

# Deer in Cuyahoga Valley National Park

 **General Facts**

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1. The white-tailed deer reproduces at a relative high rate because it is a prey (not a predator) species.
2. There are very few natural predators of deer in the park. Coyotes only eat young or dead deer. Public hunting is illegal on park property. The law can only be changed through an act of Congress.
3. Current population studies in the park estimate that there are up to 130 deer per square mile in some areas.
4. Deer begin to have a noticeable impact on their surroundings when they reach 10 to 20 deer per square mile.
5. Deer eat native wildflowers, shrubs and tree seedlings in the national park. Their browsing habits allow invasive plants such as garlic mustard to flourish and inhibit the natural forest regeneration.
6. Deer eating the understory vegetation has been linked to fewer ground-nesting songbirds.

 **Possible Control Methods**

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1. No action by the National Park Service — the current situation is allowed to continue.
2. Fencing.
3. Reproductive control.
4. Sharpshooting.
5. Protection of individual plants.
6. A combination of the above.

## Recent Research

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1. The research was conducted by The Ohio State University and the National Park Service in Cuyahoga Valley National Park.
2. Scientists wanted to determine the effects of browsing deer on reptiles, amphibians and insects because the deer population is so large.
3. They used 12 fenced sites and 12 unfenced sites of similar qualities.
4. Five one-foot-square wooden boards were placed in each site.
5. Researchers counted vertebrates and invertebrates monthly for two years.
6. Results were surprising and unexpected: three times as many salamanders, nearly six times as many snakes, 11 percent more snails and 14 percent more arthropods (creatures with jointed legs and segmented bodies such as insects and arachnids) were found in the unfenced or deer-grazed sites.

## Considerations

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1. Deer might be helpful to some of the populations of vertebrates and invertebrates in the park.
2. Deer droppings may be changing the soil, causing a flourishing of certain plants that attract these insects. The insects themselves may be attracting the salamanders and snakes.
3. The boards in the unfenced/deer-grazed sites may have been the only cover available since the natural plants were eaten more closely, and that could account for the higher numbers of animals found under the boards.
4. Understory vegetation encourages bird populations that feed on the counted species.
5. Controlling the population of the deer may have unseen effects.
6. This is only one study with a small number of study plots. More research would be needed to draw broad conclusions about the impact of deer on other wildlife.
7. The most common species found under boards in unfenced/deer-grazed sites were either exotic, invasive species (e.g., earthworms) or indicators of highly disturbed habitat (e.g., snails, millipedes, sowbugs and garter snakes). These would not be as common in a healthy forest ecosystem. The results could reflect a loss of biodiversity in the study area.