

Deer Monitoring at Arkansas Post National Memorial

Arkansas Post National Memorial



White-tailed deer at Arkansas Post National Memorial.

NPS

White-tailed Deer Populations

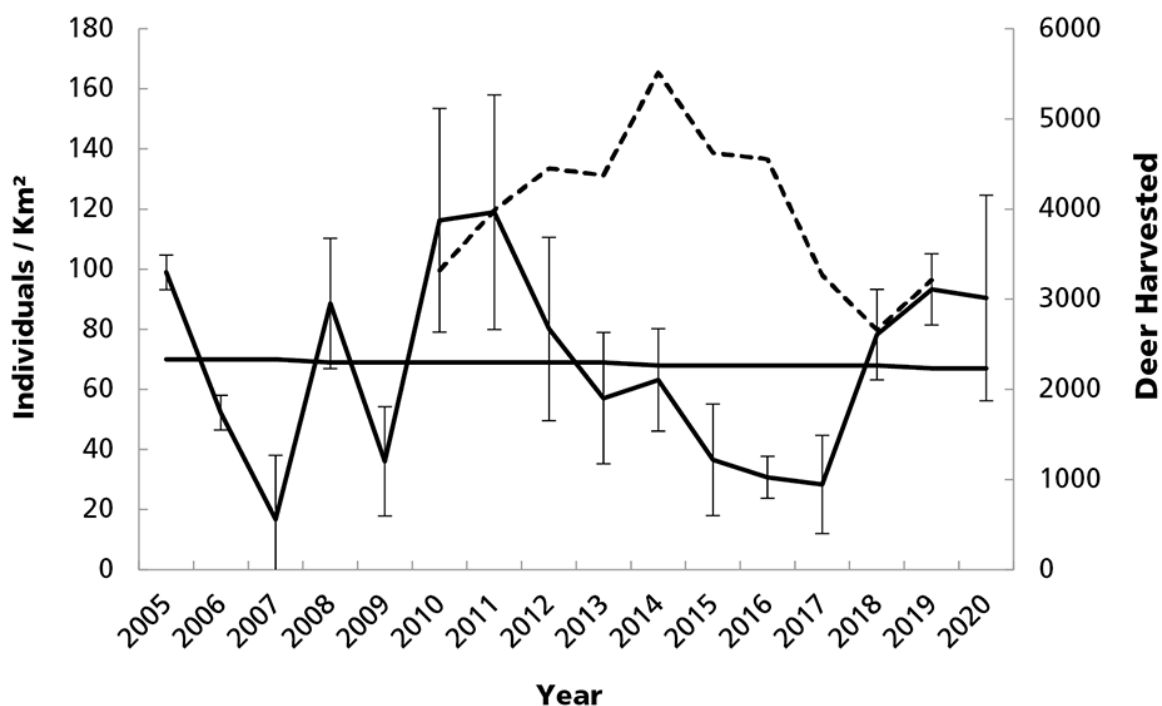
Deer are one of the more charismatic creatures you can find at Arkansas Post National Memorial. It's hard to imagine that white-tailed deer were almost extinct in the early 1900s from overhunting and clearing of forests. Hunting regulations and removal of most of their natural predators has now led to unprecedented deer population growth. Without natural predators, deer can become overpopulated and die of disease and starvation.

Too many deer can also have a negative effect on trees and other plants due to overbrowsing. Deer can alter landscapes because they prefer to eat native plants allowing exotic, invasive plants to grow and spread. Large deer populations may also result in more deer-vehicle collisions and deer disperse ticks that can spread diseases to humans.

Why Do We Monitor Deer?

Scientists from the [Heartland Inventory and Monitoring Network](#) monitor deer at Arkansas Post National Memorial so we can understand how their populations are changing over time. Monitoring deer can help us evaluate the restoration of cultural landscapes, an important management activity at the Memorial. Data that we collect can also help the park assess safety risks to people from disease and deer-vehicle collisions.

We began monitoring deer on the Memorial in 2005 to determine yearly changes and long-term trends in their populations and to map their locations. Each year in winter from January through mid-March, we use bright spotlights at night to count deer along the two main tour roads in the park.



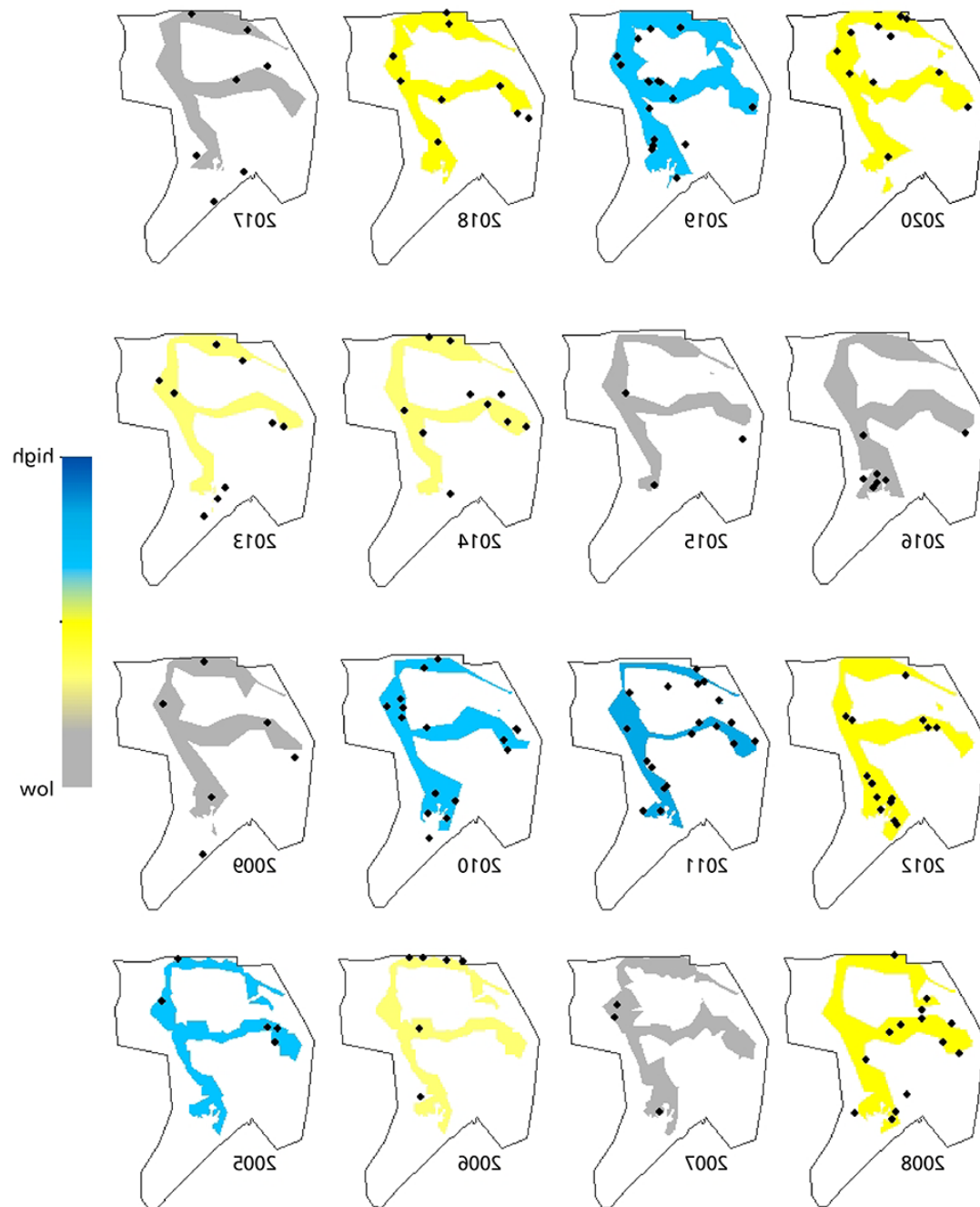
Deer per square kilometer adjusted for area surveyed in the Memorial (solid line, left axis) and number of deer harvested in Arkansas County (dashed line, right axis). Deer harvest data became available starting in the 2009–2010 hunting season.

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Monitoring Highlights (2005–2020)

Deer populations have experienced declines and recoveries over the course of our monitoring at the park. After a two-year decline, the deer population increased seven-fold from 2007 to 2011. The number of deer adjusted for the amount of area surveyed ranged from a low of around 17 individuals per square kilometer in 2007 to just under 119 individuals per square kilometer in 2011. Starting in

2012, there was a six-year decline in herd size that was followed by a three-fold increase from 2017 to 2019.



Maps of deer locations (dots) and number of deer adjusted for the amount of area surveyed. The shaded areas of any color show the amount of land surveyed. The highest number of deer were seen in 2005, 2010, 2011, and 2019 and the fewest deer were found in 2007, 2009, and 2015 through 2017.



White-tailed deer browsing at the forest edge in Arkansas Post National Memorial.

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Did You Know?

Allowing deer populations to increase until disease sets in is harmful to deer, other animals, and people. Diseases such as hemorrhagic disease and chronic wasting disease occur when there are too many deer. Hemorrhagic disease can result in the loss of 50% or more of a deer population each year and it can persist for several years. One form of this disease is not known to infect people or domestic livestock, but the other form can cause domestic sheep to develop severe illness and die. Deer can also serve as a host for ticks. As they move from one area to another, they disperse ticks infected with Lyme disease, Rocky Mountain spotted fever, and ehrlichiosis that can harm people and domestic animals. Keeping deer populations under control protects deer, as well as people and other animals.

For More Information

[Read the full report.](#)

Check back later for updates. We will update this page each year as we gather information.

[Visit the Heartland Inventory & Monitoring Network website.](#)