

Assateague Island



A Visitor's Guide to National Park Service Activities & Events - Summer 1993

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 lines. 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 150 horses.

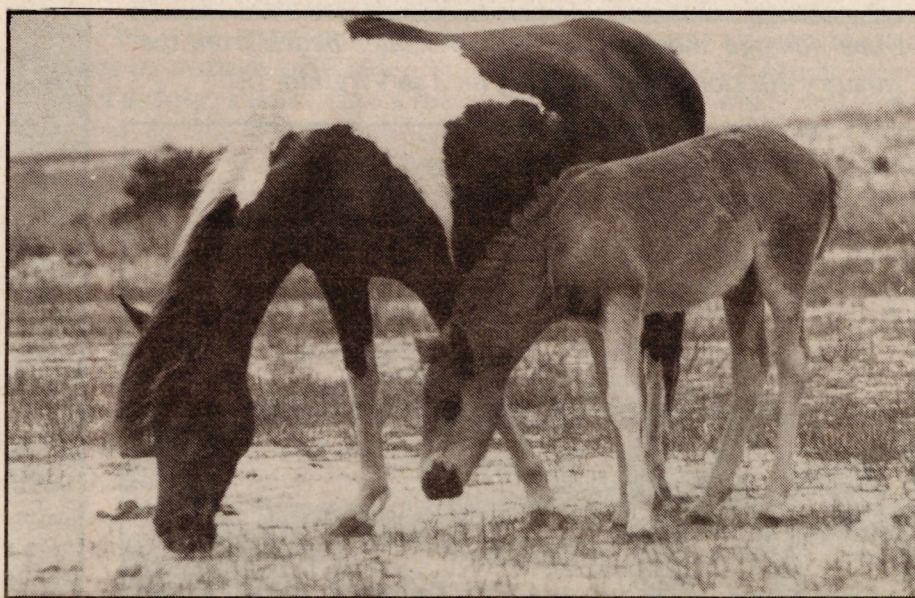
The ponies found in Maryland are truly wild in that they care for themselves without human intervention. As a result they are regarded as wild animals. The term "feral" is also applied to the stock, meaning they are descendants of domestic animals that have re-

verted to a wild condition.

Feral species are not considered native elements of a national park environment. Frequently feral species compete with native wildlife for food, water, and cover. Horses graze the dune grasses and saltmarsh quite heavily to the point of altering the island's plant communities in selected locations. Current research indicates that ground-nesting birds and other native wildlife species are adversely effected.

As a result, the National Park Service is interested in managing the horse population in an effort to minimize the impacts on vegetation. 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

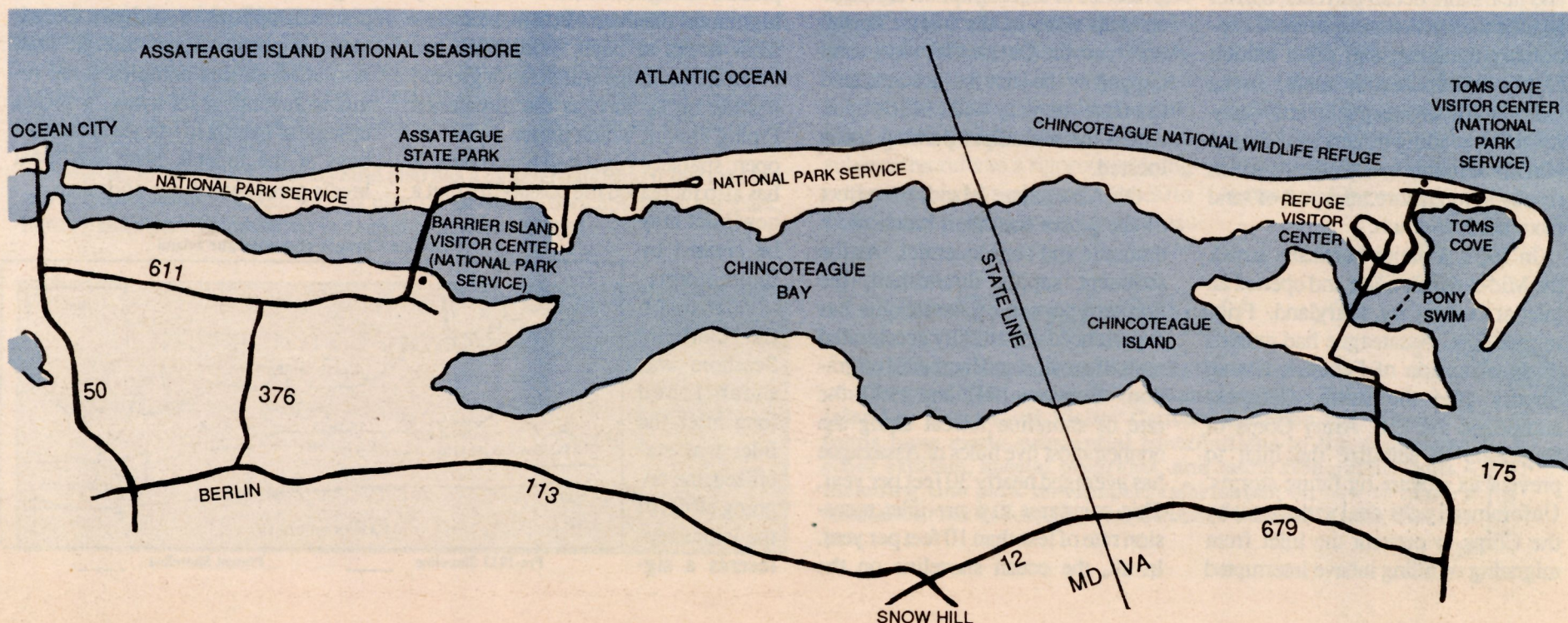


this revolutionary pony "birth control" is having a great impact in the field of wildlife management. Similar techniques are now being investigated in other parts of the country for use in managing bison, mountain goats, and white-tailed deer.

Later this year the park will begin developing a feral horse management plan to guide long term management of the National Park Service herd. One of the central features of this plan will be to lay the groundwork for routine use of fertility control drugs to limit the Maryland herd to its present size of approximately 150 animals. By restricting future population growth, the park seeks to limit the observed impacts on other components of the natural barrier island environment.

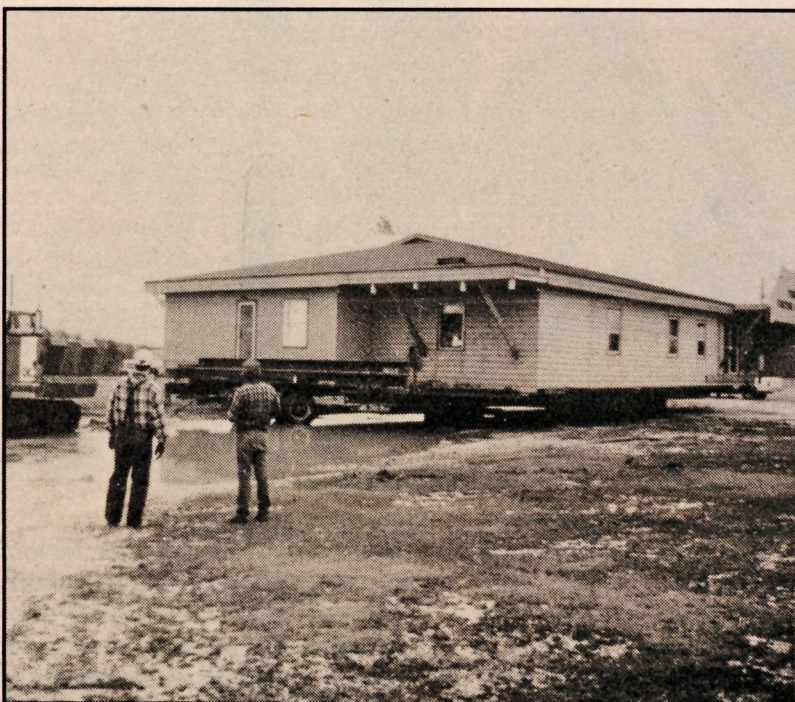
Pony Swim is Popular

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 two 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, and parking lots.

The Maryland end of the island was closed for over 3 months until the park staff could get things safely back together for visitors. In Virginia, the crossover ramps were destroyed, replaced, then destroyed again in the May 4th storm.

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 2 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 in 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 has been pushed back 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 parking lost from the 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 in have interrupted

the normal longshore transport 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.

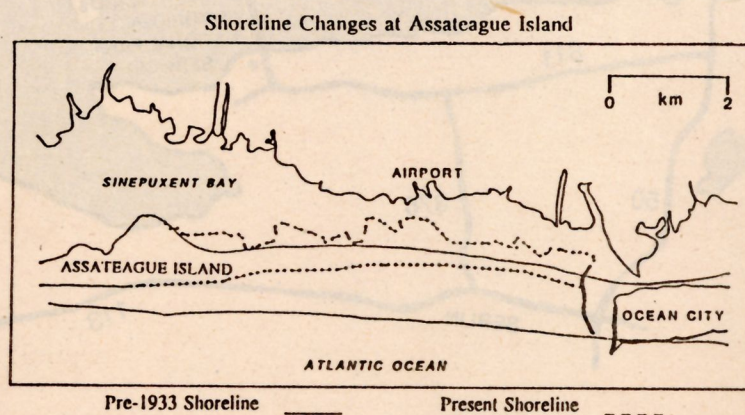
On Assateague Island, the effect of the jetties has been much more dramatic and consequential. As the sediment supply diminished, the northern portion of Assateague has experienced unnaturally accelerated rates of erosion and landward migration. Between 1942 and 1980, the rate of shoreline retreat along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

northern portion 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 configuration, even moderately high storm tides can 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 ongoing effect of the jetties represents a sig-

nificant threat to the park's long term integrity. To address this issue, park management has been actively working to understand the physical processes influencing the area, and seeking cooperation from the Corps of Engineers and others in evaluating potential options to mitigate the adverse impacts. Even though final resolution of this complex issue remains several years away, a recent upsurge of interest in Maryland's coastal bays at the federal, state and local levels gives reason for optimism.



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 wildlife 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!"

Assateague's Lifeguards A Summertime Workout

National Park Service lifeguards supervise protected beach areas in the Maryland and Virginia sections of Assateague Island. The guards are well trained and visitors are encouraged to swim at protected beaches. Blue flags on tall poles mark the guarded area. Yellow flags are placed some distance to the side of each blue flag. No fishing or surfboarding is permitted between the yellow flags.

The lifeguard area in Maryland is adjacent to the North Ocean Beach parking lot. Assateague State Park also has lifeguards, but visitors should consult with State rangers to determine what regulations apply. In Virginia the lifeguard area is located close to parking lot 1.

Guarding on ocean beaches is far different from pool or lake conditions experienced by many new applicants. Lifeguards must be 18 years or older and have first aid training. The average age of lifeguards at Assateague Island is 23 to 24. Three of the lifeguards are Emergency Medical Technicians and the remainder have First Responder training. Shortly after arrival, Assateague's Chief Lifeguard subjects recruits to a rigorous training program and swimming test. The 50 to 60 hours of training involves surf res-

cue techniques, movement of trauma patients, use of rescue equipment, surf analysis, and drills in running and swimming along with the other subjects important to the overall operation. All life guards, as part of the training program, must pass a swimming test in which they must swim a 1/4 mile in 9 minutes. The times for lifeguards at Assateague Island range between 5 to 7 minutes, well below the necessary passing time. Once employed, each guard must continually train and do daily workouts. These workouts include each morning swimming a 1/4 mile, running one mile and a sequence of a 100 yard run-100 yard swim-100 yard run. After this sequence the lifeguard has to "rescue" one of the fellow guards. All of this morning workout must be completed in 30 minutes. Each afternoon lifeguards swim 1/4 mile and do other training as may be required by the head lifeguard.

Visitors who want to learn more about ocean lifeguarding can attend one of the surf rescue demonstrations. Exhibits are located at bathhouses, and a Surf Safety brochure is available in visitor centers or information stations located on lifeguarded beaches.



Lifeguards provide protection for beach users in designated areas and conduct surf rescue demonstrations.

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 September 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.

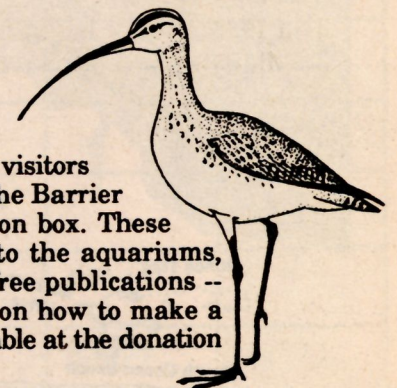
Assateague State Park in Maryland also has a campground and it features hot shower bathhouses. There are no electric or water hookups in either park. Further state park information is available at 410-641-2120.

Emergency Phone Numbers

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

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.



1993 SUMMER ACTIVITIES

MARYLAND DISTRICT

National Park Service - Assateague Island National Seashore
Sunday, June 20 - Saturday, August 28, 1993

Barrier Island Visitor Center

Begin your Maryland visit here. The center features evening programs, exhibits, an aquarium, touch tank, and a Park Ranger to answer questions daily 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.

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.

Stormy Beaches - Have you ever seen layers of black sand? Discover how great storms affect the beach and dunes. Meet under the canopy outside the National Seashore's Campground Ranger Station. We will caravan by car north up a service road; then expect a 1/2 mile round-trip walk in sand from a parking area.

Tracks in Time-Assateague's History - Does that old asphalt road (and the power poles) go anywhere? Explore life of the dunes while discovering how Assateague nearly became the city of Ocean Beach. Meet at South Ocean Beach for a 1/2 mile round-trip walk in sand. Repellent may be necessary.

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.

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.

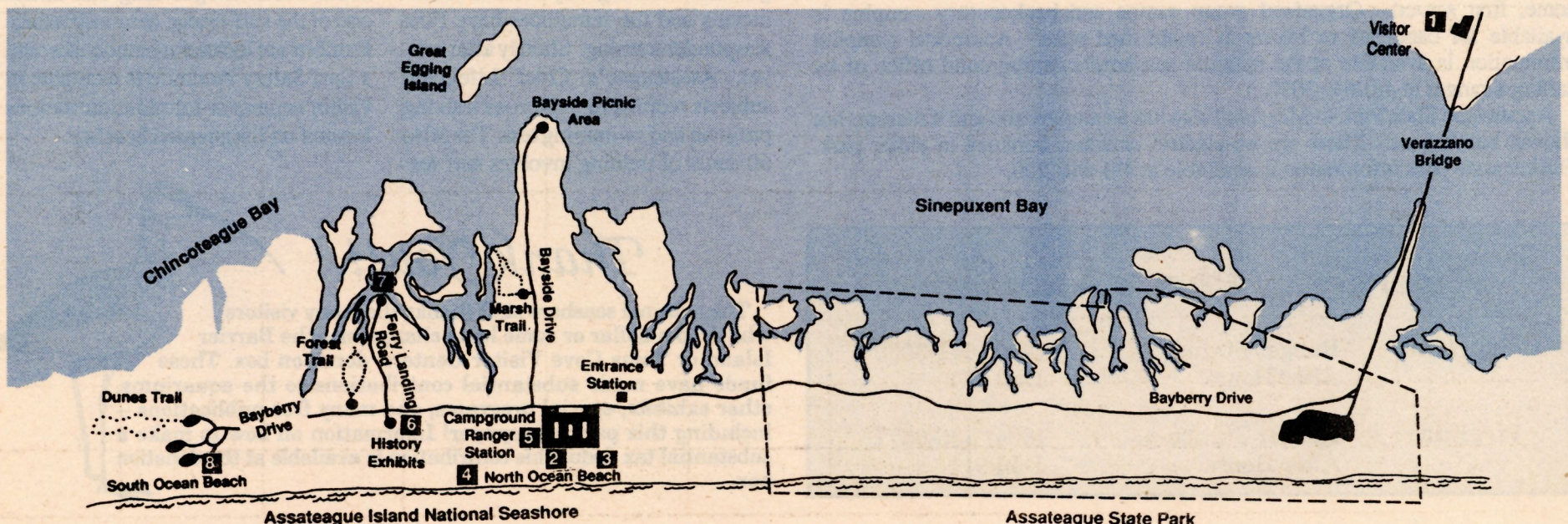
Evening Programs

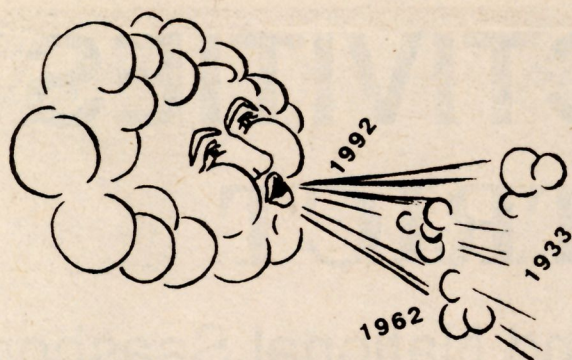
Aquarium Feeding - Meet some of Assateague's fascinating aquatic inhabitants. We'll introduce you to the critters in our 220 gallon saltwater aquarium, feed them and we'll even let you kiss a horseshoe crab. This 45 minute discussion meets in the dry, comfortable and mosquito-free visitor center.

Naturalist's Slides - Following the aquarium talk, you can sit back, relax and let a Park Service interpreter show you the many wonders of the "jewel" called Assateague. Fascinating slide program topics vary nightly and are posted in the visitor center and campground office.

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 8 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.

For Young Naturalists

Seashore Ranger Program (for ages 6-11) - Young visitors to Assateague are encouraged to participate in the park's Seashore Ranger Program. This program lets young folks explore and learn about Assateague Island on their own. Seashore Ranger activity sheets for ages 6-8 or 9-11 can be picked up in the Barrier Island Visitor Center. Attendance to at least two of the regularly scheduled programs listed in the Seashore Ranger activity sheet will be necessary to complete the program. Each successful participant can bring completed forms to the Visitor Center to receive a certificate and pin.

Kid's Beach Discovery - Children age 6-11 will get the chance to explore the island from "their" point of view. Meet on the beach at the end of the northernmost boardwalk leading from the North Ocean Beach parking lot.

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 and there may even be time to fish with bait. 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.

MARYLAND DISTRICT

LOCATION	MAP CODE	PROGRAM	SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
Exhibit Parking Lot	6	Birds of a Feather (1-1/2 hours)			7:00 am			7:00 am	
Old Ferry Landing	7	Bay Explorers (1-1/2 hours)			9:00 am			9:00 am	
Campground Ranger Sta.	5	Stormy Beaches (2 hours)		9:00 am			9:00 am		9:00 am
South Ocean Beach	8	Tracks in Time-Assateague's History (1-1/2 hours)	9:00 am			9:00 am			
Lifeguarded Beach	2	Surf Rescue Demonstration (30 minutes)		10:00 am			10:00 am		10:00 am
Old Ferry Landing	7	Canoe Trips (2 hours)	4:00 pm	10:30 am 4:00 pm	10:30 am 5:30 pm	10:30 am 4:00 pm	4:00 pm	10:30 am 5:30 pm	4:00 pm
Old Ferry Landing	7	Shellfishing Demonstration (1 hour)	1:30 pm	2:30 pm	1:30 pm	2:30 pm	2:30 pm		1:30 pm
North Ocean Beach	3	Kid's Beach Discovery (1-1/2 hours)	2:30 pm		2:30 pm		2:30 pm		2:30 pm
North Ocean Beach	3	Surf Fishing Demonstration (2 hours)		2:30 pm		2:30 pm			2:30 pm
Visitor Center	1	Aquarium Feeding (45 minutes)	7:00 pm	7:00 pm		7:00 pm	7:00 pm		7:00 pm
Visitor Center	1	Naturalist's Slides (45 minutes)	8:00 pm	8:00 pm		8:00 pm	8:00 pm		8:00 pm
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	

1993 SUMMER ACTIVITIES

VIRGINIA DISTRICT

National Park Service - Assateague Island National Seashore
 Sunday, June 20 - Saturday, August 28, 1993

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.

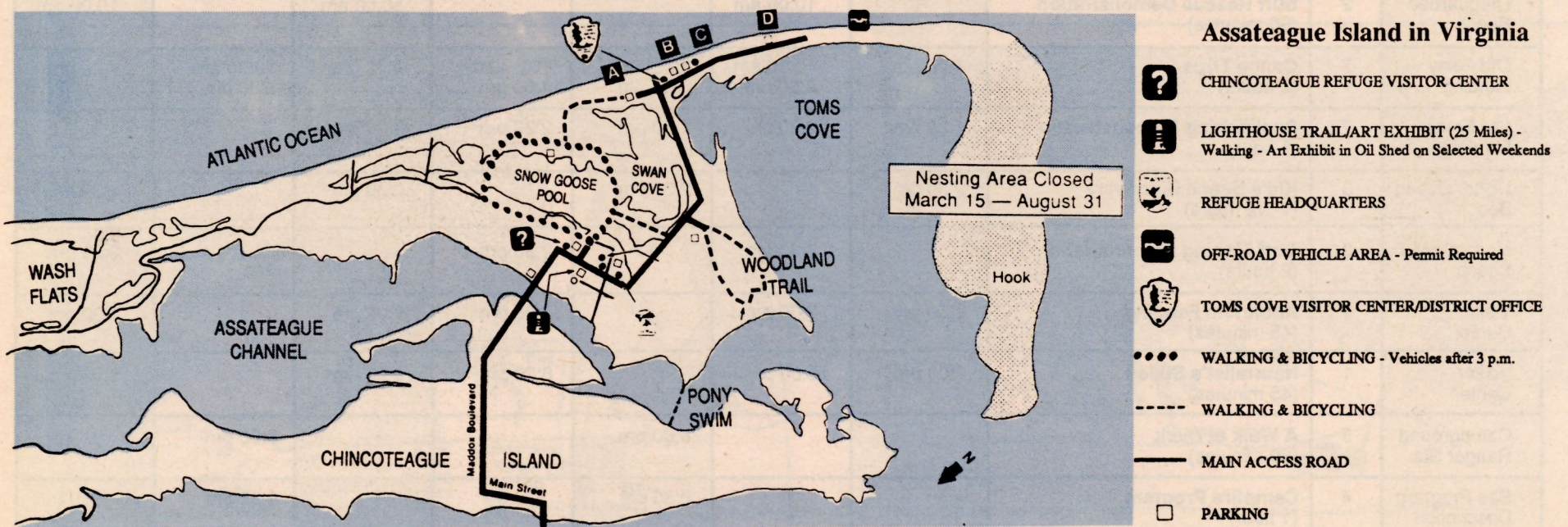
Beach Campfire - A campfire on the beach helps recreate a mood of days gone by on Assateague. Bring marshmallows and a roasting stick. A naturalist will lead discussions about a variety of topics on the rich natural and cultural history of the island. Meet at parking lot #4. **NOTE:** If parking spaces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

*** Due to construction work, please check at Toms Cove Visitor Center about availability of evening programs before July 11.**

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.

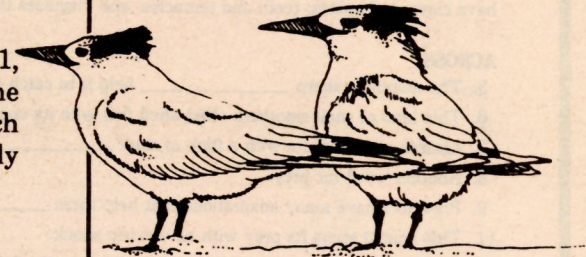




For Young Naturalists

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.

Artists At Assateague - The many moods of the island inspire creativity in all ages. Join a naturalist to learn various techniques for capturing Assateague's beauty. Material will be provided. Meet at the amphitheater boardwalk near parking lot #3. Time: 1-1/2 hours.

VIRGINIA DISTRICT

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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 19, August 2, August 17				
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 Art (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	

** Due to construction work, please check at Toms Cove Visitor Center about availability of programs before July 11.*

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

PREDATOR and PREY CROSSWORD PUZZLE

Marine animals have many adaptations that help them attract, catch and eat food. They have claws and spines, teeth and tentacles, and disguises that help them hide from their prey.

ACROSS

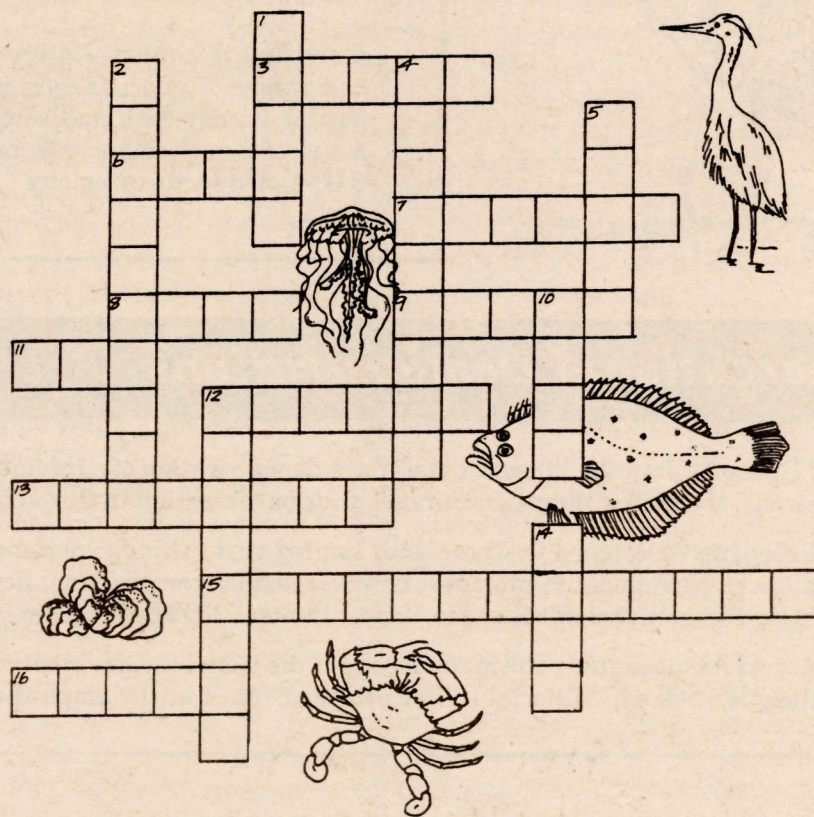
3. The dolphin's sharp _____ help it to catch fish.
6. This kind of snail smothers other shell fish with its one large foot.
7. Lizards catch insects with a flick of their _____.
8. Another word for prey.
9. Predators have many adaptations that help them _____ their prey.
11. This animal stuns its prey with an electric shock.
12. The poisonous _____ displayed by a lionfish keep it from being eaten by other fish.
13. A _____ is an animal that is hunting for another animal to eat.
15. An oyster eats by collecting small particles of food from the water. Animals that eat this way are called _____.
16. A crab can catch food with its _____.

DOWN

1. A jellyfish has tentacles that _____ its prey.
2. A flounder changes its color to match the ocean floor. This hides it and enables it to catch other fish that don't see it. This kind of coloring is called _____.
4. An octopus uses these to catch fish.
5. Anemones have rings of tentacles that circle their _____.
10. A moray eel hides in a dark _____ and waits for fish to go by.
12. This invertebrate prys open clams with its arms.
14. Birds that eat fish usually have a long, sharp _____.

WORDS USED IN THE PUZZLE

beak	claws	mouth	sting
camouflage	eel	predator	teeth
catch	filter feeders	spines	tentacles
cave	food	starfish	tongue
	moon		



Camouflage

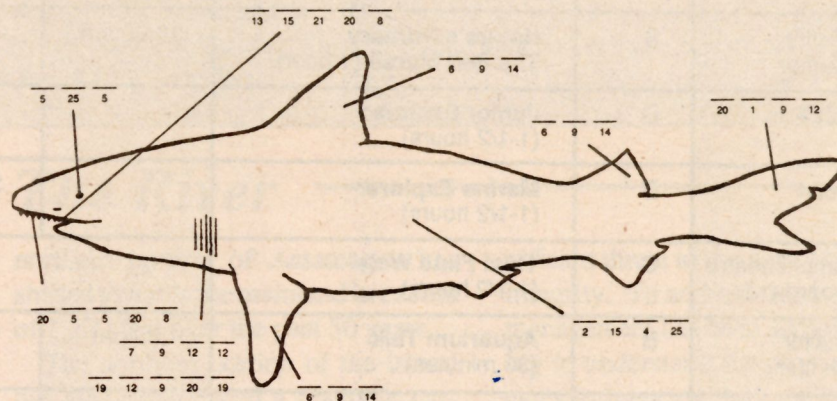


Camouflage coloration helps animals blend in with their surroundings to avoid the wary eyes of their predators. Find and color the fishes hidden in this drawing.

Sherlock Shark

Decode a Secret Message

Use the code written below the shark to identify and label the parts of the shark.



- | | | | | |
|------|-------|-------|-------|-------|
| 1. a | 7. g | 13. m | 19. s | 25. y |
| 2. b | 8. h | 14. n | 20. t | 26. z |
| 3. c | 9. i | 15. o | 21. u | |
| 4. d | 10. j | 16. p | 22. v | |
| 5. e | 11. k | 17. q | 23. w | |
| 6. f | 12. l | 18. r | 24. x | |

What kind of animal is a shark? 6 9 19 8

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.

