# White-tailed Deer Alter

By Susan Martka, Principal Biologist

hite-tailed deer are the largest herbivorous wild animal in New Jersey, and studies show they can have a tremendous impact on their habitat.

White-tailed deer are the largest herbivorous animals in New Jersey, and studies show they can have a tremendous impact on their habitat.

The Division of Fish & Wildlife is among a growing number of state conservation organizations concerned about deer's ability to alter the vegetative landscape in New Jersey. In 2003, Fish & Wildlife deer biologists began researching the impacts of white-tailed deer on forest vegetation. The scope of this research was to determine the effects of differing deer densities on plant diversity and abundance in various New Jersey forest types. Paired study sites of similar vegetative cover were selected, which for various reasons (usually hunter access) had widely different deer populations. Six study sites were chosen in three geographic regions of New Jersey. Two study sites were located in the Ridge and Valley region in northwest New Jersey, two in the Highlands region and two in the Piedmont region.

First, the deer population at these six study sites had to be determined. Deer populations were estimated using a technique called distance sampling. In distance sampling, transects are driven at night and spotlights are used to locate deer. When deer are seen, the distance to the deer is measured with an optical instrument. These distances are entered into a computer program and the density of the deer population in the area is calculated. Deer densities in our study sites ranged between 20 to 62 deer per square mile.

Second, an analysis of plant diversity and abundance was accomplished by measuring vegetation on five study plots in each of the six sites. At each plot, every plant less than 4.5 feet tall was identified and counted in five 0.001-acre circles and every plant (or tree) greater than 4.5 feet tall was identified and counted in five larger 0.010-acre circles. The diversity and abundance of vegetation at the six sites were compared to determine the effects of high and low deer densities. As expected, biologists



found a greater number of different vegetative species in study areas where deer densities were lower. In addition, there was, in general, a greater average number of plants in the three study areas

# New Jersey Forests

with the lower deer densities. The analysis of the information collected continues as does Fish & Wildlife's efforts to understand the role of the white-tailed deer in determining the plant communities of New Jersey.

Even at low densities, herbivores such as deer can change the composition of a forest by eliminating their own preferred food plants. Deer at these higher densities also impact other forest wildlife. In some cases, white-tailed deer have eliminated the required nesting cover of certain woodland birds. Excessive browsing by deer may allow exotic plants to invade New Jersey's forests, forcing native species to compete for survival.

Many of these vegetation changes are not compatible with a healthy ecosystem. A complete analysis of the data collected in this study will support Fish & Wildlife biologists' efforts to manage New Jersey deer herds at levels compatible with a healthy forest ecosystem.



*Left:* Les and Andy Alpaugh of ForesTree Consultants measure study plots and identify vegetation.

Above: ForesTree Consultants assess the vegetation differences inside and outside of this deer exclosure.

*Right:* Study sites with lower deer densities have a greater diversity of vegetation

Total Number of Vegetative Species 0.001 - acre study plot





#### Total Number of Vegetative Species 0.010 - acre study plot

## Honachefsky Named Conservation Officer of the Year

By Lt. Sean Cianciulli

GREG HONACHEFSKY, A CONSERVATION OFFICER in Cumberland County, has been named the 2004 Conservation Officer of the Year.

Honachefsky started his career with the Department of Environmental Protection as an Environmental Specialist in 1983. He transferred to the Division of Fish & Wildlife to become a conservation officer in 1984 and was first assigned to the Bureau of Law Enforcement's Marine Enforcement Unit. In 1986, he joined the bureau's southern region inland unit, where he currently serves and is responsible for enforcing the state's freshwater fishing, hunting and wildlife management area regulations.

During his 21-year tenure with the Bureau of Law Enforcement, he has worked aggressively to apprehend and prosecute violators of New Jersey's wildlife laws and to protect the state's natural resources. Honachefsky has been a leader in the use of progressive law enforcement techniques, improving the way many conservation officers conduct investigations.

In 2004, with the assistance of the U.S. Fish & Wildlife Service, Honachefsky's use of electronic surveillance equipment and forensic pathology techniques led to the apprehension of two men who had allegedly been killing protected raptors for several years. After receiving an anonymous complaint, Honachefsky found leghold traps, which are illegal in New Jersey, and many dead raptors in an area near the traps. Several interviews and a search for additional physical evidence resulted in confessions.

Honachefsky also conducted an investigation of an individual who was taking unlawfully possessed white-tailed deer to a taxidermist. During the investigation, Honachefsky seized 13 deer that had been mounted and assisted another officer in confiscating three whitetailed deer that were being mounted. The case involved violations in Salem and Monmouth counties and required the assistance from officers in the central region. Honachefsky coordinated much of the effort that led to a conviction for unlawful possession of deer parts. The case



At a ceremony honoring Conservation Officer of the Year Greg Honachefsky (left) Bureau of Law Enforcement Acting Chief Mark Dobelbower presents the awards.

against the taxidermist is still pending.

The unlawful harvest and commercialization of herring, an anadromous species of fish, is a growing enforcement problem. In 2004, Honachefsky, working in plainclothes and assisted by uniformed officers in the southern region, was able to successfully apprehend several groups of fishermen later convicted for grossly exceeding the daily possession limit. In a single case, he caught several fishermen who had taken more than 300 fish over the daily limit of 35. To date, the cases have netted several thousand dollars in fines, and his enforcement efforts are ongoing.

Honachefsky also has been instrumental in catching and convicting violators on wildlife management areas, particularly those who unlawfully operate all-terrain vehicles and motorcycles as well as individuals responsible for illegal dumping. A single solid waste dumping case in 2004 resulted in fines of more than \$2,500.

## New System Generates Durable Sporting License

By Jeff Smith, Technology Coordinator

LIKE MANY OTHER STATE FISH and wildlife agencies, Fish & Wildlife is seeking to increase efficiency and provide better customer service by automating the paper license and permit system. Automated Licensing Systems of Nashville, Tenn., which currently administers licensing systems for 10 other state fish and wildlife agencies, has contracted with Fish & Wildlife to install and operate an electronic licensing system. Testing at selected locations will begin this fall, and the system is



expected to be in place for all 2006 licenses and permits.

Once it is fully operational, the new system will offer sportsmen and sportswomen more ways to purchase a license or permit. Of course, you can still visit one of Fish & Wildlife's approximately 250 license agents. These license agents will be equipped with an electronic terminal and printer, eliminating the need to handwrite each license or permit. Once your personal information has been entered into the system, a lifetime "Conservation ID" number will be assigned, allowing for the speedy and secure retrieval of your information for future purchases at any license agent statewide.

If it is not convenient to visit a license agent, sportsmen and sportswomen will be able to purchase nearly every type of license or permit on Fish & Wildlife's expanded Internet sales site. Hunters also will be able to submit applications electronically for deer and turkey permit lotteries, and check the status of their applications online.

If computers aren't your thing, in late 2005 or early 2006, you will be able to purchase licenses and permits by calling a toll-free number. A friendly operator will walk you through the purchase process.

The new system will offer another bonus: All licenses and permits issued through the electronic licensing system will be printed on tearresistant, waterproof paper. Snagged your license on a branch? Took an unanticipated swim while reeling in that lunker fish? No problem. Fish & Wildlife's durable, new license is designed to handle all of your outdoor adventures.

For more information and updates on the status of the new licensing system, visit www.njfishandwildlife.com.

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DEER

## Precautions to Prevent the Spread of Chronic Wasting Disease

Guidance for New Jersey residents who hunt out of state and for butchers and taxidermists who receive deer and elk from states where chronic wasting disease occurs.

### Frequently asked questions about Chronic Wasting Disease

By Douglas E. Roscoe, Ph.D., Research Scientist

#### What is Chronic Wasting Disease?

Chronic wasting disease (CWD) affects the central nervous system of mule deer, black-tailed deer (mule deer variant), rocky mountain elk and white-tailed deer. Most scientists believe CWD is caused by an infectious protein or prion. CWD has been experimentally transmitted, via ingestion of the prions, to moose.

The brain of affected members of the deer family (cervidae) will have a microscopic sponge-like appearance, a key characteristic of a group of diseases known as transmissible spongiform encephalopathies (TSEs). Scrapie of domestic sheep and goats, bovine spongiform encephalopathy (BSE or mad cow disease) of cattle and transmissible mink encephalopathy of farmed mink are all types of TSEs in domestic and captivereared animals. Creutzfeldt-Jakob disease is a human TSE that occurs throughout the world.

### Isn't Creutzfeldt-Jakob disease the same as mad cow disease and CWD?

No, although Creutzfeldt-Jakob disease, mad cow disease and CWD are all TSEs and cause similar illnesses and similar lesions in the brain, these diseases are caused by distinct prions.

#### Isn't there a connection between Creutzfeldt-Jakob disease and mad cow disease?

There are four types of Creutzfeldt-Jakob disease: sporadic, familial, iatrogenic and new-variant. Sporadic, familial and iatrogenic Creutzfeldt-Jakob disease occur worldwide, including the United States, and have been recognized for decades, with a frequency of approximately one case per one million people annually.

New-variant CJD is a recently described and rare form of the disease found in Great Britain and some other European countries. At this time, new-variant Creutzfeldt-Jakob disease has only been found in the United States in one person who had previously lived in Great Britain. Cases of new-variant Creutzfeldt-Jakob disease primarily affect a younger age group than sporadic Creutzfeldt-Jakob disease, and clinical signs differ subtly with respect to onset and progression.

There is strong evidence that the cases of newvariant Creutzfeldt-Jakob disease in Great Britain are related to the recent (since 1986) occurrence of BSE in cattle in that country. It appears that the BSE prion has been able to infect humans, probably through the consumption of beef products from infected cattle.

Hundreds of thousands of cases of BSE have occurred in British cattle and there have been 155 confirmed or probable cases of new-variant Creutzfeldt-Jakob disease in people, as of May 2005. State, federal and international agencies, such as the U.S. Centers for Disease Control and Prevention and the World Health Organization, are working together to rapidly identify suspect cases of Creutzfeldt-Jakob disease and learn more about the potential connection between BSE and new-variant Creutzfeldt-Jakob disease .

For more information on Creutzfeldt-Jakob disease, visit www.state.nj.us/health/cd/f\_creutzfeldt.htm.

#### Can humans get CWD?

It's important to remember that animals from known CWD regions in the western United States have been in the human food chain for decades without a known case of related human illness. In Colorado, no cases of CWD or new-variant Creutzfeldt-Jakob disease have been found in people or cattle living in the CWDinfected area, despite more than 16 years of monitoring. Epidemiologists with the U.S. Centers for Disease Control and Prevention have conducted extensive studies into the potential for human risk from CWD. They were unable to identify any association between human neurological disease and CWD and concluded that there is no evidence that CWD is linked to disease in humans.

Nevertheless, based on recommendations of the Centers for Disease Control and the World Health Organization, the best advice is do not eat meat from Histologic comparison of normal brain tissue (left) and spongiform brain tissue (right) from a CWD infected animal.

> Above left: This mule deer shows the poor body condition of an animal with Chronic Wasting Disease.

> > Middle: Brain stem of a deer collected for CWD testing.

Far right: Fish and Wildlife maintains Chronic Wasting Disease emergency response kits for the collection of wild deer in the event of a positive case. Up to 10 teams of two Fish and Wildlife technicians or biologists and conservation officers would respond by sampling over 400 deer in a 10-mile radius of a confirmed case of CWD.



an apparently sick deer, elk or any animal found dead or known to be positive for CWD. Also, as a precaution in areas where CWD has been identified, hunters are advised not to eat tissues known to harbor CWD prions (lymph nodes, tonsils, spleen, pancreas, brain and spinal cord) and to bone out the meat.

#### What does CWD look like?

The clinical signs are not unique to this disease, but loss of body weight is typical, even as the deer or elk continues to eat. The animals may repeatedly walk in the same short path. They may be slightly unsteady, standing with legs separated wider than normal. Some may have subtle head tremors. They may have periods when they appear sleepy or unresponsive or may carry their head down with their ears lowered. Increased salivation, drinking and urination may also occur. Clinical signs have not been seen in deer younger than 17 months. Usually, months to years pass between infection and onset of the disease. Once the signs develop, they usually last for months; occasionally, death results within a few days.

#### How do we test for CWD?

Currently, there is no reliable test for this disease in live animals. However, microscopic examination of the brain of deer reveals the sponge-like changes typical of CWD. Early in the disease, before the spongy changes of the brain occur, special chemical stains for the CWD prion will reveal its presence. These stains have also been used to demonstrate the CWD prion in biopsy samples of tonsil from live deer, but these tests require anesthetizing the deer, and they don't work well on elk. Studies have shown that in a deer the CWD prion is more likely to be detected in the lymph node near the pharynx than in the brain stem, although both tissues are routinely sampled to diagnose the disease.

#### Where did CWD come from?

CWD has been known by its symptoms in mule deer for more than 30 years and may have been present in free-ranging mule deer for more than 40 years. It was first recognized as a TSE in 1977 and was diagnosed in captive mule deer and black-tailed deer in Wyoming. In 1979 it was diagnosed in captive elk. Also about that time, a captive mule deer was diagnosed with CWD in a zoo in Ontario, but the disease did not persist in that location. In 1981, CWD was diagnosed in a free-ranging elk in Colorado and in 1983 the first hunter harvest survey was conducted for CWD. At present, three species of the deer family are known to be naturally susceptible to CWD. Cattle and other domestic livestock may be resistant to natural infection. CWD could have been derived from alteration of an existing TSE or the CWD prion could have occurred spontaneously. Its origin may never be known.

#### Is CWD in New Jersey?

More than 1,900 wild and captive deer and five captive elk have been tested in New Jersey as of April 29, 2005. All were negative for CWD. For more information on the New Jersey CWD surveys visit www.njfishandwildlife.com.

#### Where is CWD?

CWD has been diagnosed in deer and elk in 13 states and two Canadian Provinces as of May 2005. CWD is known to exist in both captive and wild deer and elk from Colorado, Nebraska, New York, South Dakota, Wisconsin, Wyoming\* and Saskatchewan. It has been detected only in captive cervids from Alberta, Kansas, Minnesota, Montana and Oklahoma. CWD has been found only in wild free-ranging deer in Illinois, New Mexico and Utah. CWD infected farmed elk in Korea came from an infected herd in Saskatchewan. \* Captive research herd

#### How is CWD spread?

CWD can be transmitted among adult deer and the prions have been found in the brain, eyes, spinal cord, spleen, tonsils and lymph nodes. This pattern of transmission and association of prions with lymph tissue in the mouth and intestinal tract has led to the hypothesis that the CWD agent may find its way through saliva, feces and urine onto grasses and other food. Deer eating contaminated food may contract the disease. It has also been shown that organs of deer dying in the wild or discarded may be a source of contamination for other deer feeding at the site. The prion is very resistant to traditional disinfectants and persists a long time in the environment. Healthy deer restored to cleaned, disinfected pens developed CWD. The highest prevalence of CWD in free-ranging deer (15 percent) has been higher than in elk (1 percent) in Colorado.

More than half the 154 deer in a captive herd in Nebraska tested positive for CWD. The rate of infection in free-ranging deer surrounding the captive herd's enclosure steadily declined with distance. The captive animals were probably the source of infection for the wild deer. It is not known if urine from captive infected deer sold to commercial outlets and, when used as lures, could be a means of disseminating the CWD agent.

#### How can CWD be prevented or controlled?

The most sensible strategy centers on surveillance to detect the disease, limiting movement of infected animals and slaughtering of known infected herds. Twenty-one captive herds of deer and or elk have been identified as infected with the CWD prion in the United States. All but three have been depopulated. The U.S. Secretary of Agriculture released \$12 million in funds in February 2002 to indemnify captive deer and elk herds for depopulation because of CWD. In 1999, the U.S. Animal Health Association asked the U.S. Department of Agriculture for a captive elk and deer herd certification process, which could be used to declare a captive herd free of CWD. While drafts of this process are being reviewed, the most reliable protection for New Jersey is to prohibit the import or export of members of the deer family, which is accomplished through Fish & Wildlife's restriction of permits to possess captive deer. Policies on captive-herd health surveillance also focus on good record keeping, reporting of unexplained deer or elk deaths, and inspections

Active surveillance through sampling hunterkilled deer and passive surveillance through submissions of sick deer to the Division's Office of Fish and Wildlife Health and Forensics will also comprise the core of New Jersey's response to the CWD threat. These efforts are in cooperation with and assistance from the USDA - APHIS Veterinary Services, Wildlife Services and NJ Department of Agriculture's Division of Animal Health. On May 16, 2002, the U.S. Department of Agriculture and the U.S. Department of the Interior announced the formation of a joint working group on chronic wasting disease (CWD) to ensure a coordinated and cooperative federal approach to assisting the states with CWD response efforts.

#### How can hunters help?

Hunters are asked not to shoot sick or abnormally behaving deer. Instead, hunters should note the animal's location and report it to the Office of Fish and Wildlife Health and Forensics at (908) 735-6398 or to a local field office using phone numbers listed elsewhere in the *Digest*. Hunters can cooperate in donating the heads of their deer when asked by a Fish & Wildlife biologist at selected deer check stations or through butcher shops. New Jersey residents returning from hunting in states with CWD in their deer and elk populations must follow the rules of those states and bone out the meat, taking care to remove brain, spinal cord, and lymph nodes which may harbor the prions.

Skull plates should be free of residual brain tissue and soaked in 30 percent Clorox solution for 15 minutes to destroy the prions. Deer carcasses with meat removed must be disposed of in the trash rather than discarded in fields where deer may have contact with the remains.

#### How can captive deer owners help?

Don't export or import deer in New Jersey until a national herd certification system is approved and Fish & Wildlife lifts the ban on such movement. If you have a deer, elk or other member of the deer family that died of natural causes — especially one that is emaciated, ensure the head is kept cool (not frozen) and immediately notify Fish & Wildlife at (908)735-6398. Arrangements will be made to collect a portion of the brain for testing for CWD.

## How can butchers and taxidermists help?

Use food-waste dumpsters for disposal of waste materials from your facility. This is particularly important if you receive deer or elk from any of the states or provinces listed as having CWD in wild and/or captive deer. This will eliminate possible exposure of deer to contaminated waste, which in the case of taxidermy operations may include salty tissues.

## Links for chronic wasting disease, its management and related diseases:

- U. of Wyoming: http://wyovet.uwyo.edu/WSVL/ updates/cwd.htm.
- Colorado: http://wildlife.state.co.us/hunt/ HunterEducation/chronic.asp
- Nebraska: http://www.outdoornebraska.org and click on wildlife.

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## AGGRESSIVE TURKEYS CONCERN SUBURBAN DWELLER

BY TONY MCBRIDE, PRINCIPAL BIOLOGIST

The reestablishment of wild turkeys in the Garden State has been hailed as a wildlife management success story. These birds now occupy all appropriate habitat statewide and have adapted well to living near people. But some turkeys that venture into densely populated areas can become a nuisance.

Nuisance turkey complaints include a variety of frustrating scenarios such as large numbers of birds in back yards, leaving excessive droppings, roosting on rooftops, flying onto cars and scratching paint, digging in lawns and eating newly planted grass

seed pecking on cars at intersections. Some birds or small flocks actually cause traffic accidents by walking onto the roadway.

In New Jersey, complaints about aggressive jakes and toms (male turkeys, juvenile and adult, respectively) are becoming more frequent. Fish & Wildlife receives about 40 calls annually, and most involve birds that chase people and pets, sometimes



Suburban turkeys can be a general nuisance by scratching while feeding and damaging residential lawns as seen here in the bare patches. In lawns, turkeys find yellow nut sedge tubers and insects.

causing injuries. These situations usually arise in the spring at the onset of breeding, when elevated testosterone levels in male turkeys cause aggressive behavior. Generally, these turkeys will avoid people who do not show fear. Wildlife control personnel sometimes capture aggressive turkeys by acting scared and submissive and then grabbing the bird by its legs when it moves closer to fight. More often, these aggressive male turkeys are captured using a net gun, which fires a blank cartridge to launch a big, square net. Taken from a Video Clip / Mike Madonia / NJ Division of Fish and Wildlife

The origin of these aggressive turkeys is difficult to ascertain. Years ago, such deviant birds were considered to be domestic and likely from game farms. In fact, many nuisance flocks could be traced to people who acquired and incubated wild turkey eggs and then liberated the adults. Captive-raised turkeys often look like eastern wild turkeys and have little fear of humans. For that reason, releasing these turkeys to the wild is illegal.

> The release of pen-reared turkeys, however, cannot account for the increase in nuisanceturkey reports in New Jersey. Currently, wildlife experts theorize that nuisance turkeys are wild birds that have adapted to suburban life over successive generations and have lost their fear of people. Repeated complaints from the same neighborhood usually involve the same group of turkeys.

Turkeys that attack people and pets, cause traffic accidents or exhibit other nuisance behavior such as pecking at car headlights are either captured or destroyed. Last year, eight male turkeys were euthanized for aggressive behavior. Fish & Wildlife does not relocate aggressive turkeys because they are likely to resume their attacks when they are released.

Turkeys that are not aggressive, but create a nuisance by roosting on homes, leaving excessive droppings or climbing on vehicles, for example, are sometimes captured and then released nearby. Harassment techniques can also be effective in controlling nuisance turkeys.

Fortunately, the vast majority of turkey flocks in New Jersey behave in a typical, wild manner. For nuisance flocks, however, the Wild Turkey Research Project will be experimenting with devices such as pyrotechnics and lasers to drive birds away from traditional roosting and staging areas. Fish & Wildlife's goal is to develop effective techniques that are less expensive and labor intensive than trapping turkeys with rocket or drop nets.

## Wildlife Heritage Festival

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## September 25, 2005

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#### EVENT HIGHLIGHTS

- Sporting Gear Flea Market
- Introduction to Trap Shooting
- 3-D Archery Course
- Kids' activities
- Introduction to Fishing for 8–16 year-olds in the Fishing Education Pond
- Little Tykes Fishing
- Casting Clinic For All Ages
- Learn Fly-tying Techniques from Trout Unlimited and the Wildlife Conservation Corps staff
- Primitive Living History Encampment
- Conservation Exhibits
- Kids' activities

- Wildlife and Sporting Demonstrations Including:
  - Black Bear Research & Management Equipment
  - Falconry
  - Sporting Dog Training
  - Herptiles with Gerry Wronski
  - Rockport Rockets—Pheasants
  - Fish Cleaning & Cooking
  - Trout Spawning



Pequest is located on Rt. 46 about 10 miles west of Hackettstown. For more information see www.njfishandwildlife.com or call **908-637-4125**.





## Fall and Winter Trout Stocking Program

For a change of pace during the hunting season, consider fall and winter trout fishing. Cooler weather, uncrowded waters and plenty of trout—including some breeders—provide a fishing experience that rivals the spring trout season. All stocking dates are announced on the Trout Hotline (609) 633-6765 and on Fish & Wildlife's Web site at www.njfishandwildlife.net/trtstk05.htm.

#### 2005 Fall Trout Stocking Program (Oct. 4 – 20) Highlights:

- 50,000 rainbow trout, 9 10 inches, stocked during weeks 1 & 2
- $\bullet$  1,000 + broodstock rainbow trout, 18 20 inches, stocked during weeks 2 & 3
- Waters stocked during week 1 (Oct. 4 8): Big Flat Brook, Black River, Manasquan River, Metedeconk River (N/Br. & S/Br.), Musconetcong River, Paulinskill River, Pequest River, Pohatcong Creek, Ramapo River, Raritan River (N/Br. & S/Br.), Rockaway River, Toms River, Wallkill River, Wanaque River

- Waters stocked during week 2 (Oct. 11-13): Colonial Lake, Crystal Lake, Farrington Lake, Giampetro Park Pond, Greenwich Lake, Grenlock Lake, Hammonton Lake, Iona Lake, Mary Elmer Lake, Maurice River, Oak Pond, Roosevelt Park Pond, Rosedale Lake, Sylvan Lake, Schadlers Sand Wash Pond, Swedesboro Lake
- Waters stocked during week 3 (Oct. 17 20): same waters as Week 1 (stocked with surplus trout - 6 inches and broodstock trout)

#### 2005 Winter Trout Stocking Program (Nov. 21 – 23) Highlights:

- 13,000 rainbow trout, 10 11 inches
- Waters stocked: Amwell Lake, Barbours Pond, Birch Grove Park Pond, Furnace Lake, Green Turtle Pond, Haddon Lake, Hook's Creek Lake, Lake Aeroflex, Lake Ocquittunk, Little Swartswood Lake, Lower Echo Lake, Mill Pond, Mount Hope Pond, Mullica Hill Pond, Riverview Beach Pond, Rowands Pond, Shaws Mill Pond, Shenandoah Lake, Silver Lake, Speedwell Lake, Spring Lake, Topenemus Lake, Verona Park Pond, Woodcliff Lake



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Upland Game Bird Occurrence Report Form Send to: N. J. Division of Fish and Wildlife Bureau of Wildlife Management Upland Game and Furbearer Research Project Nacote Creek Res. Sta., P.O. Box 418, Port Republic, NJ 08241	
Date:	
Name:	
Address:	
City:	
Phone: ( )	
GAME BIRD SPECIES:	Bobwhite
(Please check one)	Ring-necked pheasant
	□ Ruffed grouse
	Woodcock
<b>TYPE OF OBSERVATION</b> (Please check one)	N: Audio (Call heard: quail, pheasant; Drumming: grouse) Number of individuals heard (enter number)
	<ul> <li>Visual (bird was seen)</li> <li>Number of birds seen</li> <li>(enter number)</li> </ul>
	<ul> <li>Mortality (non-hunting— e.g., predator, roadkill, etc.)</li> </ul>
Specific location:	
Nearest intersection:	
Township:	
County	

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great—especially

for the duck. —Walter <mark>Cr</mark>onkite

## ATTENTION **Upland Gamebird Hunters**

If you hunt bobwhite, ruffed grouse, woodcock, ring-necked pheasant or chukar and are willing to participate in a Fish and Wildlife survey of gamebird hunters, please provide us with your name, mailing address, e-mail address and telephone number. Submit this information through our Web site at: www.njfishandwildlife.com or mail to: Andrew Burnett, Principal Wildlife Biologist, NJ Division of Fish and Wildlife, Nacote Creek Research Station, P.O. Box 418, Port Republic, NJ 08241-0418 Fax: (609) 748-2057 E-mail: Andrew.Burnett@dep.state.nj.us

## Declining Bobwhite— An Update

By Andrew Burnett, Principal Biologist

THE NUMBERS ARE CLEAR: FEWER BOBWHITE are pursued by fewer hunters on less habitat. Habitat loss resulting from development, changing land use and natural succession are primarily responsible for the decline.

Fish & Wildlife biologists conducted whistling bobwhite call count surveys during June 2003, 2004 and 2005 in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean and Salem counties. Averages of 0.3, 0.4

and 0.05 birds per route were heard, respectively. These same survey routes were previously run from 1972-83 when an average 25.2 birds per route was heard.

Fish & Wildlife also tracks bobwhite through sightings by the public. During 2004, Fish & Wildlife received 32 bobwhite reports totaling 42 birds. This year, 19 bobwhite reports totaling 107 birds have been received so far. Most of these occurrences were reported south of the Mullica River, suggesting a reduction in the bobwhite's range compared to previous decades.

Fish & Wildlife has received a five-year federal grant to evaluate northern bobwhite in New Jersey. The study will:

- include a complete literature review
- continuation of the call-count survey
- develop a Geographic Information System-based predictive bobwhite habitat model
- determine effects of habitat, weather and other factors on



recruitment and survival rates

develop annual lifecycle model to provide a description of annual population changes
explore the use of sta-

ble isotope analysis to distinguish between wild and pen-reared birds

• involve stakeholders in a series of town hallstyle meetings to convey information and solicit feedback on bobwhite management.

Further, radio telemetry and other

techniques will be used to estimate recruitment and survival rates in two study areas in southern New Jersey. Fish & Wildlife is working cooperatively with Dr. Christopher Williams of the University of Delaware. All birds captured during the study will be marked with a uniquely numbered aluminum leg band. Bobwhite hunters should call Andrew Burnett at (609) 748-2058 to report their harvest.

Fish & Wildlife is seeking funding from non-governmental organizations to support one or more biologist positions that will focus on working with private landowners to improve habitat for a number of species, including bobwhite. New Jersey chapters of the Audubon Society, Ducks Unlimited, National Wild Turkey Federation, The Nature Conservancy, Pheasants Forever, Quail Unlimited, The Ruffed Grouse Society and Trout Unlimited are among the organizations supporting Fish & Wildlife's efforts to preserve bobwhite.

## **Adopt-A-Duck Banding Site**

Waterfowl enthusiasts commonly ask wildlife biologists, "What can I do to help the waterfowl resource?" Each year, Fish & Wildlife traps ducks and marks them with leg bands as part of a nationwide effort to monitor migratory game birds. All duck information on migration patterns. The information gathered from banding is used to guide management decisions and monitor their impacts. Fish & Wildlife needs volunteers to help locate and maintain duck bait sites for this banding effort. For further information, visit www.njfishandwildlife.com.

banding is conducted between July 1 and Sept. 30, before the onset of the primary fall migration. This banding effort is directed toward the common breeding species: mallards, black ducks and wood ducks. Banding data is used to estimate what proportion of the duck population is harvested during hunting seasons and when the ducks are harvested, and to obtain



Baited wire traps are one of the tools used to capture ducks for banding.