Preparing for the Wildlife Section of the Envirothon

Managing wildlife involves populations of animals and manipulating the numbers of animals. The science involved in managing wildlife principally deals with determining the population and its age structure and setting harvest goals. This allows the perpetuation of the species, allows wise use of the species, and manages populations at levels that minimizes human-animal conflicts while maximizing opportunities.

For every game biologist employed by a game and fish agency there are many other people behind the scenes performing non scientific duties such as; accounting, managing public lands (planting trees, spraying weeds, building fence), administrative functions, working with the public and media, etc.

In college, the future wildlife/fisheries biologist learns a wide variety of subjects such as anatomy, botany, mammology, ornithology, ichthyology, biometry, aquatic ecology, animal behavior, etc. This is all very good knowledge, but is just a fraction of what the student will learn when they are actually on the job dealing with everyday problems that occur with animals and their habitats in our state. Academic knowledge is the basis for a career in natural resources, but it is the real life and work experiences that will help you use this knowledge in a practical way.

There is absolutely no substitute for actually spending time out in the field. Hunting, fishing, bird watching, hiking, etc. are all activities that lead to a better understanding of animal behavior. Classroom knowledge is important for a basis, but it needs to be fine tuned with hundreds of hours spent outdoors over a lifetime. Subsequently, just spending time in nature without the classroom background leads to a person who knows what an animal will do or where it is found, but often doesn't understand the why.

Wildlife management is often about managing the wants and needs of people. There are people who want no managed use of resources, just as there are people who wish to hunt and fish. Hunters and anglers want large numbers of game and fish out there, agricultural producers often wish for less game when it is damaging their crops and livestock feed. This involves a balancing act that is often a back and forth process of obtaining a goal that is constantly moving.

Students should understand why we manage wildlife and why we use the techniques that we do. For example, I would place more value on a student knowing why we age animals (such as deer) than to be able to accurately age deer jaws.

What you should know:

- "Opportunity For All – North American Wildlife Model for Wildlife Conservation" DVD (available upon request)
- Know the animals (birds, mammals, reptiles, amphibians, fish) found in ND, and sign they leave (tracks, scat, browse, sounds)
- Be able to read and decipher a hunting proclamation
- Current events – read the newspapers if there is a hot topic such as bovine TB, CWD, and EHD those would make great test questions.
- Know state bird, fish along with their scientific names
- Relating to this year's Current Issue
- Know endangered species

- Know which agencies manage what species
- Teams are encouraged to study birds and bird sounds
- [Habitats of ND](#)
- Know your [Pollinators](#)

Teams are urged to visit the [ND Game & Fish website](#) and browse the [weekly news releases and videos](#), and may order free [publications](#)

Envirothon Wildlife Key Terms

Teams will be responsible for looking them up if they do not know them

Habitat-4 key components	Sexual Dimorphism	Migratory
Extinct	Carrying capacity	Cryptic coloration
Extirpated	Carnivore	Antlers
Aquatic Nuisance Species (ANS)	Omnivore	Horns
Population	Herbivore	Food chain
Population dynamics	Ornithology	Ecosystem
Community	Ichthyology	Metamorphosis
Ecosystem	Mammology	Invasive/exotic species
Pittman Robertson Act (Wildlife Restoration Act of 1937)	Herpetology	Cervid
	Crepuscular	Lacey act
Conservationist	Diurnal	Aldo Leopold
Preservationist	Nocturnal	Theodore Roosevelt
Mortality factors	Molting	
	Adaptations	