



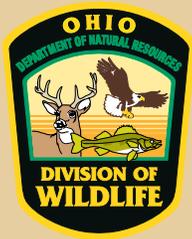
# Wild Ohio

Fall 2005

M A G A Z I N E

Ohio Department of Natural Resources  
DIVISION OF WILDLIFE

Special ❁ White-tailed Deer ❁ Issue



**Editorial Staff**

**Vicki Mountz**  
Executive Editor

**Melissa Hathaway**  
Editor

**Lisa Smith**  
Technical Editor

**Gene Whitten**  
Designer / Illustrator

**Tim Daniel**  
Photographer

**Ohio Department of Natural Resources**

**Bob Taft**  
Governor, State of Ohio

**Samuel W. Speck**  
Director, Department of Natural Resources

**Steven A. Gray**  
Chief, Division of Wildlife

**1-800-WILDLIFE**

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**Division of Wildlife Headquarters**  
2045 Morse Road, Bldg. G  
Columbus, OH 43229-6693  
(614) 265-6300 (Voice)  
1-800-750-0750 (Ohio Relay TTY only)  
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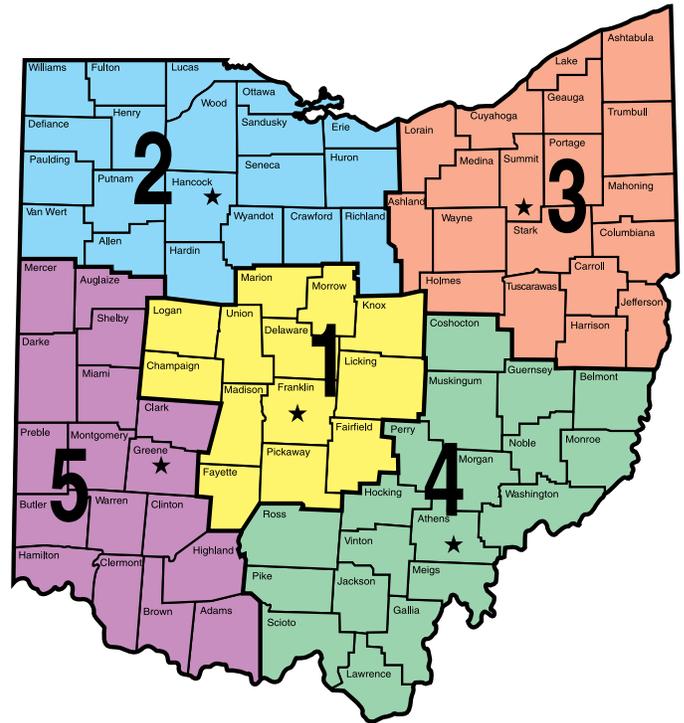
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**On the Wildlife Calendar for Fall . . .**

- September 1** Opening day of hunting season—squirrel, early Canada goose, dove, rail, moorhen, and snipe
- September 9–11** Ohio State Trappers Association Convention, Pickaway County Fairgrounds, Circleville, Ohio
- September 24** National Hunting and Fishing Day; For more information call (203) 426-1320 or go to [www.nhfd.org](http://www.nhfd.org).
- September 24–25** Lake Erie Waterfowlers Festival, Magee Marsh Wildlife Area, Ottawa County (419) 898-0960, ext. 31; 9 a.m.–5 p.m.

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Tim Daniel



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#### Cover Photo:

Native to our state, the white-tailed deer is Ohio's largest game animal. This special issue highlights Ohio's whitetail and the Division of Wildlife's management program. Photo by Tim Daniel.



Tim Daniel



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# Sharing Our Backyards with Deer *by Damon Greer, private lands biologist*

**A**re there deer living in your backyard? Apparently they are living in mine. I awoke one morning, peered out the window into my backyard and was thrilled to see two white-tailed deer. This shouldn't seem surprising, but I live on a half-acre lot in town, and on a busy road. The surrounding area is not what I would consider typical deer habitat, but deer are living here just the same.

Seeing deer in your backyard can be a thrill regardless of where you live. However, when deer become abundant, the excitement can quickly turn to frustration. As a wildlife professional assisting urban and suburban landowners with wildlife conflict issues, landowners often contact me furious that deer have eaten or destroyed the flowers and landscaping around their home. These landowners complain of too many deer and they want something done. Unfortunately, our towns and cities have become a safe haven for deer and solutions to overabundant herds are limited. With few natural predators and little or no hunting, urban deer herds grow virtually unchecked.

The white-tailed deer is a big animal with an even bigger appetite. Urban deer usually occupy small undeveloped wood lots, often along river bottoms or wetland areas. Unless herd growth is controlled here, deer will exhaust the food and cover resources and then begin moving into surrounding communities. When deer begin to overflow into landscaped yards, the conflicts begin and the novelty of the backyard deer herd quickly wears off.

## How did we get to this point?

Early in our history Ohio was bursting with fish and wildlife. Native Americans and early settlers had abundant opportunity to hunt and collect wild game for food. But, as the state was settled, most of the forests were cleared and many of our wetlands drained or filled. Unregulated taking for the markets, coupled with habitat loss and destruction devastated Ohio's wildlife. By the early 1900s deer were gone from our state.

These events led to the creation of what would become the Division of Wildlife, whose initial charge was to protect the remaining fish and wildlife stocks and reestablish those species which were lost. This task was given to the agency in the early 1900s by the state legislature because people believed that the quality of their lives had been diminished due to the lack of fish and wildlife. Thanks to the hard work of many of my predecessors we now again can enjoy the abundant fish and wildlife resources we have today.

**When urban deer herds become too large, conflicts begin and the novelty of backyard deer wears off.**

Bald eagles, beavers, river otters, white-tailed deer, wild turkeys, and wood ducks, once nearly lost or gone completely from the state, are now abundant throughout Ohio. In the case of the white-tailed deer, many urban and suburban residents now believe deer are too abundant.

City ordinances or laws prohibiting hunting have hampered our ability to control herd growth through harvest management. Without that control we now have an overabundance of deer in many urban areas. Urban sprawl has further complicated an already complex problem. With less natural habitat and continued population growth, deer and people are on an unavoidable crash course. Conflicts are erupting throughout our state as people and deer vie for the same habitat.

**With few natural predators and little or no hunting, urban deer herds grow quickly and virtually unchecked.**



Barbara Clark



Tim Daniel

## What are the solutions?

Since the return of regulated hunting to the state in 1943, hunters have been used to successfully manage Ohio's white-tail resource. With annual adjustments in season length and bag limit, we can maintain the population at a given level to meet our deer management goal. Unfortunately, this strategy does not always work in cities and other municipalities where ordinances prohibiting hunting and trapping are common. In most instances, even bowhunting is prohibited. In this situation the only significant source of mortality is the automobile. This is obviously not a good way to manage deer. Deer vehicle accidents are costly and more importantly, pose a serious risk to public safety.

The fact remains that in the absence of a balanced system with large predators like mountain lions and wolves, population control can only be achieved through human intervention. Ideally, this would be regulated hunting. However, in areas where this is either impractical or unacceptable, lethal control via sharpshooting or other means will ultimately be necessary.

As a representative of the Division of Wildlife, my job is to help these cities deal with deer conflicts. Many of the options offered are temporary fixes. Fencing and deterrents will help reduce damage, but do little to address the bigger issue of overabundant deer. Moreover, these "band-aids" often lack visual appeal.

In most cases some type of lethal control will be needed. Controlled archery and gun hunts have been used successfully

around Ohio and throughout the country. In some cases, sharpshooting may be the only option, and in others sharpshooting is simply a means for reducing a population to a level that can be managed by hunting.

Regardless of the method(s), the resource needs to be respected and used. Literally thousands of pounds of venison have been donated to food banks across our state as a result of urban deer management programs. While processing and donating the venison adds to the cost of a program it would be irresponsible to do anything less.

A long-term management plan is essential to maintain the herd at an acceptable level. Archery hunting is one solution that works well. It is safe, unobtrusive, and can be very effective. The archery season is four months long and offers hunters plenty of opportunity to harvest one or more deer. With an ever growing interest in archery hunting, this tool has and will likely continue to play a significant role in the management of urban deer. Many cities today are taking a hard look at revising ordinances to permit controlled hunts. However, these are often very difficult decisions to make. To many residents, killing deer, regardless of approach, is often the least palatable of all available options. The bottom line is, there is no easy solution and not everyone is going to agree, but it is the right thing to do.

Like it or not, we have created a human dominated landscape and deer are here to stay. We now sit atop the food chain and have assumed responsibility for managing Ohio's white-tailed deer herd, urban or otherwise. Responsible management will have to include an integrated approach using many different techniques. Some form of lethal control is a reality, either as a means for reducing and/or maintaining a population at an acceptable level. Once the population has been reduced, fencing and other deterrents become much more effective. However, the best way to solve the problem is to start early. If the problem is ignored, or increased by feeding, the problem will only get worse. Eventually, something will need to be done. Only when we work together, can we enjoy Ohio's magnificent whitetail for generations to come. 



**Controlled archery and gun hunts can be successful in keeping urban deer populations in check.**

Tim Daniel



Tim Daniel

**Deer-vehicle accidents pose a serious risk to public safety.**

# Managing Ohio's Deer Herd *by Michael J. Tonkovich, wildlife research biologist*

Ohio's whitetail story is an amazing one. The white-tailed deer was eliminated in the state by 1904 due to unregulated shooting and loss of habitat. The last wild deer disappeared from Jackson and Scioto counties in 1904.

From 1922–1930, the Division of Conservation (predecessor of today's Division of Wildlife) purchased at least 200 deer from private individuals to stock an 800-acre "corral" at the Roosevelt Game Preserve in Scioto County. In 1932, the preserve gates were opened and these deer joined deer moving in naturally from Pennsylvania and Michigan. By 1940, an estimated 2,000 deer were present in 28 counties.

Ohio held its first deer season in 1943 in Adams, Pike, and Scioto counties. By the fall of 1968, deer were present in all 88 counties and the state-wide herd was estimated at 22,000. Rapid population growth occurred in the 1970s and early 1980s due to restricted antlerless harvests and habitat improvement. Today, Ohio is home to an estimated 650,000 whitetails.



**Taken on the Roosevelt Game Preserve, this is the first buck registered of 168 taken during the first modern-day deer season in 1943.**

Although most everyone relishes the presence of the whitetail, when deer become abundant, they also become controversial. Some may view deer as a superb game trophy, a prized addition to the landscape, a threat to crops, a tasty meal, or a road hazard. Accommodating these diverse viewpoints has been a priority for the Division of Wildlife since deer returned to the state.

The Division's goal is to maintain deer populations at a level providing maximum recreational opportunity including hunting, viewing, and photographing, while at the same time minimizing conflicts with agriculture, motor travel, and other areas of human endeavor. In other words, have enough deer to hunt and enjoy, but not so many that they cause undue human

hardship. This goal, which has received broad public support, involves three steps. First, an estimate of the size of the herd is needed. Second, we must evaluate public attitudes toward deer and relate these opinions to our estimates of herd size. Finally, herd size is adjusted via regulated harvest to reflect constituent input. This process is completed for each county.

## Inventorying Deer

Because of the secretiveness and mobility of the white-tailed deer, harvests and reported deer-vehicle accidents (DVAs) are used in place of actual counts to monitor herd size. To be valid measures of relative herd size, these indicators are "adjusted" to eliminate inherent biases. For example, since we manipulate the antlerless harvest to affect population size, we use only the antlered buck harvest to monitor population size. Similarly, we adjust reported DVAs to reflect changes in traffic volume. Where available, aerial counts, deer observation data, and crop damage complaints are also used to assess herd size.

## Optimum Deer Population Levels

Citizen input, as mandated by our deer management goal, has been the single most important factor in the goal-setting process. However, the decision to maintain a deer population at a given level is not made without considering the potential impact that such a decision might have on not only the whitetail, but its environment, and the other wildlife species as well. That means finding a population level that neither exceeds the cultural or biological carrying capacity of the habitat.

Beginning in 1979, the Division began using periodic surveys (about every five years) of Ohio's farmers to help define optimum population levels in all but our heavily urbanized counties. Optimum county deer densities or target population levels represent what we believe to be the most equitable solution to the complex problem of minimizing impacts and maximizing benefits derived from Ohio's whitetail resource.

When deer begin to exceed the biological carrying capacity of their habitat, both deer and the habitat suffer. Data collected since the early 1970s suggest that while deer herd condition in western Ohio remains unchanged, it is declining in eastern Ohio. Furthermore, a comparison of 1996 deer weights with 1982 data revealed that deer in some eastern Ohio counties are significantly lighter now. The declines are the consequence of two simultaneous events—aging of the forests and continued deer herd growth.

## Managing the Harvest

The high quality of Ohio's deer range and absence of natural predators, coupled with the whitetail's remarkable reproductive potential, dictate harvest management as the most practical means of maintaining deer populations. Regulations can be effectively used to increase, decrease, or



Tim Daniel

**Today the whitetail is abundant in Ohio with an estimated herd of 650,000.**

maintain harvests of either or both the antlered and antlerless segments of the population depending on where the population is relative to target. Ultimately, population levels are controlled by regulating the harvest of females.

By managing for optimum deer population levels on a county basis, we expect to prevent or eliminate widespread problems with deer. However, some localized crop damage is still likely to occur. Even with a county population at the desired level, deer will move to and concentrate in areas of good habitat. Special programs have been established to help deal with these situations.

In response to increasing numbers of deer-vehicle accidents and low harvests, the Division established five Urban Deer Zones encompassing all or portions of 19 urban counties in 1994. Where local ordinances permitted, hunters could harvest additional antlerless deer within the Urban Deer Zones. The establishment of the Urban Deer Zones grew out of the need to reduce the size of the deer herds in and around our major urban centers. We believe these zones have helped manage our urban deer.

### Hunter and Landowner Cooperation

Successful management of Ohio's deer herd will require a cooperative effort among Ohio's hunters and landowners to eliminate obstacles that currently limit the effectiveness of the program. These obstacles include a reluctance on the part of hunters to abandon traditional sites and seek areas with lower access and higher deer densities, and a reluctance on the part

of landowners to grant access to their lands. Sportsmen and women must work harder to cultivate positive landowner-hunter relationships.

Landowners can help by allowing deer hunting and actively recruiting good deer hunters. A good rule-of-thumb is that landowners annually need to harvest 50 percent of the deer they believe are on their property and about 75 percent of these should be antlerless. By doing this, landowners will be managing for stable deer populations. By harvesting anything less than this, they are managing for increasing herd size.



Ultimately, deer population levels are controlled by regulating the harvest of does.

Tim Daniel



Cooperative efforts among Ohio's hunters and landowners can help ensure successful management of Ohio's deer herd.

Tim Daniel



Brad Jerman (left) took an 11-point buck last fall in Warren County that if approved by national scoring organizations, will rank among the top 10 all-time largest typical deer in the world, and the largest ever taken by a crossbow hunter. The Beatty Buck, taken by Ohio bowhunter Mike Beatty (right) in Greene County in 2000, ranks as the top non-typical buck in the country.

Jerman's buck scored 201 1/8, which tied with this buck taken by William D. Kontras, as Ohio's all-time record typical deer. Kontras is pictured here with his big buck, taken in Clark County in 1986.



# The Data Behind the Decisions *by Michael J. Tonkovich, wildlife research biologist*

**T**oday, society's tolerance for deer often dictates the size of the deer herd, as long as the goal is consistent with the biological limits, or "carrying capacity," of the habitat. While the carrying capacity varies across landscapes and over time, deer herd size relative to this goal can be monitored through regular herd health checks.

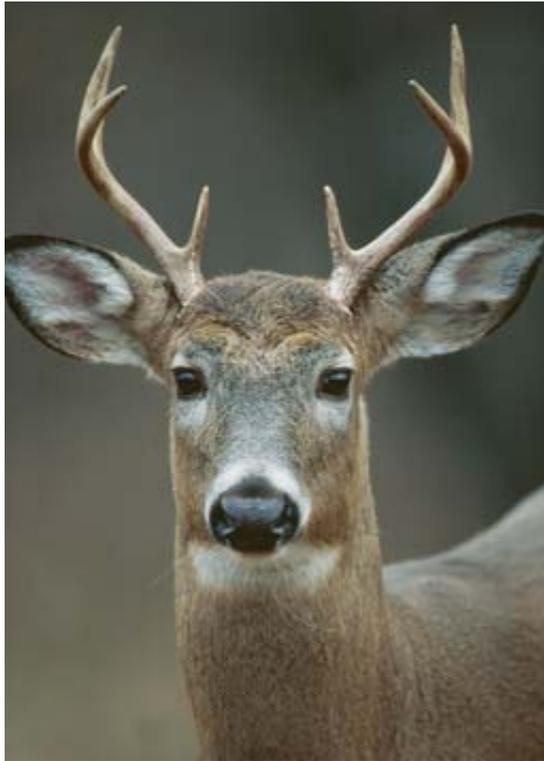
Since mandatory registration of hunter-harvested deer began in 1962, annual "check-ups" have been a regular part of Ohio's deer program. Biologists

also conduct broader periodic herd health checks to verify the accuracy of our annual assessments. In this article, I describe what we are looking for, how we do it, and what we found in our most recent exam. I begin with an answer to that age-old question, "What are we looking for in that deer's mouth and why?"

Like humans, deer replace their baby teeth in a very predictable manner. Wear is also quite predictable. Biologists have used this knowledge for many years to age white-tailed deer. The technique, appropriately named "tooth wear and replacement," was developed in New York in the 1940s and is still widely used by biologists throughout the country. Ages have been of interest to biologists and deer managers for "ages," but why?

There are two reasons to collect age data every year. First, ages allow us to estimate birth and death rates for the population. Secondly, age affects many of the key indicators used by biologists and managers to monitor herd and habitat health. Without ages, it would be impossible to know whether observed changes in herd condition and productivity were related to habitat, or simply the ages of the deer in the sample.

**Aging deer allows biologists to estimate birth rates, death rates, and the overall health of the deer herd and habitat.**



**One of the best measures of herd health is the size of a yearling buck's antlers.** Tim Daniel



**Biologists can determine a lot about deer by examining tooth wear and replacement of baby teeth.**

We can even use the number of deaths of known aged deer to estimate the size of the population. During the fall hunting season, deer are aged as either fawns (0.5 years old) or adults (1.5 years and older). The proportion of yearling (1.5 years old) bucks among all antlered bucks in the harvest indicates how fast antlered bucks are dying and being replaced each year. Yearling doe percent



Tim Daniel

(proportion of 1.5 year-olds among adult female deer) on the other hand, provides an estimate of annual recruitment, or the rate at which animals are added to the population. Collectively, these two pieces of information can be used to estimate the adult sex ratio.

Some consider the white-tailed deer a habitat generalist. To an extent, this is true. However, deer thrive in certain habitat types and merely survive in others. As habitat changes, so will reproductive rates, body weights, and antler development. Biologists regularly monitor these to track herd health. However, because each is also age-dependent, valid comparisons over time or space are impossible without age data.

One of the best and most easily obtained measures of herd health is the size of a yearling buck's antlers, in particular, the diameter of the main beams (or branches) just above the skull. Until a buck reaches his mature body weight at approximately 4.5 years, body growth will take precedence over antler growth. Yearling bucks are particularly sensitive to nutritional shortages. Fluctuations in beam diameters not only signal changes in herd condition, but reproductive rates as well. However, yearling buck antler quality is not foolproof. Short-term fluctuations may simply reflect severe winter weather, drought, or a mast (acorns, hickories, walnuts, etc.) crop failure. Therefore, we periodically conduct broader herd health assessments by collecting body weights and estimates of births or reproductive performance. Data from the most recent study were collected in the late 1990s and compared with studies from the 1960s and 1980s.

Body weights were collected from nearly 5,500 hunter-harvested deer in 22 counties in 1996–98. Results from this study suggest that both bucks and does of all ages were lighter than they were in 1981–82. Mature bucks were the only exception. In addition to body weights, we examined nearly 1,300 reproductive organs from road-killed does during 1997–99. Reproductive rate (number of fetuses per doe) was estimated for each study region. We found that fawn reproductive rates declined in both study regions between 1982–83 and 1997–99. However, farm region fawns (mainly western and central Ohio) continued to contribute more to population growth than those in the hill country of southeastern Ohio. Reproductive rates for adults and yearlings were unchanged.



Tim Daniel

Results from this study confirmed what long-term trends in antler beam diameters of yearling bucks suggested—a gradual but significant decline in herd condition over the last two decades in the hill country. Because of the relatively low level of agriculture in the eastern half of the state, particularly the southeast, deer herd condition is largely dictated by natural plant communities. Old-fields and young forests provide the highest quantity of quality whitetail foods. In many areas, development has replaced these habitats and time has converted young forests into stands of mature timber, which can support far fewer deer of the same quality. As expected, there was little change in the western farm region from the early 1980s. The very high quality habitat and low deer densities will likely keep herds at their current level of quality indefinitely.

Without intervention, further declines in herd condition can be expected in much of eastern Ohio. Even if populations remain stable, habitat quality will likely continue to slowly erode as young forests continue to mature. Timber harvests and maintenance of existing forest openings and early successional habitats will help. Additionally, herd health is likely to get a boost from habitat improvements targeted specifically at deer by the private landowner. Intensive habitat management should benefit deer, at least on a local scale. However, if regional quality is to be maintained, herd size will need to be reduced through liberal harvests of does. Hunters are encouraged to continue harvesting does. Herd control hinges on hunter access and only through positive hunter-landowner relations can we expect to maintain a herd that is both sociologically acceptable, as well as biologically sound.



Tim Daniel

**The herd size will need to be reduced through liberal harvests of does to maintain the quality of Ohio's deer population.**

**Old-fields and young forests provide the highest quantity of quality whitetail foods.**

# After Countless Hours Spent Capturing and Tracking White-tailed Deer Fawns... What Did We Learn?

by Mike Reynolds, forest wildlife research biologist

The last time I reported on the white-tailed deer fawn mortality study (*Wild Ohio* Summer 2002), I told the story of capturing a newborn male fawn on a cool morning in June (photo below). We monitored the movements of #005 over the next 16 months and watched him grow into an incredible 8-point yearling buck! This young buck never wandered far from the field he had been munching all summer. Just as he was nearing the point when he would leave home to search out a new territory of his own, we received a mortality signal from his radio collar.

During the hot Indian Summer of 2002 we had been receiving reports of dead deer turning up near ponds and streams in southeastern Ohio. The most common ailment affecting deer in the Eastern United States called Epizootic



Mike Reynolds

**Biologists fitted 81 white-tailed deer fawns with radio collars over the course of the three-year study ending in 2004.**

Hemorrhagic Disease (EHD) had infected and killed several deer in localized areas. When Wildlife Technician Lloyd Culbertson investigated the mortality signal of #005, he found the buck lying dead on the shore of Lake Snowden in Athens County and displaying classic symptoms of the disease—a swollen, blue tongue.

The death of buck #005 from EHD was just one of the many things we learned about the 81 white-tailed deer fawns we captured over the course of the three-year study that ended in 2004. Following I provide answers to many of the interesting questions people asked about the research project.

Mike Reynolds



**Fawn #005 was captured June 6, 2001 in Athens County. Look closely and you can see the ear tag and a portion of the radio-collar on this little buck.**

## Did coyotes kill many fawns? How about hunters?

Although we made many interesting observations about deer behavior, the main purpose of our study was to determine how many fawns survived each year and what the major mortality factors were in southeastern Ohio. On average, about half of the fawns in our study survived an entire year. This was similar to results of fawn survival studies in other studies in the Midwest and Eastern United States.

Coyotes did kill fawns, but so did hunters, vehicles, dogs, disease, and starvation (see Figure 1). No one mortality factor dominated, but some interesting patterns were observed about



Mike Reynolds

**The remains of buck fawn #056 after it had been killed and partially eaten by coyotes.**

the timing of mortality. White-tailed deer fawns had high mortality during the first several weeks of life. Shortly after birth some fawns starved which were apparently too weak to nurse or were abandoned. This was also a time period when pneumonia or other diseases were most likely to result in sickness or death. Fawns in the early stages of life were also

vulnerable to coyote predation. However, once a fawn reached about one month in age and could accompany its mother, few predator attacks were successful.

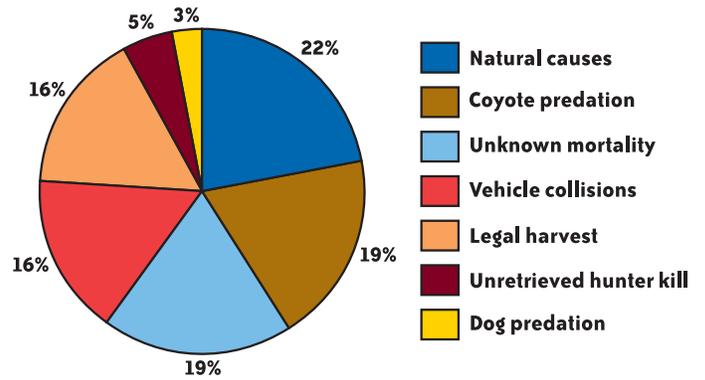
Summer months were a period of relative safety for fawns as they followed their mothers around the woods and fields, but as fall approached and the breeding and deer hunting seasons got underway an increase in mortality occurred. Some fawns were struck by vehicles on roads when dispersing



Mike Reynolds

**Lloyd Culbertson, wildlife research technician, holds fawn #005's first set of antlers. This deer was only 16 months old when**

**it died from Epizootic Hemorrhagic Disease in September 2002. Can you imagine what his rack would have looked like if he had lived a few more years?**



**Figure 1. The main goal of the fawn study was to determine how many fawns survived each year and what the major mortality factors were in southeastern Ohio.**

to new areas. Others were legally harvested by hunters during archery, shotgun, and muzzleloader seasons.

Winters in southern Ohio rarely are severe enough to cause starvation like sometimes occurs in the Snow Belt region of northeast Ohio. In fact, fawns had very high survival in each winter during our study.

## What determined the size of a buck fawn's first set of antlers?

The size of a yearling buck's antlers are largely determined by nutrition. We monitored young bucks that lived in agricultural areas with low numbers of deer that grew impressive first racks such as #005. However, in other portions of our study area that had high numbers of deer and poor quality habitat, study animals grew short spikes or spindly forked antlers. Harvesting more does in densely populated areas is a good strategy to reduce total deer numbers, improve habitat quality and nutrition, and produce healthy deer with bigger antlers.

## Are there still deer from our study roaming southeastern Ohio?

Yes. In fact, many of the surviving male fawns should have grown into mature bucks by now. Although their radio collars were shed long ago, most of our research animals still have an ear tag. We will likely continue to get reports from hunters who have harvested ear-tagged deer for the next few years.



Jeff Carter

One of the fawns I captured in 2001, #004, is approaching 4½ years old this fall and has given birth to her own fawns in each of the last three years. She still lives within the same small

territory where she was originally captured and likes to nurse her fawns in the cool shade of an apple orchard. 

# Bow Hunting: An Important Deer Management Tool

by Michael J. Tonkovich, wildlife research biologist, and Patrick Ruble, Bowhunting Preservation Alliance

In 1982, the Division of Wildlife estimated that there were 82,000 vertical bow (long, recurve, and compound), 11,000 crossbow, 48,000 muzzleloader, and nearly 200,000 shotgun deer hunters. Less than 10 percent of each group was successful that year, shotgun hunters being the exception at nearly 20 percent. Clearly, at that time management of Ohio's deer herd depended heavily on shotgun hunters. Over the next two decades, a number of things would change including the role of bowhunting as a deer management tool.

The first major change occurred during the 1982–83 season when the crossbow season was expanded to four months to coincide with the existing archery season. Crossbow hunter numbers and harvests increased dramatically as a result of the expanded season. During that 20-year period, the deer population continued to grow and there was a corresponding increase in harvest by all types of deer hunters. Hunter success rates continued to climb.

By the 2001–02 season, crossbow hunter numbers had increased nearly 10-fold to an estimated 106,000. That year the crossbow season provided an estimated 1.8 million hunter-days of opportunity. Nearly 15 percent of crossbow hunters were successful that year. Vertical bowhunter numbers had increased to 88,000, with 15 percent successfully harvesting a deer that year. Hunter numbers and success rates increased for firearms hunters as well, but not to the extent of archers. The 2004–05 archery harvest was 60,626, which accounted for 28 percent of the total harvest.

Another phenomenon occurred during the past 25 years, which has made bowhunting a very valuable management tool. Deer have taken up residence in our cities and towns in fairly large numbers. Bowhunting is often the most effective and efficient way to address overabundant deer in these areas. Cuyahoga County is a good example. The 2004–05 archery harvest was 443 deer—90 percent of the total county harvest. Although an insignificant contribution to the statewide harvest, the harvest represents over 400 animals that likely would have had to have been taken by less desirable means such as sharp shooting or automobiles. The crossbow accounted for the majority of the harvest. Urban deer problems and problems associated with abundant deer are not unique to Ohio. What is unique is the central role that the crossbow has played in these situations.

**The growing popularity of bowhunting over the past two decades has given biologists another deer management tool.**

Presently, Ohio is one of only seven states where crossbows are legal during the entire archery season. Many state fish and wildlife agencies are exploring nontraditional means for controlling white-tailed deer populations in areas with little or no hunting access. Communities and park systems across Ohio and the U.S. are increasingly employing sharpshooters

**Prior to the 1980s, management of Ohio's deer herd depended heavily on shotgun hunters.**

photos by Tim Daniel



**Bowhunting is often the most effective and efficient way to address overabundant deer in urban areas.**



to reduce local deer populations. Ongoing research in the Cleveland Metroparks is evaluating the feasibility of reducing a local deer population using only chemical fertility control.

In spite of its widespread success in Ohio, especially in our urban areas, few states are willing to consider adding the crossbow to their management toolbox because of resistance from a vocal minority of hunters. They argue that it does not belong in the archery season and placing it there would reduce opportunity and/or bag limits for all hunters and, in extreme cases, decimate herds. Despite the controversy, many states see the crossbow as a partial solution to shrinking opportunity, an ever-increasing urban deer problem, and as an aid to bolster hunter recruitment and retention.

Crossbows were legalized for deer hunting in Ohio in 1976. Ohio's estimated 1,400 crossbow hunters accounted for 27 of the 23,000 deer harvested that year.

The crossbow harvest exceeded the vertical bow harvest for the first time in 1989 and it has remained that way since. Approximately 30 percent of Ohio's deer hunters use a crossbow each year. Annually, the crossbow accounts for roughly 15 percent of the total harvest. Much of this harvest comes from one of five urban deer units. These units were established in 1994 in areas traditionally prone to under-harvest and overpopulation. The urban deer permit is good for an antlerless deer only. After a slow start, urban deer permit sales have ranged from 18,000 to 25,000 annually. In a typical year, the urban permit will account for around 5 percent of the total harvest, with approximately 35 percent of these deer taken with a crossbow.

Contrary to claims by anti-crossbow groups of herd decimation and severe restrictions on hunting opportunity and harvest, Ohio has never modified regulations governing crossbows or adjusted harvest regulations because of the crossbow. Modern firearms have, and will always account for the majority of the harvest and have the greatest impact on Ohio's deer population. The crossbow has never had a significant statewide impact on the management of the deer herd. Ohio's experience has shown that the crossbow is not an unsafe, hyper-effective hunting implement rivaled only by the shotgun. Hunter success rates are no higher than those for vertical bow hunters. Additionally, the crossbow may help retain and recruit new hunters, especially youth and women.

The primary reason for reduced activity or desertion among active bowhunters is time constraints. Hence, any effort to make bowhunting more accessible, more convenient, or easier would help address the immediate issue of time constraints and the more important issue of hunting in general. Few would argue that the crossbow is much easier to master and

remain proficient with than the vertical bow, or that many of the physical limitations imposed by the vertical bow cannot be overcome with the crossbow. Thus, it seems fair to say that the crossbow would help make bowhunting more accessible, easier, and more convenient.

Ohio's deer resource will continue to provide our citizens with countless recreational opportunities, for both hunters and nonhunters alike, well into the near future. It will be the Division of Wildlife's job to try to balance those opportunities with the human-deer conflict situations that will accompany them. Without question, bowhunting and most notably crossbow hunting, will continue to be a most valuable tool for the biologists who work to maintain this balance. 



**Much of Ohio's annual crossbow harvest comes from the five urban deer zones.**



Tim Daniel

**Many states see the crossbow as a partial solution to an ever-increasing urban deer problem, and a tool in recruiting and retaining hunters.**

# 2004–05 Deer Season Reveals Oddities in Nature

**O**ddities in nature certainly occur and Division of Wildlife biologists are sometimes contacted by hunters with some curious discoveries. Three deer hunters were quite surprised and amazed at the oddities they found during the 2004–05 deer season.

## Offspring or Sibling? Hunter Discovers Strange Find Inside His Deer

by Jerry Rolli, Morgan County wildlife officer

Morgan County hunter, Matt Cook found a rare and strange phenomenon while gutting the doe he had just harvested. When removing the entrails, he found a white mass about the size of a softball. The mass was in the lower belly and near the diaphragm (which separates the chest and abdominal cavities). He removed the mass, which was attached by some fatty webbing to the entrails. The rest of the deer appeared normal.

The mass appeared to be just fat packed into the shape of a softball. Cook cut open the mass and out popped another mass the size of a baseball. Upon cutting open the smaller mass he found a fetus and could make out what looked like a head with eyes, ribs, and small legs.

As the Morgan County wildlife officer, Cook contacted me and I contacted the Division of Wildlife's Waterloo Research Station in Athens County, responsible for research on Ohio's forest wildlife. Deer Biologist Michael Tonkovich and I were both very excited about the strange find. Tonkovich made several inquiries and it was determined that the mass was called a *teratoma* (Greek word meaning "horrible").

According to Dr. Richard Gerhold, staff veterinarian at the University of Georgia's College of Veterinary Medicine, a teratoma is a mass that contains a haphazardly arranged mixture of tissue elements derived from three skin layers (endoderm, mesoderm, and ectoderm). Dr. Gerhold noted that teratomas may contain skin, hair, teeth, nervous tissue, skeletal muscle, lung, GI tract, bone, etc., as well as an entire fetus! The fetus may have actually been the doe's twin sister (or brother). Of course, it is also possible that the fetus may have been the result of an ectopic, or misplaced, pregnancy. Either way, the interesting discovery was a first for all involved!

## Hunter Bags Buck with Third Antler

by Jeff Osborne, Clermont County hunter

As luck would have it, every time I was in my tree stand at my favorite hunting spot during the bow season, other hunters would walk in and mess up my hunt. So just before the gun season, I decided to set up my tree stand at my backup spot.

The day before gun season opened I went to hang my tree stand. Walking back to the woods along the edge of the field



Clermont County hunter Jeff Osborne bagged this Buckeye Big Buck with three antlers last November.

I was looking down at the ground, but looked up to see a big buck standing only 30 yards away and staring right at me. I dropped to my knees and the buck took two or three more steps toward me and stopped. He then turned his head sideways almost like he was trying to figure out what I was. That is when I saw the unicorn point!

I stood up slowly and stared back at him. Unalarmed he walked backwards about 10 yards, then turned and started walking back down the field edge. I proceeded down the opposite field edge with the buck still staring at me and me staring at him. Finally I got to my tree and put up my stand.

The next day I was in my tree about 1½ hours before daylight hoping to see the big buck again. After 11 hours of not seeing the buck, but hearing shots all around my hunting spot, I wondered if I ever would. On day two I was back in my tree stand in a pouring rain. I did not see any deer, but a group of four hunters gathered only 75 yards away from me talking. I continued my hunt for another hour after they left, but I thought they had ruined my hunt. I was also cold and wet so I gathered my gear to leave. As I looked up, only 30 yards away once again, was the buck of my dreams staring right at me.

I pulled up and shot. With the buck fleeing and it still pouring down rain, I was praying for a good hit. The big unicorn buck fell about 75 yards from where I shot him. It scored 177 4/8 points with the Buckeye Big Buck Club.

*continued on next page*

## Three-Antlered Buck in Same Season is Even More Rare

by John Moore, Morrow County hunter

On opening day of deer-gun season I got to my hunting spot around 2 p.m. and cleaned a spot to sit. Around 2:25 p.m. I heard something coming up the other side of the hill I was sitting on. As it came over the point of the hill, I saw the buck I had always been after—a brute. He was about 40-50 yards from me and angled up the hill. I had to take a shot soon before he noticed me, but he stayed mostly behind a small clump of grape vines. When he finally cleared the vines, he looked down the hill at me and I shot.

It was very hard for me to wait until he laid down somewhere. I walked over to the spot where I had shot him, but at first could not find a single sign of blood. I was afraid I had missed the trophy of my life. Then finally I saw the blood and followed the trail down the hill about 100 yards. And there he was; what a monster! Then as I got closer, I saw the center horn. Never had I seen such a thing.



Morrow County hunter John Moore took this three-antlered buck on opening day of last year's deer gun season.

When checking the deer at the check station, every hunter there was commenting how they had never seen anything like it. I have since given a lot of radio interviews, and my story has appeared in *Outdoor Life* and other magazines. It's been a fun ride! 

### “Accessory” Antlers

**Most researchers agree that third antlers, referred to as “accessory” antlers, found on bucks are most likely the result of trauma to the forehead. Injury to the forehead, such as a scraped scalp from rubbing, a wound from a fight, or other injury, may stimulate the antler growth center and ultimately cause a third antler to grow.**

The injury could occur at any time of year. The severity of the injury, the duration of the healing process, the rate of antler growth tissue at the site, and other factors, might dictate when the additional antler will grow. Except for its location, the extra antler is “normal.” The deer will shed the antler and re-grow it each year with its other two antlers. However, given enough time, the third antler will eventually migrate to either side and fuse with the main beam.

Other abnormalities in white-tailed deer include genetic color variations that are evident in the color of the coat: piebald (patches of white), albinism (solid white), and melanism (black). The piebald condition is the most widespread. Piebald deer often show other defects such as a bowing of the nose, short legs, arching spine, or short lower jaw. True melanistic whitetails are even rarer than albinos.

Twelve-point piebald deer taken in Noble County several years ago by Eli Burkholder of Middlefield, Ohio.



## Letters from a Happy Young Hunter...

*Eight-year-old Jessica White, of Lower Salem, Ohio, shared this story of her first successful deer hunt.*

On December 5, 2004 I harvested my first white-tailed deer. It was a six-point buck. I was hunting with my dad, sister Josie, and my great uncle. The hunt was very exciting. When the time came to shoot, I didn't have time to get "Buckfever." I just thought of everything that I needed to do to make the shot. It took two shots to get the buck.

After tagging the deer we took lots of pictures. For Christmas my parents tanned the hide and mounted the horns on a plaque for me. Now my trophy hangs on the wall with my dad and mom's hunting trophies.

— Jessica White



### Jessica later sent yet another story...

On April 25, 2004 I harvested my first turkey during the Ohio Youth Turkey Season. I was hunting with my dad, sister Josie, and cousin Nathan. We set up a blind that we had built in the corner of my grandfather's farm. We had only been calling a short time when turkeys began answering and heading towards our blind. Before long, I had to figure out which turkey to harvest. I harvested my turkey with one shot from my dad's first gun, a Mossberg .410.

After tagging the turkey we took lots of pictures. My dad also mounted the tail feathers, beard, and my "lucky" shell on a board for me. The hunt was very exciting. I can't wait until next season.

— Jessica White



## Deer Questions from Our Readers...

**Q:** After you get your deer head back from a taxidermist, do you have to keep your metal tag on it?

— Glenn, Seth, & Luke Van Orsdale, Alliance, Ohio

**A:** It is not necessary to have the metal tag attached to your mount. However, you need to retain the tag as legal proof you were properly permitted when bagging the deer.

**Q:** Some white-tailed deer bucks have white antlers and some have brownish antlers. Could you tell me why this is so?

— Myron E. Hershberger, Millersburg, Ohio

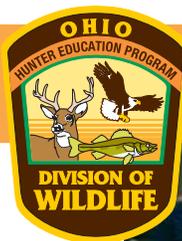
**A:** Some theories suggest antler color is affected by the tree species bucks rub on, especially during the first few days after velvet removal. More recent theories suggest genetics and bone density play a role. In addition, there is at least some evidence that severe winter weather makes antlers lighter in color as the season progresses. However, there are plenty of examples of bucks with dark antlers late in the season in northern climates.

## Beatty Receives Special Pope and Young Award

Mike Beatty, of Xenia, received the *Ishi* award at the national Pope and Young awards banquet in Springfield, Missouri last April. Only 16 such awards have been presented and this is only the second time the award has been given to a non-typical white-tailed deer. The award is attributed to the animal only and not the hunt or the hunter. *Ishi* was the original Native American hunting guide for Dr. Pope and Dr. Young.



Tim Daniel



## The National Archery in the Schools Program

### *It's Not Just About Archery*

by Kevin Dixon

In December of 2001 a group of individuals in Kentucky sat down to discuss an idea. The idea was sparked by the success of an after-school archery program taught by Whitley County eighth grade math teacher and professional archer Jennie Richardson. Little did they know that their idea would soon blossom into a national program with overwhelming excitement from students, teachers, and parents alike.

I first heard about Kentucky's Archery in the Schools Program, "On Target for Life" in July of 2003. By then the program had attracted national attention, and 117 Kentucky schools were already participating. The students that participated in the archery program showed marked improvement on test scores in many subject areas, recorded better school attendance, and had fewer behavior problems.

Kentucky was being flooded with inquires from both inside and outside the U.S. from educators wanting to know more. This program has the potential of making a positive impact in many aspects of the students' education, and I too was excited about bringing the National Archery in the Schools Program (NASP) to Ohio.

### Ohio Gets Onboard

Last April training was conducted to certify educators from 12 pilot Ohio school districts and the instructors that would assist in the future certification of teachers. In the first year of the program, Ohio has been successful with a current 23 schools actively teaching NASP. One university has agreed to include NASP teacher certification as a part of their physical education degree program and several of the participating schools are starting after school programs. Several Ohio schools participated in the National Competition in Louisville, Kentucky last March.

I was fortunate enough to attend the National Competition, and it was there that I realized what makes this program so special. As I watched the kids participate, I noticed something that I doubt the kids noticed, but I am sure many of the coaches, teachers, and parents observed. The kids ranged from grades 4–12, several were physically challenged, one was blind, several were very small for their age; and of course several were strong, athletic types. But every student was having fun, competing side by side. Later that evening at the awards ceremony, I watched as those same children, cheered, screamed, and hollered for each other like fans attending their favorite professional sporting event. I looked over the crowd and saw parents crying, overcome with pride for their children's success. That is when I realized what this program



**Maysville 6–12 team with Olympic gold medal archer Rod White at the NASP tournament in Louisville, Kentucky**

is really all about. It is not the competition, the shooting, the number of schools involved, or any of the other things that people commonly use to reference a program's success. It's simply about the kids. The kids love this program.

NASP gives so many students a place to belong without the bias and unavoidable physical discrimination that is inherent in so many other sports. The program is successful because everyone can participate. This program develops self confidence resulting in success that ultimately changes lives. It's not just about archery, it's about the kids! That's why 24 states are currently teaching the program in their schools and 13 additional states are committed to introducing NASP this year. That's why the National Archery in the Schools Program works!

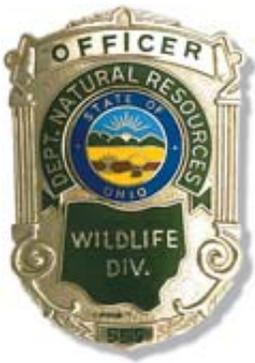
*To get your school started in the program, to find out how you can help, or if you have any questions call your local wildlife district office or the Division of Wildlife's NASP program coordinator at (614) 265-6334.*



**Sidney Middle School Team at the NASP tournament in Louisville, Kentucky**

**I want to congratulate every student who participated in the National Competition and thank you for representing Ohio in such an outstanding fashion. I would also like to say congratulations and thank you to every teacher, volunteer, and instructor of Ohio's program. Your participation is what makes Ohio's program successful.**

**— Kevin Dixon, Ohio NASP coordinator**



## Wildlife Law Enforcement

# Field Notes

### Southeast Ohio Poaching Group Nabbed

by Charles Stone, wildlife investigator, District Four



In October 2003, a concerned citizen called the Muskingum County Sheriff's Office about suspected spotlighting activity that in turn led to an investigation of illegal hunting conducted by a large group of poachers. The investigation spanned four counties in southeast Ohio.



photos by Charles Stone

Mike Reed, Muskingum County wildlife officer, and Rick Staugh, wildlife officer supervisor, made the initial contact with the three suspects. During interviews, two of the suspects admitted to the spotlighting incident and also provided information pertaining to multiple deer and turkey violations by several individuals including Adrian Davis, a police officer employed by the village of Buckeye Lake. District One Wildlife Investigator John Davis and I were assigned to conduct the investigation.

The investigation included multiple interviews with suspects and witnesses, a search of the home of Adrian Davis, and collection of numerous items of evidence. A total of 44 charges against 12 individuals in four different counties (Muskingum, Coshocton, Perry, and Licking) were filed.

Adrian Davis was charged with 19 offenses for his involvement in the illegal taking and/or possession of white-tailed deer and wild turkey. He was found guilty on all counts and was fined a total of \$2,250 plus \$800 in restitution. Additionally, Davis was sentenced to 60 days in jail (45 suspended) plus 208 hours of community service. His hunting privileges were suspended for five years and he forfeited a rifle, a compound bow, and several deer and turkey mounts.

All of the remaining 11 defendants were found guilty in various courts. They were fined a combined \$2,672 plus \$400 in restitution, ordered to perform 70 hours of community service, and serve 80 days in jail (60 suspended). Several additional mounts and a crossbow also were forfeited.

### The Big One that Got (Taken) Away

by Tim Schlater, investigator, District Five



Tim Schlater

Highland County Wildlife Officer Jim Carnes displays antlers from three bucks killed by a poacher in December 2003, opening day of the Ohio Deer Gun Season. All three bucks were killed within a period of one hour.

The largest buck, a 17-pointer, has a net score of 179 3/8, easily surpassing the minimum score of 160 for non-typical anglers for eligibility into the Buckeye Big Buck Club. Ohio has trophy deer hunting that is famous throughout the Midwest.

## Champaign County Investigation Leads to Arrests in Southwest Ohio

by Jeff Tipton, Champaign County wildlife officer

Sheriff's deputies contacted Champaign County Wildlife Officer Jeff Tipton in January 2003 regarding some suspicious deer head mounts and antlers they observed in a home near St. Paris. James Goldick, formerly of Highland County, was interviewed and claimed he had not hunted for several years and had gotten most of the deer heads at flea markets and garage sales. Several things convinced the officers that Goldick was not telling the truth.



Curtis Smith

Evidence was taken from the property and an investigation was initiated by wildlife officers in the southwestern part of Ohio. Goldick was charged with 17 counts of the illegal taking and possession of white-tailed deer. Found guilty, he was fined \$800, received 60 days in jail (suspended) and five years probation, and lost his hunting privileges for five years.

The investigation also led to the arrest of several Highland County men connected to Goldick, including a taxidermist who had been receiving and mounting deer that were taken illegally. Rick Gustin was found guilty of nine charges, fined \$250 on each count, received 90 days (suspended) and three years probation, lost his hunting privileges for one year, lost the right to do taxidermy work in the state of Ohio for two years, and forfeited all deer parts.

Willis Howard was charged with four counts of taking deer while using a .22 caliber rifle. He was fined \$500 on each count, received 30 days in jail (suspended) and three years probation, lost his hunting privileges for one year, and forfeited deer meat and a .22 caliber rifle. Another man, Robert Bennett, was charged and he forfeited a \$250 bond.

## Repeat Offender has Long Line of Violations

By Bob Hesterman, Henry County wildlife officer

A known poacher in northwest Ohio recently had yet another day in court. This time it was for hunting without permission. Chad Burdue plead guilty to the charge. But before sentencing, a Napoleon Municipal Court judge checked to see if the defendant had any prior wildlife violations. Court records revealed that Burdue had many prior visits to the courtroom.

Court records showed that Burdue had six prior run-ins with wildlife officers beginning in 1991 when he was charged with hunting deer with a motor vehicle and shooting from the roadway. Other violations included hunting (raccoons) without permission on several occasions, hunting deer with a motor vehicle, and hunting (rabbits) while his license was suspended. For these previous violations, his fines totaled \$2,050, with 150 days in jail (143 suspended); he was ordered to serve 30 days in jail and pay a jail fee of \$40 per day with work release (for a 2001 violation). He received a \$500 fine and 60 days in jail with 58 days suspended, and a five-year hunting license revocation for the most recent violation.

## Evidence in Litter Traced to Violator

by Jamey Graham



Ashland County Sheriff's Department

Last February, Scott A. Hunter, of Wellington, Ohio, illegally dumped 12 barrels of deer parts and other waste into a Troy Township stream in Ashland County. Thanks to the Ashland County Sheriff's Department, the Troy Township maintenance crew, and the Division of Wildlife, Hunter, a Lorain County deer processor, was later convicted of stream litter violations and forced to pay \$722 in cleanup costs.

Initially, little evidence was available as to the source of the waste. After studying the contents of the barrels, a metal deer tag was identified. The tag number led Wildlife Officers Brian Banbury and Jeremy Carter to the individual who harvested a deer that was processed by Hunter the previous fall. Tire tracks found at the scene of the crime also matched the tire treads on Hunter's dump truck. The 12 barrels accounted for nearly 85 deer, most of which spilled into the stream and onto the bank. The Troy Township maintenance crew took on the task of cleaning up the site.

# Backyards for Wildlife Q & A

by Donna Daniel • photos by Tim Daniel

Do you have a question that you've always wondered about concerning wildlife in your backyard? If so, send your questions to: **Wild Ohio Magazine, Attention: Melissa Hathaway, Editor, 305 E. Shoreline Drive, Sandusky, OH 44870, or e-mail [melissa.hathaway@dnr.state.oh.us](mailto:melissa.hathaway@dnr.state.oh.us).** Due to space limitations, we regret that not all questions submitted may be answered. If you need a quick response to a question, please contact your nearest wildlife district office.

**Q: How big should the entrance holes be on a purple martin house and how far off the ground should it be placed? Is a backyard with trees a good place for martins?**

— Fred Mullholand, New Riegel, OH



**A:** Martin houses should have round entrance holes,  $2\frac{1}{8}$  inches in diameter and set so they are 10 to 20 feet above the ground. Martin housing should be situated close to water in a wide-open yard at least 60 feet from trees taller than the housing. However, be warned that attracting purple martins can be tricky. There are many factors that need to be addressed to be successful. For example, dealing with predators and having a way to keep less desirable birds (starlings, house sparrows) from taking over the housing are critical. The best source for extensive information is The Purple Martin Conservation Association. Contact them at 1-814-734-4420 or at [www.purplemartin.org](http://www.purplemartin.org).



**Q: What do bluebirds eat in winter? Is it a good idea to offer mealworms?**

— Loren Fulton,  
Marion County

**A:** Bluebirds — like their cousins, the robin — change their diet during the colder months to include mostly fruits and berries. It is estimated that only about 1/3 of Ohio's bluebirds stay in the state during winter. Harsh winter weather can be hard on bluebirds making food hard to find so offering mealworms can help. To feed mealworms consider using a special feeder designed to keep larger birds from eating the worms. One of the more popular designs available looks like a cross between a hopper-type feeder and birdhouse. It is enclosed except the ends of the feeder have entrance holes like a bird house. The birds actually go inside the feeder to get to the worms. The size of the holes keeps starlings and other larger birds out. Carolina wrens, chickadees, and nuthatches will also make use of a mealworm feeder.



Bill Carl

Steve Gunderson of Lancaster and Bill Carl of Ostrander each sent in pictures of a hawk they've seen in their backyards wondering what species it is. In both cases it was a Cooper's hawk. Common in the state in both urban and rural areas, Cooper's hawks eat small birds, and during winter these predators often take advantage of the availability of food (cardinals, finches, and doves, etc.) attracted to backyard bird feeders. The Cooper's hawk is about 14–20 inches tall and when perched, the wing tips will appear several inches shorter than the tail. Immature birds have a brown head and back with vertical streaks on the breast as in this photo. Adult birds have horizontal barring on the front and a bluish-gray head and back.



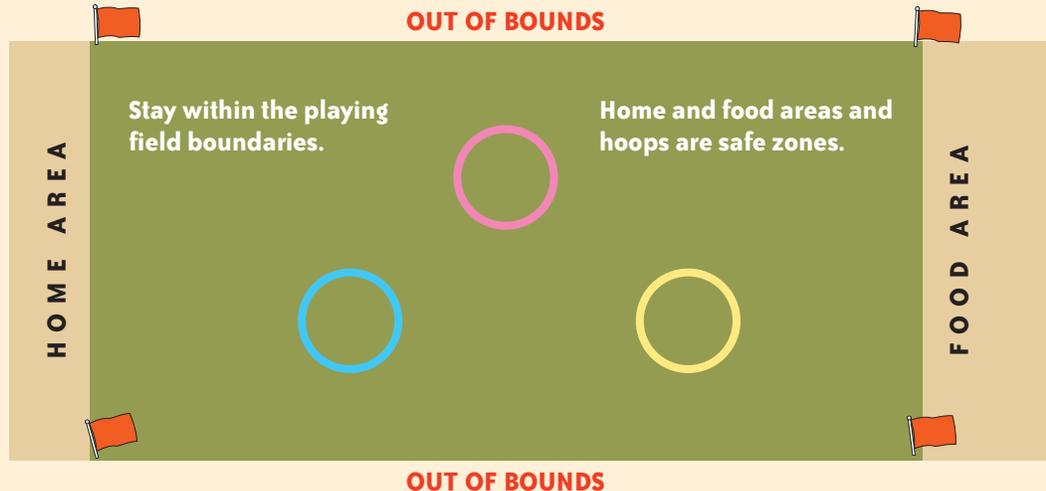
# For Wild Kids

## Quick Frozen Critters!

Ohio animals use many different methods to survive in the game of predator vs. prey in the wild. Predators stalk, ambush, chase, and trap their prey for food. Prey animals use a variety of different tools to avoid being eaten, including running, fighting, hiding in cover, using camouflage, and standing very still in hopes of not being seen. This last technique, called freezing, is used by cottontail rabbits, field mice, and other critters in hopes that they blend into their background and the predator doesn't see them.

This is the idea behind the game called Quick Frozen Critters. You can play this game anywhere outside with your friends or family. You need at least one person to be a predator and five to 10 people to be prey animals. Use the photos below to match the appropriate predator with their prey. Then choose which pair you would like to play in the game.

### Playing Field Diagram



Set up a playing field as shown in the diagram. You will need something to mark the four corner boundaries, three Hula Hoops or string to make three circles, and something to represent food tokens such as whole peanuts or poker chips (three food tokens for each prey). The predator should wear something bright, like a red hat or vest, to identify them.

OK, here we go! All the prey animals line up at the Home Area of the field, behind the corner markers. As long as they stay behind those markers, they are safe at home.

The object of the game is to go from the Home Area of the field to the Food Area, pick up a food token, and go back, three times, without getting tagged by the predator, and while staying within the corner boundaries.

Along the way, the prey have two ways to avoid getting tagged: 1) they have to have at least one foot within the hoops, which are called shelter areas, before they are tagged by the predator, or 2) they freeze in place before the predator tags them. Think of it as a modified version of freeze tag. You can put a time limit of five minutes on each round. So each prey has to go back and forth to collect three pieces of food without being tagged by the predator within five minutes in order to survive the game. The predator has to tag at least three prey or else it doesn't survive the game. Once the time runs out, see how many prey survived and if the predator survived. You can adjust the numbers of predators to see if that has an effect on the number of prey that survive. Or you can adjust the size of the playing field too.

Think about what would happen in the wild if predators ate all their prey. What would happen to predators and prey if their habitat was made smaller?



This game is taken from the Project WILD activity "Quick Frozen Critters." Teachers, you can find out more about Project WILD on our Website at [www.ohiodnr.com/wildlife](http://www.ohiodnr.com/wildlife).

### Predator



Big Brown Bat

### Prey



Cecropia moth



Coyote



Eastern cottontail rabbit



Timber rattlesnake



Eastern chipmunk

photos by Tim Daniel

# WILD GAME GOURMET

## r e c i p e s

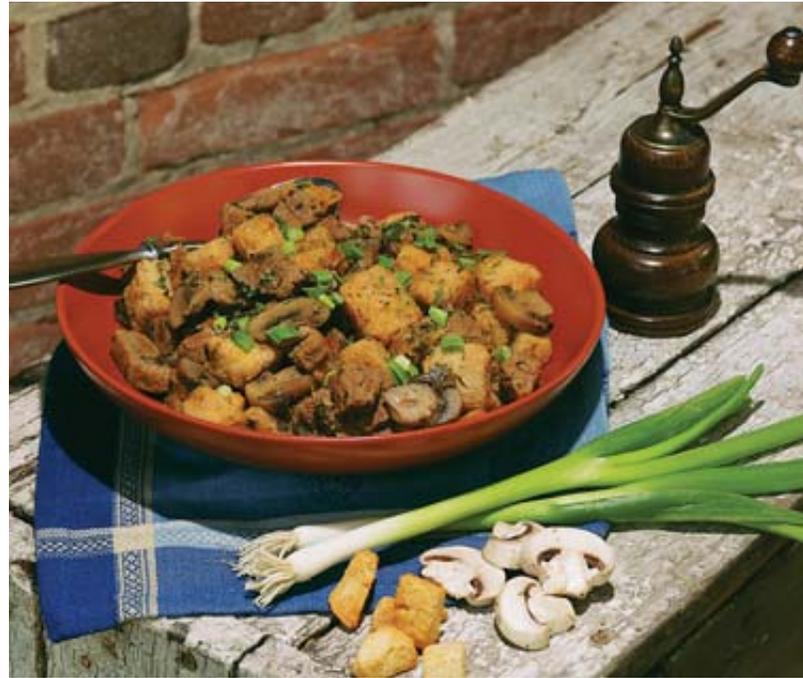
### Hunter's Style Venison

1½ pounds of venison, cut in chunks (need not be the most tender portions)  
¼ cup butter or margarine  
1 pound sliced mushrooms  
1 bunch of green onions, chopped  
1 can beef bouillon  
½ cup dry white wine  
parsley, onion powder, garlic powder  
herb croutons

Brown the venison in butter or margarine, add mushrooms and green onions and saute for several minutes. Add bouillon, seasonings, and wine, cover and simmer for two hours until meat is very tender, or remove to a baking dish, cover and bake at 325 degrees for two hours. When ready to serve, add 2 cups herb croutons, stir and serve.

*(Contributed by Vicki Mountz)*

by **Vicki Mountz**,  
the Wild Game Gourmet as seen on Wild Ohio Video Magazine



Tim Daniel



## Tips for Cooking Venison

Venison is healthy and delicious, and a reward every deer hunter hopes for. Prepared properly, venison can become the family's favorite meat.

Excellent venison starts with prompt and proper field care. The deer should be field dressed as quickly as possible and the cooling process begun immediately. If you butcher the deer yourself, make certain all hair is removed from the carcass. Hair packaged with meat causes an unpleasant taste.

When cooking venison, remember that the fat will cause a stronger taste so as much as possible should be removed before packaging, freezing, and cooking. Bone also adds to a "gamey" flavor. I recommend deboning all venison before freezing. Even if you do not butcher your own game, you can request that the meat processor debone the meat before packaging. With proper care your venison can be as good as any prime cut of beef. —Vicki Mountz, *the Wild Game Gourmet*



Get more delicious venison recipes online at [ohiodnr.com/wildlife](http://ohiodnr.com/wildlife). Also check local TV listings for Wild Ohio Video Magazine which includes segments of the *Wild Game Gourmet*.

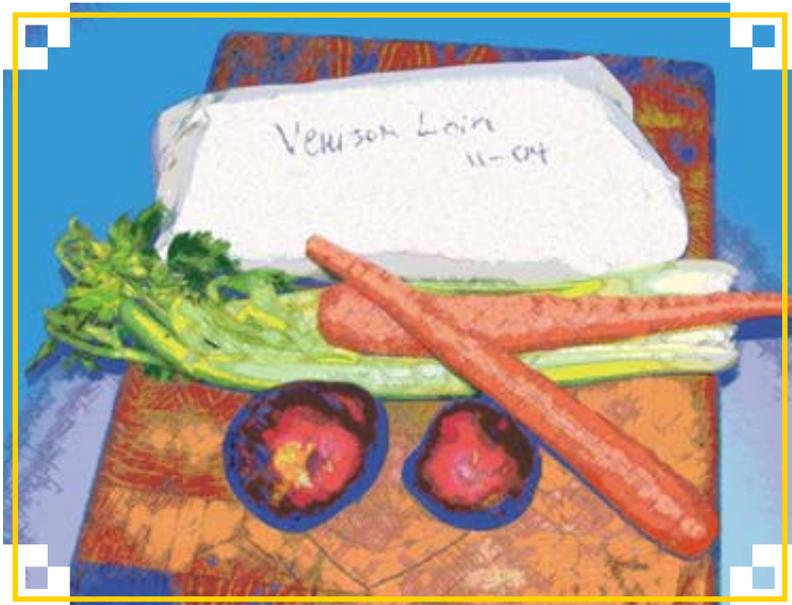


photo illustration—Gene Whitten / photo by Melissa Hathaway

# WILDLIFE Reflections

## Wildlife Constellations of Autumn

by Jen Dennison

This issue's "Wildlife Reflections" is the last in a four-part series of articles exploring the legends and mythology related to constellations that are named for wildlife.

This is my favorite time of year. Sunsets are more beautiful; trees seem to be on fire with color. The air is turning crisp and the smell of burning leaves and fireplaces fills your nose as you take a late evening stroll. Deer are moving around more this time of night, looking for a mate. You might hear the last call of the whip-poor-will before it takes its flight south or feel the rush of a great horned owl flying low overhead in search of prey.

Fall is also a good time for star gazing. You can hone your star gazing skills by learning the path of the ecliptic and the Zodiac. The ecliptic is the apparent path the sun takes among the stars throughout the year. Some of the constellations that straddle this imaginary line January through December include Capricornus the Goat, Pisces the Fishes, Aries the Ram, Taurus the Bull, Cancer the Crab, Leo the Lion, and Scorpius the Scorpion. If these animal names sound familiar, they also make up what is known as the Zodiac. The name Zodiac is a Greek word for "circle of animals," although not all are named for animals. Here are a few that can be spotted in the fall.

### Sagittarius the Archer

Since fall is the beginning of hunting season here in Ohio, it is only appropriate that the Archer is in view. He is best viewed in late August, but as fall progresses you can see him "sneaking low to the ground" on the southern horizon in early evening. By the end of September, he will be out of sight, except the feather in his cap.

If you'll recall in the winter issue of *Wild Ohio*, Orion was killed by the Scorpion. Legend has it that the Archer points his bow and arrow directly at the Scorpion to avenge the death of Orion, a fellow hunter.

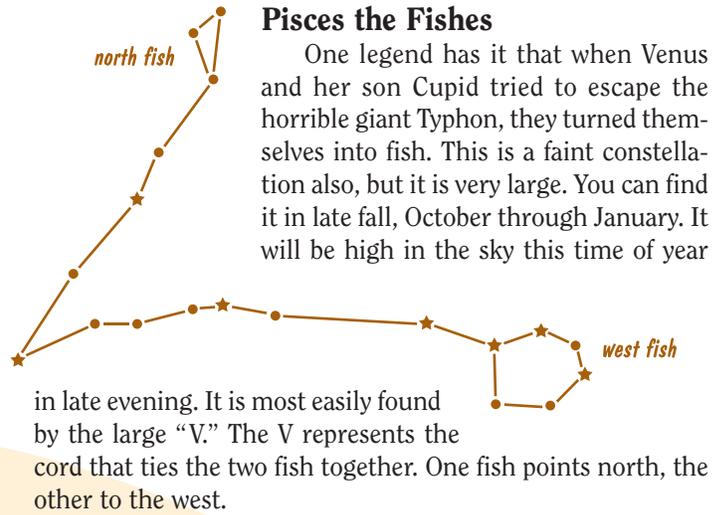
### Capricornus the Goat

This faint constellation is also found in the southern sky August through October. The Archer has its back to the goat. This constellation is found in mythology for several reasons. Horned animals were a major part of ancient cultures, both as gods and as sacrifices to gods. One such story tells of the Greek god Pan, god of the fields and woods, who liked to wander the woods and play music on his pipe, and frighten people who

were out late in the woods. This is where the word panic comes from. In the legend, Pan was fleeing a giant and jumped into a river. His tail went under the water and was turned into a fish, while the rest of his body remained that of a goat. So he is often referred to as the Fish-Goat.

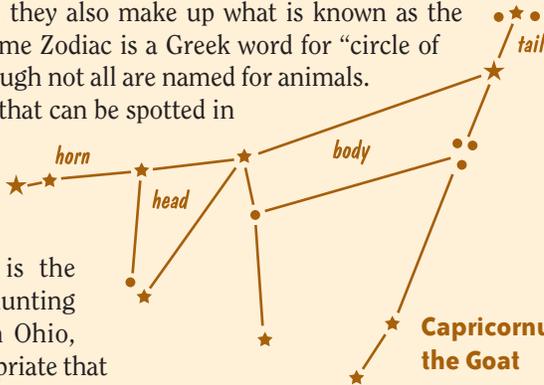
### Pisces the Fishes

One legend has it that when Venus and her son Cupid tried to escape the horrible giant Typhon, they turned themselves into fish. This is a faint constellation also, but it is very large. You can find it in late fall, October through January. It will be high in the sky this time of year

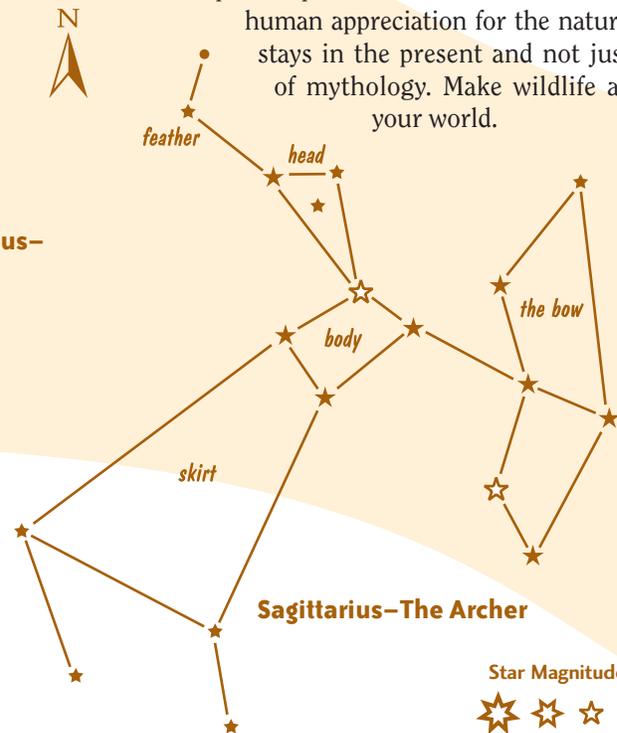


in late evening. It is most easily found by the large "V." The V represents the cord that ties the two fish together. One fish points north, the other to the west.

Constellations can be our connections to the past. Their stories and legends remind us that wildlife have long been an important part of human culture. Let's hope that human appreciation for the natural world stays in the present and not just a part of mythology. Make wildlife a part of your world.



Capricornus—the Goat



Sagittarius—The Archer



The constellations, shown in a new graphic way, are based on those shown in *The Stars, A New Way to See Them* by H. A. Rey.

He calls this his 'trophy buck.

We call this late for the hunt!



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