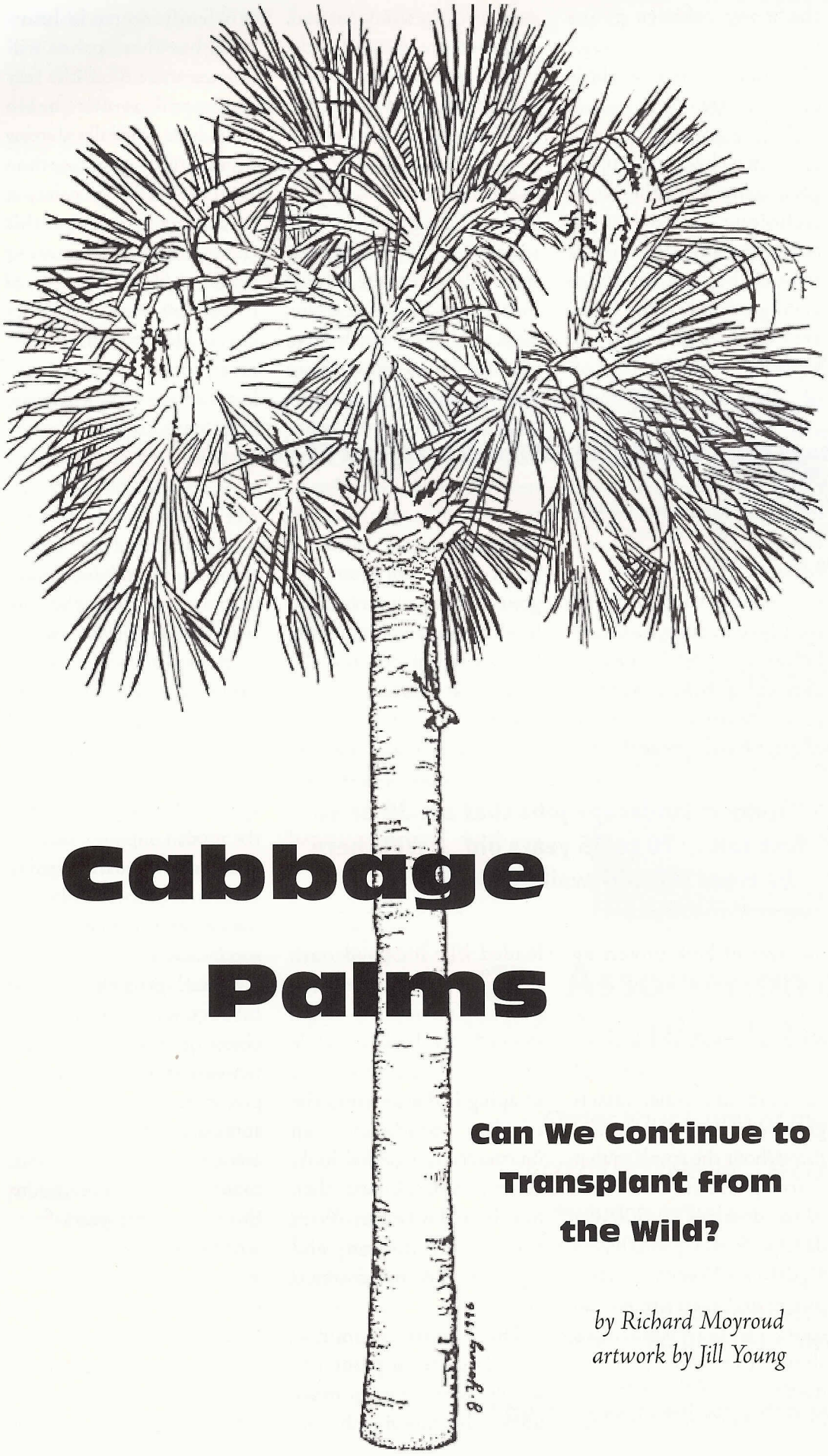

Cabbage Palms

Can We Continue to Transplant from the Wild?

by Richard Moyroud
artwork by Jill Young

Cabbage palm is one of the most common of all our native palms, but is probably one of the least appreciated. This medium-sized fan palm is our state tree and a signature of the Florida skyline. The heart of the palm (the bud of unopened leaves) is eaten as "swamp cabbage," a practice more prevalent in historic times when supply seemed inexhaustible, since the removal of the bud kills the tree. Small white fragrant flowers are produced in large clusters and are a good nectar source; the black berries are of high value as wildlife food, and are produced yearly in abundance. This resilient tree endures fire, flood, freeze, and hurricane, and recovers remarkably well after being dug from the wild, carried across the state, and then planted into harsh urban sites. Our demand for this palm in landscape plantings is having a noticeable effect on wild populations, and we need to better understand the current status and future of this stalwart native palm.

Often misspelled as "sable" (the name of a small northern mammal, or the color of sand), the genus of the cabbage palm, Sabal, is derived from a South American native language. The specific epithet palmetto simply means "little palm" in Spanish, although this is not especially descriptive of a palm which often attains 50 feet in height. (The name palmetto is more appropriate

for another native palm commonly called saw palmetto (*Serenoa repens*), which truly is a small palm; its petioles are armed with sharp teeth like a saw-blade.) Cabbage palm has no teeth or sharp projections anywhere on the plant. The leaf blade is very distinctive and is termed "costa-palmate," which simply means palmate, but with a "rib," or stem, extending into the leaf. This extension of the leafstem causes the center of the blade to curve downward and the adjacent surfaces to form elaborate complex saddle shapes. Few palms have such pronounced curvature in their leaves, but this may provide added biomechanical strength. Long thin fibers often hang from the junction of segments along the outer edge of the leaf. The base of the leafstem splits where it joins the trunk, and often remains in place, forming a beautiful basket-weave pattern. These old leafbases are often called "boots," for a resemblance to the "bootjack," a V-shaped device once used to grab the heel and help remove one's boots.

Cabbage palm ranges throughout Florida except for the interior of the Panhandle. It grows in almost all exposures and soils, and is extremely fire tolerant, but mature plants are sun demanding; shading can kill adult trees. In any case, roots, trunks, and leaves produce a very durable tree, as proven by the many cabbage palms which came through Hurricane Andrew with little or no damage.

The fire adaptation of this palm may help explain its good response to the brutal technique used in transplanting. When fire sweeps through a cabbage palm grove, all of the leaves are consumed, and the leafbases are often burned off of the trunk. Almost immediately, the growing bud expands from the top and soon a new crown is produced, with healthy fronds catching sunlight before any nearby competition has recovered. In palms, the trunk is unlike that of most trees in that there is no layer of bark protecting one thin layer of living tissue (cambium), essential to the tree's survival. Palms, like cornstalks, have bundles of cambium and other vessels grouped and scattered throughout the trunk so that scarring the surface a few inches does not cause severe damage. Finally, palms have a vigorous, branched root system and there are no "tap roots." Research has also shown that cabbage palm does not regenerate cut roots unless they are many feet away from the trunk. Instead, new roots are initiated at the base of the trunk, replacing the cut (and dead) roots.

All of the characteristics detailed above help explain the reasons for success in transplanting, now a very reliable procedure. In the field, palms roots are cut just inches from the trunk with a large steel blade which slices into the soil on four or more sides around the base of the tree; a chain is then wrapped around the trunk and the palm is pulled from the ground. It is then carried to a holding area where all the leaves are cut off, and the trunks are often planed smooth to satisfy some buyers, and finally they are loaded like logwood onto flatbed trucks for delivery. Some palms seem to retain most of their leafbases while others are naturally bare; scraping leafbases from the trunks produces an unattractive, artificial look, closer to milled lumber than healthy palm trunks. With proper installation and regular irrigation, recovery is 100%.

"...a cabbage palm with 20 feet of trunk is at least 50 years old!"

"Trees in landscape jobs that are 30 or 40 feet tall ... 70 to 95 years old ... Will there be trees this old available in five years?"

The most common mistakes are to plant too deeply, sometimes to make uneven heights match; this problem is worse in heavy soils, but these palms will tolerate some fill if it is very sandy and porous (beach areas have naturally shifting dunes and are a common habitat for cabbage palm). It is best to think of this transplant as a giant cutting; the leaves have been removed to prevent water loss since there are no functioning roots, so new roots and new leaves develop simultaneously, fueled by the stored energy in the trunk. Very small cabbage palms with less than three feet of trunk are almost impossible to transplant, perhaps because they lack sufficient energy reserves. Palms in this size range are actually very attractive, and can be moved succesfully from nurseries which have grown plants in special fiber bags to confine the roots.

One of the most intriguing questions in palm biology is the rate of growth of various species, especially in the wild. Age and growth rates of cabbage palm are now the object of study through the University of Florida, and preliminary results indicate some startling news: under average conditions in the wild, plants will require ten to fifteen or more years from seed to the first sign of a trunk at ground level; thereafter, trunks will grow about six inches per year. This means that a cabbage palm with 20 feet of trunk is at least 50 years old! We often see trees

in landscape jobs that are 30 or 40 feet tall, or 70 to 95 years old! Will there be trees this old available in five years; in ten years? All of these trees are being "harvested" from the wild on private lands, and the fee paid to the landowner is very small; in fact, most ranchers see the large stands of cabbage palm as a detriment, since *Sabal* is not considered a good pasture plant. Some of the collected palms are shipped out of state, but many are simply relocated, allowing them to continue to flower and fruit unless they are over-pruned by untrained tree trimmers or owners who cannot tolerate a full head of leaves, fallen flowers, or fruit. As with all palms, the removal of living fronds is detrimental — mineral elements move from declining fronds back into growing tissues. Old leaves are also a unique habitat for many native animals including tree frogs and bats, while the leafbases (boots) provide habitat for many beautiful and rare ferns. A healthy, untrimmed Sabal palm has an almost spherical crown, especially attractive in silhouette.

The natural occurrence of almost solid forests of *Sabal palmetto* was noted in John Davis' vegetation map of Florida and these plant communities are designated as "Forests of Abundant Cabbage Palm." Unfortunately, these areas are the ones being mined of trees for landscape planting, and the relatively low cost of such plants does not reflect their true value. Could these same areas be actively managed for sustainable harvest of this tree? This would require a long-range plan and concern for the health and productivity of otherwise marginal lands, but also speaks to the preservation of a part of Florida's natural heritage represented by a unique plant community. Another more recent problem is the large amount of die-off of wild trees, especially near Gulf coast salt marshes. Recent studies suggest that a slight rise in the salinity of ground water is to blame, perhaps reflecting sea level rise, compounded by our drawdown of freshwater aquifers by canals and heavy pumping for cities and farms. Just a few inches of elevation seems to make the difference between life and death, so never plant cabbage palms in low spots in coastal areas.

We know that cabbage palm is in high demand for landscape use and that it fulfills a specific need as a canopy tree — a foolproof palm providing the feel of the tropics and an authentic native plant for virtually any part of the state. Native nurseries are propagating this plant from seed, and both container-grown and field-grown plants are available and are being used as landscapers discover them. It is up to the public and agencies to ask about the source and true cost of the plants which they buy and to express their concerns for the long-term effects of a practice taken for granted for far too long a time.

Richard Moyroud is the owner of Mesozoic Landscapes. Jill Young is a graduate student at Florida Atlantic University. Article printed with permission of Betrock Information Systems, Inc., from the *August 1996 Landscape & Nursery Digest*, Plant & Service Directory.