

73°20'W, 12 Dec 1988, *Vásquez & Jaramillo 11363* (MO); Quistococha, 3°48'S, 73°25'W, 122 m, 28 Apr 1989, *Vásquez & Jaramillo 12053* (MO, NY).

BRAZIL. AMAZONAS: Mun. Nova Aripuana, BR 230, 400 km E of Humaitá, ca. 6°31'S, 60°1'W, 3 May 1985, *Henderson et al. 301* (NY); Mun. Atalaia do Norte, Rio Javari, Estirão do Ecuador, 4°30'S, 71°4'W, 9 Jan 1989, *Henderson et al. 859* (COL, INPA, NY); BDF Reserve Km 41, 64 km N of Manaus on BR 174 then 41 km E on ZF 3, 10 Sep 1989, *Henderson et al. 1063* (INPA, NY), 8 May 1994, *Kress & Armbruster 94-3624* (INPA, US); Mun. Tefé, Rio Curimatá de Baixo, ca. 3°55'S, 65°10'W, 18 Jan 1991, *Henderson & Guedes 1576* (INPA, NY); Altamira, Rio Juruaú, 6°35'S, 68°54'W, 14 Nov 1991, *Pardini 64* (INPA, NY); Rio Madeira, Boa Vista, 1 Jun 1874, *Trail 857/LIII* (BM, K, P).

The holotype of *Bactris hirta* subsp. *pulchra* (*J. Trail 876/XCVIII*) is problematic, because it has the short petiole and bifid blade typical of var. *hirta*, but a spiny sheath and petiole, typical of var. *spruceana*. Although it is thus somewhat intermediate, I choose to place it here.

37b. *Bactris hirta* Martius var. *jenmanii* Henderson, var. nov. Type. Guyana. Potaro-Siparuni Region, Kaieteur Falls National Park, Tukeit, 5°10'N, 59°29'W, 500 m, 17 Apr 1988, *W. Hahn et al. 4730* (holotype, NY; isotype, US).

Ab aliis speciei varietatibus foliis simplicibus dorso spinosis dilutius viridibus necnon fructibus glabris vel spinosis distans.

Sheath and petiole with scattered, black, flattened spines to 5 mm long, few to moderate on sheath, fewer or absent on petiole; petiole 6–20 cm long; rachis 15–20 cm long; blade simple, broadly obovate, deeply bifid apically, 30–40 cm long, 12–23 cm wide at rachis apex, spinulose and lighter green abaxially. *Fruits* glabrous or slightly spinulose.

Distribution and habitat. Guyana (Fig. 38B); upland rain forest, at 300–1500 m elevation.

Additional specimens examined. GUYANA. Potaro-Siparuni Region, Maikwak, 4°54'N, 59°49'W, 650 m, 4 Apr 1988, *Hahn et al. 4203* (NY); Potaro-Siparuni Region, Pakaraima Mtns., Mt. Wokomung, Suruwaburu Creek, 5°3'N, 59°54'W, 675–750 m, 11 Feb 1993, *Henkel et al. 1276* (NY); Kaieteur Savannah, Potaro River, Sep–Oct 1881, *Jenman 1203* (K); Potaro-Siparuni Region, Kaieteur Falls National Park, 5°10'N, 59°29'W, 300 m, *Kelloff et al. 942* (CAY, NY); Pakaraima Mtns., Mt. Ayanganna, 550–1500 m, 5–6 Feb 1955, *Maguire et al. 40599a* (NY); Cuyuni-Mazaruni Region, Ayanganna Plateau, Koatse River valley, 5°28'N, 60°4'W, 550–650 m, 3 Mar 1987, *Pipoly et al. 10963* (US); Cuyuni-Mazaruni Region,

Ayanganna Plateau, Kangu River, 5°25'N, 60°W, 700 m, 6 Mar 1987, *Pipoly et al. 11070* (US).

37c. *Bactris hirta* Martius var. *lakoi* (Burret) Henderson, comb. & stat. nov. *Bactris lakoi* Burret, Repert. Spec. Nov. Regni Veg. 34: 187. 1934. Type. Brazil. Amazonas: Rio Iça, s.d., *C. Lakó 1/G. Huebner 133* (holotype, B, destroyed). Peru. Loreto: near Pébas, 3°5'S, 71°55'W, Feb 1978, *M. Balick & D. Allon 1136* (neotype, here designated, NY).

Sheath, petiole, and rachis densely covered with soft spinules to 2 cm long; blade pinnate; pinnae 19–30 per side, linear-lanceolate or almost sigmoid, regularly arranged but with gaps, pilose on both surfaces; middle pinnae 11–15 × 1–1.5 cm. *Fruits* spinulose.

Distribution and habitat. Brazil (Amazonas) and Peru (Loreto) (Fig. 38C); lowland rain forest on *terra firme* at 120–130 m elevation.

Additional specimens examined. PERU. LORETO: Near Iquitos, 24 Jul 1972, *Croat 18434* (BH), Sep–Oct 1920, *L. Williams 3420* (F), Oct 1929, *L. Williams 3765* (F); Prov. Maynas, Yanamono, 3°28'S, 72°48'W, 120 m, 9 Nov 1979, *Gentry et al. 27900* (MO), 27 Jul 1980, *Gentry et al. 29113* (AMAZ, MO); Allpahuayo, 3°50'S, 73°25'W, 130 m, 11 Feb 1989, *Gentry et al. 65642* (MO, NY), 9 Sep 1995, *Henderson & Padilla 2005* (NY); Río Itaya, San Antonio, 18 Sep 1929, *Killip & A. Smith 29338* (F, NY, US), 18 Sep 1929, *Killip & A. Smith 29439* (NY, US); Mishuyacu, near Iquitos, 24–28 Sep 1929, *Killip & A. Smith 29830* (NY, US); between Iquitos and Quisto Cocha, 11 May 1960, *Moore et al. 8435* (BH, USM), 11 May 1960, *Moore et al. 8423* (BH); Río Nanay, 12 May 1960, *Moore et al. 8438* (BH); Río Ampiyacu, 2°W, 72°20'W, 27 Apr 1977, *Plowman et al. 7084* (F); Puerto Almendras, 3°48'W, 73°25'W, 122 m, 11 Nov 1983, *Vásquez & Jaramillo 4618* (MO), 28 Oct 1985, *Vásquez & Jaramillo 6847* (MO), 29 May 1986, *Vásquez & Jaramillo 7574* (MO), 9 Jun 1988, *Vásquez & Jaramillo 10742* (MO); Prov. Maynas, km 45 on Iquitos–Nauta rd., 4°10'S, 73°20'W, 120 m, 12 Jun 1987, *Vásquez & Jaramillo 9165* (AMAZ, MO).

37d. *Bactris hirta* Martius var. *spruceana* (Trail) Henderson, comb. nov. *Bactris pectinata* subsp. *turbinata* var. *spruceana* Trail, J. Bot. 6: 7. 1877. Type. Brazil. Pará: Belém, 27 Feb 1875, *J. Trail 872/CCXXII* (holotype, K; isotypes, BM, NY, P).

Fig. 39-1

Bactris pectinata Martius, Hist. nat. palm. 2: 98. 1826. *Amylocarpus pectinatus* (Martius) Barbosa Rodrigues, Contr. Jard. Bot. Rio de Janeiro 3: 72. 1902. Type. Brazil. Pará: without locality, s.d., *C. Martius s.n.* (holotype, M; F neg. 18627).