

Section 1. North Carolina's Barrier Islands

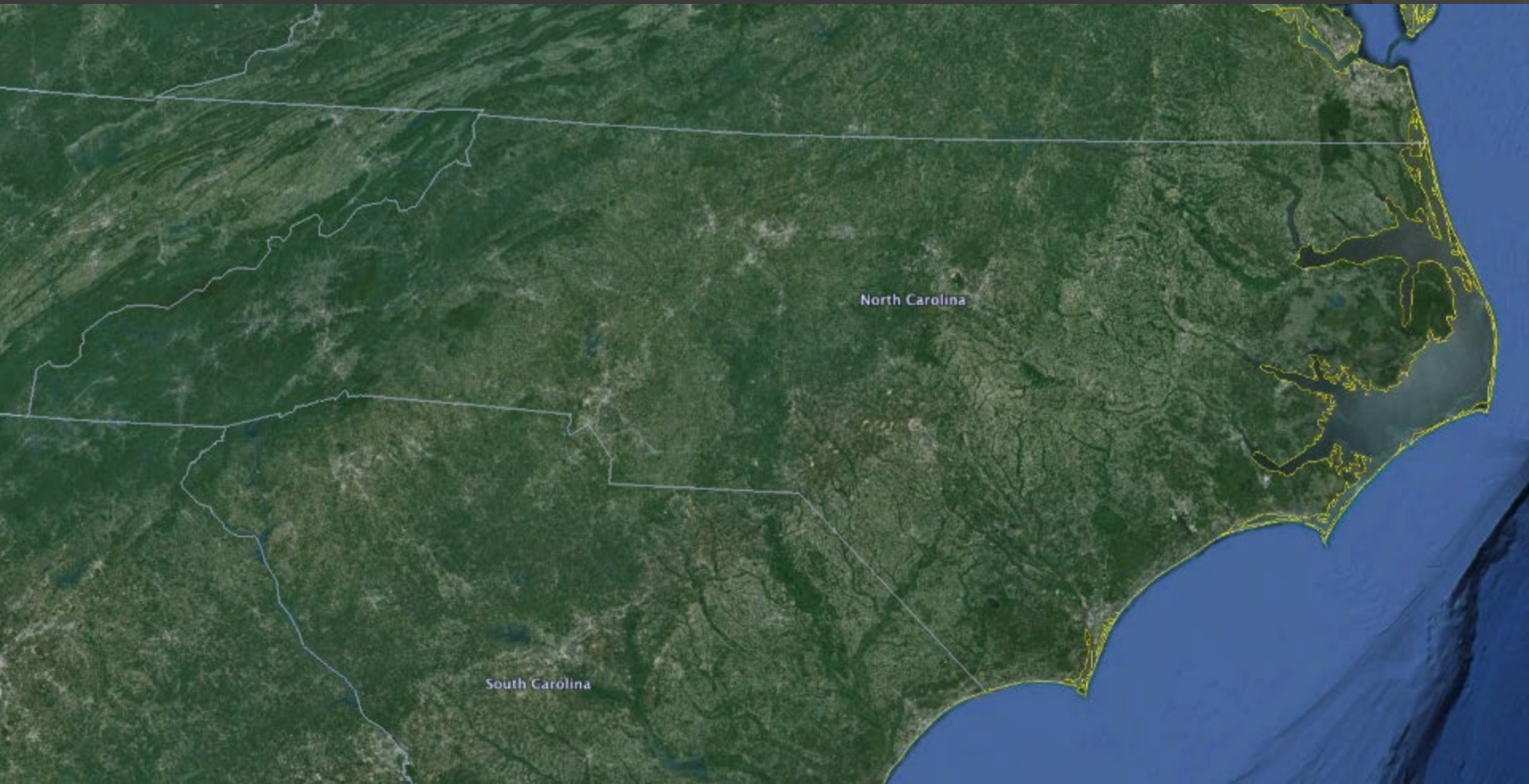
**EXPLORING EARTH SURFACE
CHANGES ALONG NORTH
CAROLINA'S COAST**

What is a Barrier Island?

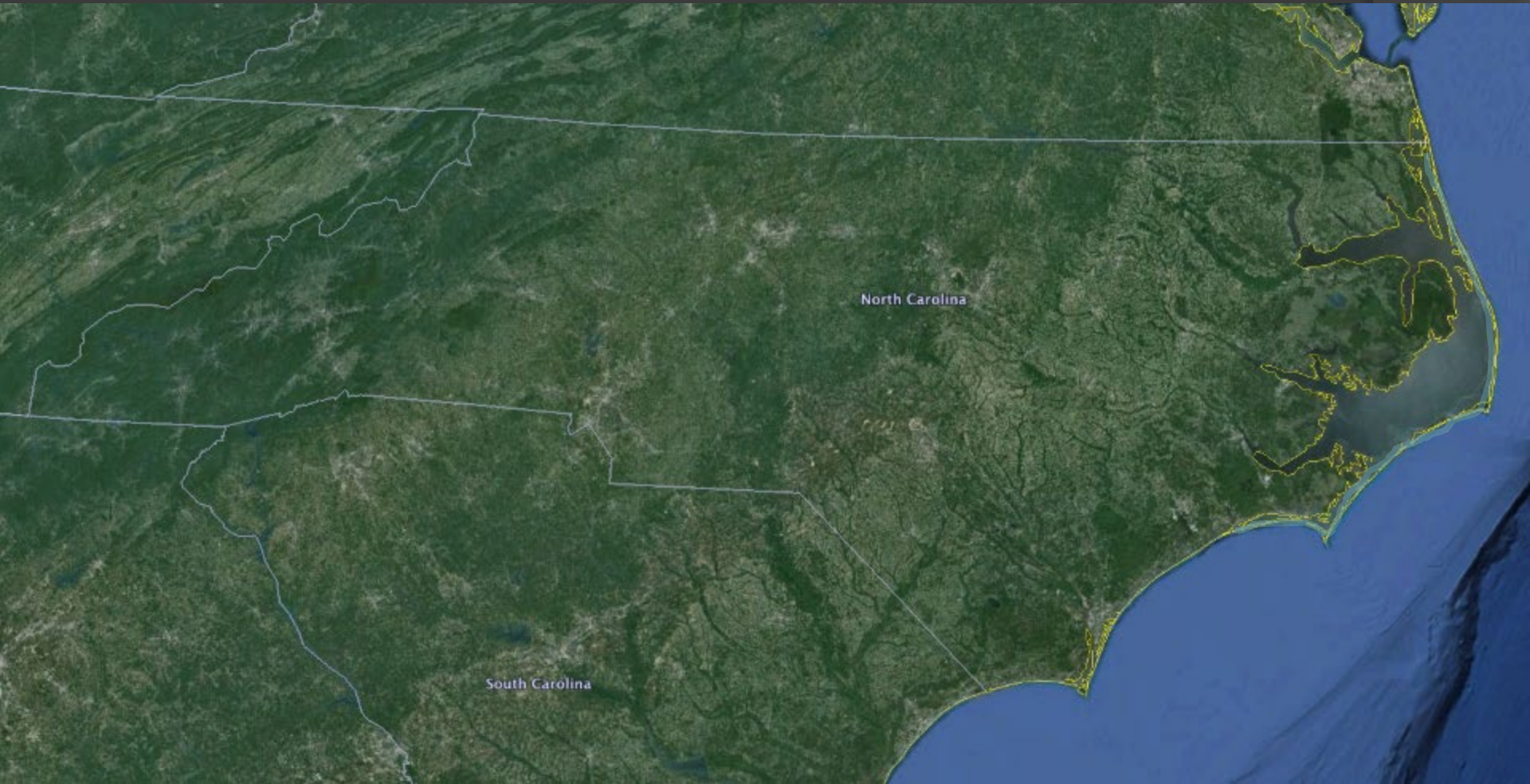


- A. Ocean
- B. Barrier Island
- C. Sound or Lagoon
- D. Mainland
- E. Inlet

Where are the Outer Banks?



Where are the Outer Banks?



Hatteras Island



After Hurricane Isabel



A satellite map of the North Carolina coastline, showing the Outer Banks islands and surrounding waters. A yellow outline highlights the coastal area. The text "North Carolina" is visible in the lower-left quadrant of the map.

Problems for the Outer Banks

- The impact of storms on infrastructure
- Limited space on the islands
- High cost trying to stop natural processes
- Infrastructure impact on nature

“Windy People, Dynamic Landscapes”

- <https://www.dropbox.com/s/d8lqctur7c329e6/Windy%20People.mov>

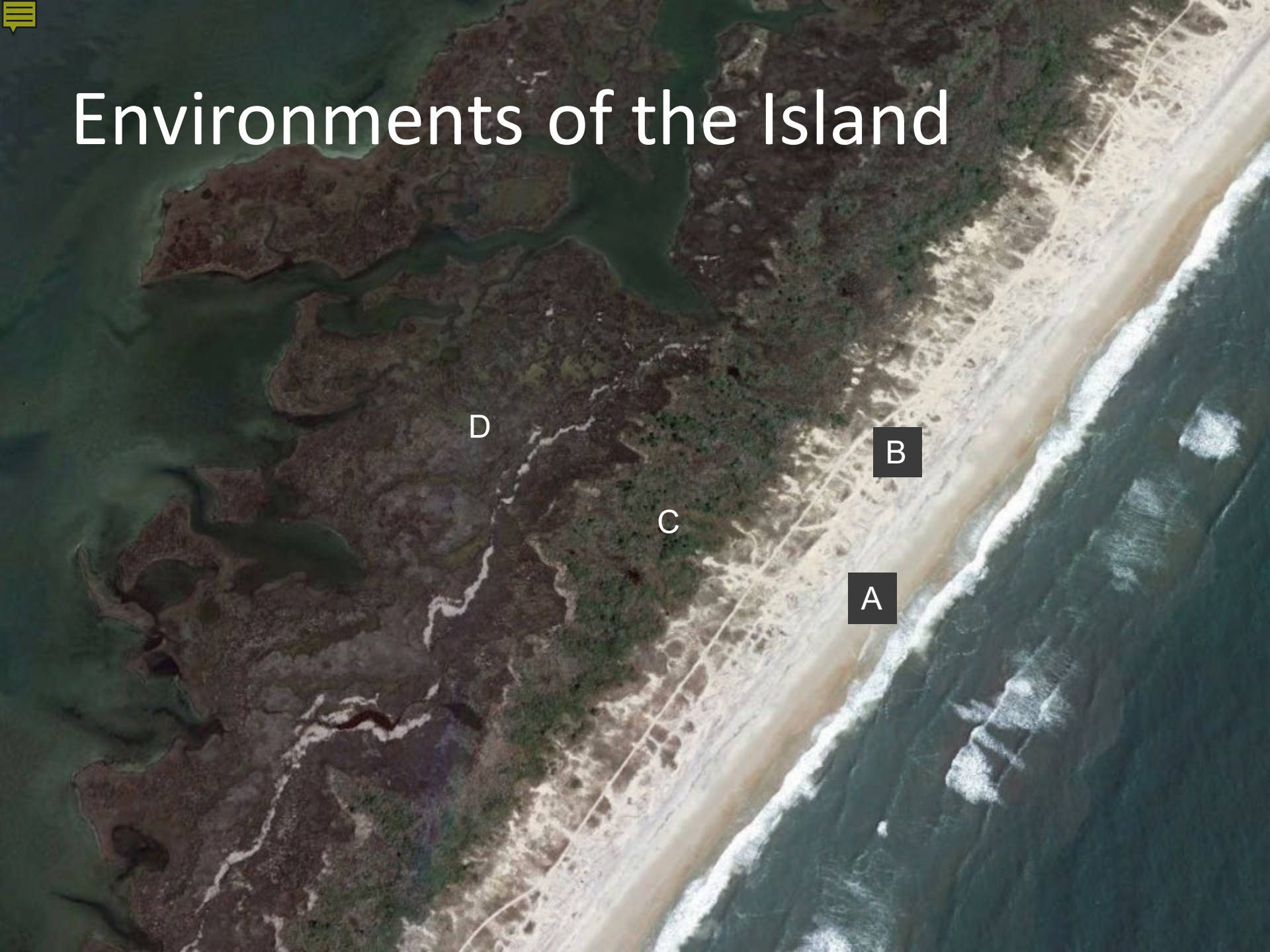
“Windy People, Dynamic Landscapes”

Discussion Questions

- What is the major cause of change on the Outer Banks?
- Why is this a much bigger problem today than in the past?



Environments of the Island



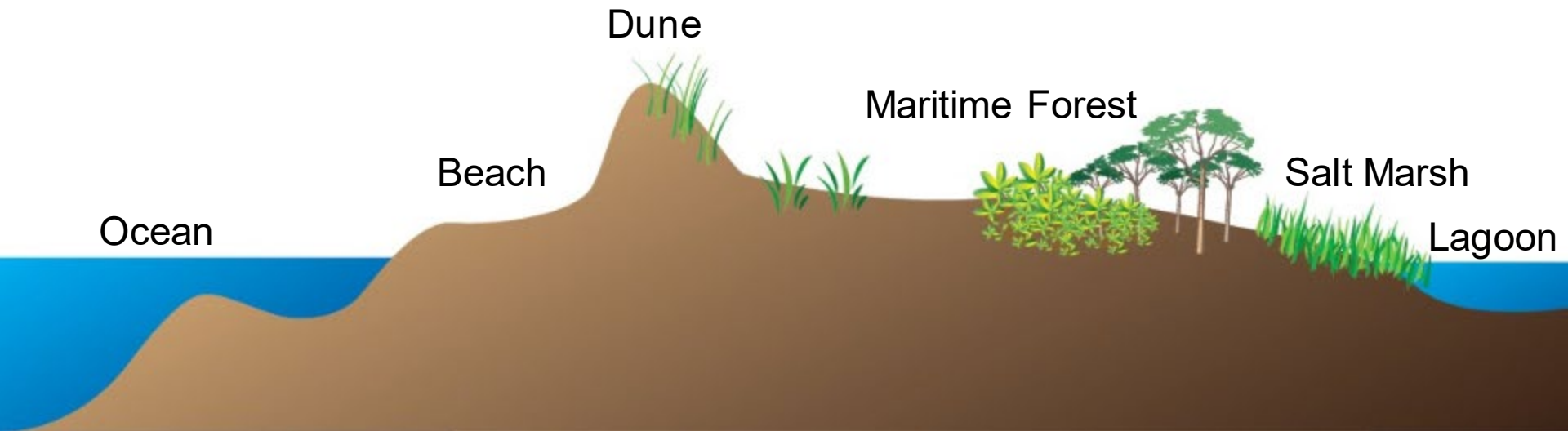
D

B

C

A

The Island Profile



Beach



- Winds and waves are the dominant processes in this environment

Dunes



- Grasses and shrubs help to stabilize dunes
- Dunes built by wind
- Eroded by waves

Maritime Forest



- Trees, grasses, and shrubs can be quite dense
- Sandy organic soil forms as plant material dies and decays
- Wind is main physical process; storm surge may reach forest during large hurricanes

Backbarrier Salt Marsh



- Grasses dominate
- Tides and waves build or erode marsh
 - Overwash can cover marsh during storms



End of Section Quiz

- ① Draw an island cross-section and label each of the major environments.
- ① For each environment, describe the physical processes at work and distinguishing features.