

Episode: America's Eastern Natural Boundary

EXPLORING NORTH CAROLINA



USEFUL VOCABULARY

arctic
climate
disjunct
ecosystem
habitat
microclimate
temperate
subtropical

CHAPTER 1 (2:17–6:55)

1. What is a “natural” boundary?
The most northern, eastern, southern or western edge in a plant or animal’s range of habitation.
2. Why is North Carolina considered a natural boundary for eastern America?
It has such a diverse assemblage of plant and animal species.
3. What makes North Carolina home to so many living things?
Its complex climate creates a suitable habitat for a wide variety of species.
4. What are contributing factors to North Carolina’s climate?
The Gulf Stream, latitude, elevation change and the Gulf of Mexico.

CHAPTER 2 (6:55–10:06)

5. Bald Head Island is a boundary between what two climates? Name some species that are in their northern range.
Subtropical and temperate; American alligator, green anole, red drum, tarpon, two species of seahorses.

CHAPTER 3 (10:06–15:12)

6. Why have few eastern diamondback rattlesnakes been reported in the ecologically diverse longleaf pine forest of the Coastal Plain?
Possible answers: loss of habitat and extermination by humans.
7. What is the importance of ephemeral ponds in an animal’s life cycle?
They become “nursery” sites for animals like the barking treefrog. Because the water is seasonal, the habitat is inhospitable to fish, which would eat eggs and tadpoles.

CHAPTER 4 (15:12-18:14)

8. Name some of the Ice Age "orphans" found in the Piedmont.

Canada hemlock, chestnut oak, galax, mountain laurel, purple rhododendron, white pine.

CHAPTER 5 (18:14-21:33)

9. What makes North Carolina home to several boundary species of reptiles and amphibians? Why is there concern about these animals?

These animals had a very long time to adapt, since there was no glacial cover or desert in North Carolina to limit diversity; they are indicators of environmental quality.

CHAPTER 6 (21:33-25:13)

10. How are Arctic species able to thrive in the North Carolina mountains?

With its elevation and wind, the habitat is similar to the Canadian tundra.

11. Why should North Carolina be a focal point for study as our climate continues to change?

Its biodiversity in such a wide variety of habitats allows scientists to study a large number of species in one location.