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Natural Communities of Florida's Coastal Mounds

by Linda Conway Duever

Here and there along the Florida coast you will find little shelly hills and ridges that don't quite fit in with the landscape of dunes, marshes, and mangroves. Some of these are shell mounds piled up by hurricanes. Others are – more or less obviously – spoil piles dumped aside during some channel dredging or construction work. If this human activity was conducted in recent years, the resultant mounds are regarded as disturbed areas and deemed “unnatural.” But if they are the handiwork of ancient Indians, they are considered part of the natural Florida scenery. For such purposes as park management decisions, the state considers anything that was here before Ponce de Leon came as “natural.”

The Florida Natural areas Inventory recognizes three Natural Communities that fall into this general category: Shell Mounds (the ones made by Indians), Coastal Berms (ridges left by storms), and Overwash Plains (sheets of storm-deposited material). Shell Mounds are described below; Coastal Berms and Overwash Plains will be discussed in the next issue.

Shell Mounds

Shell Mounds made by Indians can usually be recognized as little hills with shelly soil and forests taller and more tropical in species composition than the surrounding area. Most of them are along the coast, often on island very near the water.

Archaeologists used to talk about how the Tequestas and the Calusas constructed living platforms and ceremonial centers out of discarded shells when they came to Florida's shores to eat seafood. Modern

researchers say it was a lot more complicated than that. They say the mounds were built bit by bit by a series of Indian cultures occupying the sites now and again from around 3,000 BC until the 1400s. But they aren't quite sure why. Certainly, the basic material was initially garbage, but in some places it was used to create temple mounds, terraces, canals, and water courts.

Most of the mounds near the coast are composed of marine mollusk shells, predominantly oyster, *Crassostrea virginica*; coon oyster, *Ostrea frons*; light-ning whelk, *Busycon contrarium*; and southern quahog clam, *Mercenaria campechiensis*.

There are a few inland mounds, and in the Everglades these contain bones from turtles, snakes, and greater sirens (20 to 30 inch long aquatic salamanders). Along the St. John's River, they are built of freshwater snail shells.

Shells make the mound calcareous and alkaline, and remnants of bone, flesh, and forest debris add organic nutrients that produce a rich soil. Thus, calcium-loving trees grow exceptionally large on these sites. And, since the shell absorbs and releases heat that protects tender foliage on cold winter nights, tropical species grow farther north on mounds than in any other habitat.

The following species are common in maritime hammocks – especially on the west coast where the beach ridges are made up of more storm-deposited shelly debris than windblown sand – but they are especially abundant on Indian mounds:

gumbo limbo, *Bursera simaruba*; cabbage palm, *Sabal palmetto*; mastic, *Mastichodendron foetidissimum*; red cedar, *Juniperus silicicola*; hackberry, *Celtis laevigata*; forestiera, *Forestiera segregata*; coral bean, *Erythrina herbacea*; marlberry, *Ardisia escallonioides*; tough bumelia, *Bumelia tenax*; red buckeye, *Aesculus pavia*; and coontie, *Zamia integrifolia*.

Many rare species grow in these sheltered tropical environments.

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