

Sea Breeze



1975

Canaveral National Seashore Silver Anniversary Edition

2000



Message from the Superintendent

“That in order to preserve and protect the outstanding natural, scenic, scientific, ecologic and historic values of certain lands, shoreline and waters of the State of Florida, and to provide for public outdoor recreation use and enjoyment of the same, there is hereby established the Canaveral National Seashore”

Public Law 38-006
January 3, 1975

This year marks the 25th anniversary of Canaveral National Seashore. As one of our primary efforts in our year long celebration, we are looking back to the words of the founders to seek guidance for the future.

As we move into a new century, by working together, we can insure that this priceless national treasure remains true to its founders' vision. Please join me in thanking the visionaries of the past, and those who carry out the vision today. Our hope is that not only will our children learn and enjoy what is here, but that our grandchildren and their grandchildren can return and see it unchanged 100 years from now.

Robert Newkirk
Superintendent

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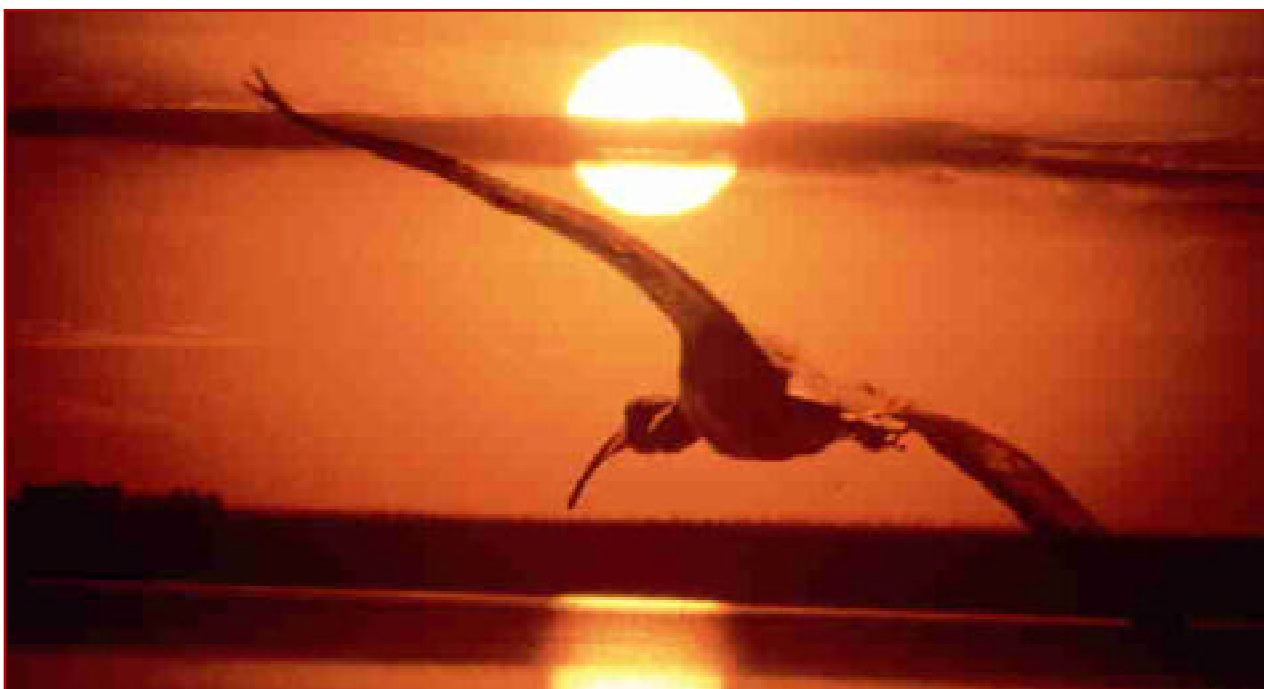


Photo by Bob Werner

Horizons, Past and Future

by Reid Miller
Interpretive Ranger

As you enjoy the surf and sky along Canaveral's beach today, consider this fact. A single Loggerhead turtle, refined to its present efficiency by countless centuries of adaptation in the marine environment, may live as much as one hundred years, under the best of conditions. That means, however, that one Loggerhead - born in 1900 - has witnessed dramatic changes and seen new threats introduced into its world as the human population surrounding it has more than tripled in this one century!

For several years prior to 1975 Americans witnessed the unprecedented chemical pollution of our air and water, devastation of forests, topsoil erosion, strip mining and virtually unrestricted mainland and beachfront development. No quarter of this great continental nation was spared the forces of "progress," and too little thought was given to the consequences of unplanned sprawl as the postwar economic boom was perpetuated by an eager new generation entering the business world.

The nation came to recognize in the 1970's that conscience is an enduring and beneficial human quality. The importance of all life forms was acknowledged by passage of several environmental acts providing for clean water, clean air, control of the distribution, sale and use of toxic substances, and the protection of endangered species.

Amid all the debate surrounding these important laws, it is hardly surprising that Canaveral National Seashore was the only new unit added to the National Park Service in 1975...and what a profound expression of political courage it was, when that occurred on January 3, 1975. To set aside 57,000 acres of prime real estate and recreational waters for the use and enjoyment of this and future generations in one of the fastest growing states in the union was far-sighted; a self-fulfilling act of social responsibility by local community leaders and the Florida congressional delegation.

The Loggerheads mentioned above are a federally-listed threatened species, which simply put means that extinction lies just over the horizon for their kind. We took action in the 1970's - we became involved in protecting the quality and diversity of life that is so critical to the health of our common environment. Never doubt that your individual words and values can make a positive difference for the greater good, for that is how this park came to be.

We here at the Seashore share the horizon with the Loggerhead. Unless we can demonstrate the courage of our predecessors, the beauty of the view before you may become extinct in **your** lifetime.

Park Information

Emergency - 911

Don't Become A Victim!
Leave your valuables at home or
out of sight and
LOCK YOUR CAR!

Headquarters
308 Julia Street,
Titusville, FL 32796
Hours: 8 am - 4:30 pm
(321) 267-1110

**Playalinda Beach
Ranger Station**
East of Titusville
(321) 867-4077

**Apollo Beach Ranger Station
Information Center**
7611 South Atlantic Ave.
New Smyrna Beach, FL 32169
(904) 428-3384

Websites:
www.nps.gov/parks
www.nbbd.com/godo/cns

Watch the Weather

Central Florida is the lightning capital of the world. If you observe lightning while on the beach, seek shelter in your car until the storm passes.

Rip Currents

Rip currents that flow seaward from the beach can be deadly. Learn how to identify rips and the conditions that produce them. To escape a rip, swim across the current not directly back into it. Once free, swim back to shore. Most important of all - remain calm.

Sharks and Jellyfish

Sharks and jellyfish are present in the ocean at all times. For your safety, always be aware of the conditions that will bring them in contact with swimmers.

Beach Wheelchair

A beach wheelchair is available upon request (and availability). For further information, ask at the fee booth when entering the park.

Personal Water Craft

Effective December 1, 1998, the Seashore closed the waters under its jurisdiction to the use or operation of personal watercraft (PWC). PWC's may be launched from the paved boat ramp and proceed north of the park boundary to allow access to the ICW. For further information contact Apollo Beach ranger station.

Incidental Business Permit

Canaveral National Seashore has a system that regulates all business operations on park land. If you are interested in conducting business at Canaveral National Seashore, please contact Park Headquarters.

Fees Benefit "Your" Park

80% of the "Use Fee" collected when you enter the park stays here to provide additional services to the visitor and reduce the backlog of maintenance projects that have mounted due to funding short-falls.

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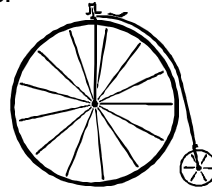
Discover The Real Seashore

Opportunities in the park are endless, even though your vacation time may be limited. The following suggestions may help you plan your visit.

Information Center Located at Apollo Beach. Stop by to see a short and interesting video about the park. Browse through our books and enjoy the exhibits. Park rangers and volunteers are available to answer your questions.

Wild Things!! Canaveral is home to 14 threatened and endangered species. Since it is part of the Atlantic Flyway you will see a good variety of birds here all year long. In April there is a songbird festival and in November is the Flyway Festival. Programs are scheduled throughout the rest of the year to introduce you to birding, identification and adaptations.

Bicycling Bike riding is allowed on all paved roads in the park. The fall, winter and spring are the best times to ride your bike.



Alligators The alligators in our park are **WILD**. They can be seen at most vista pull offs in the south district of the park at various times of the year. **Please remember: alligators are potentially dangerous and always unpredictable. Never feed or disturb wild animals!**

Boating Mosquito Lagoon provides great boating opportunities and there are several boat ramps within the park. Check at the entrance station for more information.

Canoeing The seashore routinely conducts ranger-guided canoe trips to various points of interest in the Mosquito Lagoon. These quiet excursions offer opportunities to view the abundant marine life that is so dependent on the estuary, as well as learning some of the history surrounding the Lagoon and the park. You are limited only by your imagination and your endurance.

Camping The seashore offers primitive backcountry camping. Choose from one of eleven islands in Mosquito Lagoon or on the beach. We follow the "Leave No Trace" rule of camping - when you pack it in, you pack it out! A special use permit and camping reservations are required up to seven days in advance. Call (904) 428-3384 Ext. 10 for more details.

Reel Time The beach provides an opportunity for excellent surf fishing. Mosquito Lagoon provides some of the best year-round fishing and clamming in the state. License may be required.

Horseback riding Between the months of November and April horse use is allowed on designated sections of the Seashore. Permits are required as well as a valid Coggins test. Reservations may be obtained by calling (321) 867-4077 or (904) 428-3384.



Manatees Look for manatees in the Lagoon behind the visitor center at the north district and at the Manatee overlook at Haulover Canal on SR 3 in the south district.

Step Back in Time Turtle Mound is a 35 foot high Native American (Timucuan) archeological site. This mound is what remains of a civilization that lived here a thousand years ago.

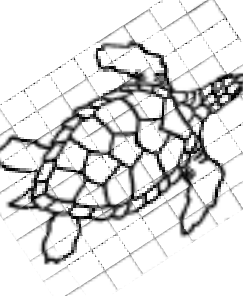
Mosquito Feeding Mosquitoes can be numerous anytime of the year, especially during the wet, summer season. Always come prepared with protective clothing and/or repellent, but don't let the fear of mosquitoes keep you from enjoying the wonders of Canaveral National Seashore.



Self guided Tour of the Vistas From the Playalinda Beach entrance you can obtain a brochure that will help you understand the diversity between nature, the Park and Kennedy Space Center by making use of the vista overlooks along the main road.

Sand and Sea Discover the real treasure! 24 miles of pristine beach. Swim, stroll, sunbathe, build a sand castle, beach comb or body surf. This is an area where you can really get away from it all. Lifeguards are on duty during the summer at designated sites.

Walk on the Wild Side Enjoy a walk along Castle Windy Trail or the trail to Eldora. You will find yourself in a wondrous new world where the merging of temperate and sub tropical vegetation brings forth a combination of plants not found in other parks.



Sea Turtles During June and July the loggerhead sea turtle comes ashore to nest on our beaches. Advance reservations can be made to join the rangers on our deserted beaches to watch a process of nature that has been going on since the time of the dinosaurs. Call for more information.

Seabeans and seashells At different times during the year drift seeds land on our shores after traveling thousands of miles from around the world. Rangers lead programs onto the beach to explain what all that "stuff" actually is that you find at the high tide line. After one of these programs you will look at "sea wrack" in a totally new light.

Junior Rangers Programs for children ages 6-12 are conducted throughout the park. Rangers and Volunteers share their knowledge with the children as to why the seashore is a special place. Children attending park programs must be accompanied by a parent or guardian at all times. Upon completion of three programs, picking up one bag of trash, and an individual activity of their choice, they will receive a Junior Ranger certificate and a colorful patch.

Environmental Education Two school classes a day, three times a week are invited to participate in seashore related activities from September to November and March until June. The programs last at least 2 hours and school groups are invited to bring a picnic lunch. Please call Sandra Hines at (321)867-4077 for more information.

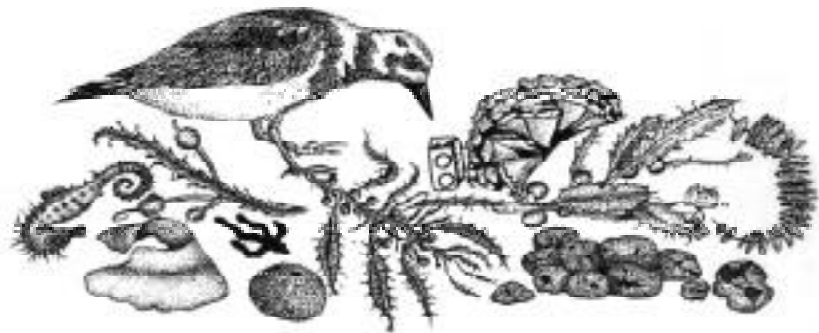
Always Something To Do! Several times a week visitors can participate in programs designed to show how to surf fish, use a cast net, identify seashells and seabeans, use a canoe, find out what lives on our beaches, and how the barrier island (in its natural state) protects us.

Uncommon Treasures at Canaveral National Seashore

written and illustrated by Cathie Katz ©99

Beachcombers are fascinated with the variety of treasures found at Canaveral National Seashore's long stretch of unpopulated beach. In addition to the familiar shells, bottles, and driftwood that typically wash up with the tides, lots of odd-looking items are mixed in with the clumps of seaweed and river grass. But what are these strange things? — most of the time we can't even tell if they're dead or alive.

Mermaids' purses, shell egg cases, pumice, sand collars, algae, rams' horns, lava bomblets, opercula, LEGO® toys, and sea-beans are just a few of the treasures that accumulate on the beach at Canaveral National Seashore. How do mermaids' purses, rams' horns, and LEGO® toys end up on Florida's shore? And, more importantly, *what are these things?* To uncover the mystery surrounding these treasures, the following descriptions will identify these gifts in the *wrack*.



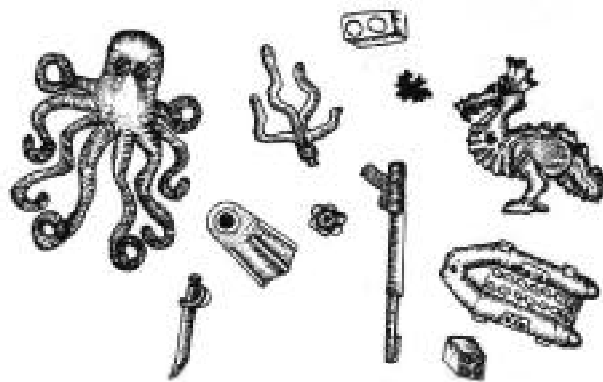
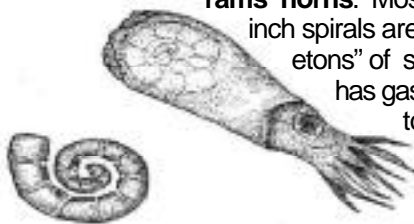
First of all, what is a **wrack**? Also known as a *sea wrack*, this is the line of seaweed and ocean "junk" left behind by incoming tides. Most tourists say they don't like it because it stinks, but experienced beachcombers know this is where the real treasures are found. The tides bring these free samples to us as advertisements for a warehouse of exotic merchandise drifting out at sea.

The items that beachcombers collect in the wrack are usually small and light compared with heavier beach collectibles such as shells, sea glass, and shark's teeth — all of which usually sink at the shoreline, too heavy to move farther up the beach by wind or wave, but exposed when the tide recedes. Each incoming tide adds the lighter items to the wrack, until a strong outgoing tide takes it back out to sea, perhaps depositing it on another beach in North Florida — or on a beach in Maine — or across the Atlantic in England.

What is a **mermaid's purse**? This is the egg case of a skate, a marine creature related to the familiar stingray. Skates lay their eggs in the ocean, usually near a rocky or grassy bottom. The eggs are inside black leathery cases, shown here, to protect them from damage and predators. The cases are anchored down with strings from their "horns" so they don't drift away. Some people call the cases "devils' purses" because of their horns. Inside each case, an embryo develops, similar to the way a chicken grows inside an egg. After nine weeks or so, a baby skate squirms out of its case to start life in the ocean. After the miniature skate swims away, the empty egg case rises to the surface and drifts with the currents until a high tide carries it to the beach. Eventually it gets pushed into the wrack where it dries out and becomes hard and wrinkled. (It will return to its original shape and rubbery texture if you put it in water for several hours.)



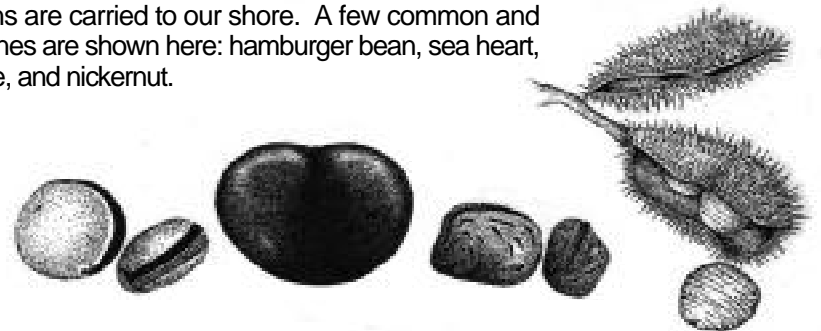
Much lighter and more fragile than mermaids' purses are spirula, also known as **rams' horns**. Most beachcombers assume these graceful one-inch spirals are shells. However, they are the internal "skeletons" of small deep-sea squids. The delicate structure has gas-filled chambers inside that allow the tiny squid to swim vertically in the deep ocean. When the squid dies and decomposes, its skeleton rises to the surface and, like the mermaid's purse, it eventually drifts toward the beach.



The wrack also contains human-made objects such as cans, bottles, and plastic toys. Beachcombers should be aware that **LEGO® toys** found in the wrack may have come from a ship leaving the coast of England in February 1997. The *Tokio Express*, a cargo ship carrying thousands of toys made in Denmark ran into rough seas and lost several crates of its cargo. Scientists and oceanographers want to know when and where the toys reach the United States to study ocean current trends and rates. The LEGO® pieces include yellow dive rafts, green dragons, black bats, red dive flippers, gray swords, green sea grass, and yellow spear guns. (Anyone who finds a LEGO® toy: please call 1-877-OCEAN99.)

But of all the treasures beachcombers find on Florida's shore, none is more beautiful or exciting than our **sea-beans**. What are sea-beans? Most people who find their first sea-bean think it's a rock or shell, or perhaps an egg from a strange animal. But sea-beans are actually seeds from tropical vines and trees that grow along waterways, mostly in 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 Florida Current carries them to our beaches. Over 100 different kinds of sea-beans are carried to our shore. A few common and familiar ones are shown here: hamburger bean, sea heart, sea purse, and nickemut.

When beachcombers find a sea-bean at Canaveral National Seashore, how do they know where it came from? It could be from South America, Central America, Cuba, Jamaica, Africa, or even from a cruise ship passenger tossing one overboard. We don't always know. Sea-beans are world travelers and have no boundaries — not geographic, political, social, economic, or cultural. They drift to Canaveral as readily as to Cuba. Part of the mystery of finding a sea-bean lies in figuring out what it is and where it came from. To help identify sea-beans, the book *World Guide to Tropical Drift Seeds and Fruits* by Charles Gunn and John Dennis identifies most of the commonly found seeds with illustrations and descriptions.



But part of the mystery of sea-beans might never be solved — the magic associated with them through the centuries. Most beachcombers who have found a sea-bean have experienced the legendary magic: when you find one, your life changes. And when you give one away, the other person's life changes — and good luck begins... for the gift-giver as much as for the receiver.

Cathie Katz has written four wildlife books for Florida including *The Nature of Florida's Beaches* and *The Nature of Florida's Ocean Life*. She is the editor and publisher of *The Drifting Seed*, a newsletter about drift seeds and other ocean drifters. Cathie is also the author of *Nature a Day at a Time: An Uncommon Look at Common Wildlife*, published by Sierra Club Books/Random House, available June 2000. Cathy Katz can also be reached at www.seabean.com.



State House At Eldora

by T.C. Wilder, Jr.
Friends of Canaveral



A visit to Canaveral National Seashore would not be complete without a drive down the single lane Eldora Road to parking area 8. Walking down the tree shaded trail you will see the recently renovated State House facing Mosquito Lagoon in the former turn of the century riverboat community of Eldora.

In 1965, the Wells Family, who owned and occupied the building for almost four decades, sold the property and moved to Jacksonville. After that the building remained primarily unused and was fast deteriorating when the Friends of Canaveral and the National Park Service joined hands in a cooperative agreement partnership to renovate and open it to park visitors as an Eldora History Interpretive Center. At that time neither group would have projected that it would take ten years to accomplish their goal.

Without any funds, but a lot of determination and dedication the Friends had local fund raising projects. They applied for and received several State of Florida Historical Preservation Grants, along with funds from the seashore entrance fees, and through the efforts of Congressman John Mica, Congress appropriated the final \$ 200,000. needed to complete the \$ 400,000. renovation.

Finally, in the spring of 1999 the Friends of Canaveral's dream of having the State House available for park visitors' enjoyment was realized. Friends, National Park Service personnel, Congressman and Mrs. Mica, along with local governmental officials and the general public opened the State House to park visitors with a well attended " Celebration of Completion " event on May 22.

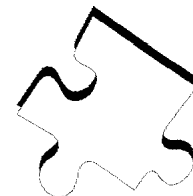
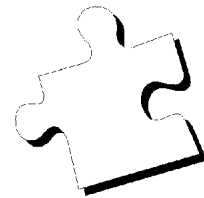
As you enter the living room from the front porch you will be greeted by pictorial displays of life in the Eldora area in it's most active period during the late 1800's and early 1900's. This was an era when most all of Florida's traffic was by riverboat instead of roadways.

Four months after the opening, almost 1000 names had been entered into the guest register. You would make all of those involved in the project, including the Ameri-Corps youth who painted the exterior, happy if you will leave your name, address and comments in the guest register when you enjoy your personal tour of the Eldora State House. There is no admission charge.

Turtle Mound



Pieces of Time



Part of our real mystery lies with the natives who lived at the Seashore during prehistoric times. They **created** the midden, now called Turtle Mound, long before the arrival of the Europeans. Middens are areas where discarded food and other unwanted items were thrown in large quantities.

Turtle Mound is one of the largest middens along the east coast of Florida. It is a monument to an ancient way of life. Turtle Mound was recognized long ago as a navigational point on the Spanish maps when it was much higher. Although it has settled and eroded to between 30 to 50 feet high it can still be recognized as a "high point" on Floridas' east coast.

Part of the lure of this site is the fact that so many questions come to mind when you explore it. As you walk on the boardwalk through the vegetation, you can physically sense a temperature change. Take a moment to think about what life was like between 800 to 1400 A.D. What did the people find so special about this place? What do **you** find special about this place? What plants or trees can be eaten or used for medicinal purposes? The Yaupon Holly, Cabbage Palm and the Saw Palmetto are a few that may have been used. There are combinations of plants/trees here that are found nowhere else?

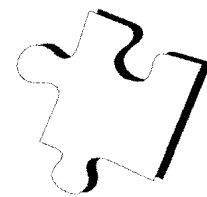
Some of the mysteries that remain about Turtle Mound are why did this midden get so tall, while so many others are wide and relatively flat like Seminole Rest and Castle Windy? Who created the middens? What were these people like? How could they possibly survive the mosquitoes? Did the people stay here all the time, or were they nomadic? Other site excavations like Castle Windy, which is close by, lead us to believe the people were nomadic. So were they the same tribes that inhabited Seminole Rest across the lagoon? The mystery remains about Turtle Mound because there are no written records from that time and the mound has never been excavated. It is a time capsule which increases its scientific value.

Seminole Rest

What is Seminole Rest? It is a 25 acre plot of land on the western side of Mosquito Lagoon that natives used from 2000 B.C. to 1565 A.D. Pioneers and modern Americans also found this a place of beauty and settled here. Although this beautiful area has been closed since it became part of the Seashore, plans are now being developed to create a loop trail with exhibits, rest rooms and parking. As money becomes available, the century-old houses may be restored.

Restoration 2000

Have you noticed the new palms and oak tree near the visitor center, or the new grasses and mangroves along the shoreline of the lagoon near Turtle Mound? This is all part of a challenge grant known as Restoration 2000. Recreational uses and natural causes (such as hurricanes) have disturbed many areas within the park. Restoration 2000 money is being used in an attempt to preserve and beautify these areas which are so rich in archeological and historic treasures. The main work force behind these changes is Eckerd Youth Academy, the University of Central Florida and our own park volunteers.





THE ISLANDS MOVING!

by John Stiner, Resource Manager

Barrier islands, like the one at Canaveral National Seashore, are in a state of constant change. Carved by the wind and waves, sand is removed in the winter and during major storms and then re-deposited during the quieter summer months.

In the Fall of 1999, two hurricanes, Floyd and Irene, brushed against the east coast of Florida. While the hurricanes did not hit directly, high winds and waves battered the beaches. Ten of 21 boardwalks here sustained heavy damage. Some were twisted and broken; others had entire sections swept away. Eleven others received moderate to slight damage. To protect visitors, parking areas connected to damaged boardwalks will be closed until repairs can be made.

At several locations, the storm surge washed completely over the dune, depositing several feet of sand on the roadway and marsh areas behind the dune. In places, as much as six feet of dune was washed away. This is critical because the dune acts as the backbone of a barrier island, holding it steady and deterring overwash that could create inlets and push the island landward or to the west. Two "overwash" areas can be seen between parking areas #8 and #9 and just north of parking area #13 in the South District. After the storm the water receded, but the dune and its covering vegetation had been washed away. These weak spots are particularly susceptible to future storm surges, increasing the likelihood that temporary inlets will be cut into the island and even greater amounts of sand will be moved to the west. This is a natural process. Barrier islands continually change shape and location. Man has fought to hold the islands in place for years, building seawalls, revetments and dumping sand on the eroding beaches. Such measures are expensive and temporary. The warfare with nature will continue. We build on barrier islands at our own risk.

Canaveral National Seashore will let nature run its course over much of its 24 mile length. However, to protect the roadway between parking area #8 and #9, the displaced sand has been pushed off the road and back to the dune line. Dune fencing has been installed in a zig-zag pattern to capture sand and allow the dune to re-form. To further stabilize the new dune, native plant species are being planted. These plants create a network of roots to anchor the growing dune. Visit the washover areas and see nature at work. See how the island is moving to the west. Observe what a mere brush by the hurricanes has done. Ponder what a direct hit would do. Who do you think will ultimately win the battle between man and the sea?

Crane in the Marsh

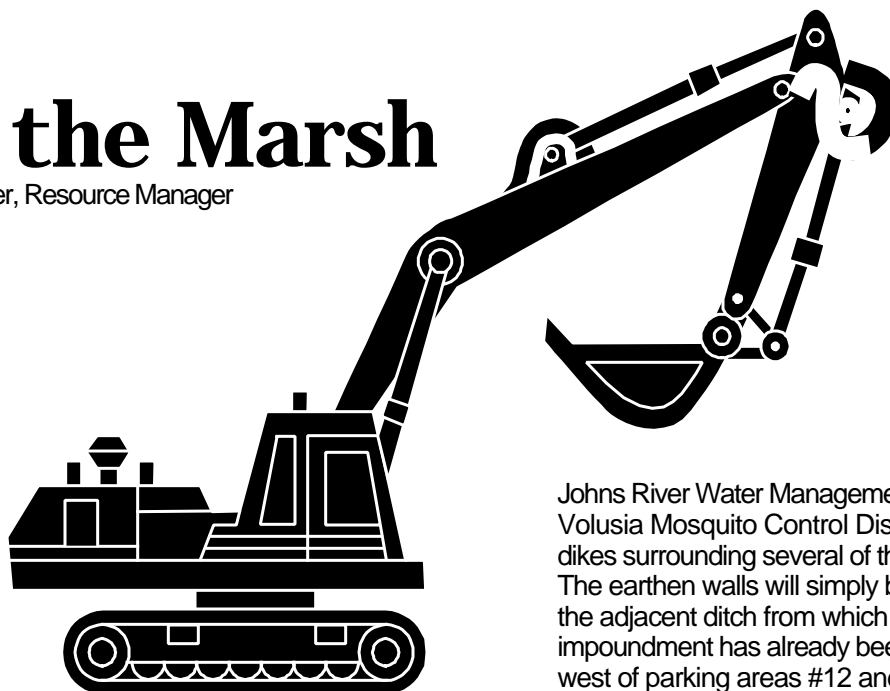
by John Stiner, Resource Manager

If you stand at parking area #5 in the North District of the park and gaze southward along the eastern shore of Mosquito Lagoon, you will notice an unusual sight. Looming on the horizon, the arm of a large crane juts above the surrounding vegetation. Why is this instrument of development intruding upon the natural scene? Aren't national seashores supposed to protect the few surviving remnants of natural coastal areas from development?

The crane is actually being used to undo the impacts of prior development. It is restoring marsh lands to their former condition. In the 1960's and early 1970's, before the creation of the park in 1975, the majority of the marsh areas along the edge of Mosquito Lagoon were impounded for mosquito control - that is, earthen dikes were built around them so that the marshes could be flooded. By covering the marshes with water, female mosquitoes had no mud flats on which to lay their eggs. This strategy was effective in reducing the number of mosquitoes; however, it had serious environmental side-effects. The marsh habitat, normally an important nursery area and source of food for many

fish species, was now cut off from Mosquito Lagoon. Fish populations, already stressed by other factors, showed significant declines. In addition, the isolated marsh vegetation began to change, affecting other marsh animals adapted to pre-impoundment conditions.

Canaveral National Seashore has joined with three other agencies - U.S. Fish and Wildlife Service, St.

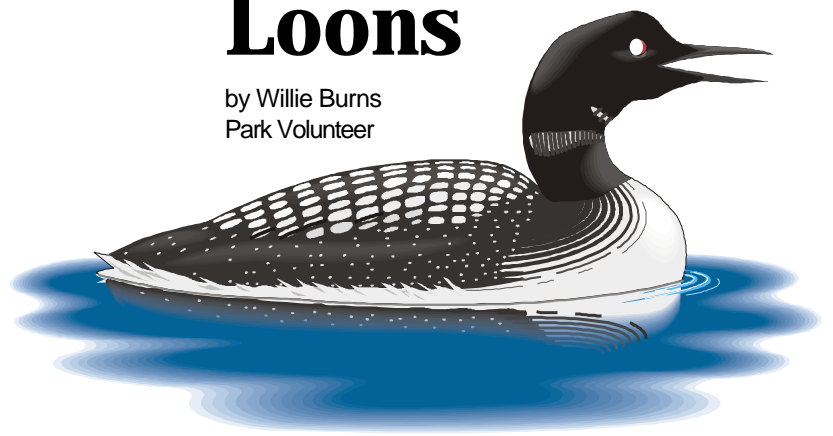


Johns River Water Management District and East Volusia Mosquito Control District - to remove the dikes surrounding several of these impoundments. The earthen walls will simply be pushed back into the adjacent ditch from which they came. One impoundment has already been completed, just west of parking areas #12 and 13 in the South District of the park, and two others, including the one at parking area #5, are in progress. The plan is to remove 6 dikes along Mosquito Lagoon over the next 5 years.

Once again, tidal flow will be restored to marshes along the lagoon. Vegetation will revert to its former composition. Small fish will seek food and hiding places. Larger fish will seek prey. An old wound of the salt marsh will be healed.

Loons

by Willie Burns
Park Volunteer



The Common Loons come to our shores to weather out the winter. Unfortunately, the first birds I've seen this year were stranded on the beach after the latest Northeast storm on December 2, 1999.

Loons are often deposited on the beach after a strong "nor'easter." The heavy surf makes the water cloudy all the way to the bottom and disorients the birds. As they need a hundred or so feet of calm water to fly, they are trapped. They end up on the beach at the high tide line to bake in the sun, dying of dehydration, starving, or becoming victims of nocturnal predators.

An adult was almost able to get airborne as I approached this particular day. She managed to get through the first two lines of surf, and was making long dives and swimming strongly to the southeast, heading for the third and farthest waveline from shore. As the surf had abated substantially by Thursday, there is a good chance she was able to continue on. Sad to say, I also found a dead, bedraggled young loon in the same area. Families often migrate together, but another volunteer had seen the adult several miles farther north earlier in the day.

With their legs so far back on their bodies they are unable to walk any distance to return to the sea at low tide. Despite being superbly constructed to swim very fast and far underwater, on land they are useless lumps. Healthy birds can be released in the calm waters of the lagoon, where they happily swim away and survive quite well. More exhausted birds need rehabilitation.



To The Sargasso Sea and Beyond

by Laura Patterson
Interpretive Ranger

As I look back on my life, I can't believe how far I've come. I'm floating in this Sargasso seaweed somewhere off the coast of Florida just lucky to be alive. I wonder if anybody else made it.

We all started out in the same place with the same chance; we were in a hole on a beach in Florida. Our mother dropped us there about two months ago and since that night we've been quietly growing inside of our nest. I guess I started the whole thing. It was like I set off an alarm; all of a sudden everyone was waking up and coming to life.

We all started working together, climbing towards the surface. The sand crumbled and got pushed down as we went up. Flippers were flying, colliding with shells and heads and we could feel the sand getting warmer as we went up. All of a sudden I felt the rush of the sea breeze and we erupted out of the sand into the balmy night air. Boy, it felt so good to stretch my flippers and my neck.

As we spread out over the sand, my eighty-six brothers and sisters and I started for the water. The darkness did a good job of sheltering us from most predators. Then out of nowhere an army of ghost crabs came at us.

Their claws were clicking and they just started grabbing hatchlings left and right. I kept my head up and eyes straight and kept running and running towards the water. At least I thought I was going towards the water. I saw a bright white light off in the distance. Some of the turtles followed the light. I wondered if I should go too. But something made me keep going towards the water. I knew I'd be safe if I could just get to the water.

I finally felt the first wetness of ocean. This is the place I'd spend the rest of my life. It felt great to be home. I wanted to relax but a strange feeling told me to keep going. The waves were really rough and it was a struggle not to get washed back up on the beach. I saw a school of big fish swim by, it looked like a sea of mouths. I think that they wanted to eat me but I just kept swimming. I was getting really tired and hungry but I was too scared to stop. I don't know what kept me going, I was so tired. After what seemed like forever, I made it to this place. I guess I'll stay here and rest. I'm really hungry and there's stuff floating all around that looks good to eat. Boy, it's no easy life being a turtle hatchling. I barely escaped so many dangers in my life, I really deserve a long rest. After all it's been three days!

Look at any submerged hard surface in Mosquito Lagoon and you will notice that it is covered with an incredible diversity of organisms. Most obvious will be the seaweeds. Some of these weeds are edible; others are known to produce novel chemicals that deter fish from grazing on them. If you look even closer at these surfaces, you should also see many different types of invertebrates. In the marine realm, these animals without backbones live attached to natural hard surfaces (e.g. mangrove roots, oyster shells) or man-made structures (e.g. pilings, boat hulls, crab pots), and are collectively called "fouling organisms" because they often reduce the efficiency and life-expectancy of the surface.

In Mosquito Lagoon, there is a huge diversity of fouling organisms and the species composition varies from season to season. Included in this group of animals are two species of barnacles. In August/September, unprotected surfaces can have 100% cover of these two species of barnacles within one week.

The University of Central Florida and Canaveral National Seashore have set up an arrangement that enables UCF faculty and student researchers access to the waters of Mosquito Lagoon to study the biology and ecology of seaweeds and fouling invertebrates.

One of our research goals is to better understand the biology and ecology of some of the local, economically important invertebrate species. The oyster is an important food resource, and the barnacles and the polychaete tubeworm create serious biological fouling problems, rapidly covering all unprotected submerged surfaces.

Our other research goal involves biodiversity. We cannot protect these dynamic waters without knowing what plants and animals are present in Mosquito Lagoon throughout the year. Bi-weekly monitoring of invertebrates and algae, continuous monitoring of salinity, temperature, and dissolved oxygen, as well as rainfall, wind speed and wind direction, will provide us important information about the seasonality and distribution of each organism.



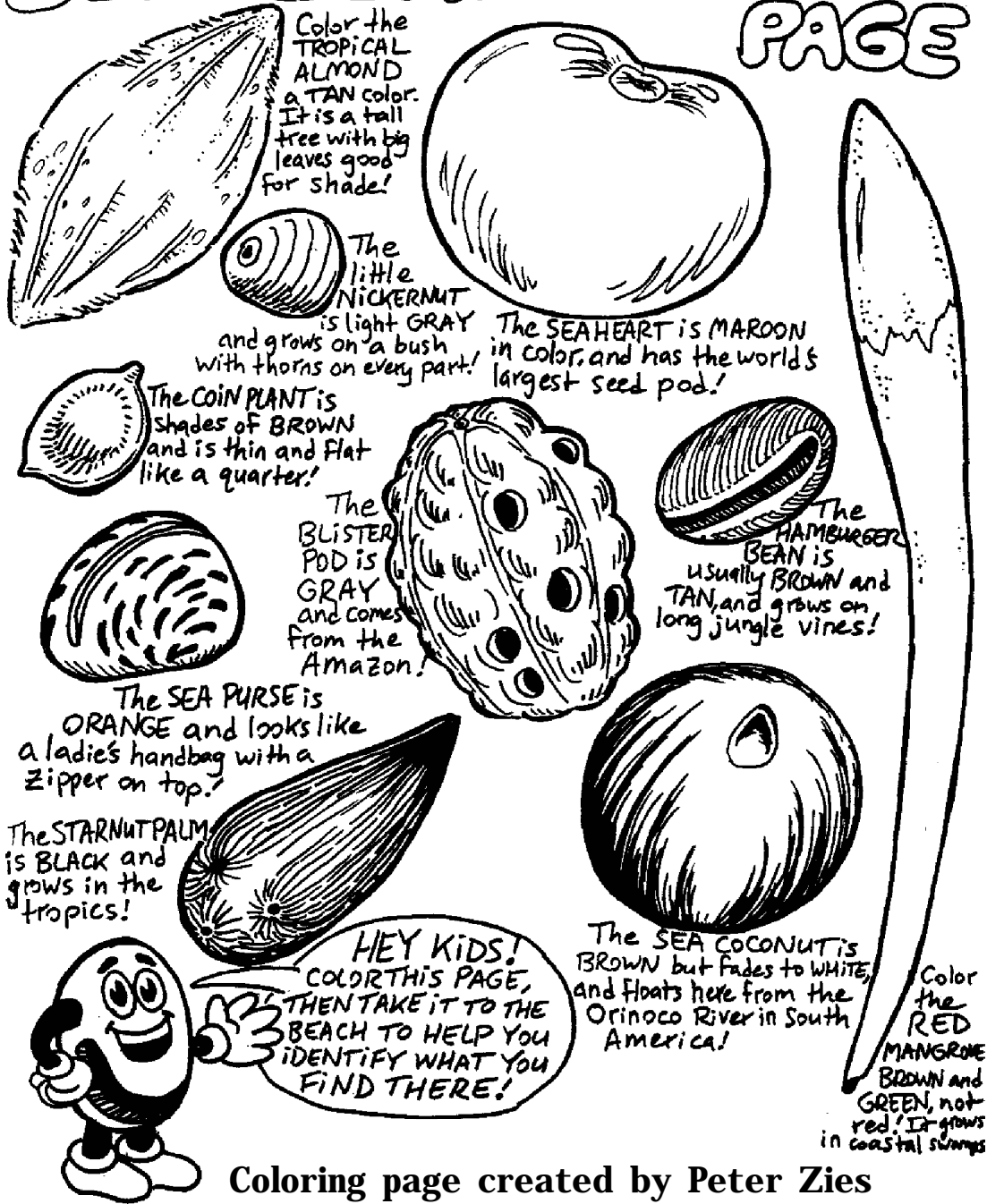
Creatures of the Lagoon

Excerpts from "The Ecology of Invertebrates and Seaweeds in Mosquito Lagoon"
written by Dr. Linda Walters, PhD
Dept. of Biology, UCF

Editors Note:

Continued research is very important to the survival of all the inhabitants of the lagoon, especially the endangered ones like the manatee and sea turtles. More than 60% of the juvenile green turtles in the lagoon have fibropapillomatosis (cancerous growths)- cause unknown. Horseshoe crabs have decreased - cause unknown.

SEA BEAN COLORING PAGE



Coloring page created by Peter Zies
www.c-beans.com

Canaveral is for the Birds!

by Wanda Warbler

Walter the white-eyed vireo was panting and his wings were aching from the long flight. "Hey Vinney, look, there's Canaveral National Seashore!"

"And just in time too," replied his friend, Vinney Vireo. "It's been a long night and I'm really tired. We must have put in another 500 miles today, and the northwest wind was really cold."

"I'm so glad we found this National Park," said Walter, "because there are lots of trees here for us to rest in. They also have many good things to eat, like bugs and berries."

Vinney was not interested in eating just yet. All he wanted was a place to rest and shelter from the Peregrine Falcons and Kestrels that had been following them south.

"Yeh, and it sure is nice not to have any towers and high-rise condos like we almost flew into a while ago," replied his friend.

Vinney sighed, "Every year there's more and more tall buildings along the beach. Their lights really get me disoriented. Yesterday I almost flew into one myself," said Vinney, recollecting his close call with the condo.

"But now we can rest," sighed Walter. "I sure hope the humans take care of this park. We really depend on it during our migrations."

Wanda Warbler is a roving reporter who passes by Canaveral National Seashore twice a year and filed this story during the Flyway Festival.


























"CAPTAIN CANAVERAL'S" Nature's Treasure Chest Bingo

As you play Bingo remember there are thousands of different plants and animals waiting for you at Canaveral National Seashore and each one is fragile. Look at them but never take them away from their home or harm them in any way. The treasure chest would soon be empty otherwise.

This is only the beginning...Ask how to become a Junior Ranger and have even more fun!

Instructions for playing:

When you see something on the list, check it off. When you get five treasures in a row (down, across, diagonally) you have...BINGO!

B	I	N	G	O
 Prickly Pear Cactus	 Star Fish	 Snail	 Fish	 Mole Crab Sand Flea
 Shrimp	 Pen Shell	 Mosquito	 Sand Dollar	 Sunflower
 Cowrie	 Beach Daisy	 Gull	 Sting Ray	 Sea Oats
 Blue Crab	 Sea Grapes	 Hamburger Sea Beans	 Scallop	 Sea Urchin
 Sea Heart	 Butterfly	 Lizard	 Snake	 Long legged Shore bird

So, You Want To Be A Ranger...

Excerpts from an article written by
Natalie Austin, Personnel Clerk



drawing by Frankie Hickerson

The National Park Service employs both a permanent and seasonal workforce. Jobs with the National Park Service include campground rangers, fee collectors, tour guides, naturalists, landscape architects, fire fighters, laborers, law enforcement rangers, biologists, computer specialists, lifeguards, carpenters, clerks, historians, and more! For employment contact any National Park Service Office for a seasonal form D-139 or apply electronically over the internet at www.sep.nps.gov. Job announcements for permanent and seasonal positions are posted on the internet www.usajob.opm.gov and are updated weekly.

The number of applicants often far outnumbers the positions available. There are opportunities for applicants with qualifying law enforcement experience and /or training with the United States Armed Forces. Veterans are given preference per Office of Personnel Management regulations provided they have served in time of war or a

sanctioned conflict. It is an added plus if you have prior work experience with the Park Service, Student Conservation Association or volunteer experience.

Permanent Employment

There is no clear route to permanent status as a park ranger for the kind of person who's likely to be asking that question. Aspirants to permanent park ranger status must be willing to do the research, to slog through the morass of rules and procedures that characterize avenues to Federal employment, and to do so before seeking any position.

The Association of National Park Rangers (ANPR) published a booklet circa 1992 that attempted to answer the question. The question of how to become a park ranger is synonymous with how to become a Federal Employee, and, therefore, the objective of gaining "status"

(anywhere!) should probably be seen as a first step towards landing a permanent 025 position (law enforcement or interpretation).

ANPR attempts to make people aware of all the hiring authorities available, all the on-line Federal job databases, as well as OPM Office addresses. Databases cited include the following:

Federal Job Board (FJOB): 912-757-3100

On the Web: FJOB.MAIL.OPM.GOV

OPM's "Career America" voice line: 912-757-3000

Other hiring authorities, or ways by which people may apply for permanent jobs without prior civil service status include special programs for members of minority groups, students such as outstanding scholars, welfare to work and youth.

The Best FEDS on the WEB!

RECREATION.GOV

Looking for quick weekend getaway, but don't know where to go? Recreation.Gov, a partnership among the Army Corps of Engineers, the Bureau of Land Management, The Highway Administration, the U.S. Forest Service, the National Park Service, the Tennessee Valley Authority, and the U.S. Geological Survey will do just about everything but drive you to your destination. Simply pick the state where you want to go and your activities of interest and this site lists all of the possibilities. Still not satisfied? The National Weather Service provides weather information for your destination and the U.S. Geological Survey can provide a map of the area. You can even make reservations at many campsites and other facilities. **RECREATION.GOV** was chosen as one of the "Best Feds on the Web" by Government Executive Magazine in 1998.

The address is <http://www.recreation.gov>

Thank You for 25 years of dedicated service...

We can't do it without you!



For information on becoming a volunteer
call (321) 867-4077
or stop by the information center
and pick up an application.

You are the "U" in Volunteer!

Volunteers open the door to the new worlds of the beach and lagoon. They also share the windows of opportunity to the past. Each shares in their own special way.

Volunteers

...share their smiles, warm greetings and in depth love of the park with visitors while they staff the information center, Eldora, or give diverse public programs.

...act as ambassadors when they travel to schools with the many trunks or go to festivals with displays.

...pick up trash to try to make the beach safe.

...draw up plans and maintain interpretive areas.

...pick up injured animals, care for them and help transport them for care.

...spend long buggy nights screening turtle nests to give hatchlings a chance to survive.

...monitor water quality, restore dune vegetation, repair hurricane damage.

...create brochures, help produce the newspaper, and do thousands of small tasks cheerfully.