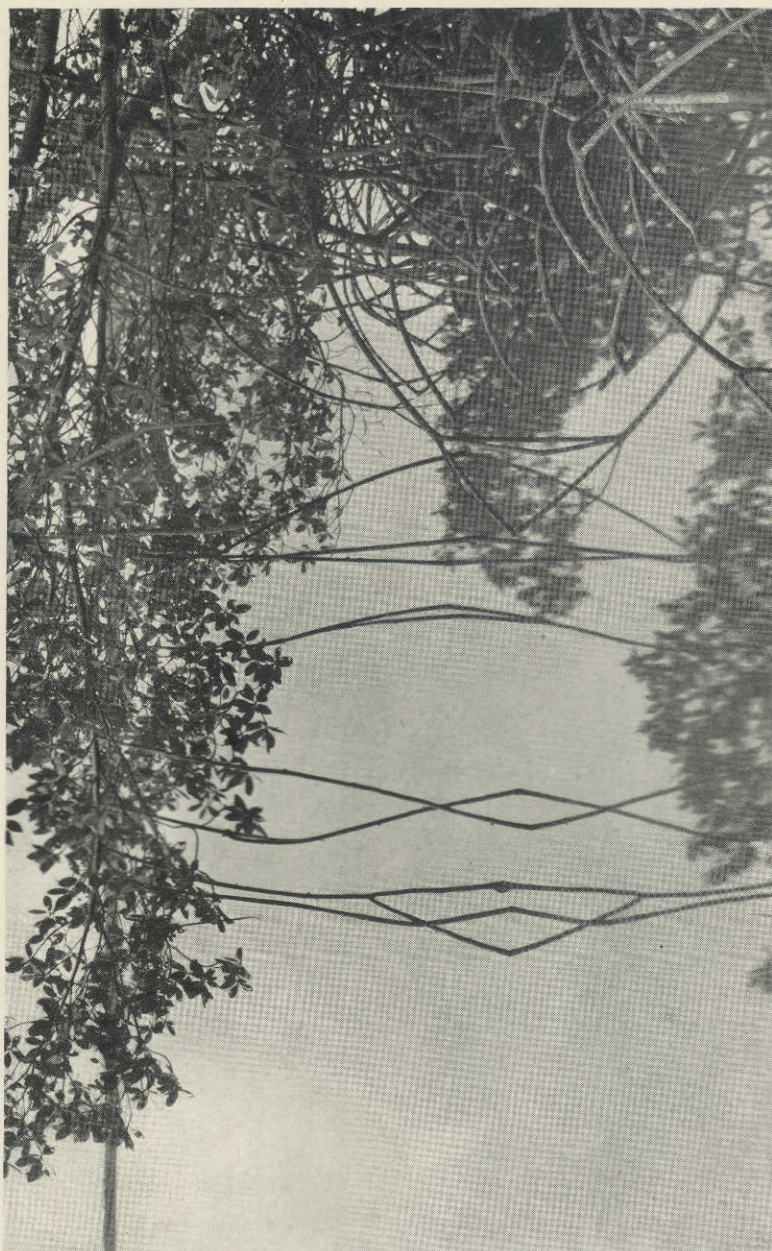


**THE MANGROVE**





How the mangrove extends a shore line.



## CHAPTER XXI

### THE MANGROVE

**O**N the map of Florida ten thousand square miles are meagerly described as The Everglades, Great Cypress Swamp and Ten Thousand Islands.

These great divisions were built mainly with land borrowed from the Louisiana Purchase and transported by the Gulf Stream.

For the retention of this soil the coral insect built walls, the wind sowed grasses, the railroad vine, a species of morning glory, spread octopus-like arms upon each new shoal, but the chief agent in its redemption from the waters that had captured it, was the red mangrove, a tree so adapted to the conditions as to imply that it was either created for them, or evolved by them.

A dark band of evergreen leaves of the mangrove, surmounting the somber red of its countless roots, marks the shores of ten thousand unnamed islands, and borders the bays and water courses of South Florida.

Planted on shifting sands and unstable soil, the mangrove anchors itself and makes firm the land by sending forth a hundred aërial roots like cables from the branches above to the earth beneath. These self-

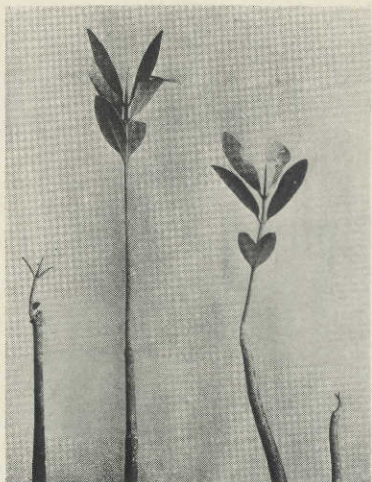
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*Florida Enchantments*

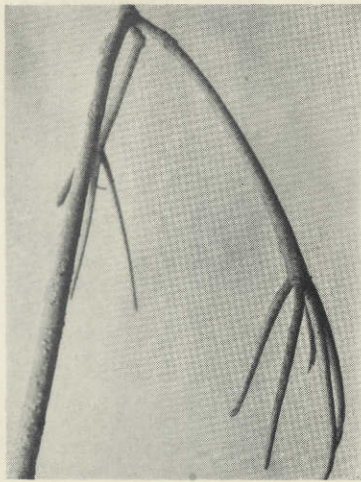
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reproducing roots, unique in their function, send forth like roots which subdivide, extend and interlace themselves into an almost impenetrable jungle. The mangrove puts forth a few flowers throughout the year, but covers itself with yellow blossoms at mid-summer. Its seeds germinate while yet inclosed in the fruit, giving to the parent the distinction among trees of being viviparous. The elongating embryo bursts through the conical end of the fruit, and growing at the rate of about one and one-half inches a month is prepared in eight months to leave the parent stem and found a new home of its own.

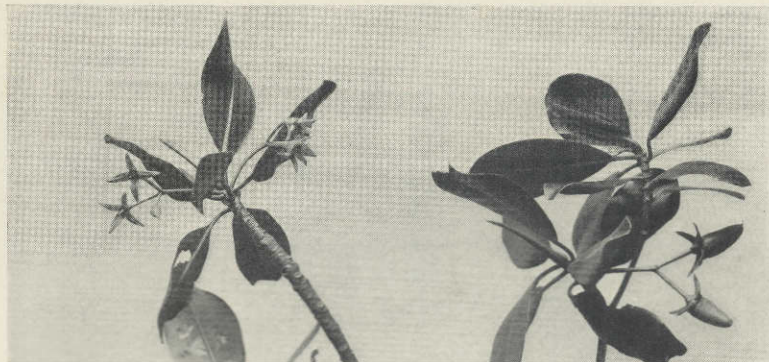
With the coming of Spring, long, heavy hypocotyls, swinging freely to every breeze, have so weakened the fibers that support them as to be ready to break loose at a touch. Many, in falling, drop straight as an arrow through a foot or more of water and attach themselves firmly to the soil of the old homestead in which they bore deeply, and soon a flourishing young family is established beneath the shade of the parent tree. Myriads of these cigar-shaped forms, from six to eighteen inches in length, trees in miniature, falling in the water, sail forth to found colonies on the first bank to which the tide may chance to bear them. Nature so ballasts these little craft that they float upright, with the brown root ends below and the green above, while from the surface of the water projects a little point, consisting of the tightly rolled fruit leaves of the coming tree. It is by these tiny points that the roots are lightly attached to the tree, in form like acorns to their cups,



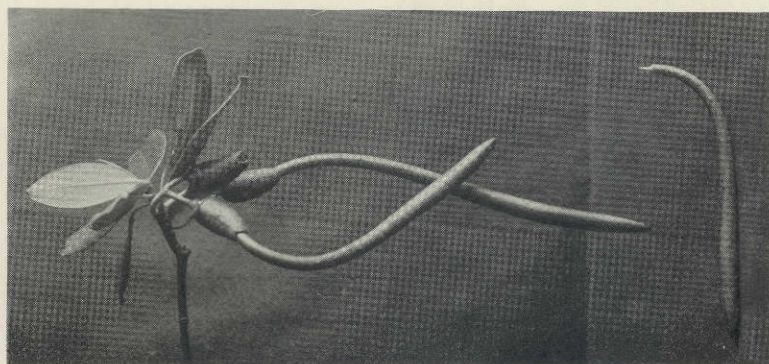
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#### THE MANGROVE IN DETAIL

- (1) The shafts in their first growth. (2) The claw-like roots drive fast in the mud. (3) The flowers and the fruit. (4) The shoots break off and sow themselves.





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## *The Mangrove*

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and when Spring sets them free the waters are filled with pioneer mangroves which are borne by the tides over banks and shoals where, as the water recedes, roots take hold and extend, leaves unfold, and new colonies of mangroves are established in the shallows of the open water. Sometimes a single tree sets up an island of its own and sometimes a thousand begin housekeeping together.

The first roots of a mangrove tree have the unusual power of lifting the trunks which they create by their own growth in length. The lower portion of the erect trunk dies away, stilt-like and columnar roots, outthrust from stem and branches, attach themselves to the earth and there is often presented to the eye the form of a gigantic centipede, stalking through a tangle of trees. While to man a mangrove swamp is almost impassable, panthers glide gracefully through it, bears make easy passage, and even antlered deer lose little time in crossing it.

The wood of the red mangrove has long been accounted worthless, even for fuel, being more likely to put out a fire than to encourage it. It is now, however, being exploited for the tannin, in which it has been found to be rich, and extensive camps have been established to that end.

Oysters flourish among the roots of the mangrove to which they cling in great bunches, many of these bunches weighing fifty or more pounds each. Often at low tide they hang several feet above the water, the strangest fruit ever borne by trees. Reefs of oysters form beneath and around the trees and bear their

part in the development of the islands and the increase of the peninsula. Other trees come slowly, the black mangrove, easy to identify by tasting its leaves, which are coated with fine crystals of salt from exuded sea water, and the white mangrove which under the name of buttonwood is the fuel of the coast, and the palmetto or cabbage tree, the bread-fruit tree of the Cracker.

As by slow accretion the land rises above the tides and the water upon its surface becomes fresh, the cypress appears with its pyramidal trunk and cypress swamps are formed. The swamp develops into a hammock, abounding in gnarled live oak, stately pine, choice madeira and royal palm, while great flowering magnolias, fragrant bays and creeping yellow jessamine burden the air with fragrance, and all trace their inheritance back to the modest mangrove. Much of the cultivated land of the west coast of Florida consists of shell mounds, of human construction, if the testimony of the domestic utensils and human remains that pervade them be accepted, but the foundation of it all was the mangrove. Outside of the line of the coast, sand and sediment, the sweepings of the Gulf, form shoals called breaker-bars, while on the coast the interior waters shrink as the islands combine and the mainland extends. The beach of to-day was the shoal of yesterday, and the shoal now forming, by the grace of the red mangrove, will be the beach of to-morrow.



Great bunches of oysters attach themselves to these branches.

