# Lab 8 Response: Biodiversity Challenges: Deer Population

## Part 1: Research—Should white-tailed deer populations be managed?

1. Use bullet points to fill out the table below with information about white-tailed deer (*Odocoileus virginianus*) from [the Illinois DNR website](https://deer.wildlifeillinois.org/) or another credible source. Make sure that each piece of information is cited.

|  |  |  |
| --- | --- | --- |
| Topic | Information | Source (Author, Page Title, Link) |
| List three facts about their reproductive cycle. |  |  |
| List three traits of their preferred habitat. |  |  |
| List three concrete problems deer populations pose to the ecosystems they inhabit. |  |  |
| List two possible threats deer populations pose to human populations. |  |  |
| List two possible ways deer overpopulation impacts the deer themselves. |  |  |

Answer the next two questions:

1. How have humans changed the environment to favor the population of white-tailed deer? Explain your answer using evidence from your chart.
2. Should humans play an active role in white-tailed deer management? Why or why not?  List your reasons, using evidence from your chart.

## Part 2: Data analysis—Outcomes of white-tailed deer management

In your lab group, describe and analyze **Figures 8.2** and **8.3** from the Lab Activity and be prepared to share your responses to the following questions in a full class discussion:

1. Describe both graphs. What story is each telling about the ecological impact of deer populations? How are they similar? How are they different?
2. What conclusion can you draw regarding the effect of deer management on seedling numbers?
3. What conclusion can you draw regarding the effect of deer management on the 3 different bird species?
4. What predictions would you make about sustainable forest regeneration in the future in these two forests? Brainstorm challenges that could potentially impact forest regeneration. What information would you need to make a more informed conclusion?

## Part 3: Analyze and Explain—What population control practices should we use?

Your group will be assigned one of the following stakeholder groups:

* Hunter
* Environmental activist
* Corn farmer
* UPS truck driver with a rural route
* Suburban householder who works from home and lives in a recently developed subdivision built upon former farmland fields

1. What environmental (in general) interests or concerns might your stakeholder group hold? Explain why this is the case.
2. How do deer impact the lives of your stakeholder group? What deer-driven concerns would your group have?
3. What concerns might the stakeholder have about different methods of population control?

**Present your stakeholder’s viewpoint to the rest of the class by summarizing your group’s answers to the three questions above.**

## Part 4: Create—Your white-tailed deer management proposal

**Once you’ve heard the information from the different stakeholder groups presented to the class, your group should create a white-tailed deer population management proposal that reflects all of the stakeholders’ viewpoints.** What method or combination of methods should the Illinois Department of Natural Resources Division of Wildlife Resources deer manager (State DNR, wildlife & recreation departments, etc.), plan to use to manage the deer population in your area or region? Discuss your plan’s potential effectiveness, cost, safety, acceptability, and humaneness.

1. Why did your group make the choices you did? How did your group achieve consensus on a plan? Consensus means that the decision is one that everybody agrees with or, at least, can live with.
2. Present and discuss deer management plans: Present your deer management plan to the rest of the class. After the presentations we will discuss all the plans as a class, and we will attempt to come to a consensus as a class.

Final submission: