

THANK YOU! DON JOSE

by

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Resumen

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Se explica el porqué del título del artículo se proporciona una clave para diferenciar las 31 especies de *Puya* (Bromeliaceae) existentes, de las cuales se describen dos nuevas.

Don José is not only a very old friend of mine but also my great benefactor. Ever since 1928 I had been preparing a monograph of the Bromeliaceae. This with the ample illustrations prepared by Robert Jack Downs made a manuscript so tremendous that no institution cared to publish it. Then Don José invented Flora Neotropica, a serie that paid for itself by the sale of its books and the size of my manuscript was no longer a problem.

Don José was also my benefactor by the beautiful collections that he made under difficult conditions. *Puya*, the first genus in my monograph, is the best example. It grows on the open serras above tree line and has leaves with large hooked spines that protect it from animals and hail but the best collectors. It is so coarse and moist that it must be dried quickly and thoroughly or the corollas lost. Don José has collected 16 of the Colombia *Puya* species in my monograph in 1974 and of these 6 were new species mostly described by him.

Since then, no more new species have been published and my partner, Robert Read and I have found only 2 to publish here in keeping the key up to date.

Key to the species of Colombian *Puya*

1. Ultimate axes of the inflorescence more or less visible at anthesis; neither the inflorescence nor its branches strobiliform.

2. Inflorescence compound.

3. Branches of the inflorescence more than twice as long as the primary bracts.

4. Sepals narrowly triangular, attenuate.

5. Flowers pedicellate for 5 mm Cauca, Cundinamarca, Vaupes.

P. floccosa

5. Flowers subsessile; leaf-spines all slender, antrorse, pale; floral bracts acute to rounded and apiculate. Nariño.

P. thomasi

4. Sepals elliptic or oblong or rarely triangular, broadly rounded or broadly acute.

6. Flowers spreading-secund to nutant-secund; inflorescence brown tomentulose; branches 10-11 cm long.

P. bicolor

6. Flowers evenly polystichous.

7. Primary mostly shorter than the sterile bases of the branches; floral bracts broadly ovate, closely enfolding the base of the flower. Nariño (?).

P. lehmanniana

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7. Primary bracts much longer than the sterile bases of the branches; sepals coriaceous, the posterior ones carinate at the base; floral bracts spreading. Cauca, Nariño.

P. furfuracea

3. Branches of the inflorescence not more than twice as long as the primary bracts; inflorescence narrow; plants 5-10 m high.

8. Sepals soon glabrous. Cundinamarca, Norte de Santander, Santander.

P. goudotiana

8. Sepals covered with dark ferruginous stellate trichomes. Nariño.

P. gigas

2. Inflorescence simple.

9. Sepals glabrous or with a fine appressed stellate or lepidote indument.

10. Floral bracts lustrous, dark castaneus, coriaceous; leaves densely lepidote above, glabrous beneath. Norte de Santander, Santander, Santander.

P. killipii

10. Floral bracts dull.

11. Leaves covered beneath with subappressed cinereous scales. Magdalena.

P. grantii

11. Leaves completely glabrous. Magdalena.

P. sanctae-martae

9. Sepals densely lanate or tomentose, the indument mostly persistent after anthesis.

12. Upper floral bracts nearly or about equalling the sepals.

13. Leaf-blades sparsely and obscurely lepidote, the spines spreading; floral bracts elliptic, acute, lustrous. Cundinamarca.

P. nitida

13. Leaf-blades covered on both sides with appressed cinereous scales, the spines antrorse; floral bracts orbicular with a triangular blade. Santander.

P. barkleyana

12. Upper floral bracts much exceeded by the sepals; leaf-blades 15 mm wide; sepals oblong, 20 mm long. Boyacá.

P. grubbii

1. Ultimate axes of the inflorescence completely covered, sometimes the flowers reflexed but the axis still covered.

14. Inflorescence obviously compound (at least by the lobed outline).

15. Sepals glabrous with age, much exceeding the floral bracts, 23 mm long; floral bracts triangular-ovate, attenuate. Cauca, Nariño.

P. furfuracea

15. Sepals densely lanate or tomentose, the indument mostly persistent after anthesis.

16. Primary bracts narrowly triangular, pungent; floral bracts triangular-acute. Nariño (?)

P. lehmanniana

16. Primary bracts broadly ovate.

17. Primary bracts covering the ovoid branches; leaf-blades slightly contracted at base; marginal spines 7 mm long; floral bracts unarmed.

P. antioquiensis

17. Primary bracts much shorter than the subcylindric branches leaf-blades uniformly tapered from base to apex; marginal spines 14 mm long; floral bracts uncinately-mucronate. Cundinamarca

P. horrida

14. Inflorescence simple or pseudosimple with the short branches covered by the primary bracts.

18. Outer bracts (the primary bracts or in a simple inflorescence, the floral bracts) conspicuously serrate.

19. Flowers distinctly pedicellate.

20. Inflorescence compound at least toward base, ellipsoid, 30-50 cm long; leaf-blades glabrous above. Cundinamarca.

P. santosii

20. Inflorescence simple: bracts finely pectinate-serrate; sepals 13-18 mm long. Cundinamarca.

P. lineata

19. Flowers sessile; inflorescence rufous-lanate; sepals ovate, 18-30 mm long. Nariño.

P. vestita

18. Outer bracts entire or very obscurely serrulate.

21. Lower surface of the leaf-blades covered with appressed persistent cinereous scales.

22. Inflorescence lax at base; sepals exceeding the bracts, 35 mm long. Magdalena.

P. grantii

22. Inflorescence strobilate; sepals equalled or exceeded by the floral bracts.

23. Flowering plant less than 4 dm high; floral bracts suborbicular, apiculate. Magdalena.

P. brachystachya

23. Flowering plant 6-8 dm high.

24. Sepals 14-16 mm long, apiculate; inflorescence usually compound. Cundinamarca.

P. cryptantha

24. Sepals 20-28 mm long.

25. Outer bracts entire.

26. Inflorescence ellipsoid, stout; sepals obtuse. Santander.

P. santanderensis

26. Inflorescence slenderly cylindric; sepals acuminate. Norte de Santander.

P. gargantae

25. Outer bracts obscurely serrulate; inflorescence stout, 25 cm long. Magdalena.

P. alpicola

21. Lower surface of the leaf-blades bearing minute scales between the nerves or subglabrous; flowering plant 4-40 dm high.

27. Outer bracts strongly reflexed and exposing most of the flower, membranaceous; inflorescence simple.

28. Leaf-blades serrate throughout; plant much less than 1 m high; inflorescence subellipsoid. Cundinamarca.

P. trianae

28. Leaf-blades entire along their upper 1/4; plant 2-3 m high; inflorescence slenderly cylindric. Magdalena.

P. nivalis

27. Outer bracts straight or with only the extreme apex reflexed, covering the sepals; inflorescence mostly compound.

29. Sepals 14-16 mm long, soon glabrous. Boyacá.

P. boyacana

29. Sepals 20-30 mm long, densely and persistently lanate.

30. Indument relatively short and lax, not obscuring the outline of the bracts; bracts membranaceous.

31. Sepals lance-oblong, 24 mm long, firm. Tolima, Cauca.

P. cuatrecasasii

31. Sepals lance-ovate, 30 mm long, membranaceous. Valle

P. occidentalis

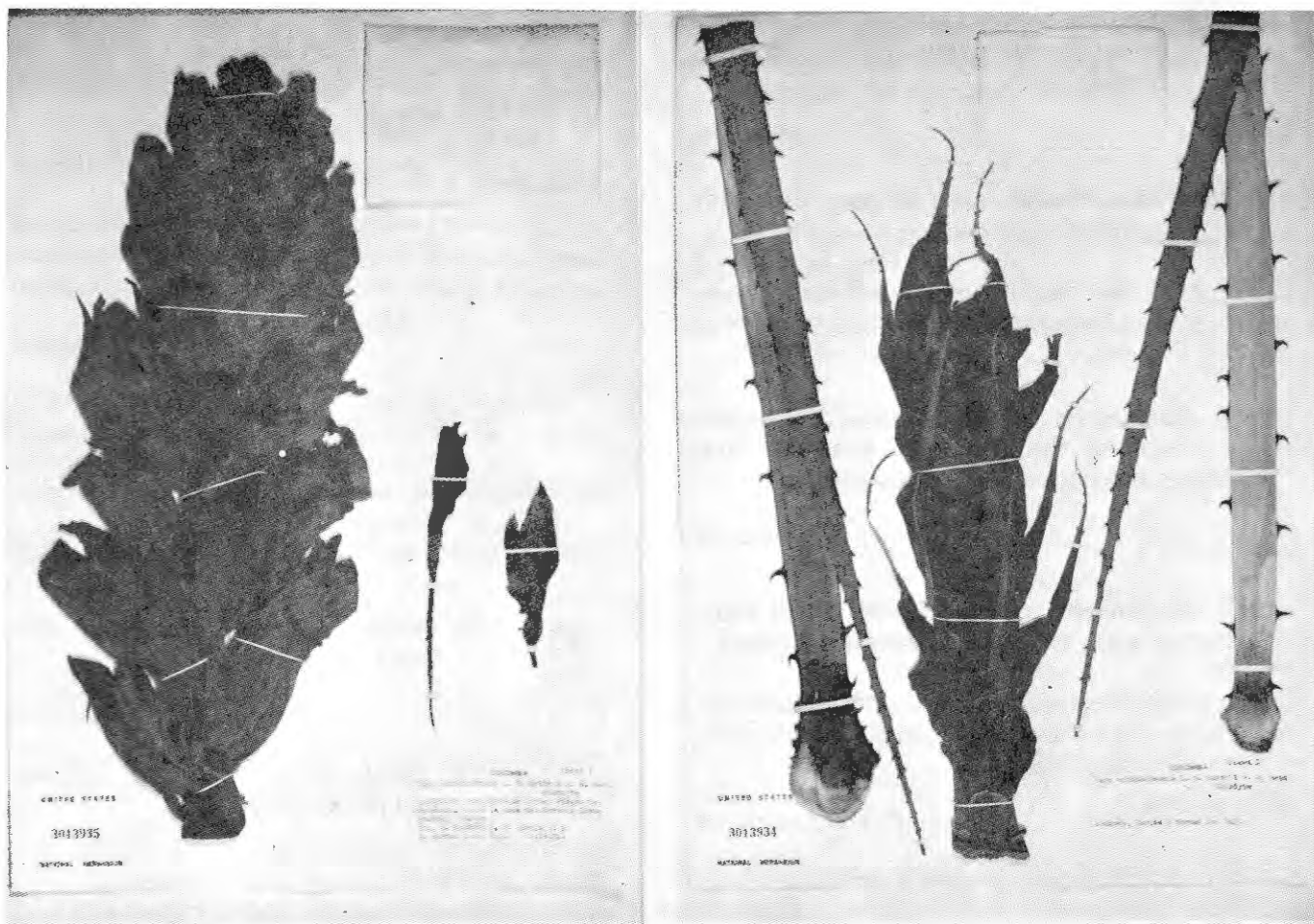
30. Indument very long and dense, completely covering all details of the inflorescence except the petals and the apices of the bracts.

32. Plant 1-1.5 m high; indument of the inflorescence brown; sepals lanceolate. Nariño.

P. clava-herculis

32. Plants 2.5-4 m high; indument of the inflorescence white; sepals broadly elliptic. Cauca, Valle.

P. hamata



FIGURAS Nos. 1 - 2

Type specimens of *Puya antioquensis* L.B. Smith & R.W. Read

1. *Puya antioquensis* Lyman B. Smith & Robert W. Read, sp. nov. Figs. 1-2

Planta florifera ultra 6 cm alta. Folia 4 dm longa; laminis angustissime triangularibus, ad basin versus paulo contractis, supra glabris, subtus inter nervios minutissime albo-lepidotis, laxissime uncinato-spinosis, spinis nigris, ad basin versis retrorsis, 7 mm longis, ad apicem antrorsis, minoribus. Scapus elongatus, crassus; scapi bracteis erectis, dense imbricatis, eorum vaginis suborbicularibus, integris, siccis nigris, arachnidio-vestitis, laminis foliaceis. Inflorescentia composita, subcylindrica, lobulada, 35 cm longa, 13 cm lata, arachnidio-vestita; bracteis primariis late ovatis, acuminatis, integris, ramos superantibus; ramis sessilibus, ovoidiis, dense multiflorigeris. Bractee floriferae ellipticae, late acutae, quam sepalis multo breviores; floribus sessilibus. Sepala oblongo-lanceolata, obtusa, 31 mm longa, 7 mm lata; petalis paulo exsertis, spiraliter contortis.

Typus: Colombia: Antioquia: Municipio de Urrao: Páramo de Frontino, entre la casa del Morro y llano grande, 3340 m alt., 16. IX. 1984, R. Londoño U, B. García V, y R. Bernal C. No. 548 (Holotypus US).

2. *Puya horrida* Lyman B. Smith & Robert W. Read, sp. nov. Fig. 3

Planta florifera ad 4 m alta (Barclay). Folia 1.15 m longa; laminis angustissime triangularibus, supra glabris, subtus inter nervios minutissime lepidotis; laxissime uncinato-spinosis, spinis nigris ad basin versis retrorsis, 14 mm longis, ad apicem antrorsis, minoribus. Scapus ignotus. Inflorescentia e fragmentis solum cognita, verisimiliter magna, arachnidio-vestita; bracteis primariis late ovatis, acuminatis, ca. 9 cm longis, quam ramis multo brevioribus; ramis subcylindricis, ad 16 cm longis, dense multiflorigeris. Bractee floriferae late ovatae, uncinato-mucronatae, ca. 3 cm longae, sepalis superatae; pedicellis anguste clavatis, 2 cm longis. Sepala oblongo-lanceolata, 24 mm longa; petalis 3 cm exsertis, palido-viridibus et azureo-tingentibus.

Typus. Colombia: Cundinamarca: Páramo de Choachi, 14 km east of Bogotá on the road to the town of Choachi, common component of páramo vegetation, 3,450 m alt., March 9, 1972, Arthur S. Barclay, Pedro Juajibioy & José Gama 3243 (Holotypus US).

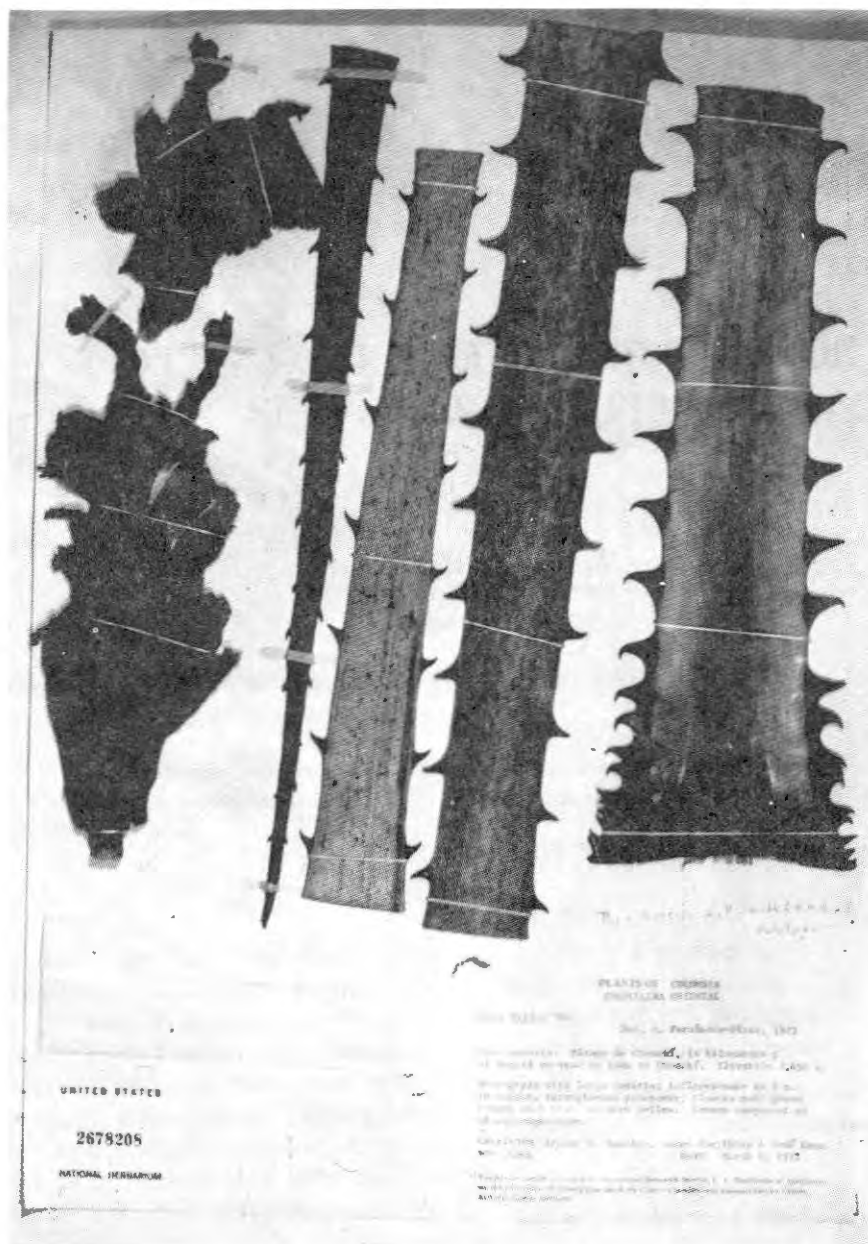


FIGURA No. 3

Type specimen of *Puya horrida* L.B. Smith & R.W. Read

BIBLIOGRAPHY

- CUATRECASAS, J. 1934. *Puya goudotiana* ("Puya aff. *bonplandiana*"). Tra. Mus. Nac. Cienc. Nat. Madrid, Bot. 27: (127), pl. 32, fig. 1.
- . 1941a. *Puya santosii*. Rev. Acad. Col. Cienc. Exact. Fis. Nat. 4: 160, figs.: 1, 2, pls. 1, 2.
- . 1941b. *Puya cryptantha*, Ibid. 161, pl. 2.
- . 1941c. *Puya santanderensis*. Ibid. 162.
- . 1941d. *Puya boyacana*. Ibid. 162.
- . 1944a. *Puya hillipii*. Not. Fl. Colombia 6: 38, Fig. 31.
- . 1944b. *Puya santosii* var. *verdensis*. Ibid. 39, Fig. 32.
- SMITH, L.B. 1949. *Puya hamata*. Contr. U.S. Nat. Herb. 29: 315, Fig. 35.
- . 1953. *Puya sanctae-martae*. Phytologia 4: 382, pl. 2.
- . 1954a. *Puya occidentalis*. Phytologia 5: 34, pl. 2, Figs.: 1-3.
- . 1954b. *Puya cuatrecasasii*. Ibid. 33, pl. 1, figs.: 5-9.
- . 1954c. *Puya lehmanniana*. Ibid. 34.
- . 1954d. *Puya furfuracea* Ibid. 34.
- . 1957. The Bromeliaceae of Colombia. Contrib. United States National Herbarium I-V, 1-311, figs.: 1-88.
- SMITH, L.B. & DOWNS, R.J. Pitcairnoideae, Bromeliaceae. Flora Neotropica, Monograph No. 14. 1-658, figs.: 1-212.