

1600 m, 11 Nov 1985 (fl), *Lozano et al. 4903* (AAU, COL); (fl, fr), *Lozano et al. 4905* (AAU, COL). **VALLE:** rd. Cartago–San José del Palmar, 2 km from dividing line between Valle and Chocó, 2000 m, 16 Mar 1991 (fl, fem fl, imm fr), *Bernal & Borchsenius 1963* (AAU, COL, NY, TULV); basin of Río Dagua, Río San Juan, km 52–53 below Dagua, 1300–1500 m, 19 Mar 1947 (fl, fr), *Cuatrecasas 23885* (F); rd. Trujillo–Cristales, 1800 m, 13 Apr 1989 (fl, fem fl, imm fr), *Bernal & Devia 1555* (COL, TULV); rd. Queremal–El Danubio, 1300–1420 m, 24 Mar 1988 (fl, fr), *Bernal & Prado 1455* (COL, TULV).

This subspecies includes plants with long, narrowly cuneate pinnae, spiny inflorescences with 60–90 rachillae, and small to medium-sized fruit with longitudinally grooved endocarp having few pits. In the north it forms a transition to subsp. *kalbreyeri*; in the south it forms a transition to subsp. *fosteriorum*, which has more broadly cuneate pinnae, less spiny inflorescences, larger, glabrous fruits, and a more globose endocarp with numerous deep pits. In the central Chocó, subsp. *intermedia* occurs side by side with subsp. *hirsuta*, but at higher altitudes. Pollen of *A. hirsuta* subsp. *intermedia* has perforate, tectate exine and is spineless or provided with numerous supratectal warts or spines (Figs. 13E–F, 14N).

10d. *Aiphanes hirsuta* subsp. *fosteriorum* (H. E. Moore) Borchsenius & Bernal, stat. nov.

Aiphanes fosteriorum H. E. Moore, Gentes Herb. 8: 225, 226, fig. 92. 1951. Type. COLOMBIA. Nariño: Altaquer, 1150 m, 10 Nov 1946, *Foster & Foster 2117* (holotype, BH; isotypes, A, COL).

Stems 1–2 plus several suckers, to 10 m tall, 6–10 cm diam., armed with black, to 8 cm long spines, distally with old leaf sheaths. *Leaves* 4–6; sheath 60–80 cm long, armed with black, to 10 cm long spines; petiole 60–100 cm long, green, unarmed; rachis 210–260 cm long, unarmed; *pinnae* 17–24 per side, somewhat golden-green, in groups of (2–)3–4, in different planes, cuneate, 2.5–3 times as long as wide, lobulate praemorse at apex, glabrous adaxially, rough abaxially; middle pinnae 37–58 × 15–22 cm. *Peduncle* 110–170 cm long, 1–1.5 cm diam. at apex, with scattered brown, to 5 cm long spines; rachis 60–100 cm long, unarmed or with scattered spines like those on peduncle; *rachillae* 50–100, densely brown-spinulose; basal rachillae to 95 cm long, basally without flowers for up to 10 cm, 3–4 mm diam in the androgynous part. *Staminate flowers* pale violet, 1.5–2 mm long; anthers 0.6–0.8 mm long. *Pistillate flowers* 6–7 mm long; pistil glabrous. *Fruit* rose-red, globose, 16–22 mm diam; endocarp 15–19 mm diam., globose, deeply pitted.

Illustrations. Figs. 13B (pollen), 18B (distribution map), 21X (middle pinnae); Moore, 1951: 226, fig. 92.

Distribution and habitat. Western Andean slopes from the department of Valle in Colombia to northern Ecuador, at 900–1300 m.

Specimens examined. COLOMBIA. Nariño: Rd. Junín–Altaquer, km 10, 1200 m, 4 Oct 1985 (fl, fr), *Bernal & Galeano 895* (AAU, COL, K). **VALLE:** Río Chanchos, 300 m upstream from junction with Río Calima, Campment Calima III, 450–600 m, 16–19 Feb 1989 (fl), *Bernal et al. 1521* (COL).

ECUADOR. ESMERALDAS: Rd. Lita–San Lorenzo, km 8–18, 800–900 m, 14 May 1986 (fl, fr), *Balslev, Borchsenius, et al. 62102* (AAU, NY, QCA); 13 Sep 1987 (juv), *Skov & Borchsenius 64742* (AAU); 12 Nov 1987 (fl, fem fl, imm fr), *Skov, Borchsenius, et al. 64819* (AAU, QCA); rd. Lita–Buenos Aires, km 12, 1400 m, *Dodson & Gentry 17582* (QCNE).

This subspecies includes the largest plants in the species, with cuneate, lobulate praemorse pinnae and weakly armed inflorescences with up to 100 rachillae. It is set apart by several characters: glabrous pistil; large fruits, ca. 16–22 mm diam, with deeply pitted endocarp; and pollen with fusing, supratectal clavae giving a rugulate surface (Fig. 13B).

11. *Aiphanes leiostachys* Burret, Notizbl. Bot. Gart. Berlin-Dahlem 11: 570. 1932. Type. COLOMBIA. Antioquia: Buenavista, Wald, 850 m, 18 Feb 1880, *Kalbreyer 1429* (B[†]). Neotype (Bernal et al., 1989). COLOMBIA. Antioquia: Mun. de San Carlos, 3 km N of village, quebrada La Chorrera, 1100 m, 22 Mar 1981, *Henao et al. 299* (holoneotype, COL; isoneotypes, AAU sterile, HUA).

Caespitose, with up to 10 stems, these 3.5–5 m tall, ca. 3 cm diam., gray, sparsely armed with slender spines, to 3 cm long. *Leaves* 11, horizontally held, arranged in 3 vertical rows; sheath ca. 18 cm long, with a dense light brown indument, densely armed with black, to 1 cm long spines; petiole 14–16 cm long, green, with a brown, caducous indument, armed with many black spines, to 5 cm long; rachis 102–108 cm long, with indument and spines like sheath, but spines fewer; *pinnae* 17–20 per side, subregularly inserted in lax groups of 2–4, in one plane, plicate, rigid, cuneate, 3–6 times as long as wide, incised-praemorse, with an up to 7 cm long finger-like projection on the distal margin, adaxial side glabrous, abaxial side very minutely spinulose, with a single black, 3–4 cm long spine basally on the midrib; basal pinnae 12–17 × 2–4 cm; middle pinnae 21–37 × 6–7