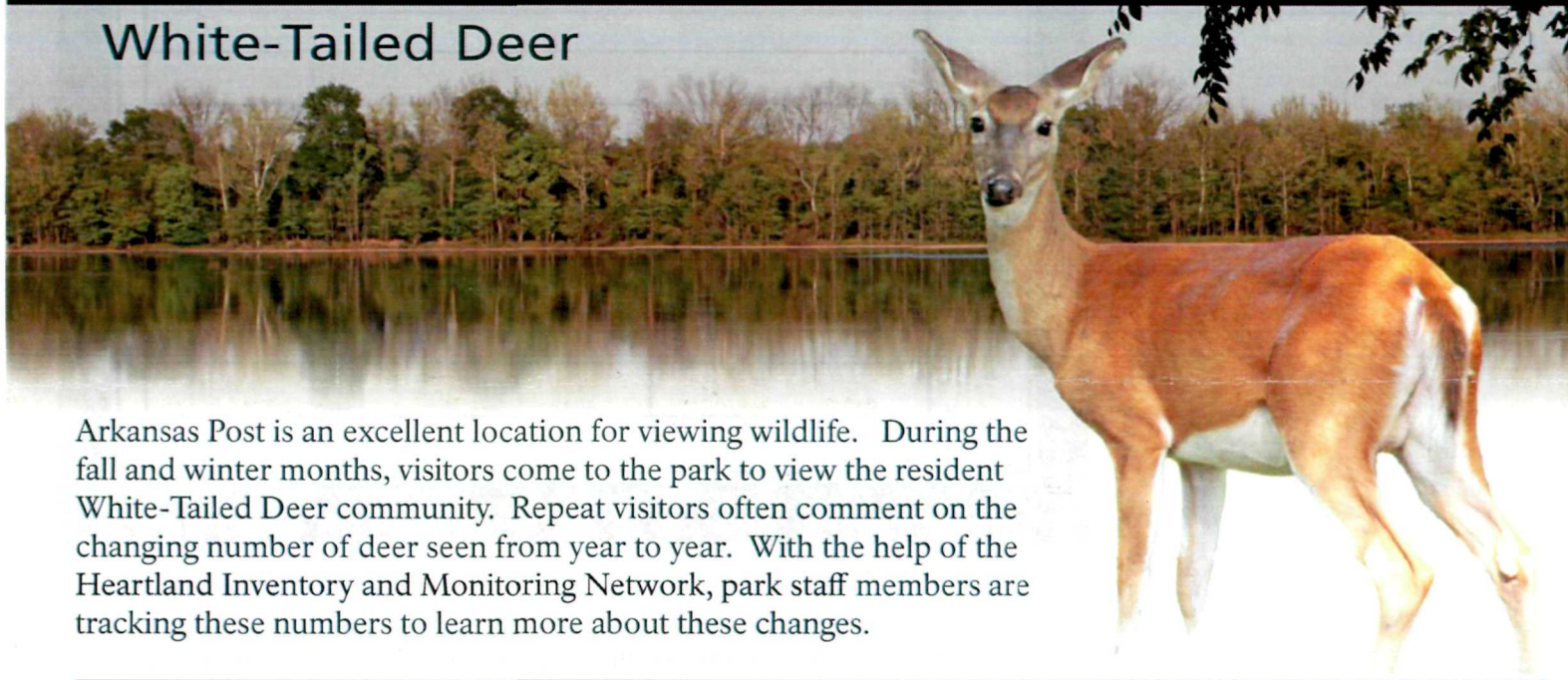




White-Tailed Deer



Arkansas Post is an excellent location for viewing wildlife. During the fall and winter months, visitors come to the park to view the resident White-Tailed Deer community. Repeat visitors often comment on the changing number of deer seen from year to year. With the help of the Heartland Inventory and Monitoring Network, park staff members are tracking these numbers to learn more about these changes.

White-Tailed Deer at Arkansas Post

White-Tailed Deer (*Odocoileus virginianus*) almost became extinct in the early 1900's. Since then their population has grown quickly. This success and population increase is easily seen at Arkansas Post. The park is surrounded on three sides by water and on one side by farmer's fields. White-Tailed Deer have adapted to their changing world eating the grains in these fields.

With very few predators left in the wild, deer have multiplied. If the deer populations are left

unchecked, the deer may become victims of the disease and starvation that come with overpopulation. The presence of too many deer can lead to resource damage through the deer's eating habits. Deer may also present a safety threat to people. The safety threats are increases in vehicle crashes with deer and deer being carriers of diseases that can be passed to humans.

The park tracks the deer population changes to decide if control measures are needed to protect park resources.

Heartland Inventory and Monitoring Network

The Heartland Inventory and Monitoring Network is a group of scientists that work with parks in eight states. They work to create inventories of species and natural features. They also monitor trends and issues in the parks. The purpose of this

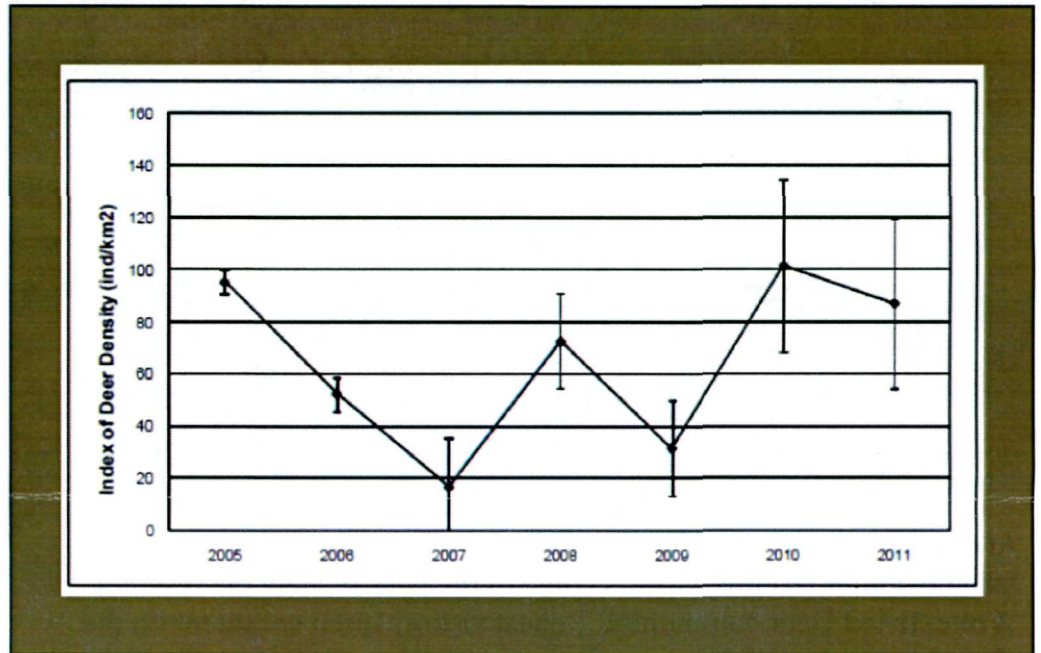
work is to help these parks, including Arkansas Post, in making informed management decisions.

Every winter these scientists have travelled to the park to count the current number of White-Tailed Deer. These surveys began in 2005. The park is surveyed one night per week for 3-6 weeks. The surveys are dependent upon favorable weather conditions.

There are many objectives to these surveys. The first is to document yearly changes in White-Tailed Deer numbers. The next is to determine long-term trends in these numbers. The last is to create maps of the locations of deer observed each year.



White-Tailed Deer Monitoring at the Park



This graph shows the index of deer density for each survey year within the survey area in the park. This identifies changes in the deer population. This also shows that there are changes in the deer population each year.

White-tailed deer were monitored between 2005 and 2011 on Arkansas Post National Memorial, Arkansas using methods developed by the Heartland Inventory and Monitoring Network. See: <http://>

science.nature.nps.gov/im/units/htln/deer.cfm. An index of deer density was used to identify annual changes in the deer population within the survey area of the park. The annual indexes of deer density values demonstrate an up-and-down oscillation pattern since the start of surveys in 2005. In 2011, the index of deer density was on a downward oscillation. However, the resulting index value remained 33% above the average value across all years.

More Information

All Photos by Ed Wood; National Park Service

Heartland Network Web site:

<http://science.nature.nps.gov/im/units/htln/index.cfm>

Peitz, D.G., J.T. Cribbs, J.L. Haack, G.A. Rowell, L.W. Morrison, and M.D. De-Backer. 2007. White-tailed Deer Monitoring Protocol for the Heartland Network Inventory and Monitoring Program. Natural Resource Report NPS/HTLN/NRR-2007/014. National Park Service, Fort Collins, Colorado.

Deer Monitoring Graph and Discussion courtesy of Chad S. Gross, Jennifer L. Haack, and David G. Peitz of the Heartland Inventory and Monitoring Network.

