Viewing Guide

12

FOR TEACHERS

USEFUL VOCABULARY

Appalachia

biodiversity

biologist

elevation

endemic

geology

glaciation

homing instinct

inventory

naturalist

old-growth forest

philanthropist

predator

species

taxonomic group

vegetation

wilderness

CHAPTER 2 (0:00–2:24)

1. Where did the Smoky Mountains get their name?
   Cherokee word meaning "land of the blue smoke."

2. How many acres are in Great Smoky Mountains National Park?
   About 500,000.

3. Great Smoky Mountains National Park was not always a wilderness. Before becoming a national park, much of the land in the Smokies was owned and logged by _____ or farmed and inhabited by _____.
   Businesses; descendants of original settlers.

4. Much of the park's land was donated by philanthropist _____, and it was formally dedicated in 1940 by President _____.
   John D. Rockefeller; Franklin D. Roosevelt.

5. How many people visit the park annually?
   About 9 million, making it the most visited park in the United States.

CHAPTER 3 (2:24–7:31)

6. Why is human development a major threat to black bears? How much land does an adult male black bear need to thrive?
   Bears need a large home range, and human development leads to loss of habitat; 40 acres.

7. What do black bears typically eat?
   Acorns, berries, ant larvae, squaw root, yellow jacket larvae, some meat (young deer or elk).

8. Why do bears keep returning to a campground?
   They will return if rewarded by the presence of food.

9. How do park employees deal with a bear's nuisance behavior?
   They capture it and release it away from the site of the nuisance behavior.

10. How far away must bears be moved to prevent them from returning? Why?
    40 air miles; they have a strong homing instinct.

CHAPTER 4 (7:31–9:39)

11. List some factors that contribute to the exceptional species diversity in Great Smoky Mountains National Park.
    High rainfall, extreme changes in elevation, diverse habitats, old-growth forest, never glaciated.

Mountain scenic photo courtesy of U.S. National Park Service.

12. How has the absence of glaciation in the park led to significant species diversity?
Species have had an extremely long, uninterrupted time to diversify.

CHAPTER 5 (9:39–15:45)

13. What does ATBI stand for?
All-Taxa Biodiversity Inventory.

14. What is a biodiversity inventory?
Counting the number of species in an area.

15. When did the ATBI begin?
1998.

16. Who was Arthur Stupka and how did he help the ATBI process?
He was the park's first naturalist; he helped establish the baseline inventory of the park's species.

17. Before the ATBI, how many species were known in Great Smoky Mountains National Park? How many species have been counted since the ATBI began? How many of those species were previously unknown to science?
9,500; 16,000; 890.

18. What kinds of organisms represent the largest number of new species?
Bacteria, butterflies and moths, algae and lichens.

19. What special species exists now that was not in the baseline inventory?
Elk.

CHAPTER 6 (15:45–19:55)

20. In what year was the last elk (in the original native population) seen in the Smokies?
1800.

21. When was the first group of elk reintroduced into the park?
2001.

22. Why is Great Smoky Mountains National Park a good place for elk to live?
It has a lot of wilderness and many open spaces for feeding.

23. Where is the best place to see elk?
Cataloochee.

24. What is the purpose of bugling?
It is the way a bull elk issues a challenge to other bulls and also how it calls to females.

CHAPTER 7 (19:55–23:28)

25. What techniques were used in the ATBI to find new species?
Looking in new habitat areas, e.g., high in the tree canopy; DNA sequencing; increasing the number of researchers in the area.