

Allagoptera brevicalyx (Palmae), a new species from Bahia, Brazil

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Moraes R., Mónica (Herbario Nacional de Bolivia, Casilla 10077, La Paz, Bolivia). *Allagoptera brevicalyx* (Palmae), a new species from Bahia, Brazil. *Brittonia* 45: 21–24. 1993.—*Allagoptera brevicalyx* from Bahia, Brazil, is described. It is compared to other species of *Allagoptera* and also to *Polyandrococos*.

Moraes R., Mónica (Herbario Nacional de Bolivia, Casilla 10077, La Paz, Bolivia). *Allagoptera brevicalyx* (Palmae), a new species from Bahia, Brazil. *Brittonia* 45: 21–24. 1993.—Se describe una nueva especie, *Allagoptera brevicalyx* del Estado de Bahia, Brasil. Se la compara con otras especies de *Allagoptera* y también con el género *Polyandrococos*.

Key words: Palmae, *Allagoptera*, Bahia, Brazil.

A revision of the genus *Allagoptera* Nees recognized four species, *A. arenaria* (Gomes) Kuntze, *A. campestris* (C. Martius) Kuntze, *A. leucocalyx* (Drude) Kuntze and a new species, *A. brevicalyx* (Moraes, 1989). This genus is distributed in open areas of Brazil, Bolivia, Argentina, and Paraguay. It is closely related to the genus *Polyandrococos*, which also has a long spike inflorescence, but both have differences in habit and number of stamens (Uhl & Dransfield, 1987). This new species of *Allagoptera* shows some similarities with *Polyandrococos*.

Allagoptera brevicalyx Moraes, sp. nov.
(Fig. 1)

TYPE: BRAZIL. Bahia: Salvador, Itapuá, Mar 1961, *Athayde s.n.* (HOLOTYPE: RB; ISOTYPE: BAH—n.v.).

Caulis subterraneus. Petioli 10–20 cm longi, tomentoso lanoso obtekti; pinnae utroque latere 25–40, irregulariter dispositae vel 2–6 inter se obscure aggregatae, ambitu lanceolatae 22 × 2 cm usque, apice lobatae. Florum masculorum sepala et petala membranacea, stamina 15; flores foeminei rotundati. Fructus ovoideus vel turbinatus residuo stigmati truncato provivus, quam perianthio fructifero 4–5-plo longior, glaber.

Stem to 2 m long, acaulescent or subterranean, solitary or clustered. **Leaves** (2)4–8;

sheath and petiole densely tomentose; petiole 10–20 cm long, ca. 5 mm diam., densely covered with beige woolly tomentum; rachis 40–70 cm long, triangular in cross-section at apex, densely woolly-waxy; pinnae 25–40 per side, shortly lanceolate, with lobed tips, irregularly inserted in obscure groups of 1–4, 2–3 cm apart, opened to rachis, plicate at base and densely covered with woolly hairs and ramenta, at obtuse apex asymmetrically split for 0.5–4 cm, with evident midrib on both surfaces, with transverse veinlets not evident, green and lustrous adaxially, glaucous abaxially; basal pinnae 15–25 × 0.4–1.8 cm; middle pinnae 10–22 × 0.7–2 cm; apical pinnae 4–9 × 0.2–0.9 cm. Inflorescences 35–90 cm long; peduncle 45–80 cm long, 0.4–0.6 cm diam., slender, muricate, scarcely to densely covered with floccose hairs and brownish scales; rachis 10–15 cm long, bearing whitish woolly hairs; prophyll 25–30 cm, tubular, scarious; peduncular bract 50–90 cm long, 1.7–4 cm diam., apiculate, inflated above, woody, sulcate, beige-waxy at apex externally, glabrous and brownish-violet internally; peduncular bracts 1 or 2, brown, scarious, dentate, at 2.5 cm from apex of peduncle. **Staminate flowers** 3–4.5 cm long, shortly

pedicellate (to 1 mm), inserted parallel to perpendicular, in diads distally; sepals connate to middle, glabrous, membranous, two ca. 2.5×1.5 mm, one larger ca. 3.5×1.5 mm, much smaller than the petals; petals valvate, connate to middle, glabrous, membranous, ca. 6×2 mm; stamens 15, ca. 6 mm long, the filaments not columnar, ca. 1.5 mm long, the anthers ca. 4 mm long, sagittate at both ends; pistillode trifold. *Pistillate flowers* inserted on proximal 5–12 cm of rachis, fibrous; sepals free, triangular, $3-5 \times 3$ mm, contorted to left, glabrous, irregular to dentate on margin; petals free, triangular, $3-5 \times 3$ mm, imbricate to right, glabrous; staminodial ring adnate to petals; pistil conical, 3–5 mm tall; stigma capitate, shorter than 1 mm, with three short branches, wrinkled, glabrous. *Fruit* ovate to turbinate, 1.5–2 cm long, ca. 1.3 cm diam., the stigmatic remains truncate with stigmas sessile and minute, the persistent perianth shorter than half of fruit; endosperm homogeneous; seed 1.

Common names: "Cachandó."

Additional specimens: BRAZIL. Bahia: Municipio Salvador, Lagoa do Abieté, 10–20 m, 23 Sep 1976, Davis 61032 (F); ca. 35 km NE from Salvador and 3 km NE from Itapoá, 30 Aug 1978, Morawetz & Morawetz 21-30878 (BH); Salvador, dunas de Itapoá, Lagoa de Urubu, $12^{\circ}56'S$, $38^{\circ}21'W$, 12 Dec 1985, Noblick & Britto 4473 (F—n.v., LPB); Itapoá, Bondar 23 (F); Pi-dôbe, 1835, Blanchet s.n. (G); Esplanada, 1 Dec 1988, Noblick & Soeiro 4702 (CEPEC—n.v., F—n.v., HRB—n.v., LPB); Esplanada, Lagoa apos entrada para Conde, $11^{\circ}47'S$, $37^{\circ}55'W$, 15 Feb 1978, Orlandi 140 (RB); central part of State, Oct 1942, Krukoff 12631 (NY).

Distribution: Restricted to xeromorphic vegetation of littoral sandy dunes and cerrado in northeastern region of Bahia, Brazil. Populations occur to 40 km from coast from 0 to 20 m elevation in restinga vegetation (Entre Rios, Salvador) and from 100 to 150 m elevation in cerrado vegetation (Esplanada).

Allagoptera brevicalyx is named for its perianth that is short in fruit, rather than enlarged as in other species of *Allagoptera*. It has been confused frequently with *A. arenaria*, which grows in similar restinga vegetation but closer to the beach, and also with *A. campestris* from the cerrado vegetation.

This new species differs from other spe-

TABLE I
COMPARISON OF SPECIES OF *Allagoptera*

| Species | Petiole length (cm) | Apex of pinnae | Groups of pinnae | Insertion of pinnae | Tomentum on leaves | Staminate calyx | Staminate perianth texture | Number of stamens filament fascies | Fruit | Perianth in fruit* | Stigmas | CHARACTER |
|----------------------|---------------------|----------------|------------------|---------------------|--------------------|-----------------|----------------------------|------------------------------------|------------------------------|--------------------|---------------------------|-----------|
| | | | | | | | | | | | | |
| <i>A. brevicalyx</i> | 10–20 | obtuse | 1–4 | opened to rachis | dense, waxy, white | partially fused | membranous | 15, free | glabrous, turbinate or ovate | shorter | 1 mm long, capitate | |
| <i>A. arenaria</i> | 45–60 | acute | 2 or 3 | opened to rachis | sparse scales | free | coriaceous | 14–18, connate | floccose, ovate | longer | 3 mm long, trifold, erect | |
| <i>A. campestris</i> | 15–25 | acute | 2 or 3 | adpressed to rachis | lanuginous, white | free | coriaceous | 6, connate | floccose, ovate to elliptic | longer | 3 mm long, trifold, erect | |
| <i>A. leucocalyx</i> | 25–70 | acute | 2 or 3 | opened to rachis | subglabrous | free | coriaceous | 9–14, free | floccose, ovate to elliptic | longer | 3 mm long, trifold, erect | |

* Length in relation to half of fruit.

cies of *Allagoptera* by the combination of characters shown in Table I.

Some of these characters are similar between *A. brevicalyx* and the closely related genus *Polyandrococos*, especially in turbinate, glabrous fruit, non-grouped pinnæ, membranous flower texture, and a short perianth in fruit. *Polyandrococos*, however, has an inflorescence to 1 m long, 60–90 stamens, shallowly ruminant endosperm, oblique-acute pinnæ tips, and a toothed petiolar base.

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 Uhl, N. W. & J. Dransfield. 1987. Genera Palmarum. Based on the work of H. E. Moore, Jr. Lawrence, Kansas.

BOOK REVIEW

Chamaedorea Palms. The Species and their Cultivation. By Donald R. Hodel. The International Palm Society and Allen Press, Lawrence, Kansas. ISBN 0-935868-56-9. 1992. 338 pp. \$59.95 (cloth).

This book is a systematic treatment of all 96 species of the neotropical palm genus *Chamaedorea*. However, it is written by a horticulturist, not a systematist, and instead in the dry-as-dust treatment the latter would have provided we have a splendid, joyous treatment replete with color photos, concentrating on the aesthetic as well as the botanical. The growers of *Chamaedorea* will be happy, especially with the chapter on how to grow these ornamental palms. But what will the systematist think? Probably he will

be impressed. Hodel has examined most of the available types, reviewed the literature, studied most available herbarium collections, and carried out extensive fieldwork in Central America, the home of most species. The resulting work is excellent hybrid between the horticultural and botanical, where each species is accurately described and lavishly illustrated. My only criticism of this fine book is that there are far too many pictures of each species. For example, there are 15 photos of *Chamaedorea pinnatifrons*. If the number of photos had been reduced then the price of the book could also have been lower.—ANDREW HENDERSON, New York Botanical Garden, Bronx, NY 10458-5126, U.S.A.

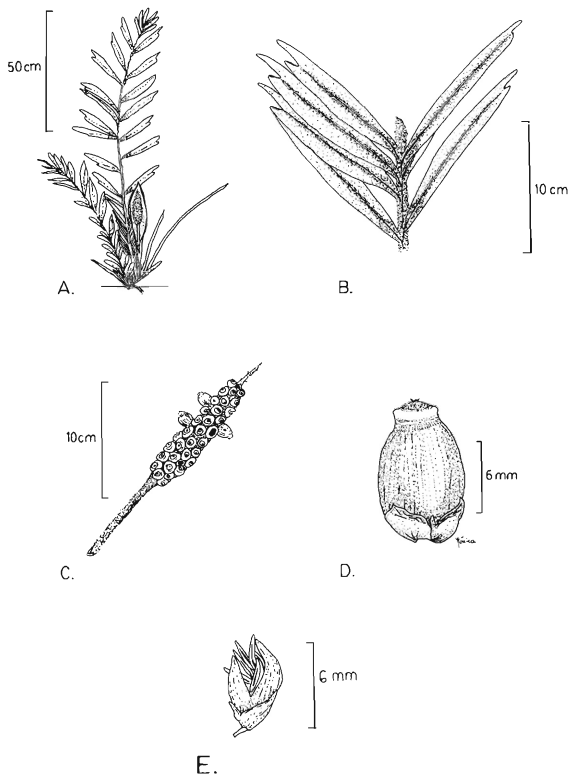


FIG. 1. *Allagoptera brevicalyx*. A. Acaulescent habit with erect inflorescence. B. Shape and arrangement of leaves. C. Infructescence. D. Mature fruit. E. Staminate flower. (A from photographs taken by L. R. Noblick in Itapoá, Bahia; B from Noblick & Brito 4473; C, D from Athayde s.n.; E from Morawetz & Morawetz 21-30878.)