

Notes on *Sabal* in Cultivation

A review of the status of *Sabal* in cultivation has led to some reassessments of specific limits in the light of more ample collections and emphasis on correlation of vegetative, floral, and fruit characteristics rather than on differences in size and shape of fruit alone. Although *Sabal* is far from being properly understood as a whole, certain species may now be more readily defined. It seems wise to comment on the changes in nomenclature to be reflected in corrections to "An annotated checklist of cultivated palms" (*Principes* 7: 119–182, 1963) and to note reasons for them.

Sabal Blackburniana Glazebrook ex J. A. & J. H. Schultes, Syst. Veg. 7(2): 1488. 1830 ('*Blackburnianum*').

S. Blackburnia Glazebrook in Loudon, The Gardener's Magazine and Register of Rural and Domestic Improvement 5: 52, 1829, provisional name.

The plant to which this name applies has not yet been definitely determined but Mr. J. R. Sealy of the Royal Botanic Gardens, Kew, England suggests that the name *S. Blackburnia* is provisional and not acceptable, no matter what plant is identified ultimately with these names.

Sabal mauritiiformis (H. Karsten) Grisebach & H. Wendland in Grisebach, Flora of the British West Indies 514. 1864.

S. glaucescens Loddiges ex H. E. Moore, Gent. Herb. 9: 287. 1963.

S. nematoclada Burret, Repert. Sp. Nov. 48: 256. 1940.

Satisfactory distinctions do not seem to exist between *Sabal mauritiiformis* from continental northern South America (Venezuela, Colombia) and *S. glauce-*

scens from Trinidad nor, in fact, from *S. Allenii* L. H. Bailey from Panama or *S. Morrisiana* H. H. Bartlett ex L. H. Bailey and *S. nematoclada* Burret from British Honduras despite the apparent absence of the species from Costa Rica and Honduras. Viewed conservatively, *S. mauritiiformis* is a species readily recognized by its leaves which are deep green above, markedly paler below (varying from silvery to glaucous), soft for the genus, and divided in an unusual fashion. Most species of *Sabal* have leaves that are divided more or less regularly into one-nerved segments. These segments are usually deeply bifid at the apex except in *S. minor*. The depth of division varies in a single leaf, tending to be deepest at the base, shallowest toward the apex.

Leaves of *Sabal mauritiiformis*, and *S. Yapa* like it, are unevenly divided. Along each side of the costa, pairs of segments are separated nearly to the costa, but within each pair, the segments are united by their inner margins for some distance and thus appear to be three-nerved (Fig. 1). The inflorescence of *S. mauritiiformis* is also distinctive. It normally extends beyond the leaves and is the most highly ramified of all species in the genus. The primary branches are again divided three times into slender short rachillae which represent branches of the fifth order, and branches of the first to fourth orders bear a two-edged prophyll at the base. Other species of *Sabal* have rachillae which are branches of the fourth order or less and have prophylls on branches of the first to third order only. Flowers are not dissimilar from those of the majority of species but are small, as are the globose fruits with strongly protracted base. Complete series of flowering material from the entire range of this species as here broadly interpreted are not yet available for the kind of de-



1. A leaf of *Sabal mauritiiformis* at the Fairchild Tropical Garden demonstrating the deep and unequal division of the blade. Photo by M. V. Parthasarathy.

tailed comparison required for further refinement of concepts. There is a substantial range in height of plants which may, however, be affected by age and/or ecological conditions.

The spelling of the epithet has been corrected to *mauritiiformis* to conform with recommendations of the *International Code of Botanical Nomenclature*.

Sabal mexicana Martius, Hist. Nov. Palm. 3: 246 [ed. 1]. 1839.

S. guatemalensis Beccari, Webbia 2: 68. 1907.

S. texana (O. F. Cook) Beccari, Webbia 2: 78. 1907.

The distinctions drawn by Bailey between *Sabal mexicana* and *S. texana* do not hold when larger series of specimens are examined and there is essential continuity of range from the Rio Grande Valley in Texas through eastern Mexico to Guatemala and to Oaxaca and perhaps further north in western Mexico. *Sabal mexicana* is characterized by regularly divided leaves with one-nerved segments, by relatively large fruits vary-



2. A leaf of *Sabal caesiiformis* at the Fairchild Tropical Garden showing the more usual and essentially regular division of the blade. Photo by M. V. Parthasarathy.

ing to some extent in size and shape, and by the flowers which have petals separated at the base by a stamen-filament and free lobes which, when dry, tend to be ascending, subcucullate, with inrolled margins and very prominent nerves. The calyx-lobes are usually provided with a thin mebranous margin lacking the brownish tip characteristic of *Sabal Palmetto* and many West Indian species not yet studied further.

Sabal Palmetto (Walter) Loddiges ex J. A. & J. H. Schultes, Syst. Veg. 7(2): 1487. 1830.

S. viatoris L. H. Bailey, Gent. Herb. 4: 403. 1944.

Examination of the type of *Sabal viatoris* described from cultivation shows it to be only a form of *Sabal Palmetto* with the leaf somewhat more deeply divided than usual but matched by specimens from the wild state.

Sabal princeps Hort. ex Beccari, Webbia 2: 59. 1907.

S. Beccariana L. H. Bailey, Gent. Herb. 4: 397. 1940.

Sabal princeps was validly published by Beccari based on specimens from a tree cultivated at Palermo, Italy. That the name may have been applied in horticulture to more than one species does not negate its validity nor permit the use of a later name in its place according to the *International Code of Botanical Nomenclature*. Authentic material of *Sabal princeps* has not been adequate to fix its identity clearly with respect to other plants bearing the name in horticulture.

Sabal Yapa C. Wright ex Beccari, Webbia 2: 64. 1907.

S. mayarum H. H. Bartlett, Carnegie Inst. Publ. 461: 35. 1935.

S. peregrina L. H. Bailey, Gent. Herb. 6: 400. 1944.

S. yucatanica L. H. Bailey, Gent. Herb. 6: 418. 1944.

The epithet for this species was first published validly with the above form. Earlier but invalid uses—as a name only without description and on specimens distributed by Wright—were as *Japa*. The vernacular name is given as *cana japa* by León in *Flora de Cuba* 1: 248, 1946, and it seems evident that Beccari erred in using *Yapa*. Bailey continued the use of *Yapa* but León used the “corrected” form *Japa*. To use *Yapa* seems preferable in view of the provisions of Note 4, Article 73, *International Code of Botanical Nomenclature* (1966) which reads: “The liberty of correcting a name must be used with reserve, especially if the change affects the first syllable and, above all, the first letter of the name.” A comparable example is that of the generic name *Lespedeza* which was intended to commemorate Cespedez.

Sabal Yapa is another very distinctive species. The leaf is divided into “three-nerved” pairs of segments as in *S. mauritiiformis*, but the blade is uniformly green, of much thicker texture, and the inflorescence is divided into rachillae of the fourth order of branching. The flowers of this species are unlike others in the genus in that the petals are marginally connate at the base without an intervening stamen-filament, and the free lobes are soft, broadest at the base, little or not inrolled along the margin when dry, and usually reflexed. The sepals are united in a three-angled calyx with short rounded lobes and a solid base. Fruits are often two- to three-seeded.

I have examined the type specimens of *Sabal peregrina* L. H. Bailey, *S. mayarum* H. H. Bartlett, and *S. yucatanica* L. H. Bailey. In each the distinctive leaf division is associated with the same kind of flower (deduced from reflexed petals in fruits of *S. yucatanica*) as that of

S. Yapa. There is substantial overlap in the size of the hastula (which to me does not serve as a trustworthy characteristic for distinguishing species), the size of plants can scarcely be used as a valid criterion for species, and the

distribution pattern of western Cuba, Isle of Pines, and Yucatan Peninsula suggests additionally that we are dealing with but a single species.

HAROLD E. MOORE, JR.

LETTERS

January 21, 1971

Mr. Dent Smith
Director
The Palm Society
P. O. Box 7008
Daytona Beach, Florida

Dear Dent,

As South Carolina's only member of The Palm Society (at least according to the last directory that I have) I was delighted to see the pictures taken by my friend, Bill Manley of the palms at the old Fant place in Anderson, in the issue of "Principes" I recently received.

Manley and I correspond and he had written of them and sent some pictures along so I was familiar with them. Although a lifelong South Carolina resident, I had never seen them or heard of them until Bill Manley described them.

Your accompanying notes in your easy and often humorous style that I have so enjoyed in "Principes" over these past several years was most enjoyable.

The only bone of contention I could pick would be that in your eagerness to make a convincing story of the rarity of these palms in Anderson and surrounding area, you made the rest of South Carolina outside of Charleston sound like a southern extension of the Yukon territory.

I'm jesting of course, but actually Anderson is only a scant forty odd miles from the northern limits of *Sabal minor* as defined by Bailey in *Gentes Herbarum*, and from my limited observa-

tions hereabouts, correctly so, as far as South Carolina is concerned.

My contention is this:—no state in our great union is more palm conscious than South Carolina. Why? Our nickname is the "Palmetto State," the palmetto tree is depicted on our state flag and state seal, and we have (as far as I know anything about it) the only statue in the shape of a palm—a cast iron replica of a *Sabal Palmetto* on our State house grounds in Columbia.

Palmetto is in the name of countless firms of all descriptions from "Palmetto Beauty Salon" to "Palmetto Exterminating Company"—which incidentally seeks to wreak its havoc on termites not sabals, to the corporate name of the Radio TV firm where I'm employed as News Director—Palmetto Radio Corporation.

Four of the thirteen native American palms are native to our state, (*Sabal Palmetto*, *Sabal minor*, *Serenoa repens*, and the *Rapidophyllum hystrix*). Only the *Sabal minor* is native to the Columbia area, however. Around Charleston and along the immediate coast to the Georgia border *Washingtonia filifera*, *Phoenix canariensis*, *Phoenix Roebelinii* are cultivated along with an occasional *Livistona chinensis*.

Only in the coldest winters is there damage. Last winter (January 1970) Charleston recorded 11° F. above at the airport on January 9 and all the palms listed above were damaged—many completely defoliated; but by spring and early summer the majority had apparently completely recovered.