

Rediscovery of Rare Species of *Anthurium* (Araceae) from Peru

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ABSTRACT

In this paper five rare species of *Anthurium* are redescribed: *A. consimile* Schott, *A. corallinum* Poepp. et Endl., *A. gracilipedunculatum* Krause, *A. huanucense* Engler, and *A. peltatum* Poepp.

RESUMEN

Se describen cinco especies raras de *Anthurium*: *A. consimile* Schott, *A. corallinum* Poepp. et Endl., *A. gracilipedunculatum* Krause, *A. huanucense* Engler, y *A. peltatum* Poepp.

KEY WORDS

Araceae, *Anthurium*, Peru, *A. consimile*, *A. corallinum*, *A. gracilipedunculatum*, *A. huanucense*, *A. peltatum*.

INTRODUCTION

The Araceae of Peru are poorly known despite the publication of the family for the *Catalogue of the Flowering Plants and Gymnosperms of Peru* (Croat, 1993). This lack of knowledge is exemplified by low numbers of herbarium specimens that do not reflect the real importance of this family to the composition of the Peruvian flora. Croat (1999) proposes that the total number of Araceae for Peru will come close to 300 species or perhaps more.

Descriptions were prepared based on the standard published by Croat and Bunting (1979).

Anthurium consimile Schott, *Oesterr. Bot. Wochenbl.* 7: 294. 1857. Type: PERU. Cuchero, July 1829, *Poeppig 1083* (lectotype, W!). Figures 1–4.

Terrestrial and epipetric; stem terete, grayish brown; **internodes** short, 1.3–3.5 cm long, 2–3.5 cm diam.; **cataphylls** persisting intact at upper nodes, 4.4–11.2 cm long, 1–2-ribbed, triangular, dark brown to reddish brown, coriaceous. LEAVES erect to spreading; **petioles** 33–96 cm long, 0.5–1.2 cm diam., terete to obtusely and narrowly sulcate; medium green, sometimes tinged reddish toward base, semiglossy, unmarked; sheath 5.6 cm long; **geniculum** 1.7–2.6 cm long; **blades** subcoriaceous, semiglossy, moderately bicolorous, 42.8–62.8 cm long, 29.9–42.8 cm wide, wider to middle, widely ovate, acuminate at apex, deeply cordate at base; posterior lobes oblong-rounded, convergent to sometimes overlapping, 5.4–10 cm long, sinus spatulate to hippocrepiform; dark green and semiglossy to matte above, moderately paler to semiglossy below; **midrib** moderately acute, bluntly acute to acute and slightly paler above, narrowly rounded to acute and paler below; **pri-**



mary lateral veins (6–)8–10 per side, strongly recurvate-ascending, bluntly acute and concolorous on both surfaces, departing midrib at 40–45° angles, tertiary veins in part raised, reticulate veins not visible; **basal veins** 5–7 pairs, joining the 1st to 3rd basal rib; basal rib 3.1–3.3 cm long, straight to recurved, naked 1.7–1.9 cm; collective veins restricted to apex or above the middle, 1–5 mm from the margin. INFLORESCENCE erect; **peduncle** 11.5–33 cm long, 0.4–0.6 cm diam., terete, much shorter than the petioles; **spathe** subcoriaceous, green, persisting on fruiting, erect to spreading, 7.4–17.3 cm long, 1–3.4 cm wide, oblong-lanceolate, acute to brevi-acuminate to apex, subcordate to base; **spadix** slightly tapered to apex, 10.2–17.5 cm long, 0.5–0.8(–1.2) cm wide near to base, 0.3–0.8 cm wide near to apex, dark purplish; stipe green, 0.7 cm long in front, sessile to 0.2 cm long in back; flowers square, sides straight to slightly sigmoid, ca. 2 × 2 mm; 8 flowers visible in the principal spiral, 6 flowers visible in the alternate spiral; tepals smooth, unmarked (minutely papillate on magnification); lateral tepals 3-sided, 1.3 cm wide, inner margins convex; **pistils** ca. 2 mm long, oblong; stigmas rounded; stamens ca. 1.5 mm long; anthers 0.7 mm wide, emerging just above the margins of the tepals and remaining in a contiguous cluster, covering the stigmas; thecae slightly divaricate; pollen drying yellow-brown. INFRACTESCENCE erect; spadix 10.2–23.3 cm long, 1.2 cm wide; **berries** 0.5 cm, ovate with the upper part protruding.

It was necessary to lectotypify the species owing to the fact that Schott did not sufficiently define the collection in his original description. There are two existing collections in the Vienna herbarium (W). These may have been on loan during the

Second World War because most of the rest of the Araceae collection was destroyed by war action but these specimens are extant. The lectotype specimen consists of only a leaf blade (without petiole) and an inflorescence with a piece of the peduncle, and the second consists of a smaller leaf and two inflorescences. The second specimen at W was also illustrated by Schott (*Icones* #626), but prepared in September 1829, whereas the type (Schott *Icones* #627) was prepared in July 1829.

The type specimen of *A. consimile* was initially identified as *A. humboldtianum* Kunth, a species actually known only from Colombia and Venezuela. The locality cited on the label is “*Peruvia subandina. Supra terram—illegible—ad Cuchero*”, it corresponds to San Juan de Cochero, located in the Huánuco Department at the coordinates 9°30’S, 75°51’W. This area is near to other known collecting localities of Poeppig, such as Pompayacu.

Anthurium consimile is a member of section *Calomystrum*, and ranges from 700–1,000 m in elevation, occurring in the *Tropical Lower Montane moist forest* (TLM-mf) and *Tropical Lower Montane wet forest* (TLM-wf) life zones.

This species is endemic to Peru and has been collected in the Departments of Huánuco, Junín, Pasco and San Martín.

Additional specimens examined—PERU. **Junín:** Along rd. between San Ramón and Oxapampa, 6 km beyond turn off for rd. to Satipo, 10°53’30”S, 75°18’00”W, 700 m, 1 Apr. 1984, *Croat & Sizemore* 57736 (MO); Tarma, 10°58’23”S, 75°19’05”W, 750 m, 8 June 1998, *Croat & Sizemore* 81919 (MO, USM); Satipo, 11°10’30”S, 74°39’32”W, 1,000 m, 8 June 1998, *Croat & Sizemore* 82000 (MO, USM); La Merced, 700 m, 29 May–4 June 1929, *Killip & Smith* 24071 (NY, US). **Pas-**

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Figs. 1–4. *Anthurium consimile* Schott. —1 (top L). (*Lingán et al.* 591). Habit. —2 (top R). (*Croat & Sizemore* 82000). Leaf. —3 (bottom L). (*Lingán et al.* 591). Stem and cataphylls. —4 (bottom R). (*Poeppig* 1083). Type specimen, note the sessile spadix and leaf with few primary lateral veins.

co: Oxapampa Province, Oxapampa District, Oxapampa-Puente Paucartambo, 10°50'20"S, 75°17'37"W, 770 m, 12 June 2003, *Lingán et al. 591* (HOXA, MO). **San Martín:** Mariscal Cáceres, Dpto. Tocache Nuevo, 550–700 m, 12 Aug. 1980, *Schunke 12134* (MO).

Anthurium corallinum Poeppig & Endl., *Nov. Gen. Sp. Pl.* 3: 84. 1845. Type: PERU. San Cristobal, Cuchero, Feb. 1830, *Poeppig 1723* (holotype, W not seen, phototypes, MO, F). Figures 5–8.

Epiphytic; roots few per node, whitish to yellowish green, 2–4 mm wide, spreading to descending; stem terete, yellowish green, smooth; **internodes** short, 0.6–1 cm long, 1 cm diam., covered by the cataphylls; **cataphylls** 4.2–15.3 cm long, up to 2-ribbed, lanceolate, green to reddish brown or dark brown, persistent entire, coriaceous. LEAVES erect to spreading; **petioles** 15.2–48.3 cm long, 0.3–0.6 cm wide, terete, green; sheath 2.1–11 cm long; geniculum 1.9–3.4 cm long, greenish; **blades** subcoriaceous, 19.5–42.6 cm long, 8.9–19.3 cm wide, wider to the middle, ovate-cordate, acuminate at apex, deeply cordate to base, margins convex, posterior lobes oblong to rounded, 2.9–9.4 cm long; sinus triangular; glossy, dark green above, lower surface much paler; **midrib** raised and more conspicuous above; **primary lateral veins** moderately obscure both surfaces, 10–15 per side, straight, departing midrib at 40–60° angles; tertiary veins obscure beneath; **basal veins** 3–4 pairs, free to base, convex above; collective veins 2–3, arising from 2nd and 3rd (4th) basal vein, subparallel, the first 0–2 mm from the margin, the second 3–7 mm from the margin, the third 1.2–2.9 cm from the margin. INFLORESCENCE erect; **peduncle** 10.7–34.7 cm long, 0.5–0.6 cm wide, te-

rete, greenish, 0.7–0.8 times longer than the petiole; **spathe** chartaceous, green, persistent, spreading sometimes recurved, 9.8–14.8 cm long, 1.5–2.8 cm wide, oblong, acuminate to apex, cordate to base; **spadix** tapered, 10.4–13.4 cm long, 0.6–0.8 cm wide next to base, 0.4–0.5 cm long next to apex, greenish or yellow to dull red or reddish orange; flowers 4-lobed, sides sigmoid, 2 × 2 mm, 6–7 flowers visible in the principal spiral, 5–6 flowers visible in the alternate spiral; tepals purple, matte, 3–6-sided, inner margin convex; **pistils** ca. 2 mm, emerging only after anthesis; filaments flattened, slightly convex; anthers rounding the stigmas at anthesis; thecae slightly divaricate; pollen whitish. INFRUCTESCENCE not seen; immature infructescence orange (*vide Vásquez 22563*); mature **berries** said to be orange (*vide Schunke 5034*).

Anthurium corallinum is known from a photograph of the type, and from Schott drawing #618 (Nicolson, 1984). The type was destroyed during the Second World War.

This species appears to have variations in the color of the inflorescences: *Schunke 5034* “strong greenish yellow”, *Foster et al. 10925* “dull red”, *Schunke 13707* “moderately yellowish pink”, *Foster 12177* “reddish orange”, *Lingán 669* “violet purple”.

Anthurium corallinum ranges from 500–1,400 m in elevation and is reported from the Departments of Amazonas, Huánuco, Madre de Dios, Pasco, and San Martín. This epiphytic species occurs in the *Tropical Lower Montane wet forest* (TLM-wf) life zone and is a member of section *Calomystrium*.

Additional specimens examined—PERU. **Amazonas:** *Poeppig 1723* (F, MO); Condorcanqui Province, El Cenepa Dis-

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Figs. 5–8. *Anthurium corallinum* Poep. & Endl. —5 (top L). Leaves. Cultivated at Ecua-genera, Inc., Gualaceo (Ecuador). Origin Tingo María, Peru. —6 (top R). (*Lingán et al. 669*). Leaf. —7 (bottom L). (*Lingán et al. 669*). Cataphylls, persisting entire. —8 (bottom R). (*Schunke-Vigo 13707*). Herbarium specimen.

tract, Mamayaque community, Cerro Sak-ee-gaig, 4°34'58"S, 78°14'01"W, 1,010 m, 14 Feb. 1997, *Vásquez et al.* 22563 (MO).

Huánuco: Leoncio Prado Province, Rupa Rupa District, 750–800 m, 5 July 1978, *Plowman & Ramirez* 7567 (F); 9°17'S, 76°05'W, 650 m, 2 June 1998, *Croat & Sizemore* 81612 (MO, USM); Jacintillo on left bank of Río Monzón, W of Tingo María, 750 m, 16 Apr. 1976, *Plowman* 5900B (GH). **Madre de Dios:** Cerro de Pantiacolla, Río Palotoa, 10–15 km NNW of Shintuya, transect to ridgetop, 12°35'S, 71°18'W, 700–1,300 m, 16 Dec. 1985, *Foster et al.* 10925 (MO). **Pasco:** Oxapampa Province, Villa Rica District, Sector Unión-Shimaki, Bosque de Protección San Matías-San Carlos, 10°43'58"S, 74°54'23"W, 1400 m, 4 July 2003, *Lingán* 669 (MO, HOXA, USM). **San Martín:** Mariscal Cáceres Province, Campanilla District, 7°43'S, 76°40'W, 900–950 m, 21 Dec. 1981, *Plowman et al.* 11635 (F); *Plowman et al.* 11640 (F); Tocache District, Río de la Plata, Gran Fundo La Bella Durmiente Manuel Gatica ca. 5 km NE of bridge over Río Huallaga, 8°08'S, 76°23'W, 100 m, 7 Apr. 1984, *Croat* 57991A (MO); Tocache Nuevo District, 6 Oct. 1971, *Schunke-Vigo* 5034 (F, MO, NY, US); 500–700 m, 12 Nov. 1975, *Schunke-Vigo* 8676A (CM, MO); Río de la Plata, 8°10'S, 76°25'W, 550–650 m, 2 Nov. 1980, *Croat* 51040 (MO); Quebrada Mantención, cerca de Tocache, 700 m, 8 June 1982, *Schunke-Vigo* 13707 (IBE); Prov. Mariscal Cáceres, Dtto. Tocache Nuevo, Río de la Plata, Fundo del Sr Manuel Gatica, 550–700 m, 18 Aug. 1980, *Schunke-Vigo* 12177 (IBE).

Anthurium gracilipedunculatum Krause, *Publ. Field Mus. Nat. Hist. Bot. Ser.* 8: 78. 1930. Type: PERU. Huánuco, Yanano, 1,800 m, 13–16 May 1923, *Macbride* 3734 (B!). Figures 9–11.

Hemiepiphytic to terrestrial, sometimes on rocky soil; few roots per node, 1 mm wide, light brown to grayish, spreading to descending; stem terete, greenish to reddish brown or deeply brown, smooth; **internodes** long and short alternating, long

internodes 2–6.8 cm long, short internodes 1.2–4.1 cm long, 4–6 mm diam.; **cataphylls** 1.5–6.8 cm long, sometimes 1-ribbed, triangular-lanceolate, reddish brown to grayish brown, persistent almost entire, papyraceous. LEAVES erect to spreading; **petioles** 3.9–15.5 cm long, 0.1–0.2 cm diam., terete, green; sheath 1–3.2 cm long; geniculum 3–16 mm long, light green to reddish; **blades** subcoriaceous, 7.2–22.2 cm long, 1.2–8.5 cm wide, wider in the lower half, lanceolate to ovate-oblong, acuminate to acute at apex, acumen 1.2–1.5 cm long, obtuse to subcordate at base; matte or semiglossy in both surfaces, adaxially darker than the abaxial face; **midrib** adaxially convex, acute abaxially; **primary lateral veins** 5–9(12) per side, departing at 40–50° angles, straight to lightly arcuate-ascending, sunken above and raised below; **basal veins** frequently 2 per side; **collective veins** arising at the upper basal vein, 2–14 mm from the margins. INFLORESCENCE erect; **peduncle** 16.1–24.7 cm long, 0.1–0.3 cm wide, orange, 1.6–4.1 times longer than the petiole; **spathe** membranaceous, greenish turning purple at anthesis, persistent, spreading, 3.2–6.2 cm long, 0.7–1 cm wide, oblong-lanceolate, cordate at base; **spadix** cylindrical, 2.8–7.5 long, 0.2–0.4 cm wide, dark purple to orangish red; stipe reddish or greenish to orange, sometimes purplish, 1.5–6.9 cm long; flowers square to 4-lobate with margins sigmoid to lightly straight, 3 × 3 mm; 3–4 flowers visible in the principal spiral, 5–7 flowers visible in the alternate spiral; tepals 4–5-sided, inner margins strongly convex; **pistils** ca. 1 mm long; stigmas oblong-rounded; stamens ca. 1.5 mm long (at anthesis); filaments flattened, lightly concave in the inner face; anthers exerted above the tepals at anthesis; thecae not divaricate. INFRUCTESCENCE erect; **spadix** 8.1 cm long, 0.9 cm diam., reddish orange; **berries** obovate with stigmas exerted, 5 mm long; seeds 2, oblong with irregular margins.

Anthurium gracilipedunculatum ranges from 2,000 to 2,600 m in elevation in *Tropical Lower Montane moist forest* (TLM-mf) and *Tropical Lower Montane*

wet forest (TLM-wf) life zones. The species is known from the Departments of Cajamarca, Huánuco and Pasco. The species is a caespitose terrestrial to shortly scandent hemiepiphyte species that grows principally in shady and humid areas.

Antburium gracilipedunculatum is a member of section *Xialophyllum*, series *Caucanum*, and is characterized by its reddish, largely stipitate spadix, brown internodes, and persistent cataphylls.

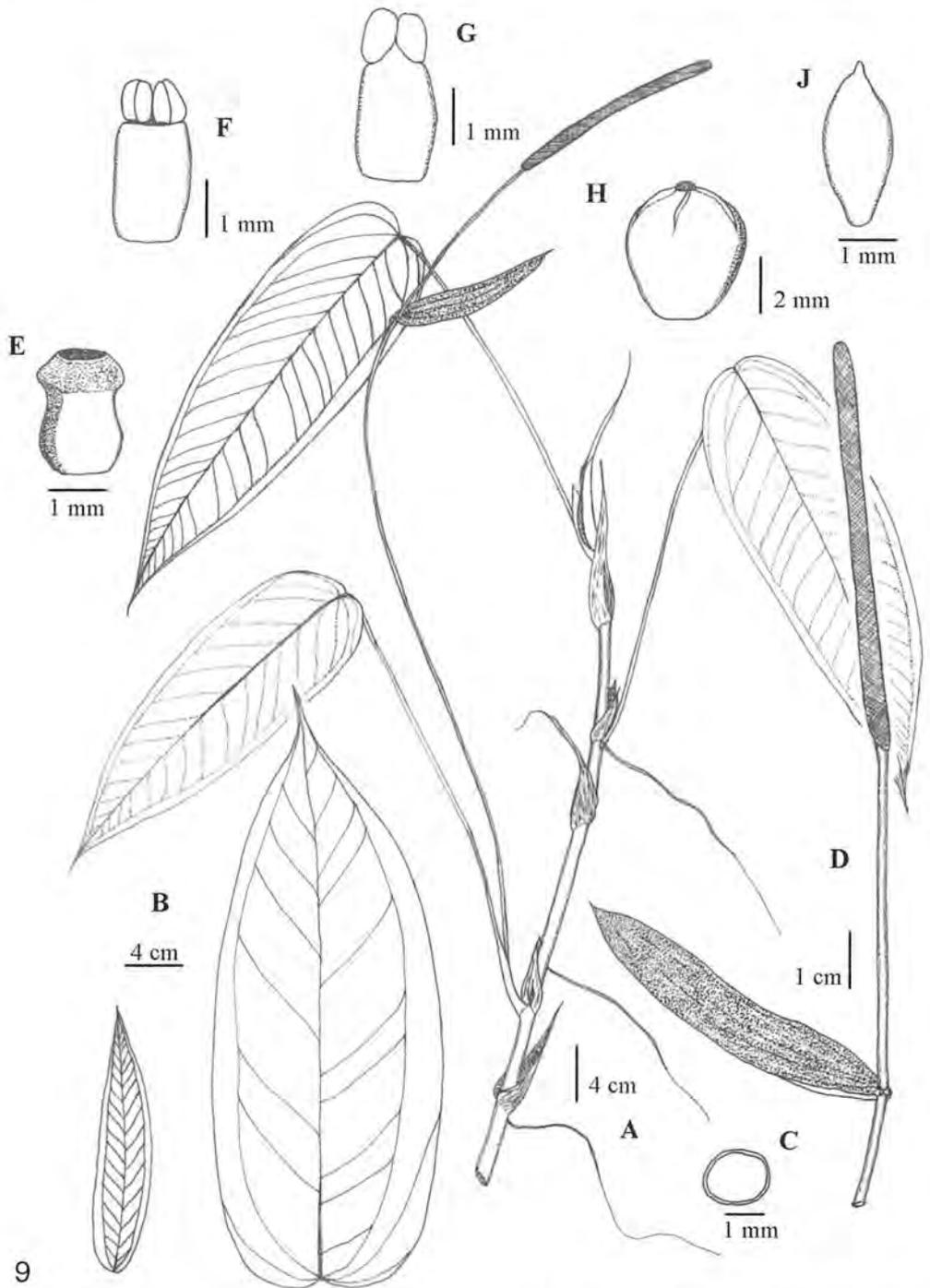
Antburium gracilipedunculatum is easily confused with *A. pulchellum* Engl., a species known only from Colombia, which also has a long stipitate spadix. However, *A. pulchellum* differs from *A. gracilipedunculatum* by its erect spathe, green to greenish yellow spadix, and smaller and elliptic leaves with primary lateral veins departing midrib at broader angles.

Additional specimens examined—PERU. **Cajamarca:** Cutervo Province, Parque Nacional Cutervo, 2,300–2,400 m, 11 Jan. 1990, *Díaz et al.* 3938 (MO); Jaén Province, 2,500 m, 9 Nov. 1999, *Díaz & Campos* 10925 (CAS, F, MO, NY, USM); 2,370 m, 6 Nov. 1999, *Díaz & Campos* 10868 (MO, QCNE, UB, USM, US); San Ignacio Province, 5°18'30"S, 78°44'01"W, 1,500–1,600 m, 19 July 1997, *Campos & Nuñez* 4194 (MO, NY). **Pasco:** Oxapampa Province, Oxapampa District, Parque Nacional Yanachaga-Chemillén, Refugio el Cedro, 10°32'S, 75°21'W, 2,440–2,500 m, 17 Aug. 2002, *Monteagudo et al.* 3670 (HOXA, HUT, MO); 2,430 m, 21 Nov. 2002, *Monteagudo et al.* 4356 (HOXA, HUT, MO); camino del refugio al Abra La Esperanza, 10°32'S, 75°21'W, 2,490–2,610 m, 22 Nov. 2002, *Monteagudo et al.* 4404 (HOXA, HUT, MO); camino al Abra Esperanza, 10°33'46"S, 75°22'93"W, 2,600 m, 13 Mar. 2003, *Lingán et al.* 341 (AMAZ, HOXA, HUT, MO, MOL, USM); Chacos, carretera a la Antena, 10°37'23"S, 75°20'16"W, 2,050 m, 21 Sep. 2003, *Lingán et al.* 688 (HOXA, MO, USM).

Antburium huanucense Engler, *Pflanzenr.* IV. 23 B (Heft 23): 165. 1905.

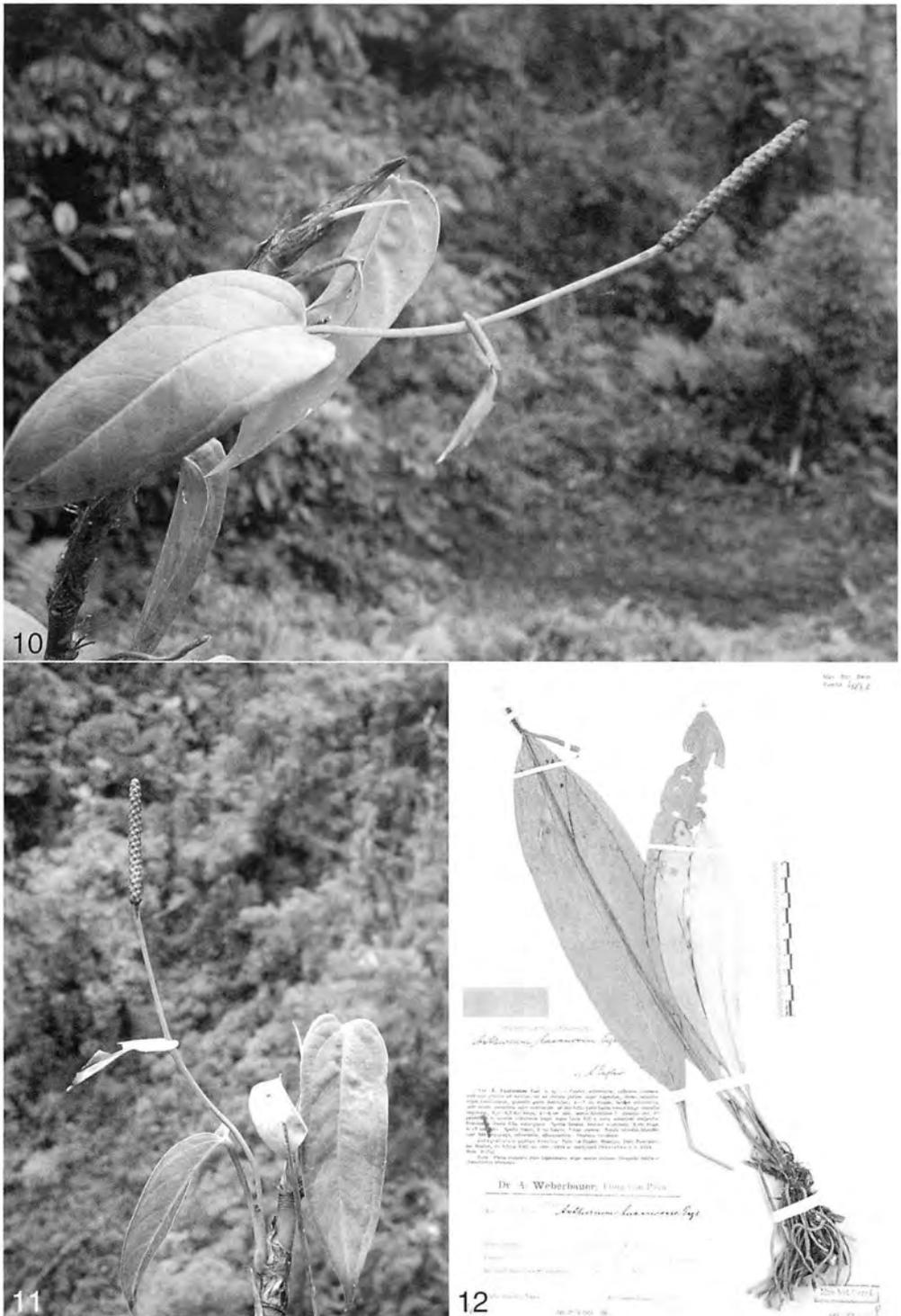
Type: PERU. Huánuco, Huamalies Province, near Monzón, 900–1,000 m, 27 July 1903, *Weberbauer* 3449 (holotype, B!). Figure 12.

Description based on dry material. Epiphyte; roots 0.1–0.5 cm wide, whitish to brown, spreading to descending; stem subterete, drying grayish, covered by the cataphylls; **internodes** short, 0.4–0.6 cm long, 0.6–1 cm diam.; **cataphylls** (1–)5.8–7.1 cm long, 2-ribbed, triangular lanceolate, acute at apex, reddish brown to grayish brown, membranous. LEAVES erect to spreading; **petioles** 4.1–10.4 cm long, 0.1–0.3 cm wide, U-shaped, narrowly sulcate, green; sheath 1.7–3.8 cm long; geniculum 0.4–0.9 cm long; **blades** subcoriaceous, 14.7–39.6 cm long, 2.6–7.9 cm wide, wider above the middle, elliptic-ob lanceolate to narrowly elliptic; acute at apex, acute to shortly attenuate at base; almost concolorous on both surfaces, lightly darker above, adaxially semiglossy, matte below; **midrib** narrowly convex above, convex below; **primary lateral veins** numerous, (9–)18–24 per side, distinct from the interprimary veins, straight to the collective veins, departing midrib at 35–40(–70°) angles; collective veins arising at base, 0.1–0.5 cm from the margins. INFLORESCENCE erect to spreading; **peduncle** 24.8–42.8 cm long, (0.1–)0.3–0.4 wide, green, terete, 4.8–6.9 times longer than the petioles; **spathe** subcoriaceous, green, persisting on fruit, reflexed, (1.6–)4.8–5.1 cm long, (0.4–)0.5–0.7 cm wide, linear-oblong, acute to apex, rounded to base; **spadix** cylindrical, sessile, 1.1–10.1 cm long, 0.4–0.5 cm wide, green to reddish; flowers rhombic to 4-lobed, sides sigmoid, 3 × 3 mm; 2–3 flowers visible in the principal spiral, 3–5 flowers visible in the alternate spiral; tepals 3-sided, lateral tepals with inner margins straight to slightly convex; **pistils** ovate-elliptic; stamens 0.1 cm long; filaments flattened; anthers surrounding the stigmas at anthesis; thecae not divaricate. INFRUCTION erect; spadix 15.1 cm long, 0.5 cm wide, green; **berries** spherical, 3 × 3 mm; seeds 2, ovoid-elliptic, 0.2 × 0.1 cm.



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Fig. 9. *Antburium gracilipedunculatum* Krause. A. Habit. B. Leaves, variability in size and venation. C. Petiole, cross section. D. Inflorescence, conspicuously stipitate. E. Pistil. F. Stamen, anterior view. G. Stamen, posterior view. H. Fruit, note ribs on surface. J. Seed. Drawings by Jorge Lingán.



Figs. 10–12. —10, —11. *Anthurium gracilipedunculatum* Krause (Lingán et al. 341). —10 (top). Habit. —11 (bottom L). Inflorescence conspicuously stipitate. —12. *Anthurium buanucense* Engler (bottom R). (Weberbauer 3449). Type specimen.

The information about the color of inflorescences and infructescences are insufficient and more collections with adequate data of collection are necessary. Schunke's voucher (*Schunke 8590*) has no data of spathe and spadix color, the information from his field book is lost. Engler (1905) describes tepal color as reddish, white punctate: "*Tepala* [. . .] *rubescens, albopunctata*".

Engler also placed *A. huanucense* in section *Urospadix*, subsection *Flavescenti-vidua*, but he makes mention that it is an intermediate between this section and section *Leptanthurium*: "*Nota. Planta singularis, inter Leptanthuria atque species sectionis Urospadix habitu et caracteribus intermedia*".

This species is known from Monzón and Tingo María (Huánuco and San Martín Departments) and Chanchamayo Valley (Junín Department), ranging from 900–1,000 m in elevation.

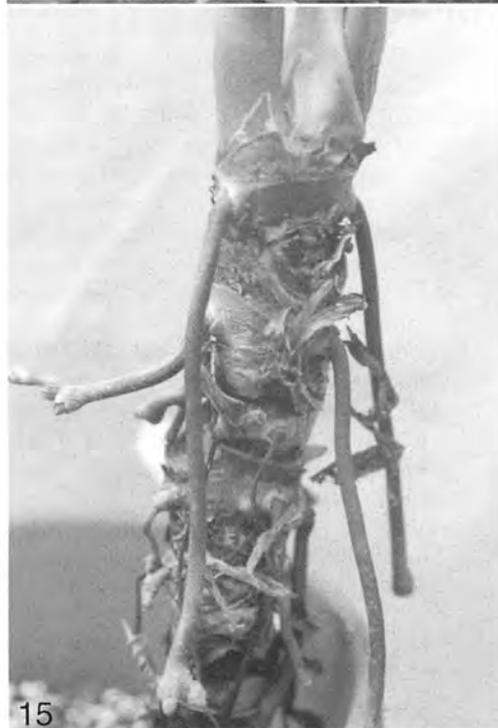
Additional specimens examined—PERU. **Huánuco**: On 60° rocky slope at Río Huallaga at Tingo María, 4 Oct. 1972, *Croat 21068* (MO). **Junín**: Chanchamayo Valley, 1,500 m, *Schunke-Vigo 890*, Sep. 1929 (MO). **San Martín**: Mariscal Cáceres Province, Tocache District, vic. Tocache Nuevo, 400–700 m, 25 May 1975, *Schunke-Vigo 8590* (MO).

Anthurium peltatum Poeppig, *Nov. Gen.*

Sp. Pl. 3: 83, t. 294. 1845. Type: PERU. Huanuco, vic. San Cristóbal in the direction of Cuchero, Poeppig's illustration # 294 serves as the type, however, owing to the inaccuracy in the drawing an epitype is being created. Epitype: PERU. Huanuco: Leoncio Prado Province: Fondo Mariamilla, Distr. Emilo Valdizána, on old road to La Divisora, 1,380 m. Originally collected by T. Plowman (#5911). Cultivated at Selby Gardens (76-0072-005), Waimea Arboretum (77p665) and Lyon Arboretum; Epitype prepared from living plant at Selby Garden, 23 Aug., 1993, *Croat 75855* (holoepi-

type, MO-4992465; isoeotypes, B, K, SEL, US, USM). Figures 13–16.

Terrestrial; roots reddish brown to grayish, 1–2 per node, descending; stem 26–100 cm long, terete; **internodes** short, 0.3–0.7 cm long, up to 5 cm diam.; **cataphylls** 4.1–16.3 cm long, bluntly 1-ribbed, lanceolate, acute to obtuse at apex, pale green to dark brown, deciduous or persisting semi-intact then deciduous, coriaceous. LEAVES erect; **petioles** 35.9–98.6 cm long, 0.4–0.8 cm wide, terete to obtusely sulcate adaxially, green, sometimes reddish; sheath approximately 5 cm long; geniculum 0.9–2.5 cm long; **blades** coriaceous to subcoriaceous, 27.5–66 cm long, (26–) 30.4–49.6 cm wide, wider immediately below the middle, ovate, generally peltate, shortly acuminate to apex, obtuse to deeply cordate to base, dark green, semiglossy above, much paler and weakly glossy below; **midrib** slightly paler and narrowly convex above the base, bluntly acute toward apex, narrowly convex and paler below; posterior lobes oblong, convergent, 6–21.5 cm long, generally fused; sinus absent to narrowly spatulate; **primary lateral veins** (4–)6–8 (–10) per side, convex in both surfaces, departing at 40–50° from the midrib, slightly recurved; basal veins 5–7 pairs, narrow raised and concolorous above, weakly raised in part below, the 1st, 2nd and sometimes 3rd free to base, the (3rd) 4th–6th (–7th) coalesced; **posterior rib** 0.5–5 cm long, straight, sometimes strongly retrorse; collective veins restricted to apical third, arising from the first basal veins or 2nd–3rd primary lateral veins, 1–9 mm to margin. INFLORESCENCE erect; **peduncle** (29.3–) 32–61.5 cm long, 0.3–1.2 cm diam., 0.6–0.9 times as long as the petiole; **spathe** subcoriaceous, green, persisting, spreading, 9.5–21.7 long, 1.0–3.9 cm wide; lanceolate to linear-lanceolate, acute at apex, acute to base; **spadix** tapered, 11–19.9 cm long, 0.3–1 cm near to base, (0.2–)0.4 cm wide near to apex, greenish purple to coppery brown; stipe 0.2–2.6 cm long in front, 0.2–0.5 cm in back; flowers 4-lobed, sigmoid sides, 2.6–2.8 × 2.5–2.7 mm, 5–9



Figs. 13–16. *Anthurium peltatum* Poeppig. (*Plowman 5911*). Living collection at Waimea Arboretum. —13 (top L). Habit in cultivation. —14 (top R). Leaf. —15 (bottom L). Stem. Photo by Petra Malesevich. —16 (bottom R). Inflorescence.

flowers visible in the principal spiral, 4–11 flowers visible in the alternate spiral; tepals glossy, yellow to yellowish brown, the lateral 3-sided, the inner margins convex, the anterior and posterior 3–5-sided, the inner margins straight; **pistils** ca. 1.5 mm long; stigmas rounded; stamens 2 mm long, exerted at anthesis; filaments flattened; anthers surrounding the stigma at anthesis; thecae slightly divaricate. INFRUCTESCENCE erect; spadix greenish; **berries** spherical with protruding stigma.

Anthurium peltatum sites range from 400–1400 m in elevation. This endemic species is known from the Departments of Amazonas, Huánuco, San Martín and Ucayali.

The species was for many years known only from the original illustration by Poeppig (drawing #294), and was recollected in 1923 by J. F. Macbride, but that collection, determined incorrectly as *A. lutescens* Engl., remained uncorrected until recently. The original illustration by Poeppig does not depict the species well (the inflorescence looks more like *Homalomena*) and an epitype is required to better define the species. Therefore, *Croat 75855* is cited as the epitype. This collection is reasonably widespread (B, K, SEL, US, USM), but more importantly it is represented by living material in several botanical gardens including Selby Botanical Garden, Sarasota, Florida, the Waimea Arboretum and Lyon Arboretum, both located on the island of Oahu in the Hawaiian Islands.

The species is placed in section *Cardiolonchium*, and is one of the few species of *Anthurium* with peltate leaves. It is characterized by its terrestrial habit and purplish spadix.

Additional specimens examined—PERU. 1,060 m, 19–25 July 1923, *Macbride 5084* (F). **Amazonas:** Bagua Province, Im-

azita, Wawiko, 4°56'07"S, 78°12'11"W, 400 m, 21 Nov. 1996, *Albán et al. 9281* (MO).

Huánuco: 1,000 m, 30 June 1977, *Solomon 3349* (MO); Leoncio Prado Province, Emilio Valdizán, 1,380 m, 16 Apr. 1976, *Plowman 5911* (GH, USM); Leoncio Prado Province, 1380 m, 5 Sep. 1993, *Croat 75855* (MO); 1,180 m, 23 June 1992, *Ingram 1443* (SEL). **San Martín:** Tocache Nuevo-Juanjuí, ca. 96 km N de Tocache Nuevo, 1.4 km beyond bridge over Río Pulcache, 7°41'S, 76°40'W, 600 m, 8 Apr. 1984, *Croat 58027* (MO). **Ucayali:** Coronel Portillo Province, Cordillera Azul, 700 m, 5 June 1981, *Young & Sullivan 727* (MO).

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