



Arizona Envirothon: Wildlife Study Guide

Wildlife is heavily dependent upon the natural resource base: food, water, shelter and space are necessary for all species to thrive. There are numerous threats to Arizona's wildlife, including habitat loss, a changing climate, human activities (recreation, urbanization, vegetation removal, etc.), overdraft of water resources, and more. Riparian areas – the 'green ribbons of life' that support the vast majority of fauna in our state – are especially impacted by human activities.

Our state competition focuses upon Arizona wildlife and will include questions about species identification, habitat requirements, and wildlife management. Students should enter the competition with a *basic* understanding of:

- Arizona's wildlife biodiversity
- Biomes of Arizona
- Wildlife adaptations
- Trophic [energy] pyramids
- Carrying capacity
- Impact of non-native species
- [North American Model for Wildlife Conservation](#)
- [Threatened and endangered species in Arizona](#)
- [How to use binoculars](#) and field guides for identifying common wildlife species.

Learning Outcomes

I. Identify species of Arizona

- Identify wildlife species by specimens, skins/pelts, pictures, skulls [field guides provided for birds and herptiles]
- Identify general food habits, habitats, and habits from teeth and/or skull morphology

II. Wildlife Ecology

- Basic ecological concepts and related vocabulary
- Wildlife population dynamics
 - Carrying capacity
 - Limiting factors
 - Impacts of non-native species
- Adaptations
 - Structural, behavioral, physiological
- Biodiversity

III. Wildlife Conservation and Management

- [Arizona's State Wildlife Management Plan](#)
- Role of [hunting](#) (and familiarity with hunting regulations)
- Role of [fishing](#) (and familiarity with fishing regulations, community vs. general fishing)

IV. Challenges for Arizona Wildlife

- Invasive and non-native species
- Endangered, Threatened, Species of Concern
- [Diseases](#) of concern to Arizona

Additional resources to prepare

- PA 2017 (3 wildlife videos by [Montgomery County Conservation District](#))
- [Arizona Game & Fish – Wildlife division](#) (variety of topics – wildlife viewing, living with wildlife, planning for wildlife, and more)