

Assateague Island



A Visitor's Guide to National Park Service Activities & Events - Summer 1994

Ponies - Wild and Free

For all its wealth of native plants and animals, the wild ponies are immigrants to this barrier strip of beach. Although the distant ancestors of all horses originated in North America, today's descended from Old World horses. Legend has it that Assateague's ponies arrived with pirates or from the wreck of a Spanish galleon. No hard evidence of this exists, but historical research does show that livestock was pastured on barrier islands by colonists beginning in the 17th century. Natural selection had its effects in this rigorous habitat, and today the ponies are sturdy, shaggy creatures. The animals are not a true pony breed, like the Shetland, but they have always been called 'ponies' by local residents and adoring children everywhere.

The ponies are now divided into two main herds separated by a fence at the Virginia/Maryland state line. The Maryland herd is owned and managed by the National Park Service, while the Virginia herd is owned by the Chincoteague Volunteer Fire Company. The Virginia herd is allowed to graze under a special permit issued by Chincoteague National Wildlife Refuge. Between 1968 and 1992, the Maryland herd has grown from less than 20 to approximately 170 horses.

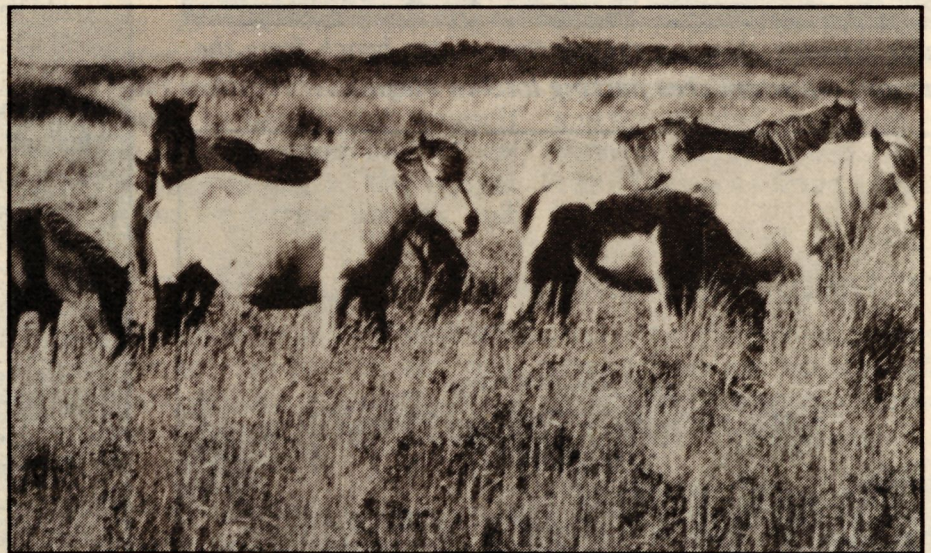
The ponies found in Maryland are truly wild in that they care for themselves without human intervention. As a result they are regarded as wild animals. The term "feral" is also applied to the stock, meaning they are descendants of domestic animals that have re-

verted to a wild condition.

Feral species are not considered native elements of a national park environment. Feral species compete with native wildlife for food, water, and cover, and can often disrupt the delicate balance which exists in natural ecosystems. On Assateague, overgrazing by the horses has caused widespread deterioration of the dune and saltmarsh plant communities, and is resulting in a loss of biodiversity in these important habitats.

As a result, the National Park Service initiated a long term program to manage the horse population in order to minimize impacts on other park resources. Research on the ponies has been ongoing continuously since 1975. Through this work, important questions regarding population size, grazing habits, ecological conditions, and pony/visitor interactions have been answered. Since 1986, the National Park Service has sponsored an investigation on fertility control in the Maryland horses in the interest of controlling the population and its impacts on plants and animals.

Researchers have developed a unique non-hormonal, anti-fertility vaccine that temporarily prevents pregnancy in treated mares. Instead of using hormones to prevent ovulation or fertilization, the mare's own immune system prevents fertilization after forming a "glue" around her egg as a reaction to pig ova protein. Administered as a serum in a dart gun, the completely reversible process is unique in that it does not



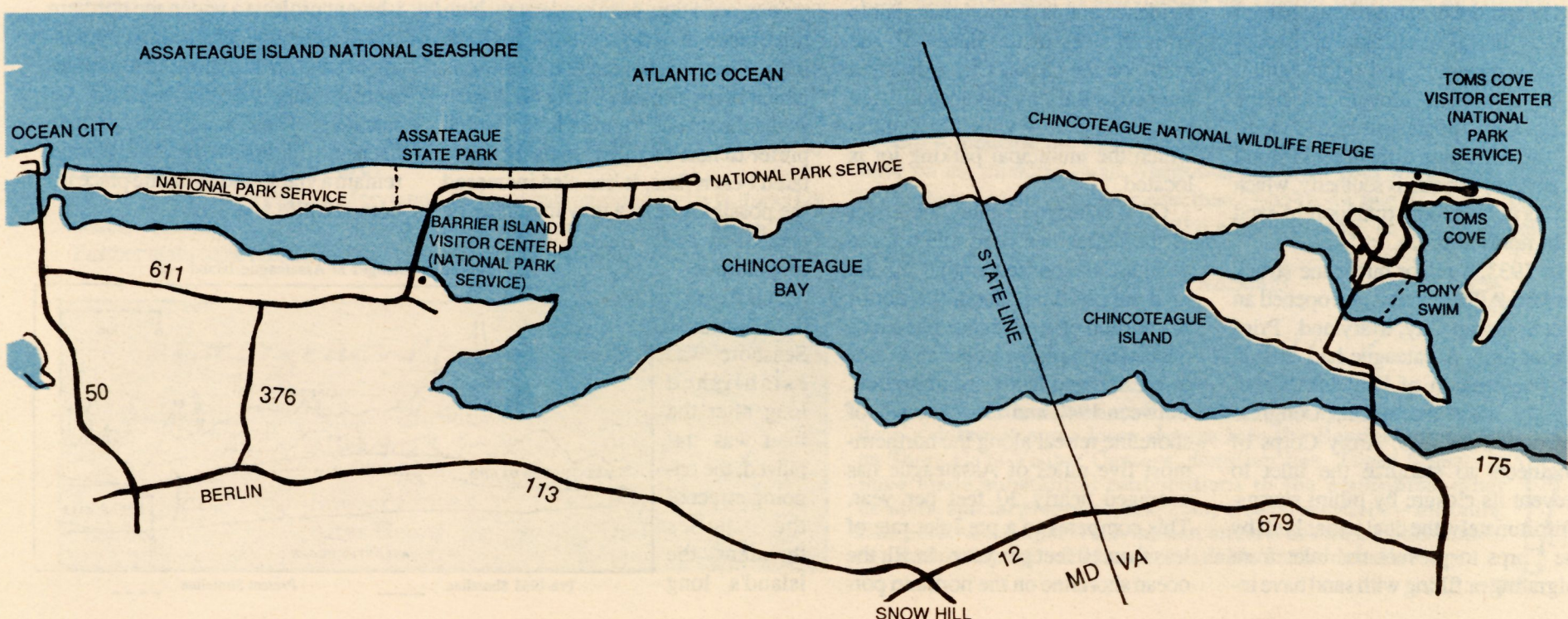
harm the ponies nor does it alter their behavior in any way. The success of this revolutionary pony "birth control" is having a great impact in the field of wildlife management. Similar techniques are being investigated in other parts of the country for use in managing bison, mountain goats, and white-tailed deer.

Earlier this year, the park took a major step in advancing the horse population control program when 76 mares were treated with the anti-fertility vaccine. The treatment will not affect this year's reproduction, but should result in near zero population growth in 1995. By slowing the rate of reproduction for several years, natural mortality should bring the population back to the prescribed limit of 150 horses. With a smaller overall population, both the horses and the park's other natural resources should

benefit in the long term.

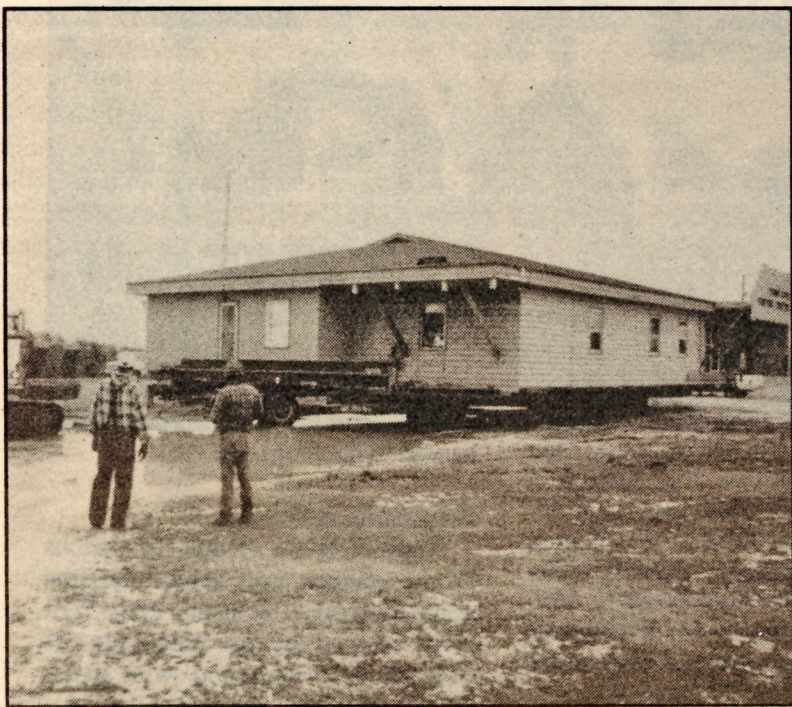
Pony Swim is Popular

In the Virginia section the famous Pony Penning activity helps to keep the population under control. Pony Penning starts on the last Wednesday of July with a roundup and swim across the channel from Assateague to Chincoteague. The swim is always at slack tide and so the time varies each year, but it is usually during the morning hours. A large crowd sees the event from boats and the Chincoteague shore. Most of the foals and yearlings weaned from their mothers are sold at an auction on Thursday. The rest of the herd is driven back to Assateague on Friday. The money raised from the auction and related carnival goes to the Chincoteague Volunteer Fire Company.





Dune damage showing the narrow winter beach from the January 4th storm near parking lot 3 in Virginia.



Moving of the Toms Cove Visitor Center during mid-March of 1993.

THE CHANGING SANDS OF TIME

From the more subtle change of daily tidal movement to dramatic change brought on by a storm, barrier islands are one of nature's most dynamic landscapes. Ever-changing through the seasons, one can visit over different periods of time and be amazed at what transpires.

At Assateague Island the full force of change has been felt the last few years. The following sequence of "northeaster" storms caused significant changes to the island: Halloween Day, October 31, 1991; January 4, 1992 (the most severe storm to hit the area since 1962); May 4, 1992; and December 12, 1992.

The island, consistently bombarded with high energy waves and winds, was reshaped in many ways. Many of these changes, particularly to the beach, are very noticeable to repeat visitors. In the January 4th storm, the dune structure was almost completely breached the entire length of the island. An overwash of seawater caused havoc with park facilities such as campgrounds, roads, beach crossovers and parking lots. Much effort was extended to get facilities back into useable condition.

The shifting of sand from wave action is a natural process of barrier island formation. High energy waves in winter take sand off the beach and store it in offshore sandbars; lower energy waves in summer carry sand back from the bars and build beaches wider. This ebb and flow results in a narrow, steep beach in winter and a broader, more gently sloping beach in summer.

When the frequency and intensity of a storm is high, as has been the case several times the last few years, a great deal of white, quartz sand is moved several hundred feet out to the sandbars. During each major storm, smaller and heavier grains of black sand may be brought in from off shore deposits and placed in layers on the beach. Often mistaken as pollution by visitors, these grains are minerals like magnetite and illunite. It takes time before the quartz sand is brought back to cover the layers of black sand and build up the beach. Until that happens, the beach remains narrow and can be a major problem for beach users in the summer, especially during high tides.

In order to maximize traditional beach use areas, as well as to protect public facilities, the primary dune was pushed back in the early spring of 1992 by bulldozers in both Maryland and Virginia. This results in a potentially wider beach area for use in the busy summer season. In addition to moving the big dune, other differences can be especially noticed in the Virginia section of Assateague Island: The Toms Cove Visitor Center is relocated; a small section of road connecting parking lots 3 and 4 has been built; and parking lot 3 has been redesigned to offset loss from dune realignment.

The relentless movement of the sand is an on-going process and more decisions will eventually need to be made down the road as forces of nature change the beach and dune system. In dealing with an ever-changing resource such as a barrier island, nature is in ultimate control of what takes place. We must adapt to these changes just as the beach does from season to season. Nature has its own time table when the next major change may occur. In the meantime, enjoy the area and observe this dynamic place called Assateague Island!

A Dam on The River

Often likened to "a river of sand," the chain of barrier islands which fringe the Atlantic coast are lands in perpetual motion. Responding to storms, long term changes in sea level, and wave action from prevailing winds and nearshore ocean currents, barrier islands such as Assateague are exceptionally dynamic, and often exhibit highly directional movement. In the Ocean City/Assateague Island vicinity, the prevailing direction of littoral (nearshore) currents is southerly, which results in longshore transport of sand from north to south.

In 1933, a major hurricane struck the Mid-Atlantic coast and opened an inlet at Ocean City, Maryland. Prior to that time, Assateague had existed as an extension of Fenwick Island. Shortly after the storm, Congress authorized the U.S. Army Corps of Engineers to stabilize the inlet to prevent its closure by future storms. Unfortunately, the dual jetties built by the Corps to prevent the inlet from migrating or filling with sand have in-

terrupted the normal longshore movement of sand.

In the analogy of "a river of sand," the jetties have acted somewhat like a "dam," impeding the natural free flow of sediment "downstream." Evidence of this disruption is visible on both sides of the inlet. To the north, on the Ocean City side, sand trapped by the jetty has accumulated to create the very wide beach upon which the municipal parking lot is located.

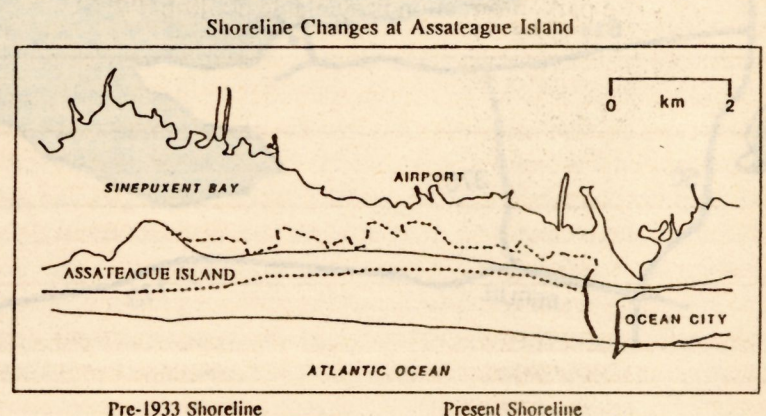
On Assateague Island, the effect of the jetties has been much more dramatic and consequential. As the sand supply diminished, the northern portion of Assateague has experienced unnaturally accelerated rates of erosion and landward migration. Between 1942 and 1980, the rate of shoreline retreat along the northernmost five miles of Assateague has averaged nearly 30 feet per year. This compares to a pre-inlet rate of less than 10 feet per year. In all, the ocean shoreline on the northern por-

tion of Assateague has shifted towards the mainland in excess of 1,200 feet over the past 50 years.

The northern portion of the island has also experienced a dramatic narrowing and decrease in elevation. In its present condition, even moderately high tides result in overwash from ocean to bay. While this has created conditions which favor ground nesting birds such as the threatened Piping Plover, which prefer to nest on open, sparsely vegetated beach flats, it has also increased the possibility that a new inlet may be created by future storms.

Although the National Seashore was established long after the inlet was stabilized, the on-going effect of the jetties threatens the island's long

term integrity. To address this issue, the park is actively working with the Corps of Engineers to develop plans for the restoration and long term protection of Assateague. Potential actions include a one-time beach nourishment project to widen the northern end of the island, and routine bypassing of sand around the inlet to supplement the supply of sand reaching Assateague. These actions should help to ensure that Assateague will always remain a viable and dynamic place for both wildlife and people.



Hazards of Assateague

The wild horses: Ponies often appear tame and gentle, but they may become aggressive quickly and can be dangerous. Each year several visitors are bitten or kicked by what appears to be "tame" ponies. Feeding ponies and any other wildlife is unhealthy for the animals, dangerous for you, and strictly prohibited. Some ponies become beggars and at least one is killed by a car each year while seeking a handout. Do not stop or park on the roadside or bike trail to view the ponies except in designated areas - enjoy them from a distance.

Ticks and Lyme Disease: Lyme Disease is an illness caused by bacteria transmitted to people through tick bites. In its early stages Lyme Disease may cause circular rashes, flu-like symptoms, headaches, stiff neck, and fevers. In its later stages the disease may cause arthritis in large joints, meningitis, neurological, and

cardiac problems. The primary carrier, the deer tick, is found on Assateague Island. While they can be found in any natural area on the island, special care should be taken in high shrub areas and woods in the spring and fall, and in leaf litter in the spring and early summer. To learn more about Lyme Disease and how to avoid tick bites, stop by a ranger station or visitor center and pick up the brochure Ticks and Lyme Disease in the National Parks.

Rabies: For many years rabies has worked its way south along the Delmarva Peninsula and public health officials expect it to reach Assateague. Park and refuge managers cite rabies as an added reason to avoid contact with any wild animal. While mange, distemper and other wild-life diseases may commonly affect the appearance and behavior of many creatures, particularly foxes and raccoons, visitors



Rabies may already have crossed the bay to Assateague by way of swimming raccoons.

should never approach animals with the intention of offering assistance. **Please report any human contact with sick animals to the nearest park ranger or refuge official.**

Surf safety: Please take a few minutes to familiarize yourself with some common beach hazards by stopping at the ranger stations or visitor centers and

requesting a copy of the Surf Safety Brochure. Such hazards include heavy wave/surf conditions, lightning storms, shallow water currents, and stinging marine organisms. We also recommend examining the bathhouse exhibits and reading posted regulations and information on the beach walkways.

Poison ivy: Found throughout the inner dune, shrub and forest sections of the island, poison ivy, with its shiny leaves in clusters of three, can produce an itchy red rash if you come in contact with the plant's oils. To lessen your chance of contact, stay on all trails and boardwalks. In the fall, poison ivy leaves turn a crimson red, but are still contagious. If you accidentally touch poison ivy, immediately wash your hands and the affected areas with soapy water to remove the oil. Remember: "Leaves of three - let them be!"



Lifeguards provide protection for beach users in designated areas and conduct surf rescue demonstrations. Swimmers are encouraged to pick up a copy of the surf safety brochure at the visitor centers or at the surf condition signs located near the lifeguard protected beaches.

Seashore Camping - Something for Everyone

A variety of camping is available on Assateague Island, but it is located in the Maryland section only. The National Park Service provides two campgrounds, Oceanside and Bayside, which offer drive-in pads suitable for tents, trailers and recreational vehicles. In addition, Oceanside has walk-in, tent-only sites, located 100-200 feet from centralized parking areas.

Both campgrounds have primitive facilities with outdoor chemical toilets, central locations for drinking water and outdoor rinse-off showers. Reservations can be made from May 15th through October up to eight weeks in advance of a camping date by calling 1-800-365-2267. The rest of the year the system is first come, first served. Organized group camps and backcountry camping is available for canoeists or hikers at established sites. Additional camping information is available at the national seashore's campground office or by calling a ranger at 410-641-3030.

Assateague State Park in Maryland also has a campground and it features hot shower bathhouses. There are no electric or water hookups in either park. Further state park information is available at 410-641-2120.

— Message from the Superintendent —

Welcome to one of the most dynamic parks in the national park system -- not just because we have an extremely knowledgeable and friendly staff but primarily because Assateague as a barrier island is by nature a resource in perpetual motion. It is constantly moving in reaction to currents, winds, and sea level changes.

This summer I would like to ask your help with several aspects of managing this seashore. A special effort is being mounted in the Maryland section to keep the horses wild. We have had a number of "problem" horses created by people feeding them. Last fall five horses were hit by cars as they stepped out into the road. Several people are bit or kicked each year; horses raiding tents for food and mugging visitors with food have almost become commonplace. While feeding horses may make humans feel good, it is obviously bad for the horse! Your cooperation can help us fix this problem.

We have another island resident that requires some tender loving care - the piping plover. This little shore bird is in danger of becoming extinct. The National Park Service, U.S. Fish & Wildlife Service, and Assateague State Park are very concerned and are trying a variety of techniques to enhance the reproductive success of this plover. Last year Assateague was one of the prime piping plover success stories. With your help in avoiding areas designated as plover habitat, we can ensure that at least here they have a refuge.

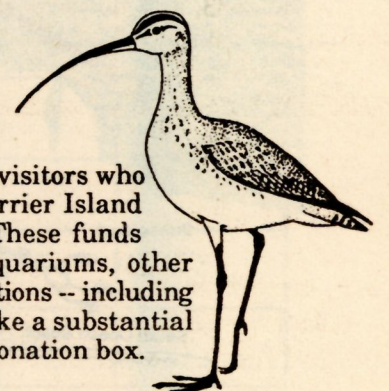
The last point I would like for you to consider is your role as a steward of Assateague and our earth. We have a number of island users who are very active partners in helping us do special programs and meet special needs. We also have a number of volunteers who help in the visitor centers, assist with resource management projects, and help with maintenance. If you live nearby or visit regularly, and would like to get involved, please contact the national seashore's Education Specialist in Maryland or the District Interpreter in Virginia.

On a larger scale Americans must step forward and demonstrate the principles of sustainability. Sustainability is a concept that means living in such a way so as not to diminish our children's opportunity to enjoy the same resources and standards of living as we do. It is a complex issue that has things we can do now to help -- reducing the waste stream; assessing impacts new development will have on us; thinking about where that chemical goes we just sprayed on our lawns; how can we use solar rather than a non-renewable source; recycle; etc. It is not someone else's problem. We are responsible, so let's get involved and make a difference.

Marc A. Koenings

Thank You!!

The national seashore staff thanks the many visitors who drop a dollar or some loose change into the Barrier Island or Toms Cove Visitor Centers' donation box. These funds have made substantial contributions to the aquariums, other exhibits, special programs, and many free publications -- including this park newspaper! Information on how to make a substantial tax deductible contribution is available at the donation box.



Emergency Phone Numbers

Maryland	Ranger Station	(410) 641-3030
	After Hours	Dail 911
Virginia	Ranger Station	(804) 336-6577
	After Hours	Dail 911

1994 SUMMER ACTIVITIES

MARYLAND DISTRICT

National Park Service - Assateague Island National Seashore
Sunday, June 19 - Saturday, August 27, 1994

Barrier Island Visitor Center

Begin your Maryland visit here. The center features daily programs, exhibits, an aquarium, touch tank, and a Park Ranger to answer questions 9:00 a.m. to 5:00 p.m. Many publications are available, including *Life of Assateague*, a guide to three nature trails. The center is the starting point for the park's one-hour driving tour by cassette tape. Also shown regularly is the Assateague nature film, *A Very Special Place*. For more information, call (410) 641-1441.

Aquarium critters are fed daily at 10 a.m. - Come join us!

Guided Explorations

Birds of a Feather - Join us for a 1/2 mile stroll through forest and marsh to spot the birds. We provide binoculars and a spotting scope for an upclose look. Meet in the history exhibit parking lot at the intersection of the Ferry Landing Road. Insect repellent, long pants and long sleeves are recommended.

Life of the Beach - Have you ever seen black sand on the beach and wondered where it came from? Caravan by car from the visitor center to the best beachcombing area north of the state park. We will explore a natural barrier island beach which is heavily impacted by winter storms.

Bay Explorers - This Old Ferry Landing program involves active participation with seines by the whole family! Take a close look at marine organisms that thrive in the bay. A good pair of snug wading shoes (no thongs) is a must, if you want to pull the seine or catch critter in nets.

Canoe Trip - Join a Park Ranger at the Old Ferry Landing for a unique way to explore Chincoteague Bay and the abundant marsh life. You will be briefed on basic canoe skills but it will be necessary to mix and match experienced paddlers with beginners as this trip will venture to one of the outer islands with stops along the way. **PADDLERS MUST BE AGE 14 OR OLDER**, and all paddlers must have strength to paddle in windy conditions. Children under 14 have the option of sitting in the middle of the canoe. All equipment is provided. Sneakers (no thongs) are required as wading will be necessary at certain stops. Stormy or extremely windy weather may force cancellation of a trip. **NOTE: Reservations must be made in person at the Barrier Island Visitor Center** and are limited to one trip per person each summer. Canoeists with reservations must arrive on time or risk forfeiture to others standing by.

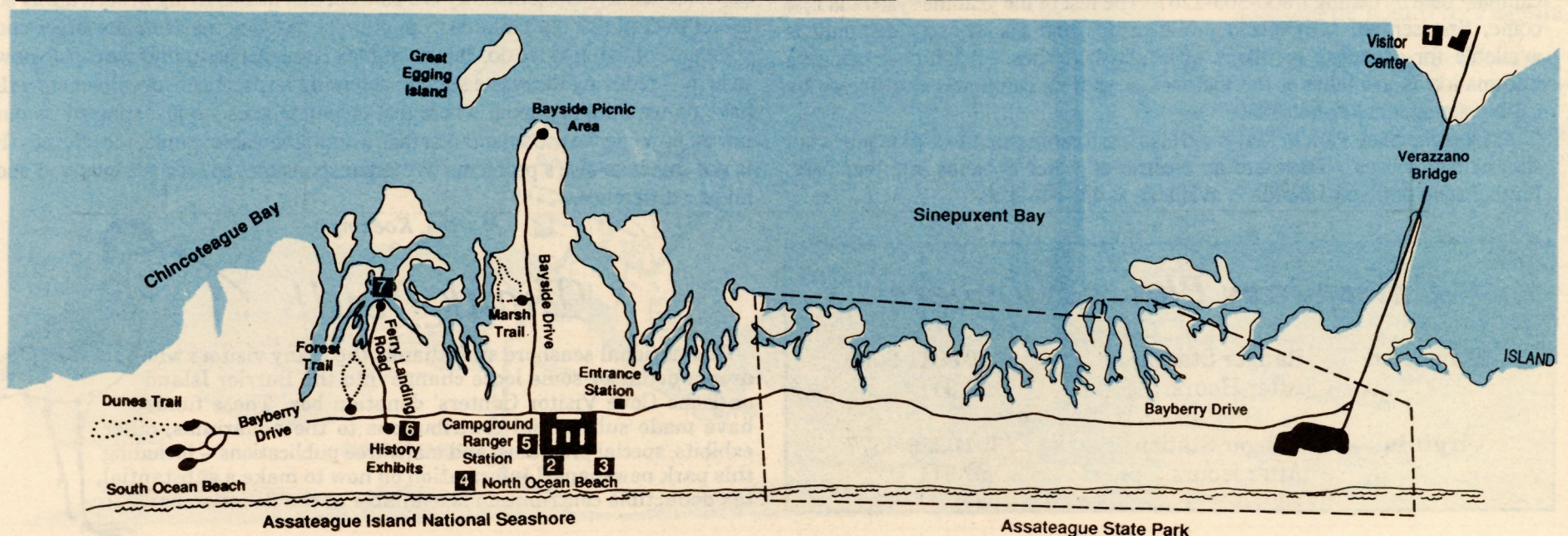
Evening Programs

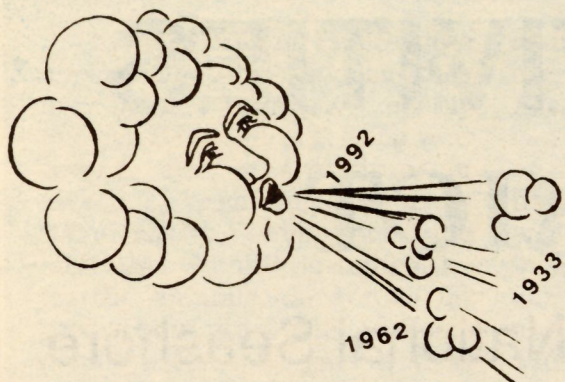
Kids Beach Discovery - Children age 6-11 get the chance to explore the island from "their" point of view, then play nature games and build a sand sculpture of a seashore creature. Meet on the beach at the end of the northernmost boardwalk leading from the North Ocean Beach parking lot. **Note:** Adults can attend surf fishing program at same time and place.

The Beach At Night

A Walk At Dusk - (precedes Campfire Program) Do you know what biological luminescence is? Join a Ranger for a leisurely 1/2 hour stroll down the beach to the site of the campfire. Insect repellent may be necessary. Meet under the canopy outside the National Seashore's Campground Ranger Station.

Campfire Program - Did pirates hide out on Assateague? Where did the ponies really come from? Join two rangers for this informal exchange of fact and fiction. Beware of the occasional "tall tale"! If driving, park at the southernmost beach boardwalk in the North Ocean Beach lot and walk 200 yards south along the beach. If you are camping in Oceanside Campground of the national seashore, you can walk some distance north from one of the boardwalks that lead to the beach. Repellent may be needed.





Famous Assateague Storms

What happened here in 1933, 1962, and on January 4, 1992? Join Ranger Chris Seymour in the visitor center for the answer each Thursday evening at 7:30 p.m. Slides and film footage will depict facility destruction, yet also show how important storms are in maintaining natural life zones on barrier islands.

July 7 to August 25



Of Ponies and Plovers

Assateague has too many of one and not enough of the other! Join Ranger Brenden Williams in the visitor center each Wednesday evening at 7:30 p.m. to learn about extraordinary research now being applied to control the population of our horses and increase numbers of the endangered piping plovers.

July 6 to August 24



Life and Lore of Birds

Strange but true ... believe it or not! Join Ranger Rod Bardsley in the visitor center each Monday evening at 7:30 p.m. to learn unusual facts about some of Assateague's common feathered friends.

July 11 to August 22

Recreational Demonstrations

Surf Rescue Demonstrations - Our lifeguards are professionals! Come watch them demonstrate an ocean rescue and lifesaving equipment. Meet at the designated lifeguard stand at North Ocean Beach.

Shellfishing Demonstration - Did you know that the ribbed mussel is mighty tasty steamed or sauteed in butter? But to enjoy them you must know how and when to safely forage for them. A ranger at the Old Ferry Landing will show you how to catch blue crabs, clams and ribbed mussels. Those interested in seeing where mussels live should wear sneakers (no thongs) and clothing suitable for wading.

Surf Fishing Demonstration - We provide several surf rods and bait, and demonstrate equipment and casting technique to help you learn about the basics of surf fishing. Wear clothes and shoes suitable for wading in the surf if you want to cast it "way out there"! All participants will have several chances to cast; those interested can fish awhile. No better way to learn before investing in equipment. Meet at the northeast corner of the North Ocean Beach parking lot. NOTE: Program is for ages 12 and up. Children age 6-11 can go to Kids Beach Discovery offered at the same time.

MARYLAND DISTRICT

LOCATION	MAP CODE	PROGRAM	SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
History Exhibit Parking Lot	6	Birds of a Feather (1-1/2 hours)			7:00 am				
Lifeguarded Beach	2	Surf Rescue Demonstration (30 minutes)		10:00 am			10:00 am		10:00 am
Visitor Center	1	Aquarium Feeding (30 minutes)	10:00 am	10:00 am	10:00 am	10:00 am	10:00 am	10:00 am	10:00 am
Visitor Center	1	Life of the Beach (2 hours)		10:45 am			10:45 am		
Old Ferry Landing	7	Bay Explorers (1 hour)		11:15 am		11:15 am	11:15 am		
Old Ferry Landing	7	Canoe Trips (2 hours)	10:00 am 4:00 pm	8:30 am	5:30 pm	8:30 am	8:30 am	5:30 pm	10:00 am 4:00 pm
Old Ferry Landing	7	Shellfishing Demonstration (1 hour)	1:30 pm		1:30 pm		1:30 pm	1:30 pm	1:30 pm
North Ocean Beach	3	Kid's Beach Discovery (1-1/2 hours)		1:30 pm		1:30 pm			
North Ocean Beach	3	Surf Fishing Demonstration (1-1/2 hours)		1:30 pm		1:30 pm			
Visitor Center	1	Ranger's Slides (45 minutes - begins July 6)		7:30 pm Birds		7:30 pm Ponies	7:30 pm Storms		
Campground Ranger Sta.	5	A Walk at Dusk (30 minutes)			8:00 pm			8:00 pm	
See Program Description	4	Campfire Program (1 hour)			8:30 pm			8:30 pm	

1994 SUMMER ACTIVITIES

VIRGINIA DISTRICT

National Park Service - Assateague Island National Seashore
Sunday, June 19 - Saturday, August 27, 1994

Toms Cove Visitor Center

Make this your first stop each time you visit Assateague's beach area. Located at the beach adjacent to the center parking lot, this large, grey building provides exhibits, a marine aquarium, publications, permits, lost and found, and emergency services. A Ranger Naturalist is available to answer your questions and assist you in planning your stay. Open daily 8:00 a.m. to 6:00 p.m.

Guided Explorations

For The Birds - This leisurely stroll with a spotting scope is designed for the beginning bird watcher. Several different habitats will be observed looking for their winged visitors. Some binoculars are provided. **Advanced reservations are required** - limit 25. Meet at the Visitor Center. Distance: 1/2 mile. Time: 1 to 1-1/2 hours.

The Changing Beach - Did you know that Assateague is constantly moving? This walk focuses on barrier island ecology and the adaptations necessary to live in this changing environment. Meet at the Visitor Center. Distance: 1/2 mile. Time: 1 hour.

Nature's Nursery - The Salt Marsh - If you enjoyed that seafood dinner last night, join the marsh walk and learn from where all that good food came from. The salt marsh is teeming with unique plants and animals. This walk gives you an opportunity to get acquainted with a wetland area that is of vital importance to the marine life in the area. Wear old shoes and meet at the Visitor Center. Distance: 3/4 mile. Time: 1 hour.

Marine Explorers - This program involves active participation. Join us in getting your feet wet and take a close look at marine organisms from beach to bay. A good pair of snug wading shoes is a must. Meet at parking lot #4. Distance: 1 mile. Time: 1-1/2 to 2 hours.

Tidal Flats Walk - This walk is presented with the time of a new or full moon when acres of mud flats are exposed. Explore the fascinating life that's uncovered on a "spring" low tide. Wear snug wading shoes. Meet at the amphitheater boardwalk near parking lot #3. Distance: 1 mile. Time: 1-1/2 hours.

Evening Programs

Illustrated Program - A film or slide program is presented on an aspect of Assateague's natural or cultural history. Check the Visitor Center for program topics. Meet at the amphitheater near parking lot #3. Time: 3/4 hour.

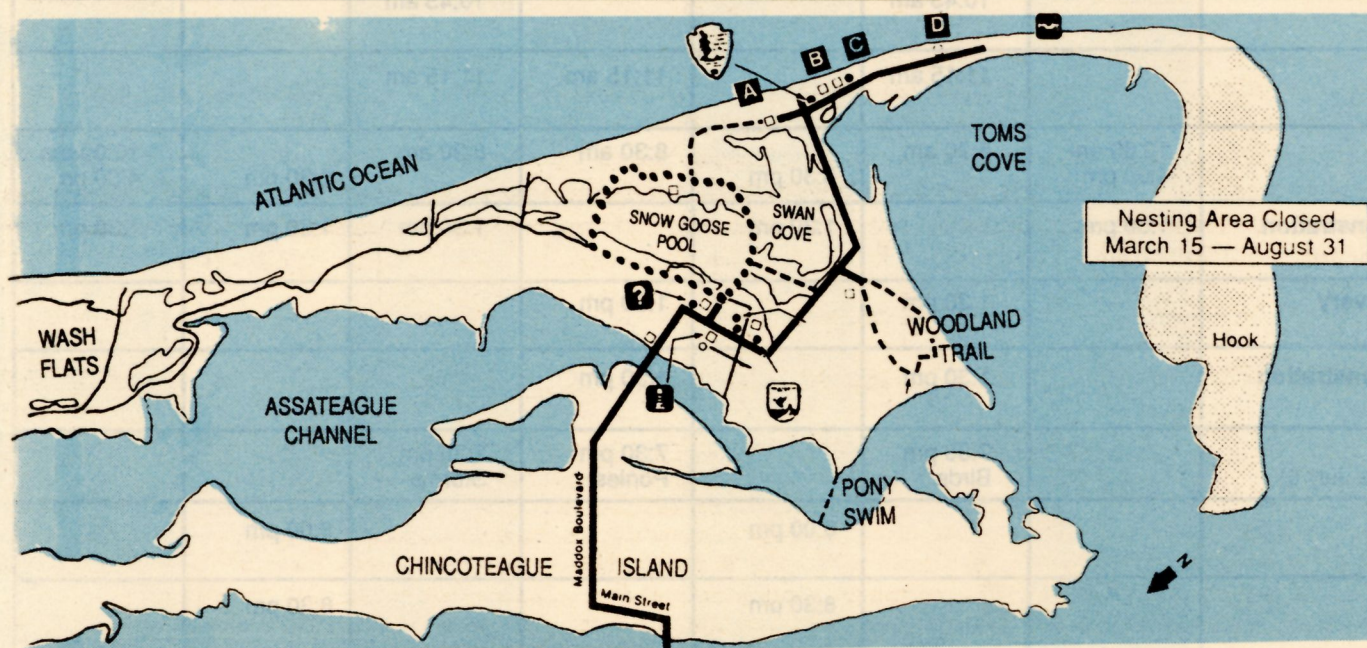
Evening Stroll - Join a naturalist for a leisurely stroll along Toms Cove or the beach. The stroll will end at the site of the campfire. Insect repellent may be necessary. Meet at parking lot #4. Distance: 1/2 mile. Time: 3/4 hour.

Beach Campfire - A campfire on the beach helps recreate a mood of days gone by on Assateague. Bring marshmallows and a roasting stick. A naturalist will lead discussions about a variety of topics on the rich natural and cultural history of the island. Meet at parking lot #4. **NOTE:** If parking spaces are full, park in lot #3 and walk south on the beach to the program site. Time: 3/4 hour.

Nature Talks

Aquarium Talk - The marine aquarium in the Toms Cove Visitor Center contains a microcosm of life in the underwater world of Toms Cove. Join a naturalist for this talk as the residents of the aquarium are fed. Time: 1/2 hour.

Creature Feature - Gather 'round the naturalist and today's mystery guest. Learn the life and lore of a special island inhabitant during this informal discussion. Meet at the Visitor Center. Time: 15 minutes.



Assateague Island in Virginia

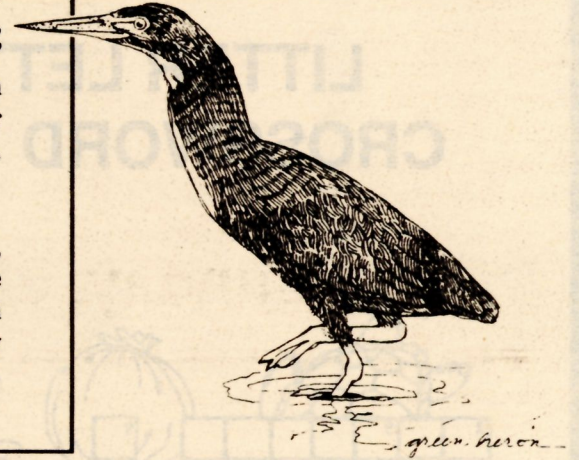
- CHINCOTEAGUE REFUGE VISITOR CENTER
- LIGHTHOUSE TRAIL/ART EXHIBIT (25 Miles) - Walking - Art Exhibit in Oil Shed on Selected Weekends
- REFUGE HEADQUARTERS
- OFF-ROAD VEHICLE AREA - Permit Required
- TOMS COVE VISITOR CENTER/DISTRICT OFFICE
- WALKING & BICYCLING - Vehicles after 3 p.m.
- WALKING & BICYCLING
- MAIN ACCESS ROAD
- PARKING

For Young Naturalists



Junior Explorers - For budding marine biologist, ages 9-11. This total "immersion" activity involves active participation, seining for fish, exploring the tidal flats and learning to "read" nature. An excellent experience for any young person with an interest in the outdoors. Register in the Toms Cove Visitor Center - limit 20. Meet at parking lot #4. Distance: 1 mile. Time: 1-1/2 hours.

Certified Seashore Ranger - Two age levels, 6-8 and 9-11, can receive Junior Ranger certificates by registering at the Visitor Center desk and completing certain activities. Each successful participant will bring completed forms to a daily 3:00 p.m. awards ceremony.



Recreational Demonstrations

Surf Rescue - Join the lifeguard staff for a demonstration of equipment and techniques of ocean surf rescue. Because ocean swimming can be dangerous, the staff strongly encourages your participation in this activity. Meet at the center lifeguard stand on the beach. Time: 1/2 hour.

Surf Fishing - Designed for those with limited surf fishing experience, this program includes demonstrations of equipment, bait and casting techniques. Equipment is provided; however, actual practice time depends on group size. Experienced anglers who would like to share their expertise are welcome! Meet at the Visitor Center. NOTE: Program is for ages 12 and up. Time: 2 hours.

Assateague Potpourri - Join a naturalist for a creative program dealing with a special aspect of the island. Check at visitor center for topic. Meet at the amphitheatre boardwalk near parking lot 3. Time: 1-1/2 hours.

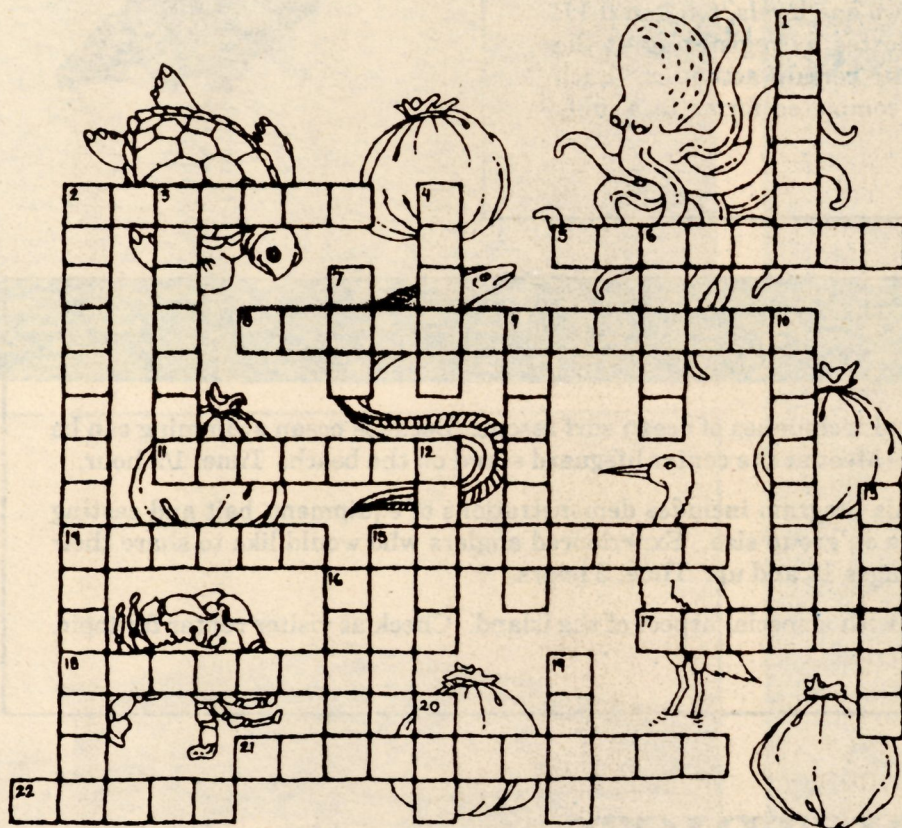
VIRGINIA DISTRICT

LOCATION	MAP CODE	PROGRAM	SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
Visitor Center	B	For The Birds (1-1/2 hours)	7:30 am			7:30 am		7:30 am	
Visitor Center	B	The Changing Beach (1 hour)			10:00 am		10:00 am		10:00 am
Visitor Center	B	Nature's Nursery The Salt Marsh (1 hour)	10:00 am			10:00 am			
Lot 4	D	Junior Explorer (1-1/2 hours)			9:30 am				9:30 am
Lot 4	D	Marine Explorer (1-1/2 hours)		3:30 pm				9:00 am	
Amphitheatre Boardwalk	C	Tidal Flats Walk (1-1/2 hours)	2:00 pm - July 22 and August 20						
Visitor Center	B	Aquarium Talk (30 minutes)	1:30 pm	1:30 pm	1:30 pm	1:30 pm	1:30 pm	1:30 pm	1:30 pm
Visitor Center	B	Creature Feature (15 minutes)				4:00 pm			4:00 pm
Protected Beach	A	Surf Rescue (30 minutes)		10:00 am		10:00 am		10:00 am	
Visitor Center	B	Surf Fishing (2 hours)		9:00 am			9:00 am		
Visitor Center	B	Seashore Ranger Award (15 minutes)	3:00 pm	3:00 pm	3:00 pm	3:00 pm	3:00 pm	3:00 pm	3:00 pm
Amphitheatre Boardwalk	C	Assateague Potpourri (1-1/2 hours)	10:00 am						
Amphitheatre	C	Illustrated Program (45 minutes)		8:30 pm			8:30 pm		8:30 pm
Lot 4	D	Evening Stroll (45 minutes)	7:45 pm			7:45 pm		7:45 pm	
Lot 4	D	Beach Campfire (45 minutes)	8:30 pm			8:30 pm		8:30 pm	

Special Note: The National Park Service assists the U.S. Fish and Wildlife Service in interpretation and recreation management, but only on Toms Cove Hook. The Chincoteague National Wildlife Refuge provides many other activities throughout the rest of the refuge. Contact the Chincoteague Refuge Visitor Center for program details.

SEASHORE FUN AND GAMES

LITTER LETTERS CROSSWORD PUZZLE



Solve the puzzle to learn some important words for your waterway litter vocabulary!

ACROSS

2. A lightweight, oil-based material used in making cups, bottles, bags, pens and toys.
5. Annual shoreline cleanup event in North Carolina (2 words).
8. Material that can rot with the help of bacteria.
11. Rotting vegetables and grass that will turn into soil.
14. One way to decrease the litter problem is to _____ the amount of our waste material.
15. Sea turtles and dolphins can mistake these latex or mylar objects for prey.
17. To take into the body by swallowing; to eat.
18. Recyclable metal material in some beverage cans.
21. A personal commitment to take care of natural resources.
22. A material that can rust.

DOWN

1. Container commonly tossed along the beach or shoreline. Holds bleach or beverage.
2. Sunlight causes this type of plastic to break into small pieces.
3. Having to do with water.
4. Material made from trees; used in books and magazines.
6. Clear, brown or green material used in drink containers. Can be melted and recycled.
7. Decay.
9. To reform and reuse materials such as glass, aluminum and paper.
10. To catch or ensnare animals as in an abandoned net or fishing line.
12. Once useful; now thrown away.
13. Trash left on beaches, roads and creek banks.
16. To use an item again.
19. Breakdown of iron from exposure to oxygen and water. Reddish-brown in color.
20. Plastic container for ice, bait or sandwiches; turtles often mistake for jellyfish.

WORDS USED IN PUZZLE

aluminum	bottle	metal	reuse
aquatic	compost	paper	rot
balloons	entangle	photodegradable	rust
bag	glass	plastic	stewardship
Big Sweep	ingest	reduce	trash
biodegradable	litter	recycle	

OCEAN FIND-A-WORD

In the puzzle below, look for the vocabulary words listed. Then do the matching exercises.

P L A N K T O N L T T Y P E
H R Z P R O D U C E R R G M
Y F O O D C H A I N O V M A
T T O P D Y N M B I L W M K
O P P A E F T F U I O T R E
P P L M I C R O S C O P I C
L C A E X P W O R X I T E W
A B N C E R I D Z A R G D I
N R K K T E D W R V X A U O
K T T W R R T E B O H J K L
T O O N R B J B E C S W H O
O J N Y N G R V M O I P F W
N U T G C O N S U M E R W M

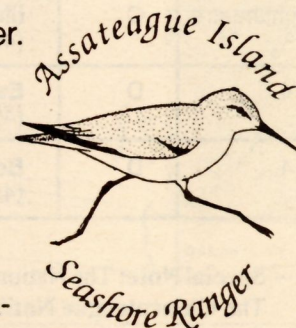
Match the definition to the word by putting the letter of the correct definition in the space by the word.

- | | |
|------------------------|--|
| _____ 1. Plankton | A. Plant life which, through photosynthesis, traps the sun's energy and produces food. |
| _____ 2. Food Web | B. Drifters and floaters in the sea. |
| _____ 3. Phytoplankton | C. A series of plants and animals linked by their feeding relationship. |
| _____ 4. Producer | D. Food chains which overlap and interconnect. |
| _____ 5. Consumer | E. Microscopic plants which drift in the sea. |
| _____ 6. Food Chain | F. Animals which feed on plants or animals. |
| _____ 7. Zooplankton | G. Small animals which drift in the sea. |
| _____ 8. Microscopic | H. Very small; can be seen only with microscopes. |

SEASHORE RANGER PROGRAM

for kids ages 6-11

It's easy and fun to be a Seashore Ranger. Learn more about the seashore and earn a Seashore Ranger badge. Pick up an activity folder at the Toms Cove or Barrier Island visitor center. When you complete all the activities in the folder and attend two ranger guided programs, you'll receive a Seashore Ranger certificate and a free badge.



PONY PUZZLE

The Wild Ponies of Assateague Island live freely and find plenty to eat and drink, so don't try to feed them. Our food isn't good for them and ponies who have been fed approach the road for food and some are hit by cars. Use the grid below to match the number-letter clues and discover an important message about why you should only enjoy the ponies from a safe distance. The first one's been done for you.

W
C1 A5 D7 E3 F6 C3 F1 A5 C8 E1 A7 A5 E5 C8

B2 F1 E3 C6 A5 E7 C6

	1	2	3	4	5	6	7	8
A	v		f	z	i		b	x
B		a		m		u		j
C	w		o			k		e
D		h					l	
E	s		d	y	t		c	
F	n	r		g		p		q