

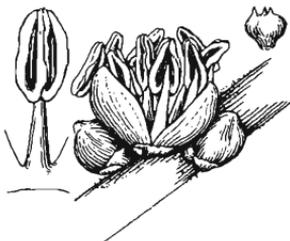
would be obliged to typify it, and this he might not wish to attempt, the original author still pursuing his work. Nor am I myself clear about some of the points in the account. Cook states his species is represented particularly in a grove of very slender royals at Port-au-Prince, shown in his Fig. 8; he speaks of *aitia* being slenderer than the Cuban royal. At least three times I have visited this beautiful grove. Origin of the trees appears to be unknown. I have not seen a grove quite like it in the interior of Hispaniola, but can match it as to slenderness and height in my pictures of native stands near sea level in northeastern Cuba; these Cuban trees challenged me by their thin trunks and tallness; by careful test some years ago with a shadow method I estimated some of the trees to be 120 feet tall.

Nor, again, am I convinced that the remarks about the flowers of *R. aitia* apply particularly to the native Hispaniolan species. No mention is made of fruits. Flowers of the native palm show a distinct purple effect from the color of the stamens, and filaments are hardly cylindrical as stated. The Cuban species, *R. regia*, is distinct in its prevailingly more nearly globular fruits, its light colored less glomerate flowers (*laciniis . . . candidis*, HBK. 1816), petals thin and soft, stamens fewer and light violet (not purple), spadix branches glabrous at flowering time; and there are differences in the trees.

For these and other reasons I am impelled to publish my own binomial to designate the palm I have in mind.

Whether the Roystoneas, on their various islands, are to be interpreted as species or varieties is of no pertinence to the present discussion. This question I plan to raise at another time. Variation in *Roystonea* is not understood, nor can the subject be adequately approached until field observations are made and correlated, and until herbarium methods with palms are vastly improved. Much work must yet be undertaken in the genus.

† *Roystonea hispaniolana*, spec. nov. Figs. 171, 172, 173.

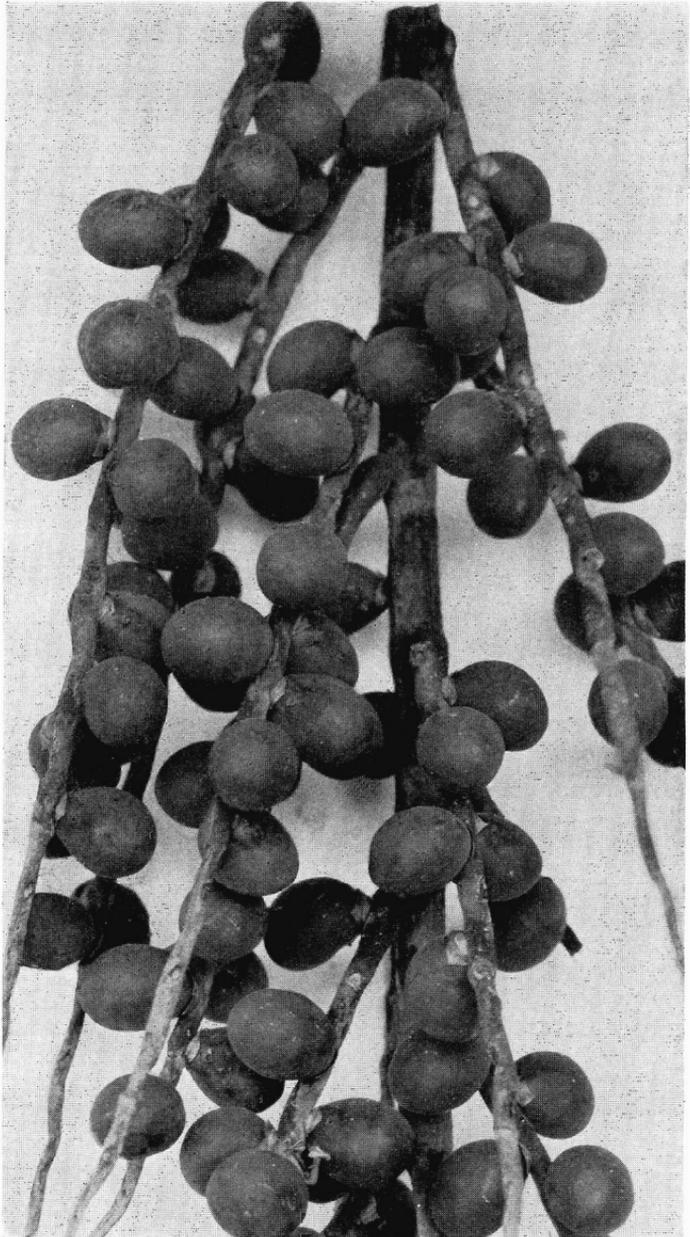


172. STAMINATE FLOWER of *Roystonea hispaniolana*. Center, $\times 2$; stamen at left, $\times 3$; pistillode upper right, $\times 3$. Two undeveloped pistillate flowers show at sides.

Alta gracilisque arbor, sæpe in latis plantationibus naturalibus: truncus non plerumque tumidus aut ventricosus, 15 m. vel plus altus: folia 20 vel plura in como, supra non nitida: differt a *R. regia* spadicebus pubescentibus vel furfuraceis, petalis fuscioribus et crassioribus, staminibus fere 8 vel 9 purpureis, floribus glomeratioribus, fructu fere minus globulari, sæpe majore: differt a *R. borinquena*, majore altitudine, minore tumescentia, como pluribus foliis, inferioribus foliis pendentioribus, pinnis non nitidis supra, rachillis pendentioribus, floribus minus compactis aut glomeratis in rachide, fructu non angustato ad basim.

Tall big palm with pubescent or scurfy-lanate

branches in spadix (particularly noticeable at blooming time) and sometimes 8 or 9 stamens, closely allied to *R. borinquena* but differing in habit and technical characters: trunk usually less stoutly columnar, often leaning or crooked or of irregular form, mostly lacking the regular upward enlargement toward the top and constriction toward the base of characteristic trees of the Puerto Rico species, the bole often without definite tumescence and pre-
 vailingly rather slender, making a less formal and stately tree unless sometimes when standing alone under good conditions: spadices (flower- and fruit-clusters) less compactly placed on the tree than in the other species (at comparable periods of anthesis and fruiting) and therefore not so clumpy in appearance, the parts more loosely and straightly pendent; rachillæ likely to be thinner or more slender: pistillate flowers less pointed when in bud at time of general anthesis; staminate flowers usually larger, the petals often broader, commonly 4 mm. across



173. FRUITS of *Roystonea hispaniolana*, natural size. For difference in shape, compare with *R. borinquena*, Fig. 216, Gentes Herbarum, vol. iii.

rather than 3 mm. when fresh: fruit (not the seed) when fresh and mature lacking an angustate base and appearing therefore to be closely sessile, breadth greater in proportion to length than in *R. borinquena*, the dimensions when full grown and before drying about 10 x 12 mm. in the two directions (varying from 10 x 11 to 10 x 13), with a broad basal end and a general rounded look. Fruits of *R. borinquena* may be expected to measure more nearly 9 x 14 mm. (9 x 13 to 9 x 15), and one side has a marked flattish or concave look. The fruits of *R. hispaniolana* are apparently more like those of *R. regia* than of *R. borinquena*, but the tree itself, stamens usually more than 6, markedly pubescent spadix and purple bloom, are unlike *R. regia*.

Individual trees in any of the species of Biseriate Roystoneas may not be evidently distinguishable in habit or port, but the general or prevailing shape runs in well marked series. About cities and residences in any of the islands one may find introduced species. It is not known whether the Roystoneas hybridize.

The Hispaniolan royal palm is abundant as a native tree in the Republics of Haiti and Santo Domingo, in fields, valleys and on low hills in many soils and situations, either as separate individuals or in groups of a few trees each, sometimes covering large areas with a continuous forest stand when the places are undisturbed. It seeds and propagates freely. It gives particular character to landscapes. Trees attain to 50 feet and more in height. My diagnosis is drawn from trees in the wild without confusion with planted or spontaneous subjects in the villages. Type, *Bailey 242*, on high land near Bonaò, Province La Vega, Santo Domingo. Fig. 171 shows a clump of trees from valley of Rivière La Tombe, Haiti.

The Puerto Rican royal, *R. borinquena*, is a smaller tree than *R. hispaniolana*, lower in stature, not often occurring in forest-like areas, head or crown thinner (more open), lower leaves less drooping or hanging on comparable trees, pinnæ likely to be glossy on upper surface, spadix branches (particularly in fruit) not so long-hanging, spadices more visible or conspicuous beneath the crown, flowers more compacted or crowded together on the rachillæ. *R. hispaniolana* has more the aspect of *R. regia*.

In making comparison of heads of royals one must be careful to consider only trees that have not been cropped for thatch.