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Article *in* Phytotaxa · March 2012

DOI: 10.11646/phytotaxa.49.1.4

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Phytotaxa 49: 29–33 (2012)
www.mapress.com/phytotaxa/

Article

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

A remarkable new *Pitcairnia* (Bromeliaceae) species from Peru

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Abstract

A new species of *Pitcairnia* subgenus *Pepinia* (*Pitcairnioideae)* is described and illustrated here. *Pitcairnia floresii* sp. nov. has been found in the Department San Martín of Peru and is locally abundant.

Key words: Flora of Peru, *Pepinia*, taxonomy

Introduction

This remarkable new *Pitcairnia* species with linear-lanceolate leaf blades and its red inflorescence with bright yellow flowers is rather common in the Central Huallaga River Valley area. The famous collector Richard Spruce was in this area in 1855 (León *et al.* 2003: 112), but as far as known no specimen of this species was preserved, nor was it collected afterwards. Another *Pitcairnia*, *P. calatheoides* Smith (1937: 24) has been described from the very same area, but is not closely related. The latter species has very long petiolate oblanceolate leaf blades and large orange petals. Mr. Alberto Flores, a farmer from Pucacaca, brought this beautiful species to our attention. From our study of Bromeliaceae of Peru several new species were recently described (Gouda & Manzanares 2008, Gouda 2012). The descriptive terminology of Scharf & Gouda (2008) is followed here.

Taxonomy

Pitcairnia floresii Gouda & Ric.Fernández, *sp.nov.*

Type:—PERU. Dept. San Martín: Prov. Picota, Pucacaca, Concesión Ojos de Agua, 503 m, Virgin forest, steep hill slope (35º) in stony places, 7 January 2011, *R.Fernández, W.Rodríguez, A.Flores & F.Ramírez 3590* (holotype USM!, isotypes L!, USM!, WU!).

This new species resembles *Pitcairnia corallina* Linden & André but the inflorescence is not trailing on the ground and smaller in all flowering parts, with yellow petals (not red). The inflorescence resembles that of *P. sceptriformis* (subgenus *Pitcairnia*), but is secundly flowered (not erect) and shorter and erect pedunculate. The ovules are not caudate. The plant is stemless, not long caulescent as in *P. sceptriformis*.

Plant terrestrial, flowering ones 100–130 cm tall, acaulescent, forming groups, rosettes with 5–10 leaves, with inflorescence much shorter than the leaves. Leaves arching, fasciculate, dimorphic, persisting, petiolate. Transitory leaves reduced to a sheath-like structure, ca. 15 × 1.2 cm, lanceolate, stiffly papyraceous, entire,

Accepted by H.-J. Esser: 21 Mar. 2012; published online in PDF: 22 Mar. 2012

attenuate, densely lepidote, brown. Leaf-sheaths erect, amplexicaulous, conspicuous, ovate or triangular, 2.5–3 × ca. 2.5 cm, rigid, margin entire, venation very distinct, adaxially glabrous, abaxially covered with a coalescent layer of brown trichomes. Petiole erect, ca. 50 cm long, 0.6–1 cm wide, canaliculate, stiffly coriaceous, venation very distinct, margins entire, abaxially white lepidote. Leaf-blades arching, linear-lanceolate, not channelled, papyraceous, 80–100 × (1.5–)3–5.5 cm, entire, central vein thickened and very distinct, venation very distinct (surface grooved), acute or attenuate, adaxially glabrous, abaxially densely lepidote and covered with a fine layer of trichomes, upper surface green, more white or cinereous green abaxially. Inflorescence cylindrical, simple, horizontal or nearly so, dense, (fertile part) 15–30 × 3.5–4 cm (excluding the petals), polystichous, with 50 or more flowers, flowers 0.3 cm apart. Peduncle not totally covered by its bracts, mostly abruptly curved at a right angle (often near the base), shorter than the petioles of the leaves, 25–32 cm long, 6 (when dry)–10 mm in diameter (or more), brown lepidote especially near the nodes. Peduncle bracts (narrowly) ovate, erect, the lower ones not foliaceous, upper ones exceeding the internodes, imbricate but exposing part of the peduncle (in the lower part), 3–6(–12) × 1.2–1.8 cm, papyraceous, distinctly nerved, margins entire, attenuate or (sub-)caudate, abaxially with brown indument (fimbriate at the bract margins), reddish. Floral bracts ovate, divergent with the flowers, 17–22(–25) × 12–16 mm, the lower ones equalling or exceeding the sepals, but soon only reaching halfway the sepals, imbricate, papyraceous, ecarinate, faintly nerved, entire, apex acuminate, adaxially sparsely lepidote toward the apex, abaxially sparsely lepidote, red. Flowers divergent and often upward secund, ca. 4 cm long, cylindrical, short and stout pedicellate; pedicels up to 6 mm long, obconic; corolla actinomorphic. Sepals triangular to ovate, erect, 19–23 × 8–12 mm, slightly asymmetrical, fleshy in central part, the adaxial ones distinctly carinate (alate when dry), with hyaline margins, apiculate, adaxially slightly lepidote at the base only, abaxially slightly lepidote, floccose of finely divided trichomes, red, free. Petals erect and only the apex spreading or recurving, ca. 3.3 cm long, 8 mm wide, ligulate (with slightly rhombic blade), with one ligule at the base; ligules highly adnate to the petal claw, 0.6 mm long, erodate denticulate; apex rounded and obtuse, yellow. Stamens ca. 3 cm long, free; anthers linear-sagittate, basifixed. Pistil (including the inferior part) 3.5 cm long,

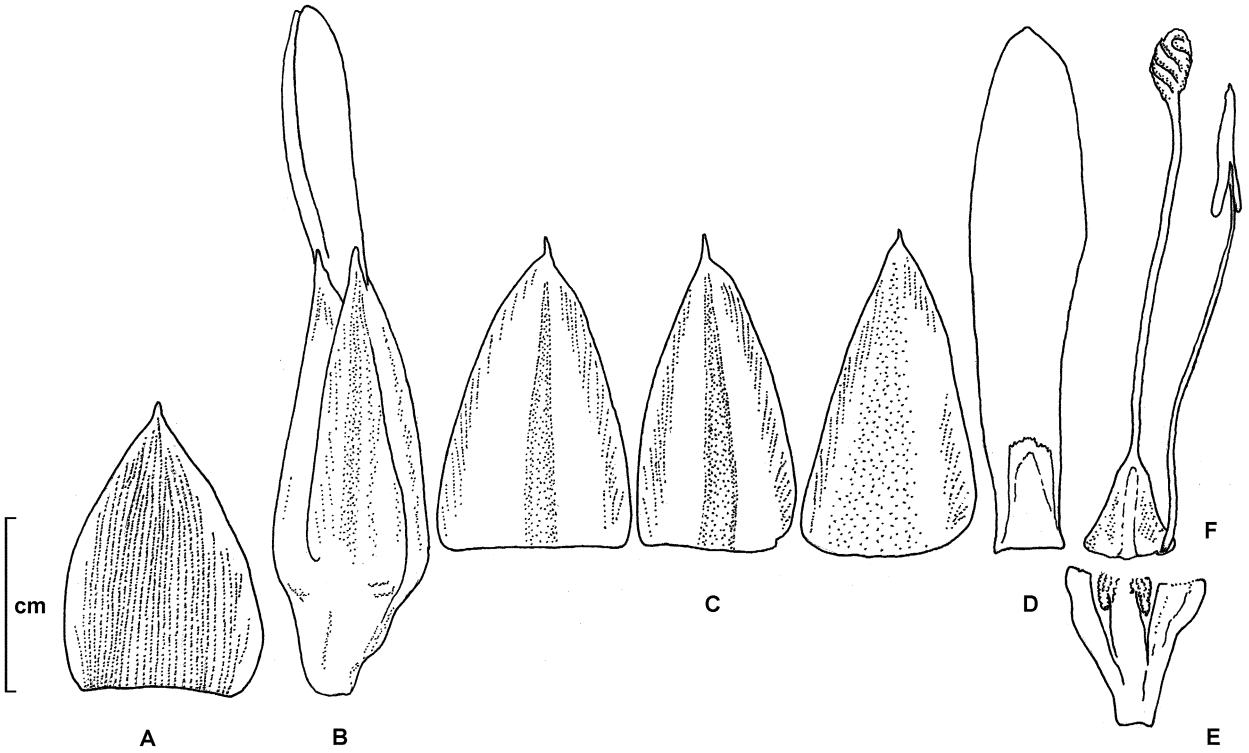

FIGURE 1. Drawings of the flower parts of the type specimen of *Pitcairnia floresii* **A**. Floral bract. **B**. Flower. **C**. Sepals. **D**. Petal with a basal ligule. **E**. Longitudinal section of the inferior part of the ovary. **F**. Superior part of the pistil and stamen. Drawn from the type collection by E.J.Gouda.

exceeding the stamens; ovary one third superior, ca. 8 (in total) × 6 mm (triangular, bi-carinate), (inferior part) obconical, reddish, rugose; style including the stigma 27–32 mm long, stigma lobes twisted together forming an ellipsoid stigma, ovules ellipsoid and rounded at the chalaza. Seeds unkown.

FIGURE 2. *Pitcairnia floresii* **A. P**lant (at the type locality) flowering in habitat, showing the lepidote, reflecting lower side of the leaf blades. **B.** Flowers with the lower floral bracts exceeding the sepals. **C.** Inflorescence showing the upward secund flowers. All photos by the second author.

FIGURE 3. *Pitcairnia floresii* with an upright inflorescence, at the other side of the valley (river) than where the type was collected. Photo by the second author.

Habitat:—Virgin forest, steep hill slope (35º) on stony places at about 500 m elevation.

Distribution:—Peru, Dept. San Martin (known from the type collection and surrounding areas only).

Etymology:—The species is dedicated to Mr. Alberto Flores, a farmer from Pucacaca who brought this species to our attention.

Observations:—This new *Pitcairnia* belongs to the subgenus *Pepinia* (Brongniart in André 1870: 32) Baker (1881: 227) (Smith & Downs 1974) because the ovules in the ovaries are not appendaged at anthesis. It resembles *Pitcairnia corallina* Linden & André (1873: 112) and has the same tendency to a prostrate inflorescence (strongly curved and short peduncle), but in this case the inflorescence stays well off the ground. The sepals are shorter (19–23 mm vs. 26 mm in *P. corallina*); the petals are yellow and also shorter (3.3 cm vs. 7 cm long and red with a narrow white margin). The leaf-blades are narrower (3–5.5 cm vs. 10 cm wide) and the petiole is entire (vs. serrate in *P. corallina*).

It also resembles *Pitcairnia brittoniana* (Mez 1896: 451) Mez (1935: 270) and *Pitcairnia sceptriformis* Mez (1904: 628) in inflorescence (depicted in the nicely illustrated book Bromeliaceae of Ecuador by Manzanares (2005), but this new species is stemless (vs.long caulescent in other two species). It is totally spineless (vs. at least in some parts with spines on the leaf margins in the other species). The peduncle is short and mostly strongly curved (vs. erect and elongate).

The rhizomes of *Pitcairnia floresii* are eaten by peccaries ("sajinos") during the dry season of July-August–September.

Acknowledgements

We want to thank Mr. Alberto Flores for bringing this new species to our attention and passing information about it to us and H.-J. Esser and an anonymous reviewer for his useful comment improving this document.

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