

2023/2024 season - updated 12/5/23

## Wildlife Study Resources for North Dakota State Envirothon

### Concepts:

- Know the wildlife species (birds, mammals, reptiles, amphibians, fish) found in North Dakota, and their signs (tracks, scat, browse, sounds)
- Know the state bird, fish, reptile, amphibian, and mammal
- Know endangered species in North Dakota
- Know the agencies that research, manage, and conserve wildlife populations in North America and North Dakota
- Why species are termed “invasive”
  - Does a species need to be “exotic” to be “invasive”?
- Legislation that protects and benefits wildlife in the U.S.
  - Pittman Robertson Act (Wildlife Restoration Act of 1937)
  - The Lacey Act
- People who significantly contributed to wildlife management and conservation in North America
  - Aldo Leopold
  - Theodore Roosevelt
- Why is aging deer in a population important?

### Resources:

- Wildlife of North Dakota identification
  - <https://gf.nd.gov/wildlife/id>
- U.S. Fish and Wildlife Service duck wing identification videos
  - <https://www.youtube.com/playlist?list=PLZb5DyVcCk97nOlv3Rg9QTErKCCQ93xcyl>
- Waterfowl Identification on Ducks Unlimited website
  - <https://www.ducks.org/hunting/waterfowl-id/>
- Introduction to mammal skulls
  - [https://www.adfg.alaska.gov/index.cfm?adfg=wildlifeneews.view\\_article&articles\\_id=1049](https://www.adfg.alaska.gov/index.cfm?adfg=wildlifeneews.view_article&articles_id=1049)
- Facts about Big game in ND
  - <https://gf.nd.gov/hunting/big-game>
- Aging big game in ND (but mostly deer)
  - <https://gf.nd.gov/hunting/aging-big-game>
- Habitats of North Dakota education books
  - <https://gf.nd.gov/education/habitats-of-nd>
- Movement of the moose population over time in ND
  - <https://gf.nd.gov/magazine/2018/jan/moose>

- Wildlife Research examples in North Dakota. These are links to research papers and topics to give you some insight about research methods, and some current issues where research was used to address wildlife issues in the state.
  - Protecting water birds while allowing float sets for muskrat trapping
    - [https://gf.nd.gov/sites/default/files/publications/final\\_thesis\\_muskrat\\_trapping\\_non-target\\_water\\_birds.pdf](https://gf.nd.gov/sites/default/files/publications/final_thesis_muskrat_trapping_non-target_water_birds.pdf)
  - Fisher and marten in ND
    - [https://www.researchgate.net/publication/272564448\\_American\\_Martens\\_and\\_Fishers\\_in\\_North\\_Dakota\\_Home\\_on\\_the\\_Prairie](https://www.researchgate.net/publication/272564448_American_Martens_and_Fishers_in_North_Dakota_Home_on_the_Prairie)
  - Invasive vs. Non-invasive research methods
    - <https://www.nal.usda.gov/animal-health-and-welfare/wildlife-research>
    - <https://bioone.org/journals/wildlife-biology/volume-2020/issue-1/wlb.00607/Towards-more-compassionate-wildlife-research-through-the-3Rs-principles/10.2981/wlb.00607.full>
- You can order publications from the North Dakota Game and Fish Department
  - <https://gf.nd.gov/publications>

#### Envirothon Wildlife Key Terms

- 4 components of habitat
- Extinct and Extirpated
- Aquatic Nuisance Species (ANS)
- Ecosystem
- Conservation vs. Preservation
- Sexual Dimorphism
- Carrying capacity
- Cervid
- Carnivore
- Omnivore
- Herbivore
- Crepuscular
- Diurnal
- Nocturnal
- Molt
- Avian migration flyways in North America
- Cryptic coloration
- Antlers vs. Horns
- Metamorphosis
- Generalist vs. Specialist