

Resource Management Spotlight:

Deer Reductions at Indiana State Parks



Deer reduction hunts in Indiana State Parks are different than most DNR special hunts. Deer reductions are carried out exclusively to achieve an ecological objective; to ensure balanced and healthy natural communities for all flora and fauna within park boundaries. Whereas most other special hunts are offered for recreation, these reductions are a necessary management tool that reduces damaging state park deer populations.

State parks first began to reduce the size of the deer herds in 1993, with a one-day reduction hunt at Brown County State Park. Since then, deer reductions have occurred at most of Indiana's 24 state parks. DNR biologists determine the need for a reduction annually on a park-by-park basis. Not all state parks require reductions each year. Once an optimal harvest level has been achieved, some parks may only need a reduction every other year or so. However, a deer population can double in a single year.

The History of White-tailed Deer

- Deer were native throughout what is now the eastern United States in pre-settlement times. Their main predators were wolves, mountain lions, and Native Americans. Unregulated hunting by an increasing number of settlers eliminated deer from the Hoosier landscape by the late 1800's. All natural deer predators were also eliminated. Deer were reintroduced in the 1930's and 1940's and became well adapted to the new agricultural and urban landscape.
- Deer populations exploded in some areas such as state parks, which traditionally had no hunting. In some state parks, deer ate so much vegetation that there was little left from 5 feet above ground level down, also known as a "browse line". With the drastic change in both abundance and diversity of plants came a cascading effect throughout the food web. A single deer can consume 3-5 lbs. (dry weight) of plant material per day.



What's at Stake

- Indiana state parks harbor some of the highest quality natural areas left in the state. From prairies and old growth forests to oak savannas and marshes, the parks continue to provide an opportunity for guests to see, hear and smell many of the same things that Native Americans and early settlers did. Population control helps maintain a balance to ensure this opportunity for future generations.
- Currently, state parks are home to more than 100 rare, threatened and endangered plants. Many of these plants are known in less than five sites statewide. High deer populations threaten many of these plants directly.

Deer Reduction: Method of Choice

- Extensive non-lethal management options have been explored in Indiana and elsewhere. Lethal removal has proven to be the most practical and cost effective method of control.
- The number of hunting participants is based on the number of huntable acres at each park. Each park draws a different number of participants from a pool of eligible applicants. Applications are usually available from July to August for that year.
- Trophy hunting, or passing on does or smaller bucks so one can wait for a larger buck, is counter to our ecological objective and strongly discouraged.
- Research has shown that vegetative recovery generally begins once a Harvest per Effort (H/E) nears 0.20 and a harvest of 15 deer per square mile where firearms are used.

The Progress So Far

- Vegetative recovery has been so successful that a new assessment method will soon need to be developed based on the improved conditions of park natural areas. Since 2000 the average harvest per square mile has gone from 31 to 19.
- As evidenced by the lack of widespread browse lines once common, we continue to make progress toward our goal of restoring balanced ecosystems. However, browse lines are extreme signs of damage. Though we consider our progress a success, less obvious damage persists. However, along with our success comes more challenging hunting – it's not exactly "shooting fish in a barrel". There is still need for pressure on the deer to continue the long-term path to recovery and maintenance of the vegetation.
- Currently, a high level of no-show hunters and selective hunting prevents many parks from a maintenance phase of hunting once every other year or so.

Parks requiring reduction are usually announced in July of each year. Applications to participate are usually available at the same time.

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