

The Gulf Breeze

National Park Service
Department of the Interior



Padre Island National Seashore
News and Information, 2014



Butterflies of
Padre Island

RECORD YEAR FOR
LOGGERHEADS AND
GREENS



Do you know
your beans?

One Tenth of One Percent...

Gulf Breeze

2014 Edition

An Annual Magazine

Published by:

**Padre Island National Seashore
National Park Service
U.S. Department of the Interior**

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Partners and Concessions

Increasingly, partnerships are an essential and effective means for the National Park Service to fulfill parts of our mission and foster a shared sense of stewardship that is so crucial for our future. Padre Island National Seashore would like to thank its partners for the continued services they have offered to the park's visitors throughout the years.

Western National Parks Association Nature Store, located inside Malaquite Visitor Center, is a nonprofit partner of the park that provides support for park programs using proceeds from sales of educational books, t-shirts, DVDs, and other items. For more information, visit their website at www.wnpa.org or call (361)949-8068.

Island Seashore Gift Shop, located at the Malaquite Pavilion, is a general concessions store with snacks, ice, souvenirs, and other items. For more information, call (361)949-9368.

Worldwinds Windsurfing, Inc., located at Bird Island Basin's windsurfing area, offers lessons and equipment rental for windsurfing and kayaking. For more information, visit their website at www.worldwinds.net or call (361)949-7472.



Welcome

to Padre Island National Seashore!



I sincerely hope you enjoy your visit to the longest stretch of undeveloped barrier island left in the world.

Over half a million visitors come here each year to enjoy camping, swimming, fishing, boating, and other recreational activities. One of the top windsurfing areas in the nation is located here in the park. The seashore provides food, shelter, and habitat for tens of thousands of migratory birds ranging from Sandhill Cranes to Ruby-throated Hummingbirds. It preserves our cultural history at sites like Novillo line camp. And the most endangered sea turtle in the world, the Kemp's ridley, nests here more often than at any other location in the country. Padre Island National Seashore is truly a natural and national treasure.

This national park was created to save and preserve the seashore, unimpaired, for purposes of public recreation, benefit, and inspiration. I hope you will join and support our dedicated staff and volunteers in this effort. Please be safe and courteous while boating, camping, or otherwise enjoying the park. Watch for children and animals while driving on the beach. Look for and report nesting and stranded sea turtles. And pick up a free trash bag from the entrance station or the visitor center to help clean our beautiful beaches.

Please remember that the National Park Service, visitors, and neighbors are all stewards of this special place, and we must work together to protect and care for the National Seashore so that it may be enjoyed for generations to come.

Mark Spier, Superintendent

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On the Cover: A green sea turtle hatchling. NPS photo. A common buckeye butterfly. Photo by Dr. Thomas Barnes, U.S. Fish & Wildlife Service. Sea beans. NPS photo. The colorful coastal prairie of Padre Island. Photo courtesy of Tracy Paris.

Things to Do

Camping



Camping at Malaquite. NPS photo.

Whether you want to camp on the beach or on the bay, near restrooms and showers or in a remote area, the park has a variety of camping opportunities for tents and RVs. However, there are no public RV hook-ups anywhere in the park. Malaquite Campground, tucked in the dunes on the Gulf side, is \$8.00/night (in addition to the park entrance fee). It has cold-water showers, flush toilets, picnic tables, shade structures, a gray/black water dump station, a potable water filling station, and paved parking. Bird Island Basin, located along the Laguna Madre Bay, is \$5.00/night or \$10.00 for an annual pass (in addition to the park entrance fee). It has a chemical toilet and gravel parking. Those with Interagency Senior or Access passes get 50% off all camping fees. Primitive beach camping, at your own risk, along more than 60 miles of the park's shoreline and at Yarborough Pass is free with your entrance pass. Restrooms and dumpsters are available at Malaquite Pavilion and at the entrance to South Beach. Cold-water showers are available at Malaquite Pavilion and at the northern end of the Malaquite parking lot. Permits are required for all camping. All camping is first-come, first-served (no reservations).

Birdwatching

Over 380 bird species spend part or all of the year in the park. Tens of thousands of birds find a safe resting place

here during spring and fall migration. Birders come from all over the world to see the incredible variety and number of birds in the park. Join a free guided bird tour, borrow a pair of binoculars from the visitor center free of charge, and join in the fun of birding.

Boating

Bird Island Basin boat ramp is a popular spot for boaters to access the Laguna Madre. It provides parking spaces for 106 vehicles with trailers, 4 vehicles without trailers, and 4 vehicles with handicapped parking permits. A day use fee of \$5.00/day, or a \$10.00 annual pass, is required (in addition to the park entrance fee).



Launching at Bird Island Basin. NPS photo.

Fishing

Surf fishing is allowed along over 60 miles of park shoreline free with your entrance pass. Anglers can also enjoy fishing by boat or wade fishing at Bird Island Basin for a fee of \$5.00/day or with a \$10.00 annual pass (in addition to the park entrance fee).



A successful redfish catch. Photo courtesy of Stephen Porter.

All anglers must meet Texas fishing license requirements and follow state regulations.

Attending a Ranger Program

Park Rangers offer a variety of programs, all free of charge! More programs may be offered, and listed programs are subject to change, so call the Visitor Center at (361)949-8068 for more information.

Beach Walk

Offered year-round. See what you discover on this easy 45-60 minute stroll with a ranger.



Deck Talk

Offered year-round. See and touch some of the strange and wonderful things found in the park during this 30-45 minute program.

Birding Tour

Offered in fall, winter, and spring. Join us for a 2-3 hour guided driving tour to view a variety of birds. Binoculars and field guides are available for loan. Be prepared to drive your own vehicle since space is limited.

Birding Skills

Offered in fall, winter, and spring. Learn birding basics like how to select the right binoculars and where to find different species during this 45 minute program.

Evening Program

Offered in winter. Enjoy a starlit program on varying topics at Malaquite Campground Amphitheater.

Junior Ranger

Offered year-round. Earn your own Junior Ranger badge and do some fun activities at your own pace.



Hidden Treasures

Offered in spring and summer. Catch and release some of the amazing creatures that live in the surf of Padre Island.

Sand Sculpting

Offered in summer. Learn how to build a beautiful sand castle and sand creatures.

Sea Turtle Hatchling Release

Offered in summer. Sea turtle nests found in spring and summer are moved and protected until they hatch. When conditions allow, the public is invited to watch the newly hatched turtles be released into the wild. Most releases take place at Malaquite Visitor Center early in the morning. To find out more, call (361)949-7163.



Things to Do

Windsurfing

Bird Island Basin is one of the most popular windsurfing areas in the country. Conditions in the Laguna Madre are great for the sport. You can bring your own equipment or you can rent equipment and even take lessons at Worldwinds Windsurfing concessionaire (361-949-7472). A Bird Island Basin day use

fee of \$5.00/day, or a \$10.00 annual pass, is required (in addition to the park entrance fee). You can also windsurf in the Gulf along the entire shoreline of the park free with your park entrance pass.

Kayaking

Bird Island Basin provides access to the Laguna Madre, a great place for kayaking. Worldwinds Windsurfing concessionaire (361-949-7472) offers kayaks for rent. A Bird Island Basin day use fee of \$5.00/day, or a \$10.00 annual pass, is required (in addition to the park entrance fee). You can also kayak in the Gulf along the entire shoreline of the park free with your park entrance pass.

Hiking and Walking

Enjoy a relaxing stroll on the beach anywhere along the park's shoreline. Those with wheelchairs can get on the sand with a special beach wheelchair, available free for loan at Malaquite Visitor Center. Try hiking the paved, accessible Grasslands

Nature Trail to see the interior, coastal prairie habitats of the park. Or take a walk to the Novillo Line Camp to see where cowboys once gathered cattle.

Swimming

The seashore has more than 65 miles of beachfront where you can swim. Malaquite Beach provides an area closed to vehicles, fishing and pets where families can swim without worry. Cold-water rinse showers are available on the Malaquite Beach

access ramp, at Malaquite Pavilion, and at the northern edge of the Malaquite parking lot. Restrooms are at Malaquite Pavilion. There are also chemical toilets at the entrance to South Beach.

Looking for shells

Beachcombing for shells, sea beans, and other items is a relaxing way to enjoy the park's shoreline. If you have a 4-wheel drive vehicle, Little Shell and Big Shell beaches can be especially productive areas for this activity.



Quahog shells. NPS photo.

Discovering

Malaquite Visitor Center has great exhibits on the history and wildlife of the park, brochures on seashells and jellyfish, and other helpful information. Join a Ranger for a guided beach walk or other program, or see if you can earn your own Junior Ranger badge. While there, pick up a free trash bag to help keep the park's beautiful beaches clean.

Picnicking

Picnic tables and shade structures are available at the Malaquite Pavilion, on Malaquite Beach, and at the Picnic Shelter located at the northern edge of the Malaquite parking lot.



Malaquite Pavilion has numerous picnic tables. NPS photo.

Shopping

Visitors can purchase ice, snacks, and other items at the Island Seashore Shop, located at Malaquite Pavilion. Malaquite Visitor Center has educational books, field guides, caps, and other gifts and souvenirs.

Driving on the Beach

Driving on the beach is allowed along more than 60 miles of the park's shoreline. You can drive just a short distance off the pavement, 20 miles down to Big Shell beach, or all the way to Mansfield Channel. Be aware that driving is at your own risk and most areas require a 4-wheel drive vehicle. All vehicles must meet state highway standards (i.e. no ATVs). To prevent damage to vegetation, driving is limited to the beachfront.

SHARK BITE TRIVIA

Sea anemones look like plants but are actually animals. They catch fish and other food with their stinging tentacles. Most are small, but some in Australia can grow to two feet wide!



Photo courtesy of Worldwinds Windsurfing, Inc.



Novillo Line Camp. NPS photo.



Swimmers at Malaquite Beach. NPS photo.

Butterflies of Padre Island

It may be surprising to know that Padre Island National Seashore is home to an amazing number of butterfly species. Between December 2001 and December 2005, forty-four different species of butterflies were found inside the park boundary. The most common of these species included: cloudless sulphur, great southern white, pipevine swallowtail, and giant swallowtail.

While certain species may be resident, others are migratory. Species found in the park during the spring and fall migrations include, but are not limited to, the monarch, Texas snout, and Mexican snout. The most well-known migration of butterfly species is, of course, the monarch butterfly, which migrates to Mexico or areas of southern California during the winter time to avoid winter kill. The monarch is one of life's true wonders and, like many birds, exhibits extreme site fidelity. Populations return to the exact same location year after year. In fact, when the monarch returns to Mexico, generation after generation will return to the same oyamel fir tree each year!

Migratory swarms of snout butterflies are spectacular for their density, duration and geographical extent. In late September 1921, an estimated 25 million per minute southeasterly-bound snout butterflies passed over a 250 mile front (San Marcos south to the Rio Grande River). Gable and Baker (1922) noted that this flight lasted 18 days. It may have involved more than 6 billion (6,000,000,000) butterflies.



American snout butterfly. Photo by Bruce Marlin on Wikimedia Commons.

Butterflies can be found in a wide variety of habitats in the park, but are typically found foraging on the nectar of wildflowers found in areas such as the dunes of the Gulf of Mexico beach, the Grasslands Nature Trail, park roadsides, the vegetated areas around the Malaquite Visitor Center, the vegetated barrier flats, and other

areas of the park's coastal plains. One of the best places to observe butterflies is from the ramp going from the visitor center to the beach. Butterflies may even be spotted feeding on the large mounds of sargassum, the seaweed that washes ashore seasonally. Some flowers at the park that butterflies prefer include Alamo vine, square bud primrose, Indian blanket, fleabane, and mistflower.

The most common species of butterflies at the park are the tropical buckeye along with its close relatives the common buckeye and the dark tropical buckeye. The photos below show the beautiful colors and striking eyespot patterns of the common and tropical buckeyes.



Common buckeye butterfly. Photo by Dr. Thomas Barnes, U.S. Fish & Wildlife Service.



Tropical buckeye butterfly. Photo by D. Hanson, E. Thompson, and G. Quintanilla.

The tropical and common buckeyes are distinct species while the dark buckeye is a subspecies of the tropical buckeye. Butterfly researchers have closely studied the buckeyes and have determined through genetic studies that all three species have been hybridizing for thousands and thousands of years. The hybridization between these species and subspecies can often make identification complex and challenging. Another common species at the park is the queen, and this species can easily be confused with the monarch. Both the queen and monarch are much larger in size than the buckeyes and are known for their bold orange and black colorations.

The best times to observe butterflies at the park are sunny days from mid-morning to mid-afternoon since butterflies rely on sunlight to obtain the energy to fly. To learn more about butterflies, visit the Butterflies of America website at www.butterfliesofamerica.com.

- Charles Sassine, Division of Science and Resources Management

One Tenth of One Percent...

Beautiful coastal prairie habitat on Padre Island. Photo courtesy of Tracy Paris.

That's not much to brag about... It's an approximation, and some scientists say perhaps as much as one percent remains, but that's not much either. Padre Island National Seashore is home to several rare things: the iconic Kemp's ridley sea turtle, the beautiful Northern Aplomado Falcon, and perhaps even the occasional Texas indigo snake. However, the most overlooked and undervalued part of the park is all around you — the coastal prairie grasslands. Undervalued or not, the park's grasslands make up some of the last scattered fragments, that less than one percent, of the Gulf coast's formerly vast coastal prairies.

Why are coastal grasslands so rare today? For whatever reason, grasslands worldwide are unappreciated for their beauty and ecological importance but have certainly been recognized for another reason: they make outstanding croplands. What's not to like about great soil and gently sloped terrain with no or few trees to clear? Those attributes make them attractive for agriculture and grazing. Is it any wonder prairies have been prime targets for conversion to farmlands and home sites? Texas prairies, as is true of grasslands in other areas of the U.S. and around the world, have disappeared at an alarming rate. The cotton, sorghum, and other crops, as well as much of the pastureland that covers mainland Texas coastal areas, are all thriving on former coastal prairies. The conversion of those millions of acres to farm land is what has turned America into the world's breadbasket.

The park's prairies have not always looked the same as you see here today. Proof of that may be seen in archival photographs. During the Texas cattle ranching era

that began in the 1700s, many native grassland species in the region were significantly reduced due to grazing by cattle. Native grasses could not tolerate the close cropping from cattle, especially since the stress was compounded periodically by the droughts for which this region is known. The result of the grazing was a landscape that was markedly different from what visitors see today. Historic photographs show vast areas of sand dunes that were constantly moving due to the area's strong winds and a lack of stabilizing vegetation. Older visitors returning today, who last visited the island as children or young adults, are often unsure if they have even returned to the same place due to the presence of so much grass and the abundance of wildflowers!



Historic aerial photo of Padre Island taken in 1937. NPS Archives.

Even now the park's prairies remain misunderstood and underappreciated. More than once, people have come into this park's visitor center and asked with a some-

what perplexed look “is this all there is?” They don’t say it out of spite; instead it seems to be from feeling a bit underwhelmed by the coastal grassland scenery they drove through to get here. Rangers in Everglades National Park report hearing the same types of comments from visitors that have ridden past the endless River of Grass, as Marjorie Stoneman Douglas so elegantly named the vast Everglades sawgrass meadows.



A sea of grass on Padre Island. NPS photo.

Despite their somewhat unremarkable visual appeal, prairies serve many important purposes in the natural world. Hidden underneath the grasses is a vast network of roots and thatch that at times may out-produce the above ground leaf mass. Over time this great productivity creates a very nutrient-rich soil, especially if the plants burn every few years. Infrequent lightning strikes in the park provide the means to ignite fires in the grasslands. Prescribed fires, especially in the developed northern end of the park, are also used to mimic lightning fires and help reduce fuel buildup around visitor and staff facilities. During cooler winter and early spring months, when grasses are mostly dormant, the moisture content of the leaves is especially low and the thin fuel the grass produces ignites easily and burns rapidly. The high wind speed here, along with a lack of natural firebreaks characteristic in coastal prairies such as these, allows grass-

fires to rapidly cover large areas. The plants not only survive the burn, they thrive after a fire because their buds are below ground, where they are protected from the high temperatures. Within a week after the fire, new green leaf shoots are already visibly sprouting from the buds. The shoots produce a highly desirable, tender and nourishing food for native grazers such as white-tailed deer. The reduced thatch covering the ground allows a wider variety of plants to grow, which turns the newly burned grasslands into a supermarket of different foods for birds and mammals.



Sunflowers (L), phlox (R) and other wildflowers color the prairie landscape on Padre Island. NPS photos.

To fully appreciate the prairies, take a few minutes to walk the Grasslands Nature Trail. It is located near the park fee station and provides a half-mile long, fully accessible, paved trail with plenty of opportunities to view the grassland community up close. Also consider visiting the Malaquite Visitor Center and climbing the steps to the upper deck for a look out across the island. Either way, as you examine the grasslands that make up such a small remnant of a once vast ecosystem, be thankful that parks such as this one exist. As much as everyone appreciates the recreational opportunities that National Park Service sites provide, their real value is in preserving “snapshots” of America’s remarkable natural heritage and preserving habitat for the animals that depend upon it. Even if it’s only as little as one tenth of one percent, that is better than none at all.

- William “Buzz” Botts, Division of Interpretation and Education

Turn a phrase

See if you can figure out the phrases each word puzzle creates!

1. HINT: An angry group of stinging insects.



2. HINT: Get your things in order.

Duck
DuckDuck ↓ Duck

5. HINT: You get this from walking barefoot on the beach.



Answers are on page 14

SHARK BITE GAMES

3. HINT: You find it on the beach, not at a bank.



4. HINT: Hold your breath!



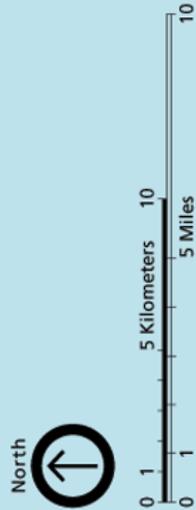
6. HINT: Boo! Don't be scared of these creatures of the night.



Padre Island National Seashore

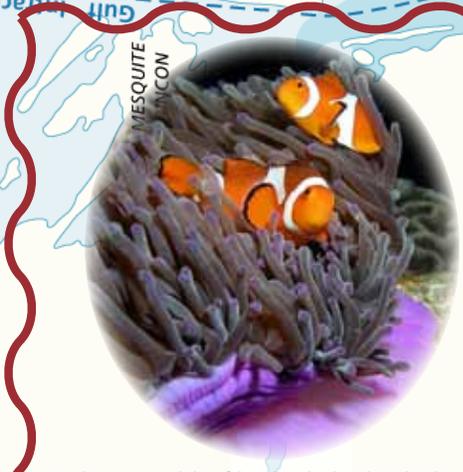
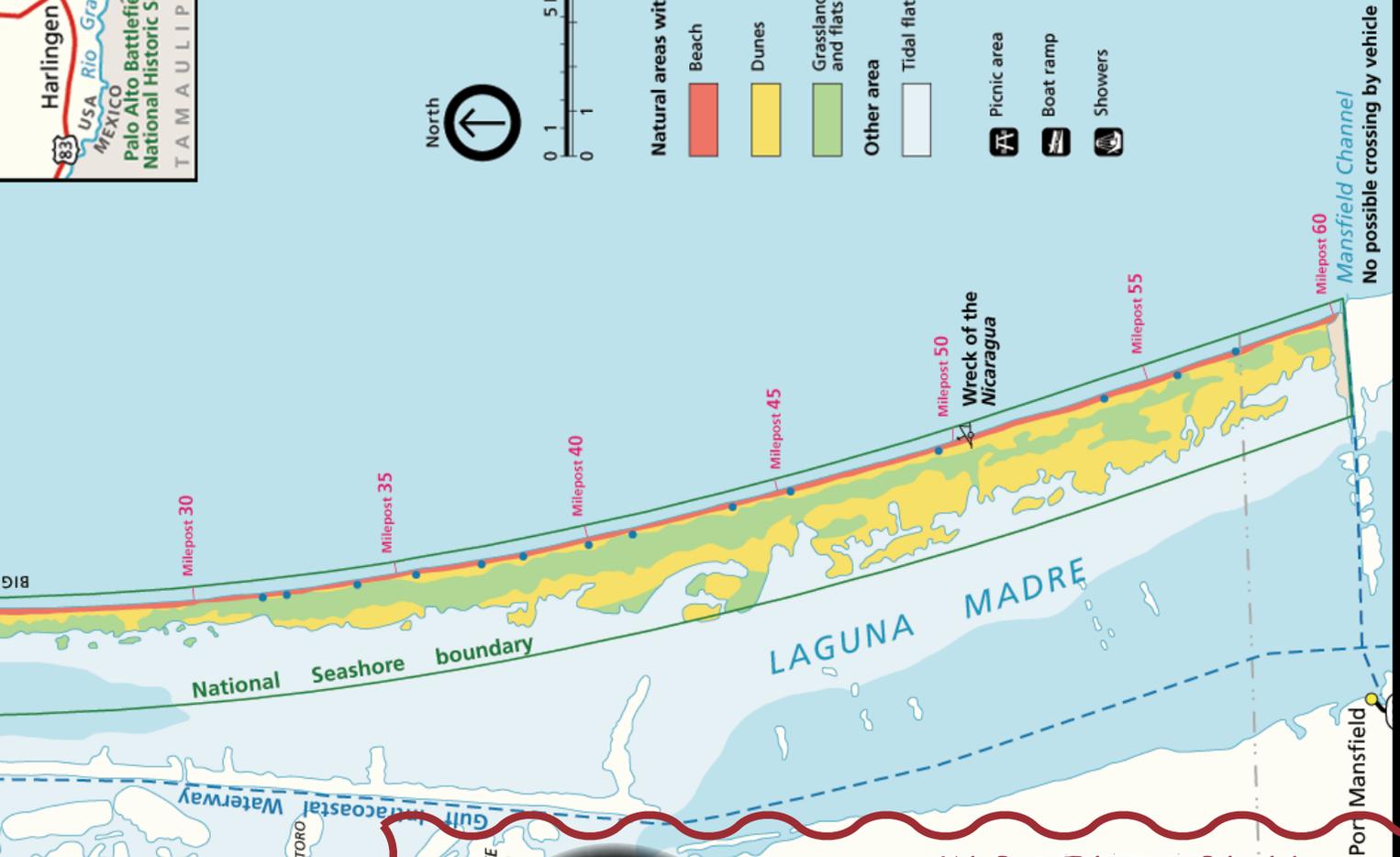


National Seashore



Natural areas within Padre Island National Seashore

- | | | | |
|---|----------------------|---|------------------|
|  | Beach |  | Spoil area |
|  | Dunes |  | Washover channel |
|  | Grasslands and flats | | |
|  | Other area | | |
|  | Tidal flat | | |
-
- | | | | |
|---|-------------|---|--------------------|
|  | Picnic area |  | Wind surfing |
|  | Boat ramp |  | Campground |
|  | Showers |  | Primitive campsite |



Purple anemone and clownfish. Wikimedia photo by Nick Hobgood.

SHARK BITE TRIVIA

Sea anemones inflict painful stings on almost anything they touch—except clownfish! These two animals have developed a symbiotic (mutually beneficial) relationship. Clownfish have a special mucus that makes them immune to the anemone's stings. They find protection from predators by living in the anemone. In return, the anemone gets free leftovers from the clownfish's meals.

RECORD-BREAKING YEAR FOR LOGGERHEAD AND GREEN SEA TURTLES

Staff and volunteers from the Division of Sea Turtle Science and Recovery were busier than ever this year patrolling North Padre Island beaches to find and protect sea turtle nests. We are excited to report that we had a record-breaking year for two species of nesting sea turtles! Thirteen loggerhead and fifteen green sea turtle nests were found in Texas this year, which is a considerable increase from previous years. Although more nests of Kemp's ridley sea turtles were found than other species at Padre Island National Seashore and at beaches along the Texas coast, Kemp's ridley numbers did not set records.



Nesting Kemp's ridley. NPS photo.

KEMP'S RIDLEY NESTS

Kemp's ridley is the most endangered sea turtle in the world. For more than three decades, the National Park Service has worked with several other agencies in the U.S. and Mexico to help save the Kemp's ridley sea turtle from extinction. In order to help increase the local population and aid with species recovery, patrols are conducted to locate and protect nests on Gulf of Mexico beaches in Texas. Eggs from most nests are relocated to either the Padre Island National Seashore incubation facility or large screen enclosures on the beach called corrals for protected care.

The Kemp's ridley population was showing promising signs of recovery as the number of nests locat-

ed increased; however, in recent years the rate of nesting has slowed in Texas and Mexico. During the 2013 nesting season 153 nests were found in Texas, including 87 at Padre Island National Seashore, a decline from previous years. The exact cause of the decrease in nests is unknown, but continued monitoring and protection is vital to understand long-term trends and help recover the species.

Eggs from nearly all nests found on the Texas coast are retrieved from the beach for protection from natural and human-related threats. Eggs from 78 of the Kemp's ridley nests found at the National Seashore and northward in Texas were brought to the National Seashore's incubation facility for protected care. Eggs from 27 nests found at the southern end of the National Seashore were transferred to one of two large screen corrals located near the 30 and 40 mile markers. Hatchlings from the National Seashore's incubation facility and corrals were released at the park. Eggs from 37 nests discovered on South Padre Island and Boca Chica Beach were protected in a corral and the hatchlings were released on South Padre Island. Hatchlings from the incubation facility and corrals were guarded during release to help ensure every hatchling safely entered the surf and swam away from shore.

Overall, more than 11,000 Kemp's ridley hatchlings were released on the Texas coast during 2013, most at the National Seashore. Twenty-five of the hatchling releases held at the National Seashore were open to the public. More than 16,000 people attended these hatchling releases! Many traveled long distances and planned their vacation around the opportunity to watch a release. Releases are held between late May and late August in front of the visitor center at Padre Island National Seashore. No fee is charged to attend. For more information on hatchling releases for the 2014 nesting season, visit our website at www.nps.gov/pais/, visit our Facebook page at Padre Island NS Division of Sea Turtle Science & Recovery, or call our recorded Hatchling Hotline at (361) 949-7163.

rehabilitation facility quickly, they can be saved and released when temperatures increase.

HOW CAN YOU HELP?

Many of our reports of stranded and nesting sea turtles come from visitors recreating on local beaches and bays. All reports of nesting and stranded sea turtles are important, even if the turtles are dead. If you find any sea turtle nesting, floating, or washed ashore (alive or dead), please report it immediately by calling 361-949-8173, ext. 226. Please be aware many cold stunned turtles that are still alive will often be motionless and appear to be dead.

During April through mid-October, watch for and report all nesting sea turtles, their tracks, or hatchlings emerging from previously undetected nests. Nesters can be difficult to see because their color blends in with the sand and vegetation. They sometimes nest in vehicle ruts and cannot move quickly to avoid an approaching vehicle, so please obey all posted speed limits and drive cautiously. With your help, we can recover these endangered and threatened sea turtles from possible extinction.

- Rosalie Rossi, Division of Sea Turtle Science and Recovery



Green sea turtle tracks. NPS photo.

GREEN AND LOGGERHEAD NESTS

Thirteen loggerhead and fifteen green sea turtle nests were documented on the Texas coast this year. Nests of both species were found on North and South Padre Islands, with all but four nests occurring at Padre Island National Seashore. Because both of these sea turtles nest at night, nests were located by early morning patrollers spotting their tracks. Eggs from both species were brought to the National Seashore's incubation facility and all hatchlings were released at the park. We are very excited to see this increase in nesting by loggerhead and green sea turtles, which are classified as threatened species under the Endangered Species Act.



Green sea turtle hatchling. NPS photo.

COLD STUNNING OF GREEN SEA TURTLES

Mass stranding events of "cold stunned" green sea turtles have occurred in previous years during the months of January and February. Cold stunning occurs when severe cold fronts pass through the area, drastically dropping water temperatures. Sea turtles cannot regulate their body temperature and at water temperatures below 50 degrees become immobilized. They float to the water's surface or wash ashore and if not located and protected quickly, often succumb to the elements. Cold stunned turtles are found primarily along the central and southern Texas coast in inshore areas (canals, bays, estuaries, passes). If these turtles are found and taken to a



Cold-stunned green sea turtles. NPS photo.

Do you know your beans?

Some beans make excellent soup, some are great when refried, others are superb in casseroles, and some folks get paid to count them. But for many beachcombing visitors at Padre Island National Seashore, bean casseroles are not on their minds while searching for beans along the beach. A non-appetizing fact is that many of the beans they are looking for may have been floating in the world's oceans for years before washing ashore here at the park.

These visitors are not searching for the beans one might get at the grocery store. The beans they are looking for are really seeds and seed pods from tropical plants. Known as "sea beans" or "drift seeds," they are the products of plants originating in the world's tropical regions. Most float very well, and many may ride the tides for years before finally coming to rest on some far away shore. Seeds of this type have been circulating the oceans for eons, helping to establish their plants on ever-widening shores. In doing so, they have been noticed by people worldwide. In various societies, these floating seeds have been collected and have taken on special meaning in folklore, or gained reputations for remedies and cures for a wide range of discomforts. One of the pleasures of drift seed collecting is just imagining where the seed originated and what uses, folklore meaning, and medicinal attributes it may be believed to have. Also—since some sea beans may float for over thirty years—how long has it been wandering the world? In addition to the intrigue of their origin and travels, many drift seeds have very hard coverings and can be polished and fashioned into stunning pieces of jewelry, such as necklaces, bracelets, and pins. And for gardeners, there is also the possibility a seed is still viable, and a strange tropical plant may emerge from a propagation attempt.



Mayr's bean. NPS photo.

One drift seed steeped in folklore is the "crucifix bean," also known as "Mary's bean." It is named for the Virgin Mary because of the appearance of a cross on one side. It is the seed of a Central American

beach vine related to the morning glory. In Nicaragua, it is considered so powerful a talisman in aiding child birth that beans have been handed down from mother to daughter for generations. In Mexico, where it is considered helpful for snakebites, street vendors market the seeds as "sea tomatoes." With one of the widest documented drift ranges reported to be 15,000 miles, it is easy to see why Mary's beans have been found and collected in many parts of the world.

Perhaps one of the most coveted sea beans is the "sea heart." This hard, heart-shaped seed is from the monkey ladder

vine originating in Brazil. This vine winds its way high into the rain forest canopy along the Amazon River and its tributaries. The monkey ladder vine has the world's longest seed pods, which may be up to six feet long and contain ten to fifteen large seeds. In the proper environment these plants are capable of growing one to three inches per day. One reason the sea heart is prized by collectors is, like many drift seeds, it will take on a sparkling polish. And the seed's remarkable heart-like shape is very fashionable in stunning necklaces or bracelets. Ground into a poultice, these seeds are said to be a remedy for constipation as well as snakebite in Norway. In India, ground sea hearts are marketed as an aphrodisiac. Gardeners sprouting these seeds must remember that if kept from cold and frost in the right conditions, the monkey ladder vine may grow 100 feet high in little more than a year.



Sea hearts. NPS photo.

Another drift seed that polishes well for jewelry is the "sea purse," also known as the "saddle bean" or "vulture eye." This bean comes from a woody climbing vine that originated in Asia but, as the seeds are good floaters, can now be found in Central America as well as Hawaii. It earns two of its



Sea purse. NPS photo.

common names from its purse-like or saddle-like appearance. The “vulture eye” name comes from the bright orange ring that encircles the seed.

Another popular sea bean is the “hamburger bean,” well named for its distinctive sandwich appearance. These interesting seeds are from a vine of the pea family which grows in Africa and also Central and South America. This sea bean is referred to as “deer’s eye” in England and “horse eye” in Mexico. In folklore it has the reputation of bringing good luck



Hamburger beans. NPS photo.

and warding off the “evil eye.” It too polishes well.

The number of fascinating sea beans with exotic origins and intriguing stories from around the world is almost endless. Due to three strong ocean currents streaming northward from the tropics and squeezing between Cuba and the Yucatan Peninsula into the Gulf of Mexico, the beaches of Padre Island National Seashore are a perfect place for sea bean searches. A stroll along the beach wrack line, probing the washed up sea weed, may very likely turn up some keepable finds, and is the reason why many beachcombing visitors really know their beans.

- Ron Kratzer, Volunteer



Answers are on page 14

Mama Matching

Help these young ones find their mothers by drawing a line to connect them.



NPS photo.



NPS photo.



NPS photo.



NPS photo.



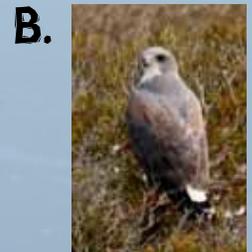
NPS photo.



NPS photo.



Photo by Caroline Rogers, USGS.



NPS photo.



Photo by VA State Parks on Wikimedia.



NPS photo.



Photo by L. Holly Sweat, Smithsonian.



Photo by Terry Ross on Flickr.
The Gulf Breeze 13



Photo by Phil Ziegler, NPS.

“Is it my TERN yet?” Park Facebook fan Hannah Elizabeth suggested this cute caption for our photo of a Least Tern chick sitting in the nest, peering out from under its mother. Least Terns typically lay 2-3 eggs that hatch into downy puff-balls after about three weeks. Females do most of the nest-sitting, but the male will take a turn sometimes. During hot weather, the parent will stand over the nest to provide shade. If it gets really hot, the parent will soak her belly in water then drip on the nest to cool it. Now that’s dedication!

Plant or Animal?

Circle the ones that are plants or parts of plants.



SHARK BITE GAMES

Shark Bite Game Answers

Shark Bite Games by Jody Mays

1. Gray sea star - animal
 2. Queen conch - animal
 3. Sand dollar - animal
 4. Sea anemone - animal
 5. Sea heart - plant
 6. Cabbagehead jellyfish - animal
 7. Sundial - animal
 8. Sea anemone - animal
 9. Sargassum - plant

Plant or Animal? (page 14)

1. A swarm of bees
 2. Put your ducks in a row
 3. Sand dollar
 4. Swim underwater
 5. Sand between your toes
 6. Ghost crab
 1. matches to F.
 2. matches to E.
 3. matches to A.
 4. matches to C.
 5. matches to B.
 6. matches to D.

Mama Matching (page 13)

Turn a Phrase (page 7)

DRIVING DOWN ISLAND: WHAT YOU SHOULD KNOW

Driving down to Big Shell or other remote areas can be a great adventure, but it also entails risks and hazards that should not be taken lightly. Experience and the right preparations can help you avoid getting stuck, stranded, or trapped in a potentially dangerous situation. Here are some tips to help ensure your beach adventure is a fun and safe experience.

1. **Know the risk.** Be aware that driving on the beach is at your own risk. Even 4-wheel drive vehicles can get stuck sometimes. The National Park Service does not tow vehicles, and a private wrecker can cost several thousand dollars.

2. **Check conditions.** The beach can change fast—washed out areas and other hazards can form overnight. Call our Beach Hotline at (361)949-8175 for updated tides, weather, and driving conditions. Starting down island 1-2 hours before low tide can help you take advantage of what may be the best driving conditions.

3. **Keep it legal.** All Texas beaches are considered public highways, and all vehicle requirements and traffic laws apply. So fasten your seatbelt, stay within the speed limits, and leave your ATV at home.

4. **Who yields?** North-bound vehicles have the right of way on the beach.

5. **Stay on the beach.** Driving into the dunes, grasslands, and mud flats is not only prohibited, it can get you stuck in deep sand or soft mud.

6. **Follow the leader.** Travel in the tracks of those who went before to help you avoid much of the debris and deep sand.

7. **Keep moving.** If you hit an area of deep or soft sand, don't stop—it may be difficult to get out.

8. **Don't block the road.** Park where you won't block traffic or force others to drive in soft sand.

9. **Avoid the water line.** It may be easier driving on the hard-packed sand at the water's edge, but steep embankments and rough "washboards" can also form in these areas. If you see water pooling in your tracks, move to drier ground.

10. **What you can't see can hurt you.** Broken glass, needles, and other sharp objects can be hidden by seaweed, garbage, or other debris. Many boards have nails. Sinkholes of water beneath mats of seaweed can form, creating hidden hazards. Large barrels of hazardous waste can wash up. Report hazardous materials to a ranger as soon as possible.

11. **Know what to do.** Jellyfish and Portugese man-of-wars occur here. Don't touch them—they can sting even if dead. If stung, rub the area with a paste of meat tenderizer and vinegar. Watch for allergic reactions and seek medical attention if needed. To avoid stepping on a stingray, shuffle your feet along the sandy bottom

when in the water. To avoid rattlesnakes, stay out of the dunes.

12. **Keep it clean.** Currents wash in debris from other areas, but a lot of trash on the beach comes from visitors. Don't contribute to the problem by leaving trash on the beach, buried in the sand, or tossed into the dunes. If you bring it in, take it back out. Free garbage bags are available at the entrance gate and visitor center. Dumpsters are at the South Beach entrance and the visitor center.

13. **Remember, this is a beach.** Children run and play here, and animals live here. Slow down and be alert as you approach tents or parked vehicles in case a child runs out at the last minute. Be aware that people near the surf may not hear approaching vehicles. Look for and avoid deer, sea turtles, young birds, and other animals that might be nesting or resting on the beach. Be especially careful at night and when visibility is reduced.

14. **Look for and report nesting and stranded turtles.** Sea turtles nest here from April to August. If you see one nesting, do not disturb her. After she leaves, mark the spot where she nested, but don't use anything sharp. Report it to the nearest ranger or call (361)949-8173 ext. 226 as soon as possible.

15. **Height matters.** Cell phone service is extremely variable and spotty in the park. If you can't get service, climbing to the top of a dune may help. In an emergency, call 911.



A vehicle stuck near the water's edge. NPS photo.

16. **Be prepared.** Bring supplies to be ready for situations you might face. Remember you use more fuel in 4-wheel drive. If you get stuck, you can dig yourself out; put boards or carpet against your tires for traction; or wet the sand for traction.

- Jody Mays, Division of Interpretation and Education

Here are some recommended supplies for any down-island trip:

- Water
- Ice
- Food
- Shovel
- Flashlight
- Tide chart
- Hand sanitizer
- Flat tire repair spray
- First aid kit
- Shade structure
- 5-gallon bucket
- Spare tire(s) with air
- Extra fuel
- Protective clothing
- Wood planks/carpet
- Toilet paper
- Tow straps
- Jumper cables
- Air compressor
- Meat tenderizer and vinegar
- Trash bags
- Prescription medicines
- Sunscreen
- Jack and tire-changing equipment
- Spare car key



Frequently Asked Questions



I want to go camping—what do I need to know?

Camping is permitted on North Beach, at Bird Island Basin Camping Area, at Malaquite Campground, on South Beach, and at Yarborough Pass. All camping areas are open year-round. No reservations are accepted, and all camping is first-come, first-served. Campers must have a camping permit, which is available from the kiosks at the entrance to each camping area. Camping anywhere in the park is limited to 14 days at one time and no more than 56 days per calendar year. After each 14-day stay, all camping equipment and vehicles must be removed from the park for a minimum of 48 hours. No camping is allowed at the Malaquite Visitor Center beach or parking area. See “Camping” on page 3 for more information on camping fees and specific areas.

May I build a fire?

Unless a fire ban has been initiated, small campfires on North and South beaches are allowed. Campers at Malaquite Campground can build a campfire on the beach in front of the campground but not within the campground. No fires are allowed at Bird Island Basin (visitors can use the grills provided for cooking). No bonfires are allowed anywhere in the park. At Malaquite Beach, no campfires are allowed, but visitors can bring their own grills to the picnic shelter located in the parking lot. No grills are allowed on the Malaquite Pavilion deck. See “Picnicking” on page 4 for more information.

Where do I take my trash?

Due to illegal dumping of hazardous materials, trash cans are no longer provided in many areas of the park. However, free trash bags are available at the park entrance station and at Malaquite Visitor Center. Dumpsters, trash cans, and/or recycling containers are located at Malaquite Pavilion, the entrance to South Beach, and Bird Island Basin. Please don't leave your trash on the beach, bury it in the sand, or toss it into the dunes. Help make your park beaches beautiful by practicing “leave no trace”—if you bring it in, take it back out.

Where can I dump my gray/black water?

There are no public RV hook-ups in the park, but an RV dump station and a potable water filling station are available to all visitors. Both are located at the entrance to Malaquite Campground. See “Camping” on page 3 for more information.

May I collect seashells and other things?

Yes, if they are not alive. All living things are protected within the park. So if you find something alive—a hermit crab, a living sand dollar, etc.—don't harm it, just leave it where it is. But you can pick up and collect up to 5 gallons of empty (dead) shells, sea beans, or other natural beach treasures per day. See “Looking for Shells” on page 4 for more information.

May I use a metal detector?

No. Possession or use of a metal detector is not allowed in order to preserve and protect cultural resources.

I found a strange container on the beach—what should I do?

Hazardous materials, from medical syringes to 55-gallon barrels of chemicals, sometimes wash ashore. If you come across something hazardous, don't touch it. Note the location and alert a park ranger as soon as possible.

Are there riptides?

Yes, occasionally conditions can create riptides. If caught in one, don't panic. Swim parallel to the beach until you are free from the flow pulling you out, then swim back to shore. Do NOT attempt to

swim against the current pulling you out. Use caution when swimming, and never swim alone. See “Swimming” on page 4 for more information.

May I feed the gulls?

No. Feeding gulls or other wildlife in the park is not allowed. It can cause them to start approaching people too closely, it teaches them to beg for and steal human food, and it can make them less able to survive on their own.

Are there any dangerous animals?

Jellyfish and Portugese man-of-war can cause a painful sting, even if they are dead—so don't touch them.

If stung, rub the area with a paste of meat tenderizer and vinegar, or pour hot water on it. Watch for allergic reactions, and seek medical attention if necessary. Stingrays sit on the sandy bottom and can inflict an extremely painful puncture wound if stepped on or agitated. To help avoid them, shuffle your feet on the sandy bottom as you walk. Be aware that sharks occur in the Gulf as well. Rattlesnakes live in the dunes, grasslands, and mudflats, so avoid those areas. First aid is available at Malaquite Visitor Center. In an emergency, call 911 (climb a dune for better reception).

May I bring my dog or other pet?

Yes, to most areas. Pets on a leash are allowed everywhere in the park except for Malaquite Pavilion and the portion of Malaquite Beach right in front of the visitor center. Sand trails located on either side of Malaquite Pavilion may be used by pet owners to access the rest of the closed beach area. Please be courteous to other visitors and clean up after your pet. Pets must be on a leash at all times.

Are hunting & fishing allowed?

Fishing is permitted everywhere in the park except for the portion of Malaquite Beach right in front of the visitor center. No hunting is permitted in the park except for the taking of waterfowl by boat only out in the Laguna Madre. Both of these activities must be done in accordance with applicable state and federal regulations. Transporting any other lawfully taken wildlife, including exotic species, through the park is prohibited.

May I bring my firearm into the park?

Yes. A 2010 federal law allows people who can legally possess firearms to bring them into national parks. But it is the visitor's responsibility to understand and comply with all applicable state, local, and federal firearms laws. And federal law prohibits firearms in certain park facilities. These places are posted with signs at public entrances.

May I bring my ATV or off-road vehicle?

No. Texas beaches are considered public highways, so only street-legal and licensed vehicles are allowed in the park. All-terrain vehicles (ATVs), UTVs, go-carts, golf carts, dune buggies, and other such vehicles are prohibited. Driving in dunes, grasslands, and mudflats is also prohibited. For more information, see “Driving on the Beach” on page 4 and “Traveling Down Island: What You Should Know” on page 15.

All artwork by Janette Bunney.

SHARK BITE TRIVIA

The venus fly-trap anemone bears a striking similarity to the plant for which it is named. But it is an animal that lives in the deep sea.

Venus fly-trap anemone. NOAA photo.

