

Rabies in North Carolina

1. What is Rabies?

2. How is it spread? Does it require a vector or a carrier?

3. Is Rabies a viral or bacterial disease? Because of this, how are infected individuals treated?

4. Mapping the disease:
 - Materials: 2007 North Carolina County Rabies Data, North Carolina County map
 - On the map, record the number of rabies cases for each county.
 - In the bottom left corner of the map, create a color key for the follow ranges:
 - case
 - 2-5 cases
 - 6-10 cases
 - 11-15 cases
 - 16-20 cases
 - 21-25 cases
 - 26-30 cases
 - Color each county the appropriate color based on the number of rabies cases in 2007.

Using the map, answer the following questions:

5. Do you think the data provided is complete (includes ALL cases of rabies in North Carolina)? Explain why you feel this way. _____

6. Which counties had the greatest number of rabies cases in 2007? _____

7. Which counties had the smallest number of rabies cases in 2007? _____

8. Using your color coded map, which region (northeast, southeast, south central, north central, northwest, southwest, etc.) had the highest incidence of rabies? _____

9. What could account for the increased incidence of rabies? (population size, % of land developed, weather conditions, etc.) _____

10. Which region had the lowest incidence of rabies? _____

11. What could account for the decreased incidence of rabies? _____

Name _____ Date _____ Period _____

12. Domesticated animals are given rabies vaccinations to prevent them from contracting the disease. How has this affected the incidence in domestic animals verses wild animals? _____

13. Oral rabies vaccinations have been developed for vaccinating wild, carnivorous animals. A meat flavored sample is infused with the vaccine in order to treat these animals without capturing them. Oral baits are placed in undeveloped areas to prevent the spread of the rabies virus. Which counties should be using the oral vaccinations to decrease their rabies cases? _____

14. What potential problems exist with oral vaccination baits? _____

15. Bats have been found to carry and spread the rabies virus because of the tendency of some species to bite animals. Bats will not eat the oral vaccine bait. What other way could the spread of rabies in the bat population be prevented?

How could bats be given the vaccine without capture?

What other forms of the vaccine may need to be developed?

