

Three New Palms from Venezuela

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Recent collections from the Chimantá Massif, Auyan-tepui and Cerro Sipapo in Venezuela represent undescribed species in the genera *Euterpe* and *Prestoea* as circumscribed by the writer (*Gentes Herbarum* 9:260-262. 1963). Complete descriptions are not yet available for all the species of these genera known from the tepuis of the Guianas and Venezuela, but the following have characteristics which, in ensemble, set them apart.

***Euterpe* (*Euterpeopsis*) *aurantiaca* H.
E. Moore, *sp. nov.***

Caulis ad 12 m. altus, foliorum vaginis aurantiacis, petiolis brevibus, pinis utrinque 45, inflorescentiae bracteis aurantiacis, ramis dense brunneovelutinis, floribus masculis 4-4.5 mm. longis, pistillodio trifido, fructibus 12-13 mm. diam., albumine homogenero.

Tree to 12 m. high.

Leaves with bright orange sheaths ca. 8 dm. long and sparsely clothed with small, fimbriate-peltate, shining, dark-brown scales; petiole short, ca. 8 cm. long, densely clothed above and below with large, blackish, membranous, lacerate-twisted, basifixed scales to 3.5 mm. long over a thin waxy coat, both ultimately deciduous leaving the surface brown-punctulate; rachis similarly vestite at least basally, 1.75 m. long with ca. 45 pinnae on each side regularly arranged at intervals of 2.5 (mid) to 9 (lowest) cm., the lowermost pinnae ca. 52 cm. long, 3 mm. wide, lower pinnae 44 cm. long, 8 mm. wide, middle pinnae 68 cm. long, 3.8 cm. wide, upper pinnae 51 cm. long, 3.8 cm. wide, apical pinnae 28 cm. long, 8 mm. wide, all linear-attenuate to an acute or acuminate apex, glabrous above, densely clothed below

with minute, brown-centered, pale-margined, peltate scales and, on the midnerve, with prominent, elongate, castaneous, twisted, membranous, basifixed scales to 5 mm. long, secondary nerves 2 on each side of the midnerve.

Inflorescence infrafoliar, ca. 65 cm. long; bracts dorso-ventrally flattened, bright orange, subequal, inserted about 2 cm. apart, clothed with scattered, black, lacerate-peltate scales, the upper bract ca. 65 cm. long, apparently not much produced beyond the lower; peduncle short, ca. 10 cm. long, densely clothed with castaneous-centered, pale and fimbriate-margined, peltate scales over a thin waxy coat, becoming glabrate and brown-punctulate; rachis ca. 28 cm. long, densely tomentose with scales like those of the peduncle; rachillae numerous, ca. 97, to ca. 53 cm. long, densely velutinous with brown-centered, pale, fimbriate scales or densely pale-brown velutinous toward the apex.

Flowers inserted in distinct pits, the pistillate subtended by 2 glabrous, orange, shining bracteoles 1-1.5 mm. high: staminate flowers 4-4.5 mm. high, brownish (when dry, colored when fresh?), the sepals glabrous, somewhat keeled, more or less rounded apically, ca. 2 mm. high, dark-margined; petals asymmetrically rounded to a point but scarcely markedly acute; stamens 6, filaments stoutish, not inflexed at apex, slightly shorter than the narrowly ovate anthers; pistillode trifid, about half as long as the stamens and about equalling the stamen-filaments: pistillate flowers conic in bud, the broadly rounded sepals ca. 2.5 mm. high; petals ca. 4 mm. high and very briefly valvate at apex.

Fruit (from *Maguire & Politi 27733*)

globose, 12–13 mm. in diam., the surface minutely roughened when dry, subtended by sepals 2.5 mm. high, petals 5 mm. high; seed depressed-globose, 9 mm. in diam., 8 mm. high; endosperm homogeneous.

VENEZUELA. TERRITORIO AMAZONAS: Cerro Sipapo (Páraque), frequent in mixed montane forest, Cano Grande, 1 km. northwest of savanna camp, 1,500 m. alt., Dec. 28, 1948, *Maguire & Politi 28009* (NY, holotype); between savanna camp and Phelps camp, 1,400 m. alt., Dec. 17, 1948, *Maguire & Politi 27733* (NY, paratype in fruit).

The five species of *Euterpe* endemic to the tepuis—*E. aurantiaca*, *E. erubescens*, *E. montis-duidae*, *E. ptariana*, *E. roraimae*—are characterized by buff to ferruginous indument on the inflorescence branches in contrast to the white or pale yellow indument of most lowland species. Within this complex, *E. aurantiaca* differs from all species for which any color notations have been given in its bright orange leaf-sheaths and inflorescence bracts. The brown tomentum of the inflorescence, dense and large scales of the petioles, and colored bracteoles subtending the colored flowers are other features setting the species apart.

***Euterpe (Euteropsis) erubescens* H.**

E. Moore, *sp. nov.*

Caulis ad 12 m. altus, foliorum vaginis viridibus, petiolis ca. 40 cm. longis, pinnis regulariter ordinatis, inflorescentia ca. 43 cm. longa, ramis dense fusco-tomentosis, floribus masculis 5.5 mm. altis, rubris, pistillodio trifido, fructibus 12–13 mm. diam., albumine homoganeo.

Trunk slender, 5–12 m. high.

Leaves subcoriaceous, dark-green above, paler below; sheath glabrous but sparsely punctulate, 52 cm. long or more; petiole rounded and glabrous be-

low, deeply channelled and dark-subceraceous above, ca. 40 cm. long; rachis glabrous but marked with dark patches below, angled and dark-lepidote and perhaps dark-pilosulous above; pinnae regularly arranged at intervals of 1–5 cm., acuminate, the lowermost ca. 18 cm. long, 2 mm. wide, the remainder mostly 30–50 cm. long, 1.5–2.7 cm. wide, decreasing to 20 cm. long, 1.8 cm. wide near and 12.5 cm. long, 5 mm. wide at the apex, the midnerve prominent and keeled above as, to a much lesser extent, are a nerve on each side midway or closer to the margin, the midnerve brown-punctulate below, as are all the other nerves, and clothed near the base or nearly to the apex with dark brown, basifixed or rarely medifixed, membranous scales to 4 mm. long, the secondary and submarginal nerves impressed below, flanked by numerous nerves of tertiary and quaternary orders.

Inflorescence ca. 43 cm. long; peduncle dorso-ventrally compressed, becoming very densely red-brown-black appressed-puberulent or pilosulous toward and on the rachis and rachillae, 8 cm. long, 2.2 cm. wide at first bract, 11 mm. wide at first branch, with deciduous, pale, ceraceous scales at the base and between the two bract scars and scar of a third, probably incomplete, bract, these scars ca. 1 cm. apart, the lower 2 cm. from the base; rachis short, ca. 10 cm. long, with 28 branches, the lower branches 27 cm. long, 7 mm. wide at flattened and expanded base, the upper ones ca. 20 cm. long.

Staminate flowers 5.5 mm. high; sepals brick-red, 4 mm. long, lightly keeled; petals 5 mm. high, adnate to connate stamen-filaments ca. 1.5 mm. at base, filaments colored, ca. 2 mm. long, erect; anthers pale, erect, dorsifixed, 2 mm. long; pistillode of 3 subulate filaments about as long as stamen-

filaments: pistillate flowers subtended by 2 large bracteoles, these in fruit ca. 2 mm. high and glabrous apically, puberulent basally.

Fruit globose, 12–13 mm. in diam. but not completely mature, the exocarp dark and granular-roughened when dry (brownish-yellow in life fide Steyermark), the shining, glabrous, brown perianth appressed to the fruit, with sepals 3–3.5 mm. long, 4–6 mm. wide, petals 6 mm. long, 8 mm. wide; seed immature but with homogeneous endosperm.

VENEZUELA. ESTADO BOLIVAR: Chimantá Massif, Central Section; swampy ground above Summit Camp, 1,940 m. alt., Feb. 4, 1955, *J. A. Steyermark & J. J. Wurdack 434* (NY, holotype; VEN, isotype); Chimantá Massif, northwestern part of summit of Abácapa-tepui, above first line of sandstone bluffs, 2,000–2,125 m. alt., April 14, 1953, *J. A. Steyermark 75011* (NY, VEN); Auyan-tepui, common along stream, cumbre de la parte norte de la sección sur (división occidental del cerro), a lo largo del Río Churún al pie de "Second Wall" de arenisca, desde el campamento norte, 5 kms. hacia el noreste, 1,660 m. alt., May 12, 1964, *J. A. Steyermark 93738* (BH).

Vernacular name: *manaca*.

Uses: bud said to be edible.

Euterpe erubescens and *E. roraimae* differ from *E. aurantiaca*, *E. montisduidae*, and *E. ptariana* in the very dark indument of the mature inflorescence. The larger, staminate flowers with brick-red sepals more than half as long as the petals and the trifold pistillode distinguish *E. erubescens* from *E. roraimae* which was described as having staminate flowers 4 mm. long with sepals half as high as the petals and a columnar pistillode.

A specimen from the summit of Cerro de la Neblina, Río Yatua, Territorio

Amazonas, Venezuela, was collected in fruit on January 16, 1954 (*Maguire, Wurdack & Bunting 37319*). The material at hand is very similar to *E. erubescens* but differs in having a shorter petiole with a dense coat of longer, red-black, lacerate scales near the margin on the lower side, dense patches of similar scales at the apex of the leaf-sheath and delicate red-brown branched hairs on the body of the sheath. Hairs of the inflorescence are slightly shorter than those of *E. erubescens* with a tendency to be intermixed with paler hairs (though this is also evident on one inflorescence of the type collections). Complete material may someday provide the basis for a more satisfactory identification of this collection, but for the present it is noted as certainly very closely related to if not identical with *E. erubescens*.

The name *Euterpe erubescens* has already appeared in a report on the flora of Auyan-tepui (*Acta Botánica Venezolana* 2: 140. 1967) where, owing to delays in publication of this article, it is a *nomen nudum*.

Prestoea Steyermarkii* H. E. Moore, *sp. nov.

Caulis ad 8 m. altus, foliorum petiolis lepidotis pinnis regulariter ordinatis subtus lepidotis, inflorescentia ca. 1 m. longa, ramis scaberulis, floribus masculis 4 mm. longis, pistillodio trifido, fructibus globosis 8 mm. diam., albumine ruminato.

Trunk slender, 6–8 m. tall.

Leaves deep green; sheath with scattered, very thin, membranous, more or less lacerate-margined, brown, peltate scales; petiole elongate, about 70 cm. long, rounded, sparsely to densely beset below with pale, membranous, irregular, more or less lacerate, peltate scales often with spreading or appressed brown hairs, convex and glabrous above; pinnae regularly arranged, firmly mem-

branaceous, acuminate, glabrous above, prominently scaly below with very small, brown, membranous, lanceolate to peltate scales, the midnerve also with larger, more or less twisted, red-brown, membranous scales at least toward the base, the lowermost pinnae shorter and very narrow, 29 cm. long, 4 mm. wide, the lower pinnae 42 cm. long, 1.8 cm. wide, middle pinnae 53 cm. long, 2.5–2.9 cm. wide, upper pinnae 30 cm. long, 1.8 cm. wide, apical pinnae 20 cm. long, 8 mm. wide, the midnerve prominently keeled above, the margins pale and thickened, secondary and tertiary nerves prominent, pale, and about 5 on each side of the midnerve below with many fine quaternary nerves interspersed.

Inflorescence infrafoliar, nearly 1 m. long in bud; bracts markedly unequal, the lower ca. 35 cm. long, ancipitous, obliquely open at apex, the upper inserted ca. 8 cm. above the lower, terete and tapered to a flat point ca. 3 cm. long, both glabrous except for scattered minute deciduous peltate scales or persistent brown scale-bases; peduncle 2.6 dm. long, terete, glabrous to minutely brown-lepidote toward the rachis, this white in flower and fruit, ca. 33 cm. long, minutely scaberulous; rachillae about 45, minutely scaberulous, 22–31.5 cm. long, terminating in a sterile spinose tip.

Flowers whitish, the staminate 4 mm. long; sepals acute, keeled, 1–1.2 mm. long; petals 4 mm. long with apices more or less obliquely rounded to an acute but scarcely pointed tip; stamens

6, the filaments very briefly inflexed at the apex, about as long as the narrowly sagittate anthers with dark connective; pistillode trifold, about two-thirds as long as filaments; pistillate buds ca. 2.8 mm. high, glabrous; sepals broadly rounded; petals convolute-imbricate, briefly valvate at apex; staminodes 6, dentiform; pistil trigonous-columnar with 3 decurrent stigmas (in bud).

Fruit globose, green (immature) ca. 8 mm. in diam., the seeds incompletely developed but clearly with ruminant endosperm.

VENEZUELA. ESTADO BOLIVAR: Chimantá Massif, dwarf forest on semi-open shoulder of northwestern part of Abácapa-tepui, 1,400 m. alt., Apr. 19, 1953, *J. A. Steyermark* 75172 (NY, holotype; VEN, isotype); Cerro Venamo (parte Sur-Oeste) Cerca de los límites con la Guayana Inglesa, bosque alto húmedo montañoso, entre la base de la ladera principal escarpada de arenisca y el salto en el Río Venamo, 1,220–1,275 m. alt., Jan. 6–7, 1964, *J. A. Steyermark* & *E. Dunsterville* 92745 (BH).

Prestoea Steyermarkii is perhaps related to *P. tenuiramosa* from Roraima but the latter is described as having a glabrous petiole and a short columnar pistillode: *P. Steyermarkii* has prominent scales on the lower surface of the petiole and a deeply trifold pistillode. The second collection cited, *Steyermark et al.* 92745, lacks mature fruit but compares well with the type in other respects.