



# KNOW YOUR COAST

A Patch Program for Girl Scouts  
focusing on the North Carolina Coast



developed by the North Carolina Division of Coastal Management

# KNOW YOUR COAST



Hey Girl Scouts! Join us in celebrating the CAMA, the Coastal Area Management Act, the law that protects the valuable natural resources along our coast. CAMA was passed by the North Carolina General Assembly in 1974. This legislation led to many rules that provide special protection to coastal resources. The North Carolina coastline is 320 miles long. The Barrier Islands or "Outer Banks" hug the North Carolina coastline and are a unique aspect of our coast

This Girl Scout Patch Program is designed to help you learn about the NC coast. It is designed to teach you some new things about our coast and take you there to see some places you may not have been before. There are three parts to this program:

- Part One:** This part is designed to help get you acquainted with the coast before your next trip there.
- Part Two:** This part lets you choose from many different places to go on our coast.
- Part Three:** This part lets you, either as a troop or as an individual sharing with your troop, create a keepsake to remind you about what you have learned while completing this program or lets you learn more about the coast.

# PART ONE

To complete this patch program each girl should first complete the required activities in Part 1. All program age levels should complete the following two activities. This part will help you learn about our coast before your visit. Complete both activities in this part.

## ALL PROGRAM AGE LEVELS:

1. Visit the North Carolina Division of Coastal Management's (DCM) Web page at <http://dcm2.enr.state.nc.us/> to find the answers to the following questions.
  - a. What are 4 things DCM is responsible for?
  - b. What is a coastal wetland?
  - c. Name 4 coastal wetland plants.
  - d. Where are the Coastal Management Offices located (hint, there are several)?
  - e. Name the 20 coastal counties.

Note: If you do not have access to the Internet, try to find the answers to these questions at your local or school library. You can look in a book about North Carolina or another book. Talk about the answers with your troop leader or with other members of your troop. You may also write to the Division of Coastal Management and ask for information about the program. Tell them you are working on your Girl Scout Coastal Patch. Write the NC Division of Coastal Management, Girl Scout Patch Program, 400 Commerce Ave. Morehead City, NC 28557.

## ALL PROGRAM AGE LEVELS

2. Do these activities with your troop or on your own. If you work on these on your own, why not share what you learn with your troop?
  - Look at a map of North Carolina. Which are the coastal counties? Hint: all coastal counties protected by the Coastal Area Management Act (except for Gates and Hertford) touch the Atlantic Ocean or one of the sounds.
  - What is a law? Talk with your troop and your leader about laws and why they are important. What are some reasons we need special laws for the coastal area?

# PART TWO

Plan a trip to the coast with your troop, class, or family. **Choose one of the following three activities:**

1. On your way to the beach, look for the DCM Public Access signs and the places where you access the beach and complete the following activities. All program age levels should complete the activities under "All Program Age Levels" then complete those for your program age level.

**ALL PROGRAM AGE LEVELS:** While you are at the beach, look for different birds, marine life, and other animals that live on the beach or in the wetlands at the coast.

- What do the plants look like?
- Look for dunes, which are small (and sometimes big) hills made of sand. Why are they there? Why should they be protected?
- What grows on these dunes?
- During your visit, you may want to try to pick up any litter you see on the beach – make sure it's not broken glass – you should always check with an adult before picking up litter.

## **Part 2 continued:**

### **Girl Scout Cadettes, Seniors, and Ambassadors:**

- How many public beach access points do you think there are on the NC coast?
- What are some things DCM would have to consider when establishing these access points?
- Did you notice that some of the signs have flood levels on them? These levels show how high the ocean can get during a hurricane.
- What did the ocean level look like when you were there? How did it compare to how high it gets during a storm?
- Why do you think people have to be evacuated from some coastal areas during a hurricane?

### **Girl Scout Juniors:**

- How many public beach access signs did you count on your way to the beach?
- What are some things DCM would have to consider when establishing these access points?
- What did the ocean level look like when you were there? How did it compare to how high it gets during a storm?
- Was it high tide or low tide or in between?

### **Girl Scout Brownies:**

- How many public beach access signs did you count on your way to the beach?
- What are some things DCM would have to consider when establishing these access points?
- Draw pictures of the plants and/or wildlife at the coast and compare them to the plants and wildlife around your home. How are they different?

### **Girl Scout Daisies:**

- How many public beach access signs did you count on your way to the beach?
- Draw pictures of the plants and/or wildlife at the coast and compare them to the plants and wildlife around your home. How are they different?

**2.** Visit an aquarium or the Estuarium. There are three North Carolina aquariums at the coast: One in Manteo, one in Pine Knoll Shores, and one in Wilmington. The Estuarium is in Washington, North Carolina. Please refer to the sheet at the end of this packet for aquarium and estuarium information.

- While you are at an aquarium or estuarium find out if there are any endangered species there.
- Ask someone who works there about their job. How did they get interested in what they do? What subject area did they study?
- What are some other careers you could have in Coastal Management, Marine Science, or other related fields? You may want to invite someone with one of these careers to talk to your troop.
- See if you can find out what an estuary is.

**3.** Look for different types of coastal wetlands on your visit.

- What are some of the things wetlands provide for people and animals?
- What different birds and other animals can you notice living in them?
- Do you think all wetlands are very wet all of the time?

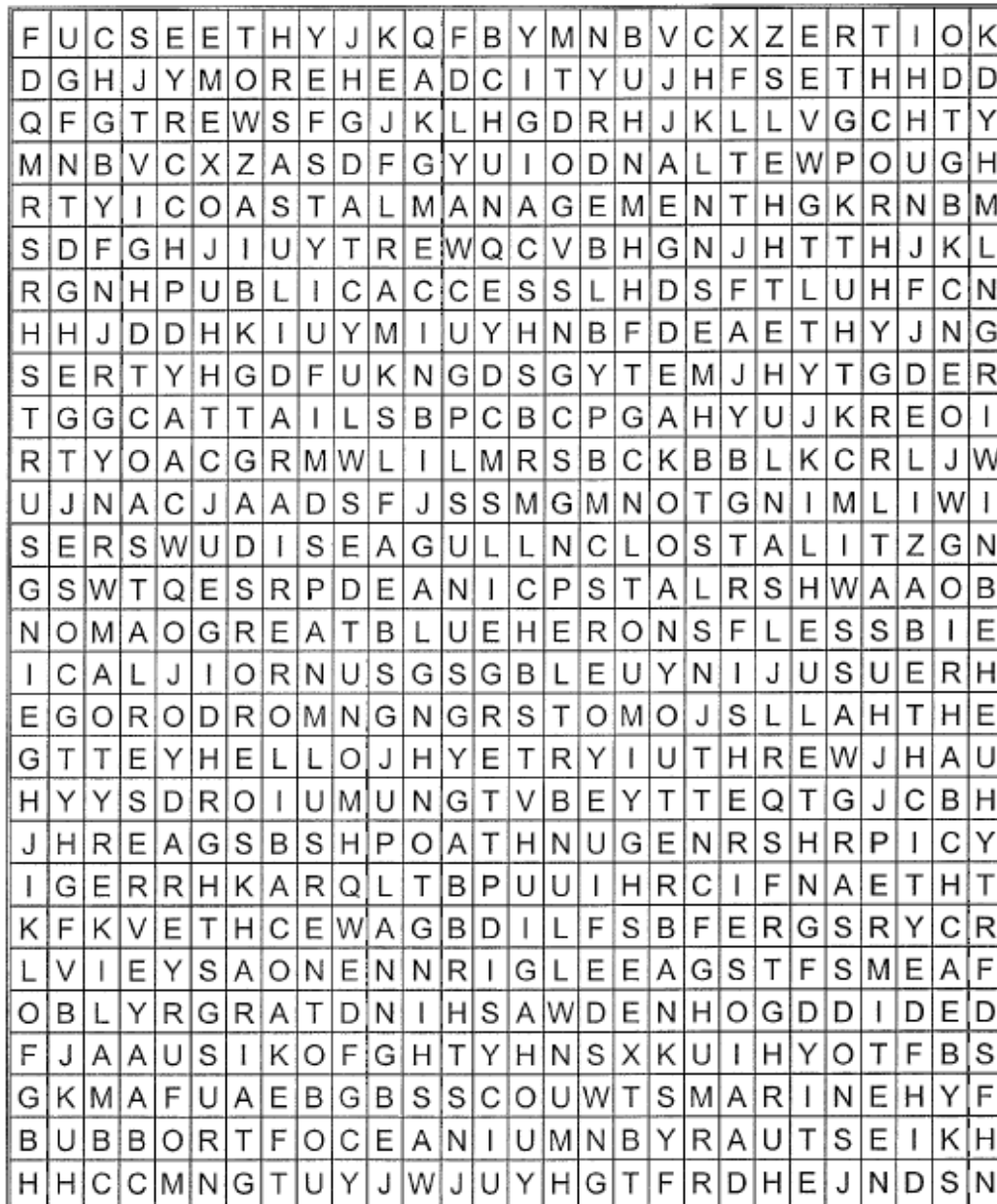
# PART THREE

Girl Scout Daisies/Brownies complete one of the following activities. Girl Scout Juniors complete two. Girl Scout Cadettes, Seniors, and Ambassadors complete three activities in part three.

1. Send a postcard from the coast to a friend, your leader, or your family.
2. Draw pictures of the things you saw at the beach. You could display them on your bulletin board, at your house, or at your meeting place.
3. Take photos while you are on your trip. Try to capture an image of something you learned about. Make a photo album of your coastal photos.
4. Create a scrapbook of photos and other things from your visit to the coast. Where did you go? What did you see? Share your scrapbook with your troop or better yet make it together.
5. Make a bulletin board about our coast where your troop meets or at your school (a great troop activity).
6. Your troop could have a coastal art show and invite your parents or other troops to see it. You could display your art at your school or at a library.
7. Email the Division of Coastal Management ([DCMFrontdesk@ncmail.net](mailto:DCMFrontdesk@ncmail.net)) or write them a letter (NC Division of Coastal Management, 400 Commerce Ave. Morehead City, NC 28557) and ask them any questions you may have about coastal management or what you learned on your trip to the coast

## NORTH CAROLINA COASTAL WORD SEARCH

Find the words listed below



- |                    |            |               |               |
|--------------------|------------|---------------|---------------|
| COASTAL RESERVE    | SEAGULL    | OCEAN         | DUNE          |
| GREAT BLUE HERON   | TURTLE     | EGRET         | ESTUARY       |
| CATTAILS           | CAMA       | SAWGRASS      | WILMINGTON    |
| ELIZABETH CITY     | WASHINGTON | MOREHEAD CITY | OUTER BANKS   |
| COASTAL MANAGEMENT | MARSH      | WETLAND       | PUBLIC ACCESS |
| BEACH              | FISHERIES  | AQUARIUM      |               |

# For “Know Your Coast” Patch Program

## Reference Page

### Aquariums/Estuarium

The North Carolina Aquarium at Pine Knolls Shores  
Atlantic Beach, NC 28512

Phone # 252/247-4003

The North Carolina Aquarium on Roanoke Island  
Manteo, NC 27954

Phone # 252/473-3493

The North Carolina Aquarium at Fort Fisher  
Fort Fisher, NC 28449

Phone # 910/458-857

The North Carolina Estuarium  
223 East Water Street, Washington, NC 27889

Phone #252/948-0000

You may visit other aquariums at the coast as well.

*Address:* Division of Coastal Management, 400 Commerce Ave. Morehead City, NC 28557  
*Email address:* [DCMFrontdesk@ncmail.net](mailto:DCMFrontdesk@ncmail.net)

# PART ONE (answers)

1. Visit the North Carolina Division of Coastal Management's (DCM) Web page at <http://dcm2.ehnr.state.nc.us/to> find the answers to the following questions.
    - a. permitting and enforcement  
federal consistency  
land-use planning  
North Carolina Coastal Reserve  
waterfront access
    - marine sewage pumpout  
ocean issues  
geographic information systems  
grants
  - b. CAMA defines a coastal wetland as any marsh subject to regular or occasional flooding by wind or lunar tides. These marshlands must contain some, but not necessarily all, of 10 particular wetland plants discussed below.
  - c. smooth cordgrass, black needle rush, glasswort, cattail, salt grass, sea lavender, bulrush, giant cordgrass, salt meadow grass, and saw grass.
  - d. Main office: Raleigh; Field Offices: Elizabeth City, Washington, Morehead City, and Wilmington. Reserve offices in Kitty Hawk (manager for Kitty Hawk Woods, Currituck Banks, and Buxton Woods), Beaufort (the Reserve education office and manager of the Rachel Carson site), and Wilmington (Reserve coordination and manager for Permuda, Masonboro, and Zeke's Islands).
  - e. Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, Washington.
2. A law is a rule passed by the government that protects people, natural areas, plants, and other things. Laws are important because they let people know what kinds of activities are acceptable and what kinds are not. The coastal area is an area that is special and it has special laws to protect it. Some of the coastal areas, like dunes and wetlands, are fragile so our laws protect them from activities that may harm or destroy them. The Coastal Area Management Act was passed in 1974 to protect our coastal areas because they are valuable and we want people to be able to visit and enjoy our coast for many, many years.

# PART TWO

1. These public beach access signs are white, blue, and orange.

Answers to individual program age level questions: There are 230 public beach access points in the 20 coastal counties of NC. DCM must consider other people's property when establishing these signs. Often the local or city and town governments help decide where these areas should be. There should be places to park, a clear path to cross the dunes, and places to have garbage cans.

The ocean can get very high during a hurricane. The "storm surge" occurs when the ocean water levels get higher because wind and atmospheric pressure makes the water pile up. This can mean that the ocean is many feet higher than without a hurricane and then, on top of that, the waves are bigger than they are on a calmer day. People sometimes need to be evacuated from the coast during a hurricane because the waves are very powerful and can push buildings down. The wind is also very strong, which can be dangerous. After a hurricane, it is often difficult to get to the coast quickly to make sure people are safe. It's always a good idea to leave the coastal area when a hurricane is expected.

Some plants at the coast are adapted for life in harsh conditions. Many are salt tolerant which means they have special leaves that can handle the salt water. The dunes sometimes have dune grass on them which helps hold the sand in place. Dunes and dune grass are important because they provide protection for the coastal areas from waves and storms. Always follow *Safety-Wise* guidelines when picking up litter in any area. Never touch broken glass; ask an adult to pick it up for you.

It is important to protect our coastal area because some areas are fragile. We want everyone who lives in or visits North Carolina to be able to enjoy our clean beaches and see our coastal marshes. Many kinds of seafood come from our estuaries so it is important to protect these areas.

Sometimes hurricanes threaten our coastal area and can cause flooding and erosion (loss of sand and soil). Sometimes too many people living on the coast can harm the natural areas. That's why it is important to have special laws to help people decide how to use our coastal resources wisely.

**2.** *Addresses and phone numbers for the aquariums and estuarium are included in this packet.* Some careers are: fisheries management, wetland scientist, coastal geologist, geographic information systems, permits, public information, biologist, educator, and many more.

**3.** Wetlands are marshes, swamps, and other areas that are wet near the surface for an extended period during the year. Coastal wetlands are marshes and they are described on our Web page. Wetlands provide habitat for fish, wading birds, ducks, and other animals. They can provide protection from flooding since they are often able to hold a lot of water. Some wetlands are not wet all the time. Wetlands that have a tidal influence are wet for parts of the day and some swampy areas are wet for part of the year or the whole year.



# KNOW YOUR COAST

## A Girl Scout Patch Program

### Patch Order Form

Please send me \_\_\_\_\_ of the "Know Your Coast" patches.

Troop # \_\_\_\_\_ Grade Level \_\_\_\_\_

Total # of patches \_\_\_\_\_ x \$1.50 = \_\_\_\_\_

NC Sales Tax (6.75% of subtotal) = \_\_\_\_\_

Shipping and Handling = \_\_\_\_\_  
(see chart below)

Total Amount Enclosed = \_\_\_\_\_

Patches are available at the Fayetteville, Goldsboro, and Raleigh Council Shops. Mail and phone orders are also accepted. For Mail Orders, send order form with check to:

Girl Scouts - North Carolina Coastal Pines  
P.O. Box 91649  
Raleigh, NC 27675-1649  
Attn: Council Shop

Make checks payable to: Girl Scouts – North Carolina Coastal Pines

**Mail patches to:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Phone: (H) \_\_\_\_\_ (W) \_\_\_\_\_



**Shipping & Handling Charges**

Purchase Amount	Shipping Charge	Purchase Amount	Shipping Charge
Up to \$25.00	\$ 5.95	\$100.01 to \$200.00	\$ 14.95
\$25.01 to \$50.00	\$ 7.95	\$200.01 to \$300.00	\$ 20.95
\$50.01 to \$75.00	\$ 9.95	\$300.01 to \$500.00	\$ 25.95
\$75.01 to \$100.00	\$ 11.95	Over \$500.00	\$ 45.95