandable given that the type specimen of *G. multisecta* lacked staminate flowers.