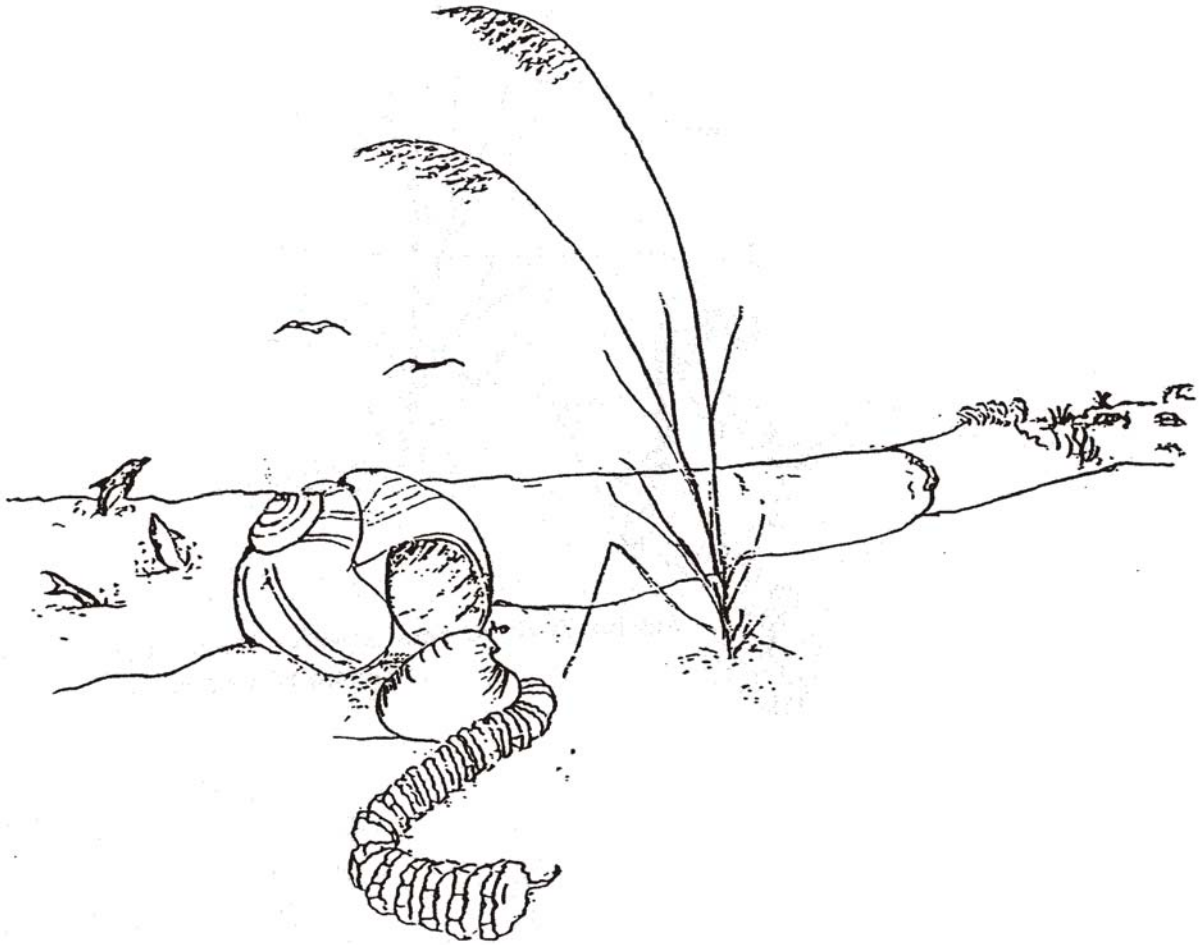


Dauphin Island Scavenger Hunt

Prepared by: Discovery Hall Staff

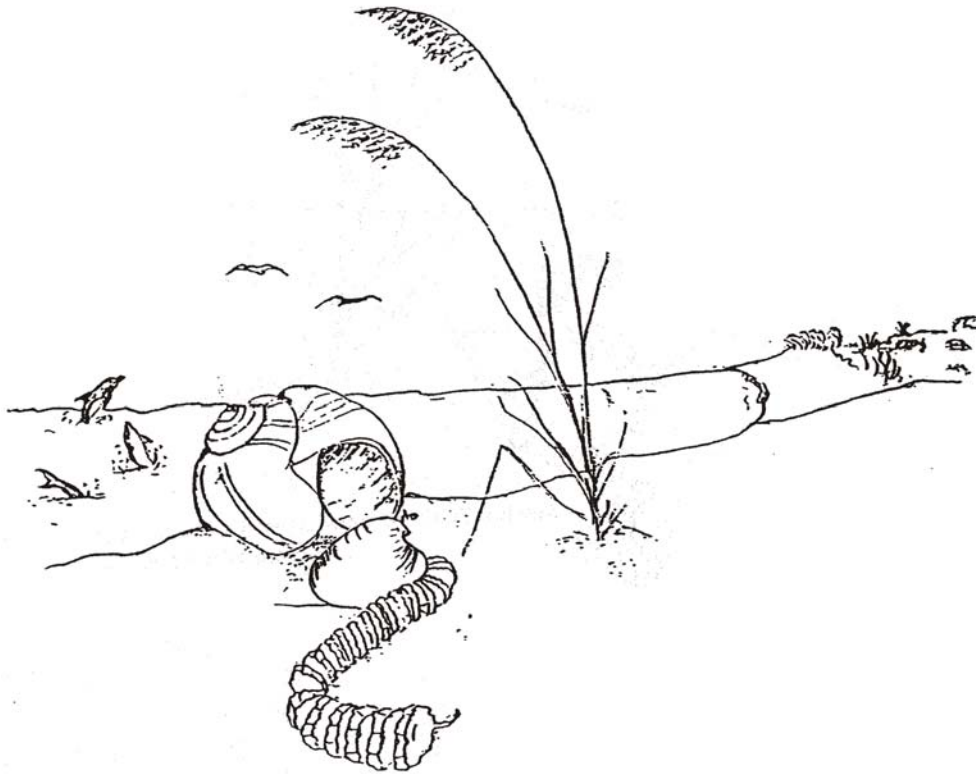


Marine Environmental Sciences Consortium
Dauphin Island Sea Lab

To the Teacher

This is a general guide to the “treasures” commonly found on Dauphin Island’s beaches. The purpose of this guide is to provide a beginning point for identifying some of the beach and drift residents found along Alabama’s coastline.

Included are brief descriptions of animals (dead and alive), animal remains (e.g., molts or shells), animal evidences (e.g., tracks *or* burrows), and various plants. Challenge your students to find as many of these as they can. The references listed at the end are good resources for when you become more familiar with the beach and its residents.



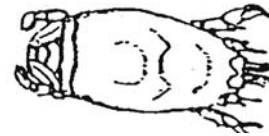
Dauphin Island Scavenger Hunt

The coquina or bean clam (*Donax variabilis*) is found in abundant numbers burrowed in the sand at the water's edge during the spring and summer. Its strong, muscular foot and smooth, streamlined shell allow it to burrow rapidly into the sand. As its scientific name implies, the coquina comes in a variety of colors.



Coquina or Bean Clam

The mole crab (*Emerita benedicti*) is commonly found burrowed in the surf zone. Like all crustaceans, the mole crab must shed its rigid external skeleton in order to grow. The empty skeletons, called molts, are often found on the beach.



Mole Crab



Hermit Crab in Oyster Drill Shell with Barnacles

Striped hermit crabs (*Clibanarius vittatus*) are very common at the water's edge during the late spring and summer. They are usually found inhabiting the shell of an oyster drill (*Thais haemostoma*) or a moon snail (*Polinices duplicatus*). Although they are found on the beach, hermit crabs cannot survive for very long out of water. **SO, PLEASE DO NOT REMOVE HERMIT CRABS FROM THE BEACH:**



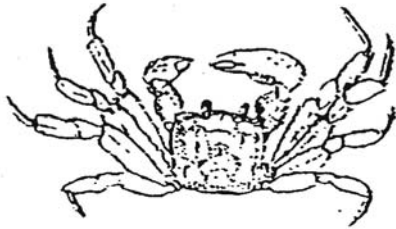
Hermit Crab in Moon Snail Shell with Sea Anemone

Hermit crabs frequently carry other animals on their shells. Inspect the shell for barnacles or sea anemones.

Barnacles and sea anemones (*Calliactis tricolor*) are also found attached to other hard surfaces such as driftwood or oyster shells. Sea anemones which are washed up on the beach have their tentacles withdrawn so that they appear to be little more than purplish-brown lumps.



Oyster Shell with Sea Anemone



Ghost Crab

Sometimes jellyfish may be found washed up along the beach. Moon Jellies (*Aurelia aurita*) do not have a harmful sting and may be recognized by their four central pink reproductive organs.

Ghost crabs (*Ocypode quadrata*) are often seen scurrying to and from their burrows in the sand. Ghost crabs eat many of the animal remains found washed up along the beach.



Moon Jelly

Stinging Nettle



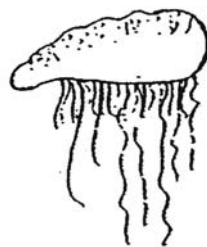
Stinging nettles (*Chrysaora quinquecirrha*), as their name implies, may impart a painful sting. Jellyfish can sting, even when dead, so do not handle venomous jellyfish. The stinging nettle has red stripes along the margin of the bell and trailing tentacles.

The cannonball or cabbagehead jellyfish (*Stomolophus meleagris*) has an extremely mild sting and may be handled without harm. This jellyfish is easily recognized by its colorless firm bell and lack of trailing tentacles.



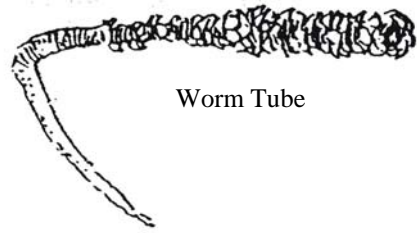
Cabbagehead or Cannonball Jellyfish

Portuguese man-of-war



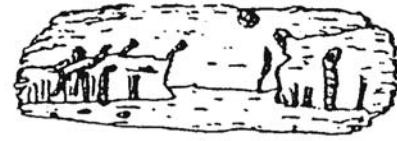
The Portugese man-of-War (*Physalia*) has a beautiful purple-blue, air-filled float when freshly washed up on the beach. The trailing tentacles have a *very painful sting and should be avoided*.

Worm tubes are often found along the drift line. These parchment-like tubes were once inhabited by a marine worm (*Diopatra cuprea*) which decorated the tube with bits of shell and other debris.



Worm Tube

Bits of driftwood are often ignored by beachcombers. However, close inspection will sometimes reveal holes and tunnels in the wood made by a “shipworm,” which is actually a type of clam (*Teredo*). Breaking open pieces of driftwood may reveal one of these burrowing clams.



Driftwood



Bryozoan



Sea Oats



Pennywort

The plant-like clumps along the driftline which are often dismissed as “seaweed” are usually colonial animals called bryozoans. There are several kinds of bryozoans found along the beach. The bryozoan illustrated here is rusty brown in color.

Be sure to notice the various plants, such as the sea oats and the pennyworts growing along the dunes. These plants play a vital role in deterring beach erosion.

Several kinds of egg cases are found on Dauphin Island beaches. The egg cases of the lightning whelk (*Busycon contrarium*) form a long string of parchment-like cylinders. Some of the cylinders may still contain baby whelks.



Whelk Egg Cases

The egg cases of another marine snail, the oyster drill, appear as small purplish clumps of tubes.



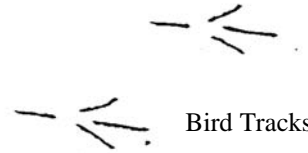
Oyster Drill Egg Cases

An easily recognized egg case is the “mermaid’s purse” or the egg case of the skate. These egg cases have a black, waxy outer layer.



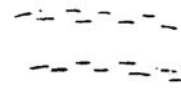
Skate Egg Case or “Mermaid’s Purse”

Animal tracks provide clues to who’s been using the beach. Look for different kinds of bird tracks

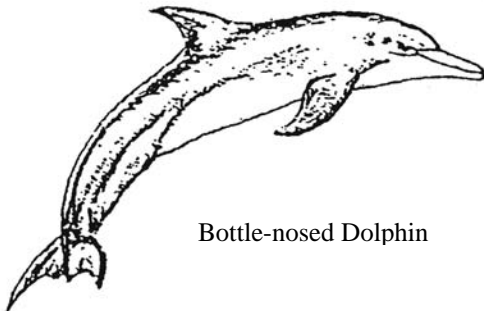


Bird Tracks

and crab tracks.



Crab Tracks



Bottle-nosed Dolphin

While at the beach, don’t forget to look at the sky and the ocean! You may see many different kinds of shorebirds such as seagulls, terns, black skimmers and sandpipers. Also, visitors to the beach are often treated to the sight of bottle-nosed dolphins (*Tursiops truncatus*) leaping out of the water.

The following references are recommended as you learn more about the beach:

Beachcomber’s Guide to Gulf Coast Marine Life. 1980. Nick Fotheringham, Lone Star Books, Houston.

The Audubon society Field Guide to North American Seashells. 1981. Alfred A. Knopf, New York.

Plants for Coastal Dunes of the Gulf and South Atlantic Coasts & Puerto Rico. 1984. U.S. Department of Agriculture, GPO, Washington, D.C.

Florida’s Fabulous Seashells And Other Seashore Life. 1988. Winston Williams. World Publications, Tampa, FL

Peterson Field Guides: Southeastern and Caribbean Seashores. 1988. Eugene H. Kaplan. Houghton Mifflin Company, New York