

New Species in the Palm Genus *Syagrus* Mart.

In the process of studying herbarium material of *Syagrus* from various institutions, I have encountered a number of collections which do not fit into the provisional key to the genus proposed by me in a recent article¹ nor do they seem to fit into recognized species. Some of these plants are described below as new species. I am grateful to Josephine Sennet for the line drawings and to the National Science Foundation which supported part of this work.

Syagrus archeri Glassman, sp. nov. Figure 1.

Palma acaulis. Folia ca. 87 cm. longa; pinnis utrinque 28 aequaliter pinnatisecta; spadix ca. 34 cm. longus pars ramosa 19 cm. rachillis ca. 19; flores masculi et 6-7 mm. et 3.5-5.0 mm. alti; flores feminei 6-7 mm. alti.

Acaulescent palm or with short trunk to 0.3 m. long. Petiole 5.5-8.0 cm. long, about 0.6 cm. wide, sheathing base about 13 cm. long; rachis of leaf about 69 cm. long; pinnae 28 pairs, unclustered, mostly subopposite or opposite along rachis, glabrous on both surfaces, middle ones up to 41 cm. long, 0.7 cm. wide, mostly with long acuminate tips; expanded part of spathe up to 29 cm. long and 2.6 cm. wide, glaucous on outside, becoming eglaucous with age; branched part of spadix up to 19 cm. long, branches up to 19 in number, each branch up to 8 cm. long; male flowers 6-7 mm. long and 3.5-5.0 mm. long, sepals 1.5-3.0 mm. long; female flowers 6-7 mm. long, 5-6 mm. wide; fruit (immature) 1.6 cm. long, about 1.0 cm. in diameter, endocarp 0.5-1.0 mm. thick, cavity smooth; seed not seen.

BRAZIL: State of Minas Gerais, Fazenda Morro Redondo, near Lavras, in burned-over pasture, 20 Sept. 1936, W. A. Archer 4048 (A, holotype; BH, NY, MO, US).

Another specimen (*O. Handro 313* [SP], state of Sao Paulo, Casa Branca, 18 Sept. 1952) collected about 130 miles to the west of Lavras, may be the same species; but the spathe is slightly wider (3 cm.), the male and female flowers are slightly longer (both up to 8 mm.) and the spadix branches are slightly longer (up to 9.5 cm.).

Syagrus archeri seems to be related to *S. graminifolia* var. *nana* (Drude) Becc. from Brazil. Both are acaulescent and have very narrow, unclustered pinnae; but the female flowers are slightly shorter

¹ Preliminary Studies in the Palm Genus *Syagrus* and its Allies. Fieldiana, Bot. 31, 147-164. 1965.

(6–8 mm., rather than 8–9 mm.) and wider (5–6 mm., rather than 3.5 mm.), and the spadix branches are shorter (up to 9.5 cm., rather than up to 16 cm.) and more numerous (up to 19, rather than up to 5 in number).

During July 1965, I visited a grassland area about 16 km. north of Lavras and observed about 100 living specimens. I was told that there were similar stands of this species throughout the region. *Syagrus archeri* is fairly common in other grasslands and pastures of Minas Gerais near Paraopeba, Curvelo and south of Diamantina. A number of specimens were collected from palms in these localities, but unfortunately I have only recently received the specimens from Brazil for study.

Syagrus cardenasii Glassman, sp. nov. Figure 2.

Palm 1–2 m. alta. Petiolus 38 cm. longus; pinnis utrinque 32 in gregibus dispositus; spadix ca. 54 cm. longus pars ramosa 27 cm. longa; flores masculi 5–9 mm. alti; flores feminei 7–9 mm. alti; fructus 2.2 cm. longus, 1.6 cm. diam.; semine 1.1 cm. longo, 0.75 cm. lato.

Palm 1–2 m. tall, apparently growing in clumps. Petiole 38 cm. long, about 1 cm. wide; rachis of leaf blade up to 57 cm. long; pinnae 32 pairs, single or in loose clusters of 2–3, grayish-green above, but not waxy, yellowish-green below, middle-lower ones up to 30 cm. long and 0.75 cm. wide, mostly with narrowed oblique tips; expanded part of spathe up to 38 cm. long and up to 3.3 cm. wide, brownish-tomentose to glabrous on outside; branched part of spadix up to 27 cm. long, branches 9–11 in number, each branch up to 22 cm. long; male flowers 8–9 mm. long on lower part and 5.0–7.5 mm. long on upper part; female flowers 7–12 mm. long, 6–8 mm. wide, sepals and petals with more or less acute tips; pistil 5.5 mm. high; ovary densely short pubescent for most part; mature? fruit about 2.2 cm. long, 1.6 cm. in diameter, slightly beaked; endocarp bony, 2–2.5 mm. thick along sides, 3–3.5 mm. thick at extremities, cavity trivittate, smooth; seed about 1.1 cm. long, 0.75 cm. in diameter, endosperm homogeneous, cavity very narrow.

BOLIVIA: Province of Chuquisaca, between Monteagudo and Muyupampa, alt. 1800 m., dry forest, slopy soil, "Motzcuchi," May 1959, *M. Cardenas 5500* (BH, holotype; US).

Syagrus cardenasii seems to be related to *S. cocoides* Mart. from Brazil. Both taxa have pinnae which are single or in loose clusters, spadix branches of more or less the same length and number, and female flowers of about the same size and shape. The new species differs from *S. cocoides* in the narrower pinnae (less than 1 cm., rather than up to 2.5 cm. wide), smaller male flowers (up to 9 mm., rather than up to 19 mm. long), and smaller fruits (2 cm., rather than 5 cm.) which are only slightly beaked rather than long beaked.

