

2024 Wildlife Key Topics for Envirothon

1. Identify common wildlife species from silhouettes, mounted specimens or pictures. Part of an animal may be shown instead of the whole animal, for example: identifying waterfowl by a wing image or specimen.
2. Answer questions concerning the natural history of wildlife species occurring in Delaware.
Examples:
 - The history of DDT and its effects on wildlife
 - Delaware's history of wild turkey reintroduction and management
3. Understand the Wildlife Restoration Act (also known as the Pittman-Robertson Act) and how it funds wildlife and habitat conservation
4. Understand basic wildlife survival needs
 - Habitat components
 - Biological carrying capacity vs. social carrying capacity
 - Territory vs. home range
 - Factors that limit or enhance population growth
 - Habitat requirements for specific species. Be able to identify a given habitat and select or list species most likely to live there. Describe ways a habitat can be improved for specific species by knowing their requirements.
5. Describe specific adaptations of wildlife to their environment and role in the ecosystem
 - Understand the definition and importance of a keystone species.
6. Understand food chains and food webs and be able to identify examples
 - Identify/define trophic levels: decomposers, primary producers (autotrophs), primary consumers, secondary consumers, tertiary consumers
7. Understand predator/prey relationships and be able to identify examples
8. Understand hibernation, aestivation, nocturnal, and crepuscular. Be able to provide examples of animals who fall into each of these categories.
9. Describe how meadow/grassland management can enhance or impact wildlife habitat.
 - Understand the stages of plant succession.
 - Know the difference between cool season grasses and warm season grasses used for meadow/grassland management.
 - Be able to list Best Management Practices for maintaining early successional grassland habitat.
 - Understand ecotone and edge effect.
 - Understand the importance of hedgerows and food plots.
10. Understand and be able to list the stages of plant succession.
11. Understand hunting regulations and how they pertain to wildlife management.
 - Be able to read and understand the DE hunting guide.
 - Understand the difference between game and non-game species.
12. Identify agencies responsible for providing the protection and management of wildlife resources.

13. Understand and be able to explain the North American Model of Wildlife Conservation
14. Understand the importance of the Atlantic Flyway and the Migratory Bird Treaty Act.
15. Identify Delaware wildlife species that are listed as endangered or threatened and describe the main causes that have led to their depleted populations. Be familiar with the Endangered Species Act.
16. Understand the functions of wetlands and the importance of vegetative wetland buffers.
 - Know what a vernal pool is and be able to discuss why they are important
 - Know what an impoundment is and be able to discuss how impoundments are managed in Delaware and what species use them.
17. Understand the definition of and the effects of invasive species.
 - Identify non-native and/or invasive wildlife species that have been introduced into Delaware.
 - Know the difference between non-native, invasive and nuisance wildlife species. Be able to list examples.
 - Identify noxious plants found in Delaware.
18. Know the cause, symptoms, species affected, and management/monitoring methods for the following wildlife diseases:
 - Rabies
 - White-nose Syndrome (WNS)
 - Epizootic Hemorrhagic Disease (EHD)
 - Chronic Wasting Disease (CWD)
19. Understand the purpose and methods of wildlife banding and tagging, and be able to list species that are banded/tagged in Delaware.
 - Be familiar with migratory shorebird research and habitat management being conducted in Delaware, including the history and management of red knots and other species being monitored.
20. Be able to identify wildlife nest boxes and species that use the nest boxes.
21. Understand tick management in Delaware as it relates to humans and wildlife.
22. Audio Challenge – be able to identify a wildlife species based on its call. 2024 audio challenge will include 2 Delaware bird species.