

EX A Mine

North Carolina's

Wild Side



A Wildlife Trivia Challenge





What Is Wildlife Diversity?

Commission biologists in the Wildlife Diversity Program study North Carolina's nongame animals—animals that are neither hunted nor fished—from the Blue Ridge Mountains, across the Piedmont to the shores of North Carolina. The biologists conserve our wildlife, especially animals that are rare, threatened or endangered. You've probably heard of some of these animals—loggerhead turtles, peregrine falcons and robust redhorses. But conservation efforts also are aimed at some very common animals that we frequently see. Box turtles, bluebirds, hog-nosed snakes, bats and crayfish are important parts of healthy ecosystems.



bluebird



crayfish

What Is the N.C. Wildlife Resources Commission?

The N. C. Wildlife Resources Commission conserves and improves our state's fish and wildlife resources. The Commission sets hunting and fishing regulations, maintains boating access to public waterways, conducts wildlife education across the state, and supports wildlife diversity in North Carolina.



peregrine falcon

By conserving and improving fish and wildlife habitats, we ensure the wide variety of creatures that make up our state's diverse wildlife will be around for future North Carolinians to see and enjoy.

Would you like to help conserve wildlife? Would you like to work as a biologist one day? **Take the wildlife test** and see how much you know already!

Match each habitat with its description and some of the animals that live there.

1. Spruce-Fir Forest



2. Floodplain Forest



3. Pine Savanna



4. Wetland



5. Pocosin



6. Estuary



7. Rock Outcrop



- a. This habitat, found *near* the coast, is filled with water most of the year. White cedar, dense evergreen shrubs, frogs, salamanders, **warblers** and weasels can be found here.
- b. This is tidal habitat where fresh water meets the ocean. Here you find coastal birds like bitterns, oystercatchers, herons and egrets. The **diamond-backed terrapin** also lives here.
- c. This ecosystem is found throughout North Carolina and contains water for some portion of the year. This habitat provides a very important breeding area for amphibians like frogs and **salamanders**.
- d. This habitat includes the high mountain cliffs used by **peregrine falcons** for nest sites.
- e. This forest is the second most threatened ecosystem in the United States. It is found at high elevations and provides habitat for animals like **northern flying squirrels**, winter wrens and other animals that tolerate cold weather.
- f. This habitat, characterized by thin stands of pine trees with a lush understory of grasses, is home to Bachman's sparrows, pine barrens treefrogs and **pine snakes**.
- g. This is forest habitat found along streams and rivers that undergoes occasional flooding. Many species of **bats**, salamanders and warblers live here.

8. What is the fastest wild animal in North Carolina?



a. eastern cottontail rabbit



b. peregrine falcon



c. white-tailed deer



d. box turtle

9. Neotropical migrants are:

- a. birds that migrate between North America and Central America, South America or the Caribbean
- b. tourists who travel to the tropics in the winter
- c. butterflies that migrate to Canada for the winter
- d. fish that swim along the Florida coast in the winter in search of food

10. Bats are ecologically important because they:

- a. eat insects
- b. pollinate flowering plants
- c. spread seeds
- d. all of the above

Rafinesque's big-eared bat



11. Red-cockaded woodpeckers display which unique breeding system?

- a. They build nests out of seashells and other beach debris.
- b. The parents get help from their older offspring in raising their young.
- c. Large colonies of woodpeckers live together to improve their chance of survival.
- d. Male woodpeckers raise their offspring alone.



12. A watershed is defined as:

- a. a building that is designed to hold large volumes of water
- b. the water that flows downstream from a dam
- c. all the land that drains water into a river, stream or lake
- d. a place to store pumps and fishing gear

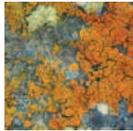
13. Cows can be a bog turtle's best friend. **True** or **False**?



14. The endangered northern flying squirrel's diet is mostly made up of:



a. insects



c. fungi



b. nuts



d. chips

15. Wildlife diversity refers to:

- a. the animals that can be hunted within a forest
- b. all the animals present in a habitat
- c. the various styles of animal print fabric
- d. animals that can be seen with binoculars



elliptio sp.

16. How many species of fresh water mussels are there in North Carolina?

- a. 5
- b. 18
- c. 58
- d. 85

17. How much water needs to be flowing in a stream throughout the year to make it a good aquatic habitat?

- a. just enough to keep the most important fish habitat underwater
- b. maximum flood levels
- c. moderate flow volumes
- d. all of the above



18. Conservation efforts should only target very rare species of animals or plants. **True** or **False**?

19. How does conservation of wildlife resources also benefit humans?

- a. Clean water and air help conserve fish, wildlife and their habitats, while making the environment healthier for North Carolinians at the same time.
- b. Community parks can support wildlife within cities, and they provide great places for people to play and picnic.
- c. Conserving fish and wildlife before they become threatened or endangered is less expensive than trying to protect them when they're on the brink of extinction.
- d. All of the above



20. American alligators are found:

- a. in the coastal rivers, lakes and marshes of North Carolina
- b. throughout North Carolina
- c. only in salt marshes around Wilmington
- d. only in zoos and aquariums in this state — they do not live in the wild in North Carolina



21. What do the rosyface chub, the sharphead darter and the Waccamaw silverside all have in common?

- a. They are all dance styles.
- b. They are all small fish found in North Carolina streams.
- c. They are all insects found in wetlands.
- d. They are all small birds that rely on pocosins for nesting habitat.



22. Controlled fire can be a useful management tool in which habitat types:

- a. pocosin
- b. pine forests
- c. bottomland hardwood forests
- d. all of the above

23. The sex of sea turtle hatchlings is determined by the incubation temperature inside the nest.

True or False?



loggerhead sea turtle hatchling

24. There are 30 frog and toad species that occur in North Carolina. You can tell them apart by:

- a. their distinctive smells
- b. their hopping/jumping distances
- c. the sound of their calls
- d. the color of their eyes



southern leopard frog

25. Can you list three things you can do in your backyard to help your local wildlife? (one point each)

Answers

Matching: 1. **e**, 2. **g**, 3. **f**, 4. **c**, 5. **a**, 6. **b**, 7. **d**.

8. **b**. Peregrine falcons are fast-flying predators that eat small birds. They dive at speeds exceeding 150 mph when capturing their prey in mid-air.

9. **a**. Neotropical migrants are birds that breed in North America during the summer and migrate to southern latitudes for the winter. There are about 67 species of neotropical migrants that nest in North Carolina.

10. **d**. Insect-eating bats can eat nearly their body weight in bugs in a single night! Fruit-eating bats are important for plants because they help to spread both seeds and pollen.

11. **b**. This strategy is called cooperative breeding. Young “helpers” stick around to help protect the family territory and feed the new babies. These woodpeckers excavate their roosting and nesting cavities in living longleaf pine trees.

12. **c**. We all live in a watershed. Up to 80 percent of a watershed is composed of small streams called headwaters, which often only flow during wet seasons (winter and spring). However, these streams provide most of the food, energy and water for larger rivers downstream that both humans and wildlife depend on. Do you know which watershed you live in?

13. **True!** We don’t know if they trade recipes or go to baseball games together, but bog turtles and cattle can live happily side by side. Endangered bog turtles need boggy areas to live. If too many trees are around, they suck up the water and the bogs dry up. By eating vegetation, cows can actually help to maintain good turtle habitat.

14. **c**. These small animals have adapted to eating fungus growing in the high-elevation forests where they live. Did you know that flying squirrels glide by outstretching large folds of skin attached to their sides between their front and hind feet?

15. **b**. Wildlife diversity refers to **all** the animals that live in a habitat or ecosystem. Healthy habitats contain a variety of native species.

When habitats become degraded, species diversity declines. Animals that depend upon rare or specialized habitats are most likely to become threatened, endangered or extinct.

16. **c**. That’s a lot of mussels! Unfortunately many of these bivalve species are declining due to water pollution and habitat destruction. Interestingly, mussels rely on fish for part of their breeding cycle. Give yourself an extra point if you know how!

17. **d**. There isn’t one flow level that keeps a stream healthy. Important fish habitats must be maintained with moderate water levels, but periodic flooding is necessary to flush out nutrients and sediments, and to keep the stream channel clear.

18. **False**. While rare animals and plants need conservation efforts to prevent extinction, all species benefit from sound conservation. By keeping common animals common, we can keep them from ever becoming threatened or endangered.

19. **d**. People and wildlife both benefit when we have a clean, green environment.

20. **a**. The American alligator likes slow moving water. Adult males may have territories as large as 1000 acres! Female gators lay 35–40 eggs in their nests and then guard their young for many months after hatching.

21. **b**. They are fish species that are currently threatened in North Carolina. Poor water quality from sedimentation, pollution and decreased flow are some of the reasons that these species are in trouble.

22. **d**. Controlled burning can be very important for maintaining many habitats. Some seeds need extremely hot temperatures to sprout. Burning also releases nutrients into the soil. Most animals can safely escape from small fires by burrowing underground or moving outside of the burn area.

23. Strange but **True!** Warmer temperatures produce more or all females, and cooler temperatures produce more or all males. This means that in North Carolina, nests laid in the middle of the summer

produce more females, while nests laid early and late in the nesting season produce more males.

24. c. Male frogs and toads have distinctive calls that they use to attract females. Therefore you don't even have to see a frog to identify it. You also can tell the different species apart by looking at skin texture and color, size and toe structure.

25. Here are a few ideas to add to your list:

- Keep bird feeders and baths full year round.
- Include native plants in your yard to provide food and shelter.
- Minimize the use of herbicides and pesticides—they are poisonous to many animals.
- Place bird and bat houses in the trees.
- Plant vegetation around creeks and streams to keep the water clean and clear.
- A wildflower garden will add color and attract beautiful birds and butterflies.
- Minimize use of fertilizers—they wash into streams and rivers, where they can hurt fish.

Your Wildlife Score

25–30 Wise Owl

Congratulations! You are on your way to becoming a wildlife expert.

20–24 High-Flying Falcon

You are soaring toward the top of your class!

15–19 Big Black Bear

Not bad! Looks like you know your ants from your berries.

Less than 15 Mighty Minnow

Good start! Keep schooling to learn more about our state's amazing critters and places.

See how much you already knew about wildlife diversity in North Carolina?

We hope you learned a little more about our valuable wildlife resources and how you can help conservation efforts. To learn more about wildlife in North Carolina:

- Visit the Wildlife Resources Commission's Web site at www.ncwildlife.org.
- Subscribe to *Wildlife in North Carolina*, a monthly magazine with articles and photography about our natural resources.
- Go for a walk and discover the natural wonders in your own neighborhood!

FRONT COVER SPECIES: eastern phoebe, American alligator, white-tailed deer fawn

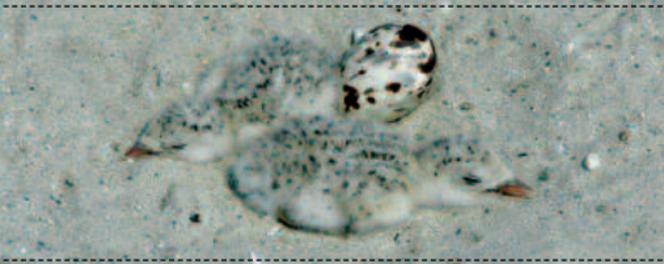
BACK COVER SPECIES: skimmer chicks on nest, yellow-rumped warbler, fox squirrel

PHOTO CREDITS: White-tailed deer fawn (cover), crayfish (page 3), peregrine falcon (page 4, page 6), prairie warbler (page 4), white-tailed deer (page 6), loggerhead sea turtle hatchling (page 11) courtesy of U.S. Fish and Wildlife Service.

OTHER PHOTOS BY NCWRC STAFF: Brady Beck, Doug Besler, Sue Cameron, Keith Hendrickson, Jeff Marcus, Jonathan Mays, Jodie Owen



This publication was printed on recycled paper. 10,000 copies of this public document were printed at a cost of \$1,688, or \$.168 per copy.



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