

these large plants to their new home was a double-team effort involving Bill Ayala, instructor at Oxnard College in a course in operation of heavy equipment, the heavy equipment, and more students.

Tallman has 75 students in his crew so labor is no problem. Most of them excel at swimming and he feels they can excel at palm gardening or anything else if they read enough books. Tallman himself learned a lot about palms from books and from Joe Sullivan who, until his death, was a valuable friend. And now Joe's widow, Pauleen (Secretary of The Palm Society) is helping with the project. Emphasis is on variety of palms, and all society members have been asked to be generous in their contributions to enhance this collection which will in time be a great asset, as the climate in Ventura is more suitable than at Huntington Gardens, the closest larger palm collection. Help has come from even as far away as Puerto Rico. And, as one of the swimming team said: "For taking swimming, you get to do this for free," as he and another student dug a 3½-foot-deep hole to hold the garden's latest acquisition.

TEDDIE BUHLER

Variegation in *Rhapido-phyllum hystrix*

In 1972 while engaging in field work for a study of the needle palm, *Rhapido-phyllum hystrix*, I discovered two variegated plants in a swamp located just north of the town of Oviedo, Seminole County, Florida. To my knowledge, this is the first record of variegation in this species. Unfortunately the variegation was not permanent, for subsequent fronds produced by both plants were completely green. The cause of this temporary variegation is not known. It is regrettable that it was not permanent since a palm like the one pictured would



make a striking cultivated plant. The stripes varied from cream to almost yellow-cream in color.

ALLEN G. SHUEY
P. O. Box 35
Palmetto, Florida 33561

New Palms from the Pacific, IV

Physokentia avia H. E. Moore, *sp. nov.*

Folia regulariter pinnata pinnis utrinque ca. 26 acutis unicastatis sine ramentis. Fructus ater, depresso-globosus, 13–15 mm. in diam., endocarpio ca. 9 mm alto, 10 mm in diam., fragili, carinis indistinctis, seminis endospermio ruminato.

Holotype: *Stevens & Isles LAE 58394* (BH).

Trunk solitary, to ca. 15 m high, with prop roots to 2.5 m long.

Leaves regularly pinnate, 1.5–2 m long; sheath 5–8 dm long, punctulate with depressions of deciduous scales basally, densely brown floccose-lepidote below petiole or punctulate with brown bases where scales have disappeared; petiole 20 cm long or more, rounded beneath, shallowly channelled above, densely brown floccose-lepidote or punctulate where scales have disappeared;

rachis densely brown or pale floccose-lepidote; pinnae about 26 on each side, rather glossy dark green above, paler beneath, floccose-lepidote above when young, becoming brown-puncticulate, densely brown-puncticulate beneath, midrib elevated on upper surface, secondary veins 1-2 on each side, tertiary veins numerous, midrib somewhat floccose-lepidote at base beneath but lacking ramenta, basal pinnae ca. 20-70 cm long, 0.2-5 cm wide, often continued into a rein, pinnae near the middle ca. 50-65 cm long, 3.5-4.5 cm wide, apical pinnae ca. 20-26 cm long, 1.5-1.7 cm wide.

Inflorescence (21-) 45-55 cm long, glabrous, 2 (-3?) times branched; peduncle dorsiventrally flattened, 7.0-8.5 cm long, ca. 2 cm wide and 0.5 cm thick at insertion of prophyll; prophyll bicarinate, thick, open abaxially and incompletely encircling the peduncle at insertion, ca. 24.5-34 cm long, 8 cm wide; peduncular bract thin, 32-33 cm long including a rostrum 2-5.5 cm long; rachis 15-23 cm long with about 13 branches, the lowermost branch to ca. 41 cm long, including a peduncular base ca. 5 cm long, and with 5 branches, the lowest of these probably again branched, middle branches once-branched, to ca. 28.5 cm long, apical branches unbranched, ca. 25 cm long; rachillae bearing triads to the middle or nearly to the apex, rarely only with paired or solitary staminate flowers; bracts subtending the triads prominent, often acutish, to 3 mm long; bracteoles of flowers brown, membranous, low.

Staminate flowers markedly asymmetrical, color not noted, ca. 4.5-7.5 mm long; sepals broadly ovate, 2-3 mm long, acute to rounded at apex, keeled, the outer often with minutely lacinate or denticulate membranous margins; petals drying lineolate, ovate to asymmetrically ovate, 4.5-7 mm long, 3-4 mm wide near base, acute, more or less

grooved internally to match anthers; stamens 6, filaments broad, briefly inflexed at apex in bud, anthers 3-4 mm long; pistillode somewhat variable but usually about half as long as stamens, ovoid to columnar, mostly deeply to very deeply trifid: pistillate buds about half as long as staminate flowers at staminate anthesis; sepals in fruit ca. 4 mm long, 5 mm wide, acute; petals in fruit ca. 6 mm long, 7 mm wide, acute, sometimes ciliate near base; staminodes 3, dentiform.

Fruit black when mature, depressed-globose, with stigmatic residue in upper fourth, 13-15 mm in diam., drying minutely pebbled; mesocarp reddish when fresh; endocarp ca. 10 mm in diam., 9 mm high, fragile, shallowly and somewhat irregularly sculptured with roundish depressions, operculum broadly rounded, basal: seed ca. 9.5 mm in diam., 9 mm high, conforming to sculpturing of endocarp, testa brown, raphe branches ascending and lateral, anastomosing; endosperm ruminant.

Specimens examined: PAPUA NEW GUINEA: NEW BRITAIN: EAST NEW BRITAIN, SUBDISTRICT POMIO; helicopter pad (mapping), Mt. Lululua, 5° 43' S. Latitude, 150° 58' E. Longitude, alt. 1830 m, common in *Nothofagus*-dominated moss forest, 12 May 1973, *P. F. Stevens & R. S. Isles LAE 58394* (BH, holotype; L, LAE, isotypes); lower slopes of Mt. Lululua, 5° 43' S. Latitude, 151° 02' E. Longitude, alt. 1525 m, common in *Nothofagus*-dominated montane forest, 6 May 1973, *P. F. Stevens & Y. Lelean LAE 58276* (BH, LAE); Mt. Sule, about 25 miles NNE of Fullborn Harbour, 5° 50' S. Latitude, 150° 50' E. Longitude, alt. 1500 m, in *Nothofagus* forest with thick undergrowth of *Nastus*, 7 May 1973, *J. R. Croft & P. Katik LAE 14936* (BH, LAE).

Physokentia avia represents a second species having seeds with ruminant endosperm and the endocarp with shallow,

nonangular sculpturing. It differs from *P. insolita* H. E. Moore in having regularly pinnate leaves lacking large scales (ramenta) on the midrib of the pinnae beneath, and in having black rather than red fruit. The relationship is close, however; the endocarp and seed very much resemble those of *P. insolita*.

The westward range of *Physokentia* is substantially increased by the finding of this species. The epithet *avia* (from the Latin *avius*, out of the way, introduced) suggests both this distance and the nature of the type locality which was reached by helicopter. The genus is now to be looked for on Bougainville and Choiseul which lie between the New Georgia Group, formerly its western limit, and New Britain.

HAROLD E. MOORE, JR.

Taveunia and Cyphosperma

When *Taveunia tanga* was described from Fiji in 1965, I had an erroneous concept of the monotypic New Caledonian genus *Cyphosperma* H. Wendland ex J. D. Hooker. In the interim, I have had occasion to study *Cyphosperma balansae* (Brongniart) H. Wendland ex Salomon at three localities in New Caledonia and to make comparisons

between *Taveunia* Burret and *Cyphosperma* based on experience with both in the field and on study of herbarium specimens and preserved materials. The differences are so slight—less prominently sculptured endocarp and seed and presence of a dorsal ridge rather than furrow on the endocarp and seed of *Taveunia*—and the resemblances so marked otherwise that it no longer seems possible to maintain *Taveunia* apart from the older genus *Cyphosperma*. A more detailed analysis is in manuscript, but appropriate names are needed for a treatment of palms in a new flora of Fiji that is now being prepared for the printer. These names are therefore published here.

Cyphosperma tanga (H. E. Moore)

H. E. Moore, *tr. nov.*

Taveunia tanga H. E. Moore, *Candollea* 20: 98. 1965.

Cyphosperma trichospadix (Burret)

H. E. Moore, *tr. nov.*

Taveunia trichospadix Burret, *Bishop Museum Occasional Papers* 11(4): 13. 1935.

HAROLD E. MOORE, JR.

L. H. Bailey Hortorium

Cornell University

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