The first subgroup, with persistent pistillate flowers, occurs in the Andes in Colombia, and plants are reported to be rheophytes. This subgroup is recognized as a subspecies (subsp. *rivalis*).

The second subgroup, with deciduous pistillate flowers, has several gaps in its distribution, and there are several potential geographic subgroups. There is considerable variation in several variables (number of pinnae, prophyll length, peduncular bract length, interbract distance) and combining these with geographic division, three subgroups can be recognized: Central America and Colombia (with longer bracts and more pinnae); Ecuador, Peru, and Bolivia (shorter bracts and fewer pinnae); and Venezuela and just reaching adjacent Colombia (longer bracts and fewer pinnae). ANOVA shows that for pair wise comparison probabilities, seven variables (stem height, sheath length, rachis length, number of pinnae, prophyll length, peduncular bract length, interbract distance) differ significantly ($P<0.05$) between one pair of groups, although no variable differs amongst all three groups. Based on these results and geographic discontinuity, the three subgroups are recognized as subspecies (subsp. *magnifica* from Central America and Colombia, subsp. *interrupta* from Ecuador, Peru, and Bolivia, and subsp. *purdieana* from Venezuela and adjacent Colombia).

Key to the subspecies of *Geonoma interrupta*

1 Non-fertilized pistillate flowers persistent after anthesis; rheophytes; Central Cordillera in Colombia...subsp. *rivalis*
- Non-fertilized pistillate flowers deciduous after anthesis; non-rheophytes; widespread 2
2 Pinnae 25(4–47) per side of rachis; Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, and Colombia..... subsp. *magnifica*
- Pinnae 9(4–14) per side of rachis; Venezuela and adjacent Colombia, Ecuador, Peru, and Bolivia..... 3
3 Peduncular bracts inserted 3.0(1.2–8.0) cm above the prophyll; Ecuador, Peru, and Bolivia .....subsp. *interrupta*
- Peduncular bracts inserted 7.1(6.5–7.5) cm above the prophyll; Venezuela and adjacent Colombia subsp. *purdieana*

29a. *Geonoma interrupta* subsp. *interrupta*

Leaves pinnae 9(4–12) per side of rachis. *Inflorescences* peduncular bracts inserted 3.0(1.2–8.0) cm above the prophyll; non-fertilized pistillate flowers deciduous after anthesis.

Distribution and habitat:—From 1°05'N–14°25'S and 70°58'–79°30'W in Ecuador, Peru, and Bolivia at 533(50–1160) m elevation in lowland to montane rainforest (Fig. 21).

29b. *Geonoma interrupta* subsp. *magnifica* (Linden & Wendland) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma magnifica* Linden & Wendland in Wendland (1856: 335). Type: MEXICO. Tabasco: between San Carlos and Macsupana, no date, *A. Ghiesbreght s. n.* (holotype GOET, *n.v.*).

Geonoma dryanderae Burret (1935c: 615). Type: COLOMBIA. Valle: Central Cordillera, Río Tulua, 1200 m, June 1935, *J. Dryander 30* (holotype B, *n.v.*, holotype image!).

Leaves pinnae 25(4–47) per side of rachis. *Inflorescences* peduncular bracts inserted 4.0(1.5–7.4) cm above the prophyll; non-fertilized pistillate flowers deciduous after anthesis.

Distribution and habitat:—From 3°26'–18°34'N and 72°36'–95°06'W in Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, and Colombia at 382(0–1500) m elevation in lowland to montane rainforest (Fig. 21).

29c. *Geonoma interrupta* subsp. *purdieana* (Spruce) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma purdieana* Spruce (1871: 109). Type: COLOMBIA. La Guajira: Río de la Hacha, December 1844, *W. Purdie 259* (holotype K!).

Leaves pinnae 9(5–14) per side of rachis. *Inflorescences* peduncular bracts inserted 7.1(6.5–7.5) cm above the prophyll; non-fertilized pistillate flowers deciduous after anthesis.

Distribution and habitat:—From 7°14'N–11°05'S and 69°16'–73°28'W in Venezuela and adjacent Colombia at 375(60–775) m elevation in lowland rainforest (Fig. 21).

29d. *Geonoma interrupta* subsp. *rivalis* (Kalbreyer & Burret) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma rivalis* Kalbreyer & Burret in Burret (1930a: 241). Type: COLOMBIA. Antioquia: Coco, 700–900 m, 18 February 1880, *W. Kalbreyer 1427* (holotype B, destroyed). Neotype (here designated): COLOMBIA. Antioquia: Mun. San Luis, Río Samana on the Medellin-Bogotá road, 6°00'N, 74°50'W, 700–780 m, 23 June 1987, *R. Callejas, A. Arbelaez, H. Correa & J. Betancur 4098* (neotype NY!, isoneotypes HUA, *n.v.*, MO!).

Leaves pinnae 31(27–36) per side of rachis. *Inflorescences* peduncular bracts inserted 2.6(1.0–4.5) cm above the prophyll; non-fertilized pistillate flowers persistent after anthesis.

Distribution:—From 5°50'–7°22'N and 74°45'–75°05'W on the eastern slopes of the Central Cordillera in Colombia, at 548 (150–900) m elevation in lowland rainforest (Fig. 21). Plants are reported to be rheophytes.

There is geographic discontinuity but too few specimens to test for differences amongst areas.

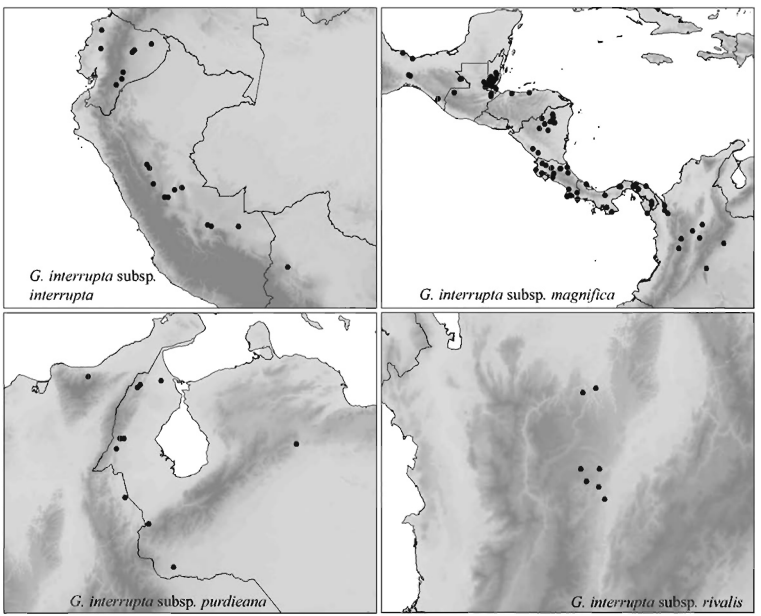

FIGURE 21. Distribution maps of *Geonoma interrupta* subsp. *interrupta*, *G. interrupta* subsp. *magnifica*, *G. interrupta* subsp. *purdieana*, and *G. interrupta* subsp. *rivalis*.

30. *Geonoma lanata* Henderson, Borchsenius & Balslev (2008: 195). Type: ECUADOR. Carchi: Tulcan, Reserva Etnica Awá, Parroquia Chical, Centro Gualpi Medio, 1°02'N 78°16'W, 900 m, 25 February 1993, *C. Aulestia & A. Grijalva 1200* (holotype QCNE, *n.v.*, isotypes AAU!, MO *n.v.*).

Plants 1.4(0.7–2.0) m tall; stems 1.3(0.5–2.0) m tall, 0.7(0.5–0.9) cm in diameter, solitary or clustered, cane-like; internodes 1.6(0.7–3.1) cm long, yellowish and smooth. *Leaves* 9(7–11) per stem, undivided, not plicate,