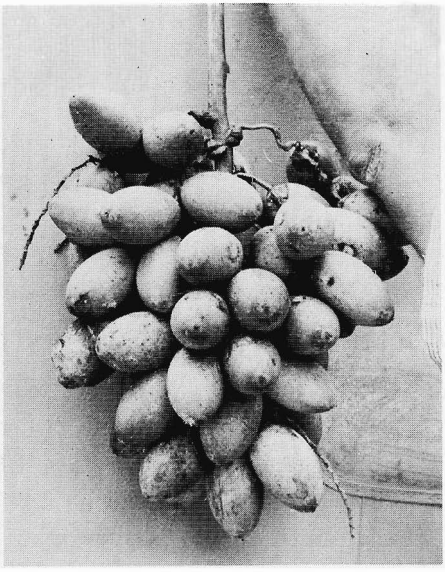


76. *Chrysallidosperma Smithii.* A fruiting cluster.

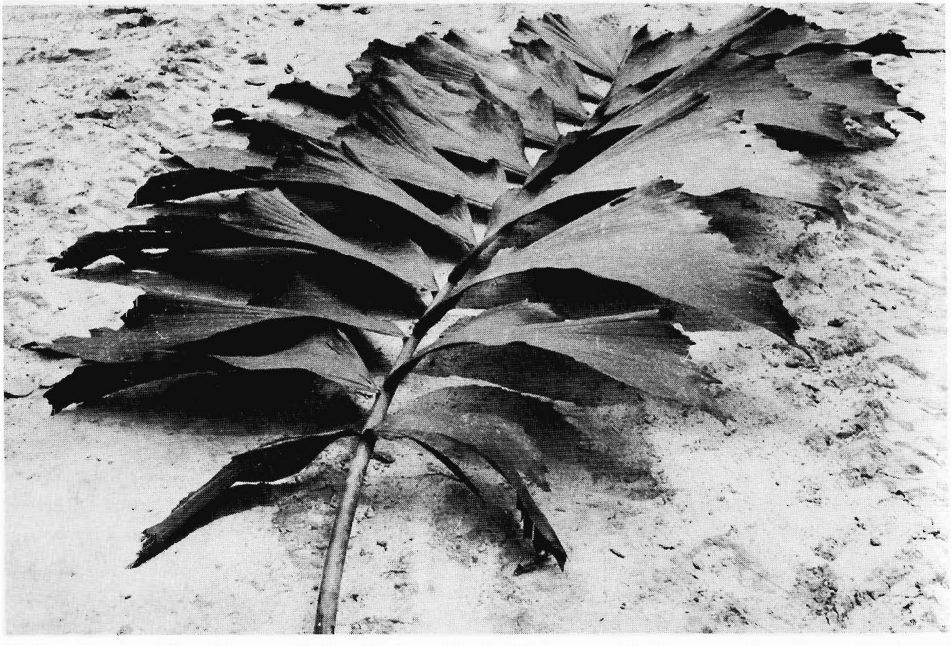
mesocarp ca. 3 mm. thick when dry, endocarp ca. 6 mm. long, 3.5 cm. in diam., ca. 5 mm. thick above the pores, ca. 9 mm. thick above the intruded and prominent bands between the pores, the pores ca. 1 cm. from the base; seed ca. 3.5 cm. long, 2 cm. wide.

PERU. Department Loreto: Province Alto Amazonas; on open wooded slopes with acid sandy clay soils (pH 4.5) between kilometers 13 and 14 on Yurimaguas-Tarapoto road, May 24, 1960. *H. E. Moore, Jr., A. Salazar C.* & *E. E. Smith 8516* (BH, TYPE; USM, ISOTYPE). Province Coronel Portillo; wooded slopes 6-8 kilometers beyond Aguaytía on road to San Alejandro, ca. 330 m. alt., April 29, 1960, *H. E. Moore, Jr., A. Salazar C.* & *E. E. Smith 8375* (BH, USM).

Socratea Salazarii

Socratea Salazarii H. E. Moore, **sp. nov.**

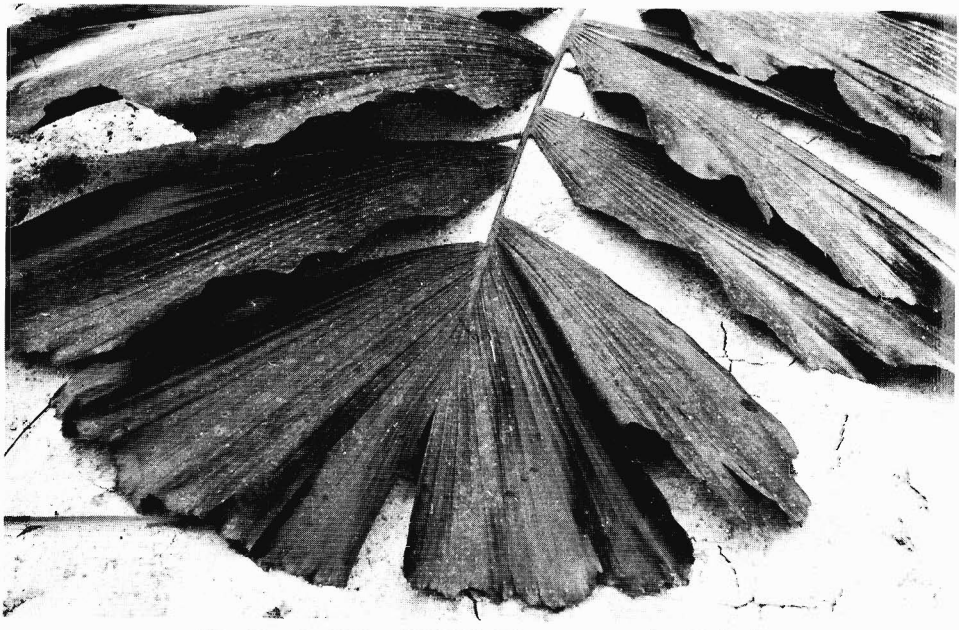
Caudex 2-9 m. altus. Foliarum pinnae indivisae utrinque 11-16. Fructus magnus, ovoideus, ca. 3.5 cm. longus, 3.3 cm. in diam. ad apicem irregulariter fissus.



77. *Socratea Salazarii.* An entire leaf from near Yurimaguas, Peru.

78. *Socratea Salazarii.* Pinnae from the middle of the leaf, the base to the right of photograph.

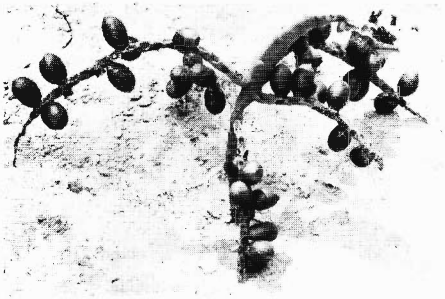
Trunk solitary, brown, ringed, 2-9 m. high, 6.5 cm. in diam. or more, from sparsely to moderately spiny separated stilt roots .7-1 m. high, 3.5-4 cm. in diam., the spines to 3 mm. long. Leaves about 7, spreading, the sheaths blue-green to dark green with a visible coat of shining red-brown predominantly medifixed hairs at least when young, 0.9-1.2 m. long; petiole ca. 4 dm. long, terete, minutely brown lepidote or brown punctulate; rachis essentially terete but alternately ridged below each pinna above, at first covered with a dense coat of appressed brown basifixed, medifixed or substellately branched hairs but soon glabrate and densely brown punctulate, at least below, 1.6-2.2 m. long; pinnae 11-16 on each side of the rachis, glossy green above, rufous below where densely and conspicuously pilose on the surface and the numerous prominent yellowish nerves, and especially so at the point of insertion, or at length becoming glabrate and densely brown punctulate, undivided, cuneate-trapezoidal in outline and arcuate-undulate or flattish in life, the lower margin longest, lacerately toothed and tapered from both margins to a more or less acute apex except the apical pinnae, those broadly truncate and subflabellate, lowermost pinnae 28-34 cm. long and narrower than the remainder, pinnae at mid-leaf ca. 72-75 cm. long, 20-23 cm. wide at widest point, the apical ca. 30 cm. long on lower margin, 14-25 cm. wide at apex, 18-21 cm. along the rachis, the primary nerves ca. 25-28 on pinnae from mid-leaf with slender intervening nerves and often with broad longitudinal bands of dense appressed brown hairs. Inflorescences as many as four, solitary at nodes below crownshaft, the peduncle 14-18 cm. long, 1-3 cm. wide at scar of outer bract, dorso-ventrally compressed, arcuately decurved;



79. *Socratea Salazarii.* Detail of the upper portion of a leaf.

bracts 4, erect, the outer ca. 10 cm. long, the innermost ca. 31 cm. long, at least the inner with medifixed hairs similar to those of the sheath; rachis 6-7 cm. long with 5-8 short stout stiff glabrous (?) rachillae 20-31 cm. long, compressed and the lowest ca. 17 mm. wide, 8 mm. thick at the base, marked with elliptic scars of pistillate flowers and fruits ca. 8 mm. long. Flowers creamy-white; staminate ca. 5 mm. high (reconstructed from damaged specimens), petals angled, stamens ca. 30 (field observations); pistillate ca. 4 mm. high in bud, in fruit the perianth more or less explanate with sepals ca. 3 mm. high, petals ca. 5 mm. high, 7 mm. wide. Fruit ellipsoid-ovoid, ca. 3.5 cm. long with perianth, 2.5 cm. in diam. when fresh, ca. 3.3 cm. long with perianth when dry, greenish-brown drying light brown and somewhat granular, with excentrically apical stigmatic remains, the fruit splitting irregularly at the apex to expose the thickish white dry pulp when completely mature; seed ca. 2.5 cm. long, 2 cm. wide, attached basally, with numerous pale anastamosing raphe branches ascending to the apical embryo. Seedling leaf (as grown at Cornell University) deeply bifid.

PERU. Department Loreto: Province Coronel Portillo; in dense woods in low areas a few kilometers southwest of Yurac on road to Boquerón del Padre Abad, alt. ca. 400 m., April 27, 1960, *H. E. Moore, Jr., A. Salazar C.* & *E. E. Smith 8366* (BH. USM); on wooded slopes 6-8 kilometers beyond Aguaytía on road to San Alejandro, alt. ca. 330 m., April 29, 1960, *H. E. Moore, Jr., A. Salazar C.* & *E. E. Smith 8381* (BH, USM). Province Alto Amazonas; on open wooded slopes with acid sandy clay soils (pH4.5) between kilometers 13 and 14 on Yurimaguas-Tarapoto road, May 24, 1960, *H. E. Moore, Jr., A. Salazar C.* & *E. E. Smith 8517* (BH, TYPE; USM, ISOTYPE).



80. *Socratea Salazarii.* An infructescence with fruits not yet split at the tips.

Socratea Salazarii was found in what appears to be a very restricted habitat in company with or in the same region as either a new *Iriartella (8366)* or *Chrysallidosperma Smithii (8517)*. Most species of *Socratea* have the middle pinnae much dissected. Apart from the tall and small-fruited *S. exorhiza* of Brazil which as often interpreted seems to differ significantly from the original description of Martius, only *S. gracilis* Burret from British Guiana and a taxon represented by incomplete material from the Río Kananarí, Vaupes, Colombia *(Schultes & Cabrera 10105-E*, BH) have undivided pinnae. *S. gracilis*, however, has a much smaller fruit only 18 mm. long when dry (but immature), and the pinnae at mid-leaf are often divided into two segments. The material from Colombia approaches *S. gracilis* in fruit size but in foliage, inflorescence and other characteristics seems closely related to *S. Salazarii.*

Fruit of *S. Salazarii* is the largest yet described for the genus, being approached only by that of *S. macrochlamys* Burret. When mature, it splits naturally and irregularly at the apex revealing the dry white pulp, as noted both near Yurac and Yurimaguaus where fruiting plants were collected. The description of the inflorescence at anthesis and of staminate and pistillate flowers is incomplete owing to damage incurred in drying and shipment.

The epithet recognizes the invaluable aid given by the Peruvian Forest Service as represented by Ing. Adolfo Salazar C. who, as my counterpart in a Point-Four project, facilitated the study of Peruvian palms during 1960 in every direct and indirect way.

LETTERS

It always gives me great sorrow to see a dead palm tree, and I understand quite well how distressed you must have been in your recent drive to Louisiana [seeing the winter-killed palms along the Gulf coast—L.H.W.] or Mr. Dent Smith with the terrible loss of so many of his palms. We do not have any freezes under our tropical sky, but my lot has been to witness the utter, savage destruction of thousands upon thousands of *Scheelea magdalenica, Sabal mauritiaeformis,* and *Copernicia tectorum*—some of the scheeleas and sabals over 70 feet tall—either felled or expeditiously burned alive in gigantic holocausts with the forests in which they grew. Opening of new lands for extensive pastures, cotton fields or rice fields (in the low *Copernicia* terrains) has been responsible for the loss of about 85 per cent of our forests, including tremendous numbers of the three species mentioned above without counting the bushy, spiny *Bactris minor* and *Pyrenoglyphis major*, or the climbing, vine-like *Desmoncus myriacanthos.*

The *Pinanga patula* is a success in my garden. My plants are 13 to 20 inches tall, and two of them are beginning to grow a secondary stem. *Areca Langloisiana*, seeds of which Mrs. Langlois kindly sent me last December, has germinated 33 per cent, but *Neodypsis Lastelliana*, also received from Mrs. Langlois, has been a complete failure, the embryos having rotted.

Prof. Armando Dugand
Barranquilla, Colombia