

In 1856, the first law was passed to help protect deer by providing a closed season from February 1 to July 15. In 1872, the closed deer season was extended to January 1 to September 15. In 1898, the 27th General Assembly provided complete protection for deer by closing the season year round. By this time, deer were nearly extinct in most areas of the state.

Deer were re-established in Iowa through the escape of animals from captive herds, trapping and transplanting programs of the Iowa Department of Natural Resources and the immigration of animals from Minnesota, Wisconsin and Missouri. In 1894, 35 whitetails escaped from the captive herd of William Cuppy of Avoca, which provided the nucleus for future deer herds in western Iowa. In the early 1920s, about 60 deer escaped from the Singmaster farm in Washington County and became established along the Skunk River. Another herd was established in Boone County at the Ledges State Park in 1928 when two deer, purchased from Minnesota, were released. Deer were captured from this herd and transplanted to other parts of the state during the 1940s.

In 1936, DNR officials estimated the deer herd at around 500 to 700 animals, but this was considered conservative because deer were widely scattered. In 1947, the first statewide population estimate was made with deer herds reported in 58 counties containing an estimated 1,650 animals. Deer herds were reported in 89 counties in 1950, and the population was expanded to 13,000 because of protection from hunting and favorable habitat conditions.

The re-establishment of whitetails in Iowa was complete, but problems with deer damage to agricultural crops were developing. In areas where deer were heavily concentrated, landowners were experiencing damage to corn, soybeans and alfalfa crops and expressing their concern to the DNR. In 1953, the Iowa Legislature provided the laws necessary to open hunting season to harvest surplus animals and scatter the large deer concentrations. The 1952 hunting season was restricted to 45 counties for five days and about 4,000 deer were harvested. Since 1953, hunting seasons have been held annually with various restrictions on number or type of licenses issued. Today, more than 200,000 shotgun,

muzzleloader, and bow hunters harvest between 90,000-120,000 deer annually.

## Description

The most characteristic feature of the white-tailed deer is the white underside of its tail or "flag" that is flashed when disturbed. Deer are graceful, sleek and have long legs, which makes them look taller than their actual height of 35 to 38 inches. Deer grow a lightweight, reddish-brown coat in the summer and a heavy grayish-rown coat in the winter. Fawns have a reddish-brown coat with white spots that helps camouflage them from their enemies. Fawns lose their spots at three to four months of age when they are more mobile and no longer rely on camouflage for protection. Fawns weigh from four to seven pounds at birth and will gain 80 to 100 pounds in their first six months of life. Adult males reach an average weight of around 240 to 265 pounds at about four and one-half years of age while adult females average 140 to 160 pounds. The largest deer ever reported in Iowa was a 440-pound buck taken in Monona County during the 1962-hunting season.

Antlers are normally found only on males and a new set is grown each year. Antler growth begins in March or April and continues until August or September when the soft covering of skin called "velvet" dries up and is rubbed off on small trees and shrubs. Antlers are utilized in sparring matches with other bucks to establish dominance for breeding. Bucks shed their antlers in January and February following the breeding season. Rodents that utilize the rich minerals in their diet eventually consume these fallen antlers.

The animal's age, genetic background, and quality and quantity of food determine antler size. At about six months of age, males will have small-unbranched antlers called "buttons" that are barely visible above the skin. When a buck reaches one and one-half years of age, it will normally have branched antlers with two to five points on each side. As the buck grows older, the size of the rack increases. Peak growth is usually reached at about five and one-half to six and one-half years of age after which antlers may become smaller. The age of a buck cannot be accurately determined by counting the number of points on the rack since this is highly variable, but overall mass of

the rack does give an indication of age. Sometimes abnormal points occur which are usually caused by injury to the rack during the growing season, improper hormone balances or heredity. A trophy buck in Iowa is determined by measuring the length of the main beams and the spread between the main beams. The largest typical rack measured in Iowa scored 200-5/8 Boone and Crockett Club points, and the largest nontypical rack was scored at 307 5/8 points (1st in the world).

## Distribution and Abundance

Deer occur in every county, but the highest deer densities are found in the southwestern and northeastern parts of Iowa. Deer are basically associated with timber, and therefore, areas with large amounts of timber usually have the highest deer density. Because timber habitat is limited in Iowa, deer densities are low compared to surrounding states. Good deer habitat in Iowa supports around three deer per square mile of land while poorer habitat supports less than one deer per square mile. With excellent habitat, a good food source and protection from hunting, deer densities can reach as high as 100 deer per square mile. These high densities are usually only found in a small area such as a state park or refuge.

## Habitat and Home Range

Cover requirements appear to be related to the animal's need for seclusion and escape. In the spring, does seek seclusion for fawning in brushy fields, heavily vegetated stream bottoms, forest edges, pastures and hayfields. During the summer, deer are usually found wherever sufficient food, water and solitude exist. Standing corn is used for food, travel and escape cover in the fall. Winter cover is more important, however, since the need for seclusion concentrates deer in protected areas such as heavy timber, cattails, tall weeds and brush. Because winter cover is critical, any reduction in this habitat type will correspondingly produce a decline in the herd.

The annual home range of deer varies from one-half to one square mile and is determined mainly by availability of suitable habitat, food and water. Home range in the spring and summer is small because of fawn rearing and plentiful food supplies. However,

home range increases in the fall and winter because of breeding activity and scarcity of food.

Spring dispersal is extensive, with some deer establishing new home ranges as far as 50 miles from where they were born. One benefit of this dispersal is that small isolated habitats can be replenished if heavy hunting pressure or some other major mortality reduces deer numbers.

## Habits

At fawning time, does prefer solitude and stay close to their young to provide food and protection. Sometimes the doe and her new fawns are joined by previous offspring to form a family group of four to six deer that stay together most of the year. Bucks do not take part in the care of young and usually remain solitary during the spring and summer. During the breeding season, bucks may be found together but one will be dominant and will mate with most does in his territory. Short jousting matches that rarely cause injury to the participants establish this dominance. In the winter, bucks join family groups to form small herds.

Whitetails can run at speeds up to 35 mph but prefer to slip away from danger or remain motionless while danger passes. They are excellent jumpers and can easily clear an eight-foot fence if being pursued. They are also good swimmers and can safely cross-large rivers.

## Food and Water

Deer habitat must provide a good food supply throughout the year. Quality and abundance of fall and winter food items are critical because they determine physical and reproductive conditions. Deer selectively sample most plant species in their home range but relatively few species make up the bulk of their diet. Cultivated crops, mainly corn and soybeans, provide 78 percent of the annual diet of deer in Iowa. They are utilized early during the growing season and again from October to April. A large portion of this fall and winter use is limited to agricultural residue remaining in fields after harvest. Woody browse such as buckbrush, oak and sumac provides 13 percent of the diet and is utilized in the summer and fall and during periods of heavy snowfall

in the winter. Various forbs make up five percent of the diet and are utilized heavily in the spring and summer along with grass. Deer will use free water daily, if available, but can subsist a long time on water provided by succulent food items.

## Reproduction

The breeding season extends from October through January. Breeding by adult does starts in October and continues through December with 70 percent of the breeding occurring from November 2-23. Breeding activity by fawn does (six to eight months old) extends from November through January with 75 percent of the breeding occurring between November 17 and December 22. Fawn does reach a peak in breeding activity about three weeks later than adult does.

Fawns are born from early May through August after a six-and one-half month gestation period. The peak fawning period is from the last week of May through the first two weeks of June. Fawns are weaned at three to four months of age but stay with the doe until they are about one year old.

Adult does normally produce two fawns, but three or four are possible. About 70 percent of the fawn does breed during their first fall and usually produce only one young. Iowa deer have a very high reproductive rate compared to other states because of the nutritious food, relatively mild winters and lack of diseases and parasites.

Bucks are capable of breeding at one and one-half years of age but the majority of the breeding is performed by the older dominant bucks. Does are receptive to bucks for about 24 to 48 hours and are vigorously pursued during this period. If for some reason, does are not bred, they will again come into heat about 28 to 29 days later. This cycle may be repeated two to three times if the doe is not bred. A doe bred late in the fall will have her fawn late in the summer, which accounts for occasional reports of small deer seen during the hunting season.

## Hunting

Bagging a "wily whitetail" is a memorable experience since hunters are pitting their skill against an animal

that has an acute knowledge of his surroundings and a keen instinct for survival. Hunters can do more things to prepare for their ultimate challenge. First, they should become acquainted with the terrain they are going to hunt. This can be accomplished with several pre-season trips to the hunting area. A good knowledge of the habitat, deer trails, topography, location of feeding and bedding areas, and daily activity patterns of deer will pay big dividends when the season opens.

Many hunters prefer to use a bow and arrow to hunt deer. Bow hunting is basically a solitary sport with hunters trying to harvest a deer by utilizing camouflage clothing, ground or tree stands and masking the human odor with covering scents. This is a high quality experience since bow hunters must be able to get within 20 to 30 yards of a deer to make a good shot. In Iowa, about 25 percent of the bow hunters are successful in harvesting a deer each year. Bow hunting seasons are several months long and include the major portion of the "rut" when deer are more mobile and less wary.

During the shotgun season, both a shotgun with slugs and a muzzleloading rifle are allowed. Shotgun hunters utilize several techniques when hunting deer. When one to two individuals are hunting, the best technique is, to "still" hunt. "Still" hunting involves slowly and quietly walking through good deer habitat in an attempt to intercept a moving deer or jump one that is bedded down. This is a high quality experience since it requires both skill and experience to harvest a deer on a one-to-one basis. Another technique is hunting from a ground or tree blind, which involves taking a stand near a good trail to intercept an animal moving between bedding and feeding areas. Most hunters utilize the "drive" hunt because they prefer to hunt in larger groups. This technique employs the use of three or four drivers that push deer past two or three other hunters that have taken stands on the opposite side of the timber. Regardless of the method used about one out of every three-shotgun hunter's bags a deer during the early December season.

## Management

The management plan for the Iowa deer herd is designed to maintain a stable population while

providing the maximum amount of quality recreation for hunters. This goal is accomplished by monitoring deer population trends and regulating hunting to provide proper harvest. Beneficial habitat manipulation, a progressive research program and active law enforcement are additional methods utilized to reach this goal.

The size of the deer herd must be regulated to prevent excessive crop damage and loss of revenue by landowners. This can best be accomplished by allowing hunting seasons that provide both quality recreation and control of animal numbers. Harvest manipulation is the primary tool for managing deer in Iowa. The most important requirement for a sound harvest strategy is a good knowledge of annual deer population trends on a regional basis. Population trends are determined from changes in the number of deer reported killed in traffic accidents, winter aerial counts, spring spotlight surveys, and computer simulation models.

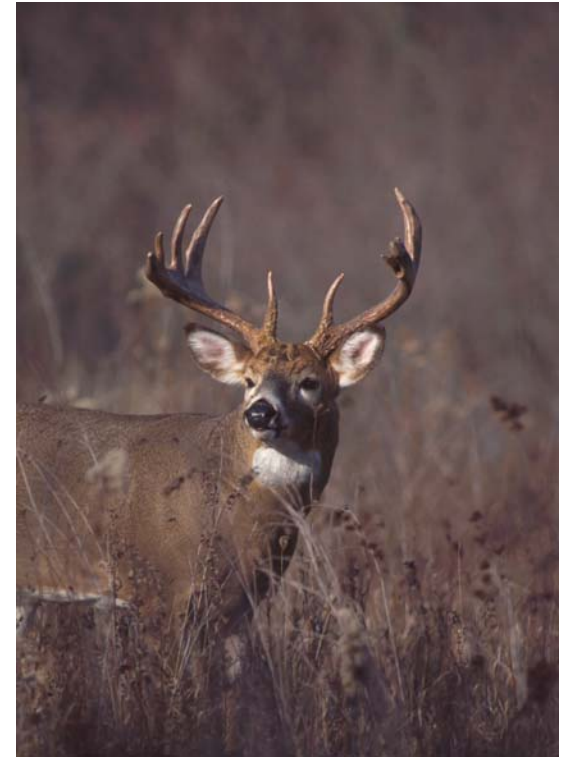
To help determine if hunting seasons are meeting management goals, harvest results are tabulated from information provided by hunters on post-season report cards. Hunter report cards provide estimates of the number of deer harvested, hunter success rates, hunter effort, sex ratio and crippling rate.

The return of the white-tailed deer as a major game species in Iowa is a tribute to good landowner attitude and progressive management, research and enforcement programs. Likewise, responsibility for the future of deer in Iowa depends upon the cooperation of hunters and landowners, preservation of critical timber habitat, legislative support and continued professional management of the resource.

**IOWA DEPARTMENT OF NATURAL RESOURCES**  
WALLACE STATE OFFICE BUILDING  
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# WHITE-TAILED DEER

*(Odocoileus virginianus)*



White-tailed deer were probably abundant along the wooded stream bottoms when settlers first arrived in Iowa. However, most of Iowa was native tall grass prairie and not good habitat for deer who prefer to live along the forest edge. Deer were utilized heavily by Indians and settlers for food and clothing. In the late 1830s, deer hides were selling for 50 cents and venison was two cents a pound. By the 1860s, deer were rarely seen in the heavily settled areas of central and eastern Iowa. In the northwestern corner of the state, deer were common until the severe winter of 1880-81, when many were killed for market.