

The more you look

the more you see.



Find out more about Florida's beach treasures in

*The Nature of Florida's Beaches*

(ISBN 1-888025-07-7)

Also by Cathie Katz:

*The Nature of Florida's Waterways*

(ISBN 1-888025-08-5)

*The Nature of Florida's Neighborhoods*

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*The Nature of Florida's Ocean Life*

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Shown above is a *mermaid's purse*, the egg case of a clearnose skate (related to a stingray).

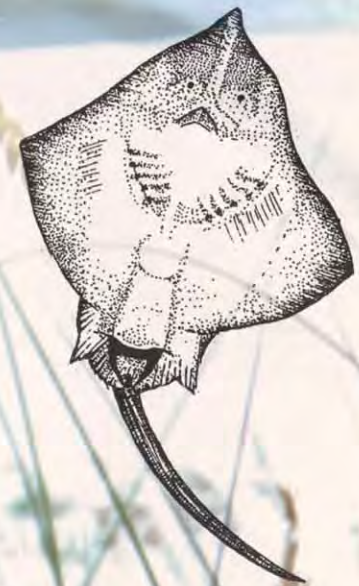
Female skates lay these egg cases on the bottom of the ocean. They are the protective coverings for their eggs. Inside each black leathery case, an embryo develops, similar to the way a chicken grows inside an egg. After about nine weeks, a perfectly formed miniature skate swims out of its case to start life in the ocean.

The empty case rises to the ocean's surface and drifts in the ocean until the Gulf Stream carries them to our shore. Beachcombers find these tough, black "mermaid's purses" mixed in the other ocean debris in the *sea wrack*.

the drama and  
excitement of  
the

# Wrack!

What is it? What's in it?





## the wrack

The **WRACK** (also known as a *sea wrack*) is a strip of seaweed and junk left on the beach by incoming tides: driftwood, lava bomblets, shells, grasses, shell egg cases, barnacles, crab claws, corks, mermaids' purses, spirula, operculum, sand collars, toys, shoes, and messages in bottles. Also in the wrack are *sea-beans*, all of which bring good luck. These treasures, and more, accumulate on the beach, tide after tide, supplying shore animals with food and shelter ... and beachcombers with exotic treasures.



## Sargasso Sea

Most of the seaweed on Florida's beaches comes from the Sargasso Sea -- a huge swirling area of warm water in the middle of the Atlantic Ocean. Here the ocean is covered with thousands of miles of seaweed called *sargassum*. A community of shrimp, crabs, fish, mollusks, worms and sea turtles thrive on this thick layer of vegetation. Sea turtle hatchlings begin their first few years of life on this playground, eating, playing, and learning survival skills.

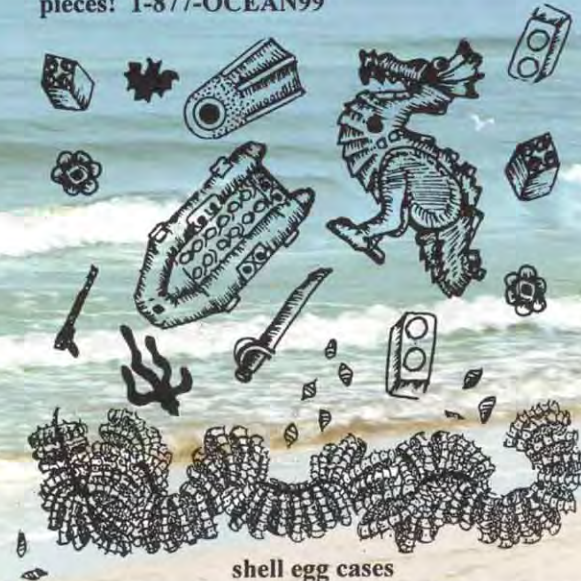
## LEGO® toys

### BEACHCOMBERS ALERT!!!!

All beachcombers should be aware that LEGO® pieces found in the wrack (or in the surf) may have come from a huge ship spill off the coast of England in February 1997. The *Tokio Express*, a cargo ship carrying a shipment of LEGO® toys from Denmark, ran into high seas and lost much of its cargo. Scientists and oceanographers would like to know when the toys reach the United States. The Gulf Stream can carry these little floaters for miles, so where they land is anyone's guess.

Some of the pieces are: yellow dive rafts, green dragons, black bats, red dive flippers, gray swords, green sea grass, and yellow spear guns.

Please call us toll free if you find any LEGO® pieces! 1-877-OCEAN99

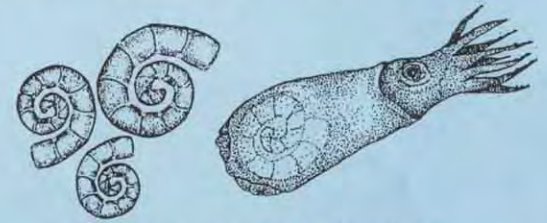


## shell egg cases

Many of our familiar shells start life inside egg cases like the ones shown above. Hundreds of miniature shells develop inside each "package."

## spirula

The small deep-sea squid *Spirula* has an internal skeleton known as a "ram's horn." This fragile structure has gas-filled chambers inside that allow the tiny squid to swim *vertically* in the deep ocean. When the squid dies and decomposes, its skeleton rises to the surface and eventually drifts with the currents to the beach. The squid shown here is about actual size.



## sea-beans: world travelers

Sea-beans are tropical seeds, mostly from the world's rain forests. They fall from their parent plant into rivers such as the Amazon, then float through inlets to the ocean. Like many of the ocean treasures found in the wrack, sea-beans drift with the currents until the Gulf Stream carries them to our beaches. Over 100 types of sea-beans are carried to Florida's shores by the Gulf Stream. A few common ones are shown here: hamburger bean, sea heart, sea purse, and nickernut.

