

NEW PALMS FROM VENEZUELA

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Henderson, Andrew (New York Botanical Garden, Bronx, NY 10458-5126) and Julian A. Steyermark (Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299). New palms from Venezuela. *Brittonia* 38: 309–313, 1986—*Asterogyne yaracuyense* and *Prestoea humilis* are described and illustrated, and their relationships discussed.

Recent field and herbarium study in Venezuela has revealed the following new species of *Asterogyne*.

***Asterogyne yaracuyense* Henderson & Steyermark, sp. nov. (Fig. 1)**

Ab *Asterogyne ramosa* et *A. martiana* rachillis 12–15, florum masculorum staminibus 9, florum femineorum staminodiis 7 differt.

Stems caespitose, 1 or 2 well-developed, these up to 8 m tall and 8 cm diam, with internodes 2.5 cm long, procumbent for first ca 50 cm and with numerous adventitious roots, then erect, occasionally with small lateral vegetative branches. Leaves 20–30, arching; sheath open, not or scarcely encircling stem (at least on outer leaves), 15–25 cm long, 10 cm wide at base, 1.5 cm wide at apex, with slightly fibrous margins, outer surface densely brown-tomentose; petiole 30–35 cm long, 1–1.5 cm wide, flat above, rounded below, glabrous; rachis 70–90 cm long; blade entire (splitting with age), 120 cm long, 30 cm wide, deeply bifid at apex for ca 40 cm, with 35–40 primary veins prominent above and below, deep green above, paler green below, red when first expanded. Inflorescence interfoliar, erect at anthesis, becoming pendulous in fruit; peduncle 90 cm long, 2 cm wide, dorsiventrally compressed, densely brown-tomentose; prophyll 30 cm long, 5 cm wide, flattened, covered on outside with deciduous, dense, brown tomentum, inserted 1 cm above base of peduncle; first peduncular bract 55 cm long, 4 cm wide, flattened, with similar tomentum to that of prophyll, inserted 3 cm above base of peduncle; second peduncular bract 58 cm long, 3.5 cm wide, flattened, with similar tomentum to that of prophyll, inserted 4 cm above base of peduncle; incomplete peduncular bracts 0–1, up to 3 cm long, inserted at mid-point of peduncle; rachis 6–9 cm long; rachillae 11–15, up to 32 cm long, 8 mm diam, glabrous, with a ca 1 cm long acute sterile apex, reddish-brown at anthesis; triads borne in pits arranged in 6 vertical series along the rachillae; pits covered by a bract in bud, this recurved at anthesis; flower bracteoles 3, the outer one prominent and ca 3 mm long, the inner ones smaller; staminate flowers ca 4 mm long in bud; sepals 3, 4 mm long, 2 equal and wider than the third, glumaceous, slightly keeled, imbricate; petals connate below for half their length into a tube, this briefly adnate to stamen tube below, lobes 3, 2 mm long, unequally wide, glumaceous, valvate; stamens 9 (10), filaments connate below into a 1.5 mm tube, free above; anthers 1.5 mm long, inflexed in bud, thecae separate, terminal on arms of the bifid connective; pistillode short, slightly 3-lobed at the apex; pistillate flowers ca 3 mm long in bud; sepals 3, 3 mm long, 2 equal and wider than the third, glumaceous, keeled, imbricate; petals connate below for $\frac{2}{3}$ their length into a tube, this briefly adnate to receptacle below, lobes 3, ca 1 mm long; staminodial tube 1 mm long with 7 lobes, 2 mm long; ovary 3-locular; style terminal, 1.5 mm long; stigmas 3; fruit not seen.

TYPE: VENEZUELA. YARACUY: Cerro la Chapa, selva nublada al norte de Nirgua, 1200–1400 m, 9–10 Nov 1967, *Julian A. Steyermark, George Bunting, & G. Wessels Boer 100311* (HOLOTYPE: VEN; ISOTYPE: BH).

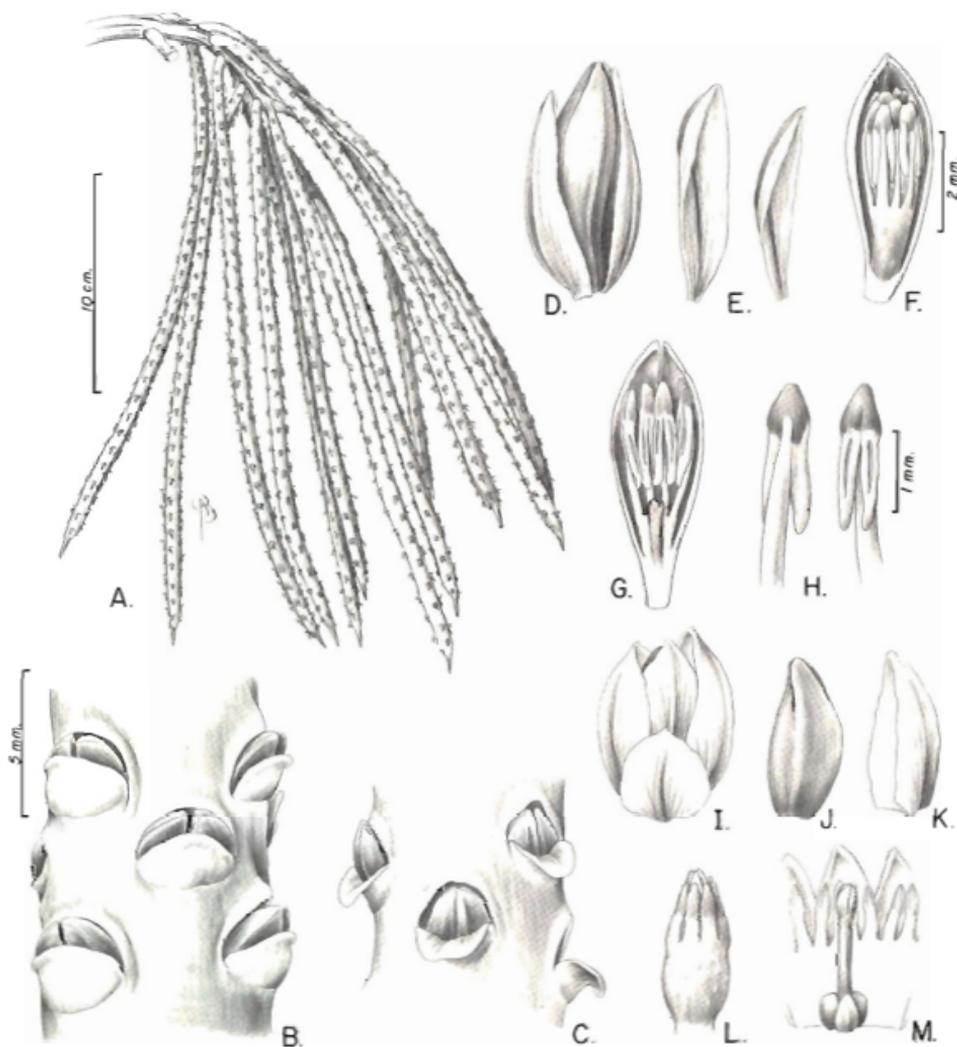


FIG. 1. *Asterogyne yaracuyense*. A. Rachis and rachillae. B. Portion of rachilla drawn from wet material. C. Portion of rachilla drawn from dry material. D. Staminate bud with sepal removed. E. Staminate sepals. F. Staminate bud in vertical section. G. Staminate bud with some stamens removed to show pistillode. H. Stamens in two views. I. Pistillate flower with bracteole. J. Pistillate flower with sepals removed. K. Pistillate sepal. L. Staminodial tube. M. Pistillate flower opened to show pistil.

Other specimens examined: all from same locality as type: 9–10 Nov 1967, *Steyermark et al.* 100307 (BH, VEN); 12 Nov 1985, *Henderson* 502 (MYF, NY); 11 Mar 1967, *Steyermark & Bunting* 97661 (BH, VEN).

Asterogyne yaracuyense is morphologically similar to both *A. ramosa* and *A. martiana*, but can be distinguished from those species by its well-developed rachis with more numerous and longer rachillae, and by stamen and staminode number. The genus has most recently been revised by Wessels Boer (1968). Differences among all species in the genus are given in Table I. Apart from the widespread *A. martiana*, other species have a rather limited distribution (Table I). This may be a reflection of uneven collecting, but it is of interest to note that all Venezuelan

TABLE I
MORPHOLOGY AND DISTRIBUTION OF *Asterogyne*

| | <i>A. murriana</i> (Wendl.) Wendl. ex Hemsley | <i>A. ramosa</i> (H. Moore) W. Boer | <i>A. yaracuyense</i> Henderson & Steyermark | <i>A. spicata</i> (H. Moore) W. Boer |
|-------------------|---|---|---|--|
| Stem | solitary, to 2 m, without lateral branches | solitary, to 3 m, with lateral branches | cespitose, to 4 m, with lateral branches | solitary, to 8 m, without lateral branches |
| Inflorescence | branched | branched | branched | spicate |
| Peduncular bracts | 1 or 2 | 2 | 2 | 1 |
| Rachis | 1 cm | 1.3–2.5 cm | 6–9 cm | 0 |
| Rachillae | 1–8 | 4–6 | 11–15 | 1 |
| Stamens | 6 | 11 (12) | 9 (10) | 21–24 |
| Staminodes | 6 | to 9 | 7 | 15–18 |
| Fruit length | ca 12 mm | 15–16 mm | not seen | 18 mm |
| Distribution | Belize to W Colombia | Venezuela: Sucre, Penin- sula de Paria | Venezuela: Yaracuy, Nirgua | Venezuela: Miranda, Guatopo |
| Elevation | up to 500 m | 800–1000 m | 1200–1400 m | 200–700 m |

localities of *Asterogyne* are located in those refugia of the Coastal Cordillera proposed by Steyermark (1979, 1981). A possible fifth species, as yet undescribed, has recently been collected in French Guiana (*de Granville 7124*).

Specimens of a *Prestoea* from an area near Nirgua, in Yaracuy, have usually been considered to represent *P. longepetiolata* (Oersted) H. Moore (Wessels Boer, 1971). That species was described from the Atlantic slopes of Costa Rica and is not known from elsewhere, apart from Venezuela. However, examination of Venezuelan material, in the herbarium and in the field, and comparison of it with Oersted's description and other Costa Rican material, has shown that the Venezuelan plant represents a different, and undescribed, species.

Prestoea humilis Henderson & Steyermark, sp. nov. (Fig. 2)

Inter affines his notulis distinguenda: caudex ad 1 m altus, folia regulariter pinnata pinnis caudato-acuminatis 70 × 4.5 cm usque, inflorescentiae dense tomentosae pedunculi quam rachidibus multo longiores, rachillis 35–50, quaeque trias bracteas conspicua suffulta.

Stems cespitose, erect, with 1 or 2 well-developed, these up to 1 m tall and 10 cm diam, covered with persistent decaying leaf sheaths. Leaves 4 or 5, spreading; sheath 50–60 cm long, open (at least on outer leaves) and not forming a crownshaft, persistent; petiole 90–105 cm long, 1.5 cm diam, subterete, densely covered with deciduous, appressed, brown, membranous scales; rachis 240 cm long, rounded below, ridged above, with similar scales as petiole; pinnae 34–36 per side, 1-veined, horizontally spreading, evenly spaced, sub-opposite, deep green above, dull green below, with long acuminate tip, at base of rachis 60 cm long and 1 cm wide at mid-point, at middle 70 cm long and 4.5 cm wide at mid-point, at apex 35 cm long and 1 cm wide at mid-point, with scattered brown scales on mid-veins below. Inflorescence interfoliar, arching, protandrous; peduncle up to 120 cm long and 1 cm wide, densely brown-tomentose; prophyll erect and persistent in leaf sheath, inserted at base of peduncle, 50 cm long, 4 cm diam, bicarinate, dorsoventrally compressed, reddish-brown outside and with scattered brown scales; peduncular bract falling away from inflorescence during anthesis, 160 cm long, with 6 cm long acute apex, inserted 15–18 cm from base of peduncle, outside covered with similar scales as prophyll, splitting abaxially longitudinally, at anthesis red outside and white inside, becoming brown; vestigial bracts 3, small, acute, inserted near