

Geonoma polyneura Burret (1932b: 500). Type: GUATEMALA. Alta Vera Paz: near Finca Sepacuite, 19 March 1902, O. Cook & R. Griggs 36 (holotype US!, isotype BH!).

Leaves veins raised and rectangular in cross-section adaxially; basal pinna 4.9(0.8–13.7) cm wide; apical pinna 12.6(5.7–23.2) cm wide. *Inflorescences* prophyll margins with irregular, spine-like projections; flower pits usually spirally arranged, not distantly spaced.

Distribution and habitat:—From 7°18'–16°19'N and 80°06'–93°15'W in Mexico, Guatemala, Honduras, Nicaragua, Costa Rica, and Panama at 1523(850–2400) m elevation in lowland or montane rainforest (Fig. 42).

There is geographic discontinuity and specimens occur in two areas separated by the lowlands of southern Nicaragua. There are few significant differences in variables between specimens from these two areas (basal pinna length, basal pinna width, prophyll length). There is variation in pit arrangement throughout the range of the subspecies, from spirally arranged to irregularly decussate or tricusate. A few specimens have the pits loosely spiraled proximally and tricusate or decussate distally, or tricusate proximally and decussate distally.

One specimen (*Evans 1459*) from Honduras is larger in inflorescence size than other specimens from that area and has a narrow, elongate prophyll, more like that of subsp. *hoffmanniana*.

The range of this subspecies overlaps with that of subsp. *hoffmanniana* in several places—northern Nicaragua, Atlantic and Pacific slopes of the Central Cordillera in Costa Rica, and both slopes on the Cordillera de Talamanca in Costa Rica and Panama. In this last area specimens are much larger in size than those from other areas (as are most specimens of subsp. *hoffmanniana*, which see). Hammel (2003) considered that specimens of subsp. *edulis* (as *G. edulis*) and larger, sympatric specimens of subsp. *hoffmanniana* (as *G. hoffmanniana*) were 'virtually indistinguishable' in this area.

All specimens from the Cordillera de Talamanca and all others from Panama have much thicker peduncles than other specimens.

67e. *Geonoma undata* subsp. *pulcherrima* (Burret) Henderson, comb. & stat. nov.

Basionym: *Geonoma pulcherrima* Burret (1930a: 195). Type: ECUADOR. Morona-Santiago: confluence of Río Boamboza and Río Zamora, 700–800 m, no date, *F. Lehmann 5289* (holotype B, destroyed, isotypes F!, GH!, K!).

Leaves veins raised and rectangular in cross-section adaxially; basal pinna 0.7(0.3–1.0) cm wide; apical pinna 0.8(0.5–1.0) cm wide. *Inflorescences* prophyll margins without irregular, spine-like projections; flower pits usually spirally arranged, not distantly spaced.

Distribution:—From 3°30'–4°18'S and 78°30'–78°41'W on eastern Andean slopes in southeastern Ecuador at 923(750–1130) m elevation along river banks in areas subject to flooding (Fig. 43). Plants are reported to be rheophytes.

67f. *Geonoma undata* subsp. *skovii* (Henderson, Borchsenius, & Balslev) Henderson, comb. & stat. nov.

Basionym: *Geonoma skovii* Henderson, Borchsenius & Balslev (2008: 60). Type: ECUADOR. Morona-Santiago: along the Limón-Cuenca road 4 km above Plan de Milagro, 3°04'S, 78°30'W, 1920 m, 19 May 1988, *B. Bergmann & H. Pedersen 62589* (holotype NY!, isotypes AAU!, QCA n.v.).

Leaves veins raised and rectangular in cross-section adaxially; basal pinna 1.3(0.6–2.0) cm wide; apical pinna 7.3(2.7–11.3) cm wide. *Inflorescences* prophyll margins with irregular, spine-like projections; flower pits usually spirally arranged, distantly spaced.

Distribution and habitat:—From 2°40'–3°38'S and 78°00'–78°30'W in Ecuador on eastern Andean slopes at 1778(1470–1920) m elevation in montane rainforest (Fig. 43).

Subspecific variation:—There is geographic discontinuity, and specimens come from three different mountain areas. Specimens from the Cordilleras Cutucú and Cóndor have more pinnae per side of the rachis than those from the eastern slopes of the main Cordillera. However, there are too few specimens to test for differences. Jean-Christophe Pintaud (pers. comm.) reports that this subspecies also occurs in adjacent Peru.

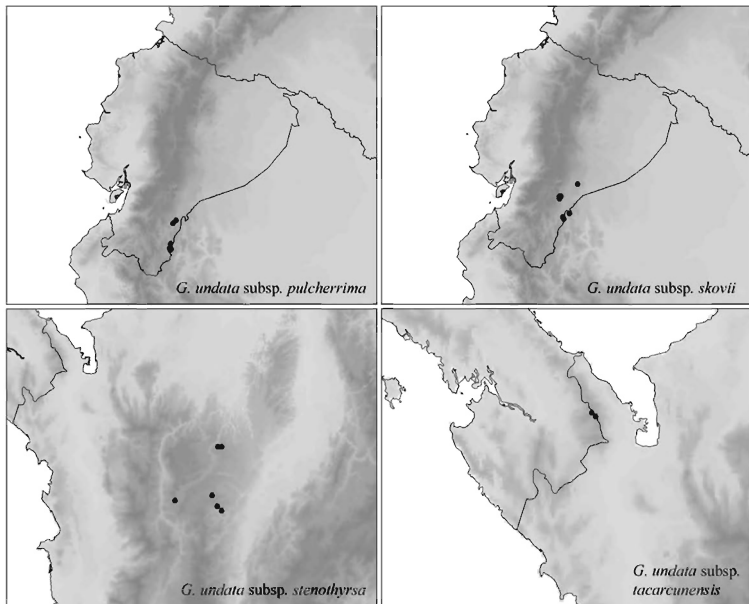


FIGURE 43. Distribution maps of *Geonoma undata* subsp. *pulcherrima*, *G. undata* subsp. *skovii*, *G. undata* subsp. *stenothyrsa*, and *G. undata* subsp. *tacarcunensis*.

67g. *Geonoma undata* subsp. *stenothyrsa* (Burret) Henderson, *comb. & stat. nov.*

Basionym: *Geonoma stenothyrsa* Burret (1930a: 197). Type: COLOMBIA. Antioquia: San Carlos, 1650–2650 m, 28 January 1880, *W. Kalbreyer 1372* (holotype B, destroyed). Neotype (designated by Bernal *et al.* 1989): COLOMBIA. Antioquia: carretera Granada-San Luis, 5.5 km adelante de El Chocó, 1750 m, 20–21 September 1987, *R. Bernal & L. Tobón 1387* (neotype COL!, isoneotypes AAU!, BH!, NY!).

Geonoma euterpoidea Burret (1930a: 196). Type: COLOMBIA. Antioquia: Alto Guatapé, 1950 m, 26 February 1880, *W. Kalbreyer 1477* (holotype B, destroyed). Neotype (designated by Bernal *et al.* 1989): COLOMBIA. Antioquia: Mun. Guatapé, vereda Santa Rita, ca. 1900 m, 20 May 1980, *R. Bernal & C. Galeano 190* (neotype COL!, isoneotype NY!).

Leaves veins raised and rectangular in cross-section adaxially; basal pinna 1.8(0.7–3.8) cm wide; apical pinna 4.8(0.1–8.5) cm wide. *Inflorescences* prophyll margins with irregular, spine-like projections; flower pits usually spirally arranged, not distantly spaced.

Distribution and habitat:—From 6°01'–6°54'N and 75°01'–75°40'W in the Central Cordillera in Colombia (Antioquia) at 1675(1500–1900) m in montane rainforest (Fig. 43).

One specimen (*Bernal 190*, neotype of *G. euterpoidea*) has leaves with more pinnae than the others (23 versus 8–13).