

## Bermuda's Palmetto

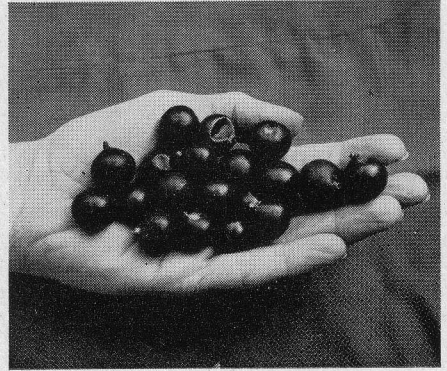
W. H. HODGE

Visitors to Bermuda, especially those also familiar with our South, may spot in the island's lovely gardens or along her charming roadsides a tree that may pass as the common cabbage palmetto (*Sabal Palmetto*) of the Carolinas, Georgia or Florida. Though resembling the continental species, the Bermuda palmetto (*Sabal bermudana*) is endemic—not known anywhere else except on this tiny oceanic isle.

It may come as a surprise to some that an island as small and as isolated as Bermuda can boast of a native palm of its own. For many years this fact was not so recognized and the species was believed to be just a form of *Sabal Palmetto*. Being a palmetto it is related and, in the distant past, under circumstances probably never to be known, palmetto seed must have been carried to Bermuda somehow from either the American continent or the West Indian islands to the south. Centuries of isolation on Bermuda have resulted in the evolution of a race of palmettos now sufficiently distinct to warrant a specific name of its own.

The average person would probably have to see *Sabal bermudana* and *Sabal Palmetto* growing together in a garden to be able to spot differences between them. One distinctive feature is fruit size. Our cabbage palmetto produces spherical fruits measuring  $\frac{1}{4}$  to  $\frac{1}{2}$  an inch (7-12 mm.) in diameter, whereas the Bermuda palmetto has much larger fruits, normally twice this diameter (15-20 mm.), and these are not strictly

spherical but slightly pyriform or pear-shaped. Another characteristic that is



39. "There is a Palmetoe-tree which hath a very sweete berrie"—the black cherry-sized fruits of *Sabal bermudana*.

readily seen and has been pointed out by others is a noticeable yellow spot surrounding the upper end of the leaf stalk (petiole). Whether this vegetative characteristic is unique among palmettos is unknown to me.

Bermuda's palmetto has justly been called the most interesting of the island's native plants. It has also been termed the most conspicuous tree after the endemic cedar (*Juniperus bermudana*). Unfortunately the last decade has seen the inadvertent introduction of scale insects whose depredations have all but destroyed the cedars with the result that *Sabal bermudana* will soon in fact be Bermuda's most conspicuous native living tree. One might add "for a time," for the palmetto is threatened by man himself.



40. Paget Marsh, Bermuda—home of the finest stand of Bermuda palmettos seen in the foreground.

The earliest Bermuda chroniclers indicated an abundance of palmettos which in those days were to be found everywhere throughout the islands on windswept as well as sheltered sites. This is a far cry from the status today of these palms which are gradually but surely disappearing as a result of the expanding population of the island. They may occasionally be seen along the roadsides or preserved in private gardens. The finest groves of these palmettos are making their last stand in the isolation of certain of the inland marshes. But even here their days are probably numbered, for unless such areas are acquired by the local government and set aside in perpetuity as natural preserves they will in time be

drained, filled and sold for building sites. The one consolation is that on an island famous for its gardens there ought to be ample space to conserve this interesting palm species at least as a garden subject. It remains only for all Bermudians who are garden-conscious to encourage the preservation of these trees especially when they are to be found growing within their properties. Such a program might also be a fitting civic objective for the island's outstanding Garden Club.

Probably the finest palmetto stand extant in Bermuda today is the one in Paget Marsh near Hamilton. This stand has been known for some years to visiting botanists. In 1932 Liberty Hyde

Bailey described this as "a noted stand." I had the pleasure of being introduced to the palmettos of Paget Marsh in February of 1959 by a long-time friend, now resident in Bermuda. Surrounded by home-studded hills, this marsh is a 25 to 30 acre refuge of wild, untrammelled Bermuda vegetation. Once within its confines, the visitor feels quite remote from the familiar tourist world of Bermuda and once again in touch with the primitive Bermuda of several centuries ago. Even from the roads which ring this natural enclave one can see the abundance of the now dominant palmettos which, at the time of my visit, were overtopped only by diseased or dying junipers. The marsh area was probably once occupied by a sizeable body of water. Over the centuries this has been gradually filling in, in classic fashion, by action of aggressive marginal vegetation, until now the sole remnant is a tiny mangrove-ringed pond hidden to all but airborne eyes.

Paget Marsh hardly reminds one of more common Bermuda habitats where the underlying limestone produces soils which are usually shallow and typically alkaline. Though surrounded by typical low limestone hills, the marsh is an oasis of deep, organic material having that decidedly un-Bermudian soil characteristic of acidity with a range in pH of 4.5 to 5. Palmettos which thrive here share the marsh with a strange mixture of temperate and tropical species. In lower areas one finds bayberry (*Myrica cerifera*) and dogbush (*Baccharis glomeruliflora*), along with the common red mangrove (*Rhizophora mangle*) and white stopper (*Eugenia axillaris*). *Ardisia humilis*, *Pittosporum undulatum* and Carolina laurel cherry (*Laurocerasus carolinianum*) — all woody species, are apparently natural-

ized. Wet open sites are colonized by the giant marsh fern (*Acrostichum excelsum*) while the prickly sedge (*Mariscus jamaicensis*) forms large swales in some areas. In the thickets poison ivy (*Rhus radicans*) and woodbine (*Parthenocissus*) are occasional climbers with cinnamon<sup>3</sup> and royal ferns (*Osmunda*) common on the shaded marsh floor. Besides the native Bermuda palmetto and cedar, Paget Marsh is also the home of at least two other much rarer local endemic plants, the Bermuda maidenhair fern (*Adiantum bellum*) and Bermuda sedge (*Carex bermudiana*).

Under the generous conditions of soil, moisture and the important protection from wind that exist in Paget Marsh, the Bermuda palmetto grows as well as its cabbage palmetto confrere in a southern Florida "hammock," forming rather sizeable colonies and attaining a girth, height and luxuriousness of foliage probably not met with elsewhere at present under drier Bermuda conditions. The tallest palm observed in Paget Marsh was about 35 feet tall, considerably less than a specimen of 53 feet reported in nearby Pembroke Marsh. Most trees in Paget Marsh run 15 to 25 feet tall with an average diameter of 10 inches. The stout trunks with their rings of old leaf scars are seldom perfectly erect but rather grow at various odd angles and are reminiscent in this habit of the more familiar coconut palm. Occasional trunks show the peculiar constriction of the stem characteristic of this species. This was described some 50 years ago by Harshberger (1) and related by him to alternating periods of good and poor growth.

Paget Marsh palmettos are somewhat protected from the full force of the strong gales which constantly sweep



41. Seedling palmettos in Paget Marsh.

Bermuda, especially during mid-winter. Due to this wind protection the old drier leaves of the marsh trees hang from their crowns for a considerable period before falling to form a tawny mat of old leaves on the marsh floor. Elsewhere

on the island, where growing sites are without protection, the older leaves fail to linger.

Fruiting is apparently heavy in this species, the black, cherry-sized berries ripening towards the end of the year.

Quantities of fruit are still maturing as late as mid-February. The pulp surrounding the brown discoid seed is ample and it is easy to understand why the early colonists appreciated this as an emergency food, for it has a pleasant, almost date-like flavor. Under favorable conditions seed germination is abundant and in Paget Marsh, at least, seedling palmettos are common under shelter of the groves. Like most palmettos the Bermuda species is very slow growing though more rapid during the first decades than in subsequent years. After the first half century, growth tends to be very slow and certain mature specimens in well-known gardens are said to have added no appreciable height during the past fifty years.

Although the Bermuda palmetto has been associated with man ever since he first set eyes upon the island in the early 16th century, its exact identity and relationships with other palmettos were not appreciated until 1934 when Bailey (2) published the name, *Sabal bermudana*. Prior to this the palm had been passing under the binomial, *Sabal Blackburniana* Glazebrook, a name based upon a palm of apparent unknown nativity cultivated in England in the early 1800's. This plant was described in 1829 (in the *London Gardener's Magazine*) but interpreted by Hemsley (in 1885) as being of Bermuda origin. Bailey demonstrated that the native palmetto of Bermuda differs in several important characteristics from the plant originally described in Britain, thus suggesting that *Sabal Blackburniana* was probably not of Bermudian ancestry. Nor does it appear that *Sabal bermudana* has been grown widely in living palm collections elsewhere. A quantity of fresh seed collected by me

in Paget Marsh in 1959 and subsequently sent to the Fairchild Tropical Garden at Miami evoked the following comment. "Oddly enough we do not have it [*Sabal bermudana*] represented here in the Garden unless it is represented among the many *Sabal* species transplanted here from the Montgomery Palmetum years ago."

Bermuda's palmetto has probably had a longer historical association with Europeans than any other North American palm. It would seem that all of the early visitors mention this palm. Excerpts from some of these early accounts are to be found in a delightful book by Louisa Hutchings Smith (3). First to land on the island was a Spanish Captain, Diego Ramirez, who wrote, "All the islands . . . are covered with cedar forests, crested palms. . . ." Henry May, first English visitor, was wrecked and marooned for five months on the island in 1593. He found the native palmettos to be one of the most useful native plants and wrote "the tops of the Palmeta berries was our bread, and the iuce (juice) we got out of the trees we cut down, our drink, and of the leaves . . . we covered our cabins, and made our beds." Three prime uses of the palmettos—for food, drink, and shelter—were thus discovered at a very early date.

In succeeding years settlers rediscovered these same utilitarian uses and added several others. Though the fruits first served chiefly as mast for island hogs, settlers later found them an acceptable human food. Jourdan, another chronicler, records "There is a tree called a Palmitoe-tree which hath a very sweete berrie, upon which the hogs doe most feede; but our men finding the sweetnesse of them did willingly share with the hogs for them, they being very



42. Fruit clusters of *Sabal bermudana* as they appear in February.

pleasant and wholesome. . . ." Jourdan also is the first to mention use of the tender terminal bud as cabbage. "The head of the Palmitoe-tree is very good meate either raw or sodden. It yieldeth a head which weigheth about 20 pounds,

and is farre better meate than any cabbage." Palmettos even served early Bermuda Izaak Waltons. At least, records have it that one Andrew Hilliard "Upon a Fridaye morneinge in March 1615 . . . with six able and strong-bodied men, in



43. In the shelter of the marsh old leaves hang for some time before dropping.

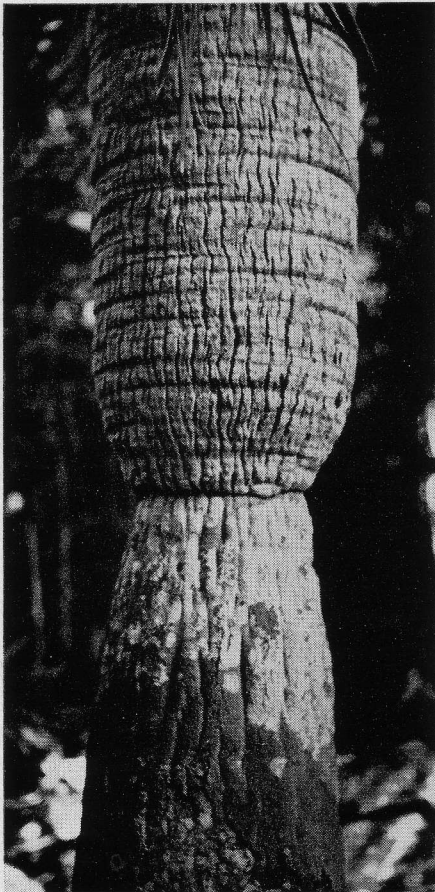


44. Old native palmettos are featured in the garden at Elm Lodge, the home of Mr. and Mrs. Pierre Patisson, Warwick West, Bermuda.



a bote of 2 or 3 tunnes, went out to sea to fish; and so eager they wer on the voiage, that neither a break-fast is made before they went, nor any other victualls carried along with them, save only a few palmitoe berries."

Richard More, first Bermuda governor (1612-1615), mentioned another use in a letter to London in 1612:—"I must needs mention the Palme tree once



45. Constricted bole of *Sabal bermudana*, Paget Marsh, Bermuda.

again, I have found it so good: take a hatchet and cut him, or an augur and bore him, and it yields a very pleasant

liquor much like unto your sweet wine." It was inevitable that in the absence of the vine the early Bermudians should have learned how to distill palmetto liquor, or "bibby" as they called it, into an intoxicating drink. In July, 1618, a married couple "were presented to the grand jury for suffering bibby to be too inordinately drunk in their house on the Sabbath day, as well as on all the other days of the week, so that there is swearing and such like disturbances." This was undoubtedly one reason for a Governor's order in 1627 that "No Palmetto tree should be cut for the procuring of bibby by any person whatsoever, except by special permission, because the inhabitants are deprived of the leaves for thatching their houses."

Actually one of the commonest early uses of palmetto was as a thatch and in this the fan-shaped leaves of *Sabal bermudana* proved as useful as have the leaves of other palmetto species in the New World. British Admiral Sir George Somers, survivor of the famed wreck of the "Sea Venture" on the coral reefs off Bermuda in 1609, after passing through that famous storm which an even more celebrated bard called "The Tempest," wrote: — "Palmetto cabins were easily built." William Strachey, one of his companions among the same shipwrecked Virginia colonists, admired the palmetto leaves . . . "so broad . . . a man may well defend his whole body under one of them from the greatest storme rain that falls." Governor More early made "small cabbins of palmitoe leaves for himsele, his wife, and some few others" at St. Georges. When a church constructed of cedar blew down in a storm, another was built of palmetto leaves which "appears to have answered better."

In the century that followed, the



46. Occasional trunks show peculiar stem constrictions caused by alternating periods of good and poor growing conditions.

bleached leaves found other utilitarian uses as a plaiting material for hats, baskets, fans and similar objects. In 1725 it was reported that Bermuda palmetto hats were "the only commodity . . . exported from Bermuda to Great Britain" while a century later (1857) . . . "every mail was carrying home as presents, some portions of this fabric (palm plaiting)" to such a degree that "the supply of palmetto plants is becoming quite unequal to the demand" and "English

ladies are gradually extinguishing this tree in Bermuda."

Descendants of those same ladies may now have the chance to reverse the trend and save for posterity the last remnants of the once-abundant palmetto woodlands, if for no other purpose than to be able to see a 100 per cent Bermudian tree still live on. For certainly, with the gradual elimination of natural plant habitats by Bermuda's population ex-

plosion, *Sabal bermudana* is the only native species that has a chance to really survive in Bermuda's gardens, now that the cedar seems to be doomed.

No longer a utilitarian tree that can yield mast, thatch, cabbage or plaiting stock, the Bermuda palmetto can make its last stand as an unusual native ornamental plant. Though admittedly not a graceful tree, still most would agree that it has a sturdy character of its own that fits far better into the Bermuda scene than might many a more handsome alien palm. To be sure, it is slow growing, but then, to many, this in a tree is considered a favorable characteristic. More than anything else *Sabal bermudana* is a product of Bermuda. The palm has demonstrated that it can thrive on any soil that the island can offer. And in February when gales take over, whipping everything green that grows with a dessicating incessancy and

at the same time carrying destructive salt spray across the whole island, the Bermuda palmettos, never having known anything different, merely shrug their boles, rattle their leaves, and take it in their stride as they have had to do down through the centuries. In brief, they are thoroughly acclimated.

#### References

1. Harshberger, John W. 1905. The Hour-Glass Stems of the Bermuda Palmetto. *Proceedings of the Academy of Natural Sciences of Philadelphia* 57: 701-704.
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3. Smith, Louisa Hutchings. 1950. *Bermuda's Oldest Inhabitants*. Sevenoaks, England.

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