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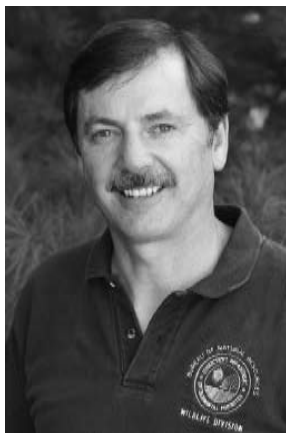
Connecticut Wildlife

PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF NATURAL RESOURCES • WILDLIFE DIVISION



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From the Director



The Wildlife Division's Deer Program reports that the 2006 deer harvest was about 10% lower than 2005 due to a variety of factors. This certainly was the case in the May household where, for the first time in a long time, the venison supply may not hold out until next fall. For a family that prides itself on growing, catching, or hunting as much of its sustenance as possible, the half-full freezer is unsettling.

It's not an issue of economics. The supermarket offers a dazzling variety of foods and smart shoppers can realize some real values there. However, I am preoccupied with where our food comes from; how it was grown and handled. Perhaps this is due to my farming heritage, but I suspect there are other reasons that run much deeper. At the root of it is a subconscious desire to be as self-sufficient as possible by living in balance with the local environment. When I take a deer, or grow a peach for that matter, I'm with my food from field to table. I know the land it comes from. We share the same ground. On the other hand, when I buy a pineapple at the market, I'll admit I'm little disoriented, if only for a moment.

My grandparents were farmers, and when I was young they told me that they were not much affected by the Great Depression. While they certainly weren't prosperous, the fields, woods, and streams sustained them like they always had, despite the woes of the financial markets. They took care of the land and the land took care of them. Fewer and fewer of us can say that anymore. Our ecological footprints may have grown to unsustainable levels, but how will we know it if everything we eat and wear comes from somewhere else?

So back to our family freezer. We will still have venison this year, just fewer meals than in the past. Perhaps we will cherish it even more. Hopefully we will enjoy a wild turkey this spring, along with a fish fry or two and a garden full of fresh green beans and sun-ripened tomatoes. These home grown delicacies are not the only foods that we will consume during the course of the year, but they are the most spiritual, connecting us with the land we live on.

Dale W. May

Cover:

One of the first frogs to heard in the spring is the wood frog. The male's song sounds like a quacking duck. To learn more about the first amphibians to come out in spring, see page 6.

Photo courtesy of Paul J. Fusco

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We Asked -- Connecticut Wildlife Readers Responded!

A random 500 subscribers to *Connecticut Wildlife* magazine were recently sent a reader survey to help the magazine staff assess what our readers expect from the magazine and what kind of information they want. An amazing 364 responses to the survey were received, providing some valuable input. The magazine staff extends its appreciation to all of those who filled out and returned their surveys.

Survey results indicated that the top interests of our readers are wildlife viewing, birdwatching, backyard wildlife, bird feeding, hiking, endangered species, and wildlife/nature photography. Approximately 45% of the respondents are hunters and 52% are anglers.

A large portion of the respondents are interested in articles on mammals, birds, and endangered species/nongame wildlife. The most popular Wildlife Division program updates appear to be from the Deer/Wild Turkey Program, Migratory Bird Program, Habitat Management Program, and the Wildlife Diversity (Nongame) Program. Survey respondents indicated that they are interested in almost all of the regular or occasional features in the magazine, like the wildlife species and habitat profiles, backyard wildlife tips, "From the Field," and "Wildlife Observer."

There were not strong feelings either way about eventually having full-color photographs throughout the entire magazine. However, it appears that respondents do not want full-color issues if the subscription price was to increase.

Overall, there were very few com-

plaints or dislikes about the magazine. A common complaint was that the magazine was too short and not published often enough. There were several requests to increase the number of pages and articles and change the publication schedule to monthly instead of bimonthly.

When asked to describe what they "like most" about *Connecticut Wildlife* magazine, many of the respondents noted that they liked the photographs, the short, to-the-point articles, and, most importantly, that the information is specific to Connecticut.

The Wildlife Division needs to do a better job of diversifying the audience of Connecticut Wildlife and adding more subscribers. Our readers can help in this effort by "spreading the word" about the magazine to friends, family, and coworkers.

All in all, the magazine staff is pleased with the survey results. It appears that most of the survey respondents are satisfied with the content of the magazine and they remain loyal, long-time readers. Survey respondents gave some helpful suggestions for improving the magazine,

as well as ideas for topics to cover in future issues. You should be seeing some of these changes in the near future.

One important item we noted from the survey results is that the DEP Wildlife Division needs to do a better job of diversifying the magazine's audience and adding more subscribers. How readers found out about *Connecticut Wildlife* varies across the board, but actually seeing a sample copy seems to encourage most people to subscribe to the magazine. "Word of mouth" seems to help, too, as quite a few survey respondents found out about the magazine through friends and family. We appreciate our loyal readers who continue to help spread the word about *Connecticut Wildlife* magazine.

Comments from the Connecticut Wildlife Reader Survey

"It fulfills a unique role in covering many, many aspects of the Connecticut wildlife/ecological scene. Keep doing what you're doing so well."

"All articles and information relate to Connecticut where we all live and interact with the environment on a daily basis."

"There is a lot of variety in the subjects covered, so it appeals to a wider audience. I especially like reading about projects that enhance habitat and wildlife in our state. The close to home factor is a big one for me. National publications couldn't do justice to covering our state."

"It educates both people who are knowledgeable of the outdoors and people who are less familiar with wildlife and the laws, and also the work and money provided by sportsmen and women."



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P. J. FUSCO

Mosquito Control... in Winter?

Written by Roger Wolfe, Mosquito Management Program

In the fall, as the days get shorter and the nights get colder, people will often say something like, “Mosquito season is about over. The Wildlife Division’s Mosquito Management Program can relax for a few months, right?”

The answer to that question is “yes and no.” Actually, it doesn’t get any less busy, but priorities are refocused, which can be a nice change of pace. By winter, the Wetland Habitat and Mosquito Management (WHAMM) Program does not have its usual cadre of a half dozen or so summer workers bustling around the Madison shop. So, it does seem a little “slower,” only because there are fewer people around. The staff does get to put away the dippers and winterize the ULV sprayers, but there’s still plenty of work to do. Hour for hour, there is generally more time spent in the office and shop than in the field, but that time is well spent.

The list of what the WHAMM Program does in the “off season” is fairly extensive. The Program is responsible for more than just mosquito control. In addition to conducting mosquito surveillance and control and providing technical assistance to municipalities and the public regarding mosquitoes, Program staff members perform habitat management work similar to other units within the DEP. The WHAMM Program has specialized, low ground pressure equipment that enables staff to work in soft, wet areas where other conventional equipment cannot. The Program is involved in wetland restoration and enhancement projects in coastal and inland wetlands throughout the state and throughout the year. Projects can include replacing undersized culverts to restore tidal salt water flows, removing dredge spoil to uncover buried marsh, recleaning plugged ditches that may be causing flooding issues, or excavating shallow pools and channels for wildlife habitat enhancement. This latter technique also is performed in areas of salt marsh that produce mosquitoes and is called open marsh water management (OMWM). Connecticut has been involved with OMWM since the 1980s.

In fall, the WHAMM Program and its contractors focus their attention on controlling the invasive common reed, also known as Phragmites, by using

herbicides to kill the plant. In winter, workers return to these sites to mow down the dead Phragmites stems. By removing the standing debris, native vegetation is able to rebound more quickly. In addition, it makes it easier to perform spot treatments of residual Phragmites that may come back the next year. The Program has been averaging about 300 acres of Phragmites control each year.



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The end result of many WHAMM Program projects is improved wetland habitat for Connecticut’s wildlife, like this mallard.



R. WOLFE

This low ground pressure Posi-Trak mows autumn olive and other woody shrubs to restore meadow and grassland habitat in Sharon.

Winter also is a good time to review maps and visit sites to monitor success and prepare for future work.

The WHAMM Program has recently gotten more involved in other mowing projects on state wildlife areas and private parcels under landowner agreements in conjunction with the Wildlife Division’s Habitat Management Program. The objective is to mow woody shrubs and small trees to set back succession for a number of declining wildlife species that rely on open grassland habitats.

Because of its dedicated crew and

specialized equipment, the WHAMM Program is often asked to assist other agencies in need. The Program has assisted other DEP units, such as the Fisheries and Forestry Divisions, Agency Support Services, and State Parks Division, as well as the U.S. Fish and Wildlife Service’s Stewart B. McKinney National Wildlife Refuge.

While working in the trenches is rewarding work, these wetland projects are not all fun and games. There is a good deal of administrative work that needs to be done before one scoop of dirt

can be dug. Any excavation activity in the wetlands of Connecticut needs to be reviewed and permitted by the DEP and Army Corps of Engineers. WHAMM Program staff members need to hold site reviews, fill out permit applications, work with landowners, sometimes present proposals to stakeholders and at town meetings, and, in many cases, seek funding to pay for the work. Much goes on behind the scenes before the equipment shows up on site. Winter is a good time to address these issues so that funding sources are identified and permits are in hand when warm weather returns.

For its small size, the WHAMM Program has a sizeable fleet of conventional and specialized construction equipment which are used – a lot. With such use (and often in harsh conditions, such as salt water) comes the need to maintain and occasionally repair or replace worn out and broken parts. Not only are the crew members talented equipment operators, but they are very capable of trouble-shooting, repairing, welding, or otherwise fixing most equipment problems that come up. Winter is a good time to power wash and paint, replace worn out parts, and perform general maintenance. If a repair job is beyond their capabilities, the crew seeks vendors who can perform the larger repair work. Crew members also inventory herbicides, mosquito pesticides, and field supplies, restocking any supplies needed for the next season.

Other aspects, such as ecological monitoring, research, and public outreach, also are performed by members of the WHAMM Program. Winter is a good time for writing (case in point) and reviewing information collected over the summer. Environmental data collected earlier in the year at past and current project sites are tabulated and evaluated. Maps and aerial photographs of sites are reviewed to help monitor project recovery and adjust management strategies, as needed, to help ensure project success. The results of research and management findings are often presented at scientific and technical meetings that are usually held throughout winter and early spring. Other presentations also are made to civic groups, municipal entities, students, and other organizations to instruct, train, and otherwise educate them about mosquito management and



R. WOLFE (2)

The WHAMM Program worked with the City of East Haven to install culverts and excavate channels to restore tidal flow to a marsh.

wetland restoration. Somewhat surprisingly, staff members often get letters, emails, and telephone calls from citizens concerned about next year's mosquitoes. They are glad to respond to such requests but, despite people's eagerness to get the jump on next year, properties cannot be surveyed for standing water and mos-

quito larvae until spring.

Getting back to the question, "What do you do in winter?" The answer is "Plenty." The work load doesn't get lighter, it just shifts. Soon enough though, the WHAMM Program will be back out looking for skeeters.



A wide-tracked excavator creates shallow pools and channels to eliminate mosquito breeding and enhance wildlife habitat.

Be on the Lookout for Frogs and Salamanders in Spring

Most of Connecticut's frog and salamander species are rarely seen by people. That is because, as adults, they spend most of their time in forested areas, living under rocks and fallen logs and in underground burrows. The best time to see some of these creatures is in spring when they move to wet areas to lay their eggs. These wet areas include ponds, ditches, marshes, and a special but little known habitat called a vernal pool. A vernal pool is a low spot in a forest or meadow that temporarily fills with water during winter and spring and then dries out in a few months. It can be big or small. Because these pools dry up, fish cannot live in them and eat the eggs laid by frogs and salamanders.

If you know the location of a vernal pool or other wet area, you can watch for the annual salamander and frog migration. On the first warm, rainy night of spring, usually in March, you may see wood frogs, spring peepers, and spotted salamanders making their way from the woods to the water to lay eggs.

The noisiest amphibians are the frogs. The first frog to be heard in spring is the wood frog. The male's song sounds like a quacking duck. Wood frogs are brown and about two-and-a-half inches long, with a raccoon-like mask. On a rainy spring night, wood frogs travel

from their forested homes to vernal pools. The males float in the water and "quack" all night long to attract females. Within a few days, the frogs lay their eggs and then travel back to their forest homes. Each female lays up to 2,000 eggs that are stuck together in a big jelly-like mass, about the size of a tennis ball. The eggs hatch into tadpoles in about three weeks. The tadpoles are in a race against time. They have to find food (algae and bacteria), grow, avoid being eaten, and begin to develop into frogs before their temporary pools dry up. By September, the tadpoles have transformed into tiny wood frogs that then travel into the forest to find a home under a log or rock or in the leaf litter.

The other noisy frog that can be heard in spring is the spring peeper. Many are surprised that such a small frog can make so much noise. Its call is a "peep-peep," but in a large group the calls sound like sleigh bells. Peepers will start to call around dusk and continue calling all night. The males will often call for weeks after the females have

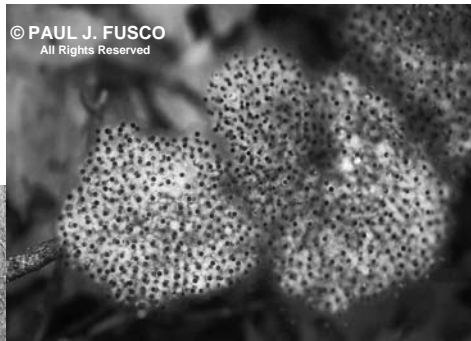
laid their eggs. Spring peepers can be identified by the X-shaped dark mark on their back. They lay up to 800 eggs, attaching them singly or in small groups to underwater plants. The eggs hatch into tadpoles within one week, and the tadpoles change into frogs by August or September. They then travel to the forest to live in the leaf litter.

Compared to frogs, salamanders have smooth skin, a long tail, and they do not make sounds. A common salamander found in Connecticut is the spotted salamander. It spends most of its life in the leaf litter, under logs, or in underground burrows. However, with the arrival of warm temperatures and rain, mainly in March and April, spotted salamanders head for vernal pools and other temporary ponds by the hundreds or thousands. The males and females perform courtship dances in the water before the eggs are laid. Salamander eggs look like globs of jelly and are usually attached in one large ball (of up to 250 eggs) to twigs under the water. Once the larvae hatch, they must develop quickly into young salamanders before the pools dry up.

Jefferson salamanders also travel from their woodland homes to vernal pools during early spring to lay sausage-shaped egg masses of 30 or more eggs. The Jefferson salamander is only found in a few areas west of the Connecticut River. It is a species of special concern in Connecticut.

Vernal pools are often referred to as "hidden wetlands" because they are usually tucked away in a forest. It is difficult to protect these important areas as no specific protection exists for vernal pool habitats at state and local levels. Land development poses the greatest threat to vernal pools and the animals that depend on them. Once a vernal pool is destroyed, the frogs and salamanders will die out because they do not migrate to find other wet areas. Private stewardship of vernal pool habitats is a very effective protective action. Frogs and salamanders should not be moved from one pool to another. Each population is different and should not be mixed.

The frogs and salamanders that use vernal pools and other wetlands have to travel across land to reach the pools. Often times that involves crossing roads. And, when they cross roads on dark, rainy nights, countless frogs and salamanders are killed every year.



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A vernal pool usually fills with water in late winter-early spring, just in time for wood frogs to lay their eggs (see inset). The pool may not even be noticeable by late summer after the water has dried up and the young frogs have traveled to nearby woodlands to live.

Another LIP Project Gets Underway in Groton

Written by Judy Wilson, LIP Coordinator

A Landowner Incentive Program (LIP) project is currently underway at the Avalonia Land Conservancy, Inc., in Groton. A heavy-duty tree and brush mulcher mounted on a tracked excavator, called a brontosaurus, is being used to mulch a tangle of invasive exotic vines and shrubs, including bittersweet, honeysuckle, multiflora rose, and euonymus. Also planned for removal are overtopping hardwoods that are shading out the numerous red cedar trees which once dominated this old, grassy pasture. Once the selected trees and invasive plants are removed by the brontosaurus, the Avalonia Land Conservancy will work to keep the area in an early successional stage, comprised of grasses, herbaceous growth, and red cedars.

LIP funds that were awarded to the Conservancy in 2005 are paying for 75% of the cost of this \$12,800 project. The required non-federal match of 25% is being met through work performed by the Conservancy, such as informing all abutting landowners in this suburban neighborhood about the purpose of the project, oversight of the project to ensure the safety of property users when heavy equipment is in use, and follow-up clearing of large trees in the project area when the brontosaurus work is completed.



A heavy-duty tree and brush mulcher mounted on a track excavator, called a brontosaurus, mulches a tangle of exotic vines and shrubs at the Avalonia Land Conservancy in Groton. Once the invasive plants are removed, the Conservancy will maintain the area as early successional stage habitat.

More LIP Projects in the Works

Another early successional habitat project is expected to begin shortly at the Newtown Fish and Game Club in New Milford. LIP staff is also drafting DEP project proposals so that whole tree harvesting projects can be implemented at the Pequot Fish and Game Club, Inc., in Newtown, and the East Glastonbury Fish and Game Association, Inc., to create more seedling/sapling habitat on both properties.

DEP Launches New Web Site

New and Expanded Information Now Available On-line

The DEP recently launched its new web site - www.ct.gov/dep - that offers more detailed and complete information about agency programs and initiatives and other environmental issues.

“The DEP web site has been redesigned to be consistent with other state agencies and to make it easier for the general public to navigate,” said DEP Commissioner Gina McCarthy. “We increased the amount of information available on our web site to better work with businesses and individuals in our mission to encourage the social and economic development of Connecticut while preserving the natural environment. The web site also provides a more comprehensive and ‘topic oriented’ approach to agency information, making it more ‘user friendly’.”

One of the new topics under the main menu is “Environmental Protection Begins with You” which provides information for individuals about what they can do to help protect the environment at home, at work, and in the community. Another new page focuses on Public Participation - pulling together in one place links to the DEP Calendar, Volunteer Opportunities, News Releases, and more. Also now available are all DEP regulations, and all agency-issued public notices, including notices for proposed regulations, and proposed general and individual permits.

The new web site also better reflects the priorities of the agency. A new section on the web site was created, for instance, to address land resources

and planning. Encouraging, supporting and promoting informed land use and development decisions is a complex but important challenge. To address this challenge, the DEP last year launched the Landscape Stewardship Initiative to better coordinate and focus the many Department programs that influence land development.

Visitors to the DEP web site can subscribe to receive e-Alerts when new public notices are posted. Over time new subscription categories will be added.

To submit any comments or suggestions concerning the new DEP web site, please e-mail the DEP Webmaster at dep.webmaster@po.state.ct.us.

Visit the DEP’s new and improved web site: www.ct.gov/dep. To go directly to the Wildlife Division’s section of the web site: www.ct.gov/dep/wildlife

You Can Help Waterfowl by NOT Feeding Them!

Connecticut provides important breeding and wintering habitat for approximately 30 waterfowl species. Our state abounds with numerous coastal and inland areas that are very important to ducks and geese. Connecticut's natural resources provide waterfowl with the proper nutrients they need throughout the year. Waterfowl have evolved to migrate extraordinary distances without the assistance of people. Artificial feeding can delay this natural phenomenon and encourage some birds to overstay their welcome.

Feeding Causes Problems for All

Feeding creates numerous problems, not only for people, but also for the birds. Well-intentioned people erroneously believe that feeding is beneficial to waterfowl, but it often has negative ecological, environmental, and social consequences.

Feeding waterfowl low quality foods, such as bread, chips, or popcorn, does not provide the birds with the necessary nutrients they need for survival. Feeding often results in dietary deficiencies in wild birds. Waterfowl rely on specific nutrients in natural foods to carry on important biological processes. Numerous problems can arise when birds are fed low quality food. They may become malnourished or deficient of vital nutrients, resulting in:

- *the development of deformed wings (propeller wings);*
- *a decrease in reproductive rates;*
- *an increased susceptibility to predation;*
- *the loss of flight ability;*
- *lowered energy;*
- *lowered life expectancy.*

Feeding Areas Are Unsanitary and Harbor Diseases

Most areas where the public feeding of waterfowl occurs cannot sustain the large concentration of birds that often gather there. This ultimately leads to the accumulation of droppings and feathers, overgrazing of vegetation, soil erosion, and unsanitary conditions. Waterfowl also act as hosts for numerous bacterial agents, including the organism that is responsible for swimmer's itch. Feeding waterfowl can exacerbate this problem by concentrating potential hosts in swimming areas. Large numbers of

Getting the Message Out

The DEP Wildlife Division received grants from the Long Island Sound Future Fund and the National Fish and Wildlife Foundation to develop informational signs and brochures to educate Connecticut citizens about the dangers of feeding wild waterfowl at local lakes, ponds, and waterways. The Division designed and printed 200 signs that are being distributed to coastal towns. These signs will be installed at areas where waterfowl feeding is a problem. Four-color brochures also were printed and will be given to coastal towns to distribute to the public.

The accompanying article is a reprint of the brochure entitled "Do Not Feed Waterfowl." The Wildlife Division wants to encourage those who regularly feed waterfowl to stop this destructive practice for the sake of Connecticut's native waterfowl populations. Help keep the "wild" in wildlife by not feeding waterfowl.

waterfowl in relatively confined areas also can be responsible for triggering algal blooms, resulting in elevated fecal coliform bacteria and nutrients in the water. These factors cause some of our favorite and most popular recreational areas to become unusable for animals and humans.

Feeding may result in malnourished birds competing for food in crowded, unsanitary areas. Diseases, such as avian cholera, avian influenza, botulism, and duck viral enteritis, thrive when these conditions are present. Aspergillosis is a fatal disease that kills waterfowl when they eat moldy, rotting grain products. All of these diseases have the potential to kill large numbers of waterfowl.

Feeding Increases Conflicts

Feeding draws birds to areas where conflicts with humans can arise. The constant interaction between humans and waterfowl causes the birds to lose their apprehension of people and their surroundings. Wild animals rely on their instinctive sense of fear for survival. The loss of a bird's fear towards humans often results in the bird exhibiting dangerous and unpredictable behavior towards people. Public safety also becomes an issue when birds congregate near heavily traveled areas, increasing the likelihood of a vehicle strike.

Corporations, municipalities, and private landowners often spend large amounts of money to alleviate problems with waterfowl that are often caused by people feeding these birds. By not feeding waterfowl, you are allowing the birds to use our state's natural areas to our benefit and theirs.

Feeding Weakens the Gene Pool

Artificial feeding concentrates domestic and wild waterfowl, significantly

increasing the probability of hybridization between them. This leads to the weakening of the gene pool and the overall integrity of the wild waterfowl population. Allow our waterfowl to stay wild by not feeding them!

How You Can Help

- **DO NOT FEED WATERFOWL!**
Waterfowl are wild birds that can locate natural food sources throughout the year. Supplemental feeding by people is unnecessary and potentially harmful.
- Educate others about the negative impacts of feeding waterfowl and discourage the practice when possible.
- Contact your local government and encourage the implementation of a no feeding policy in your community.
- Numerous organizations are working together to restore Connecticut's and the nation's wetlands, making them beneficial for waterfowl. It is important for all of us to concentrate our efforts on these types of projects because habitat, not feeding, is what guarantees the future of waterfowl. Support the efforts of federal, state, and private organizations to conserve waterfowl and habitat. Volunteer and participate in research that pertains to waterfowl.
- Purchase Connecticut or federal Duck Stamps to help with the purchase and restoration of natural habitat for waterfowl. Since initiation of the Connecticut Duck Stamp Program in 1993, funds have been used for the restoration and enhancement of over 1,700 acres of inland and tidal wetlands and the acquisition of important upland buffer areas associated with wetlands.



Monitoring Breeding Woodland Raptors in Connecticut

Written by Shannon Kearney-McGee, Wildlife Diversity Program

Very little is known about the population status of many of Connecticut's woodland raptors. Therefore, the DEP Wildlife Division initiated woodland raptor surveys in 2004. Data collected through these surveys will be used to better understand the population status and habitat requirements of raptors throughout the state.

2006 marked the third season of monitoring through the Connecticut woodland raptor surveys. Surveys used callback recordings to detect sharp-shinned hawks, Cooper's hawks, northern goshawks, broad-winged hawks, red-shouldered hawks, and red-tailed hawks. Surveys were conducted six times between March and July, 2006. Point count surveys were conducted at 265 locations by DEP staff and 17 volunteers. CT Citizen Scientist Volunteers conducted 201 hours of survey time!

Determining Estimated Site Occupancy

Volunteers often wonder why survey sites need to be visited more than once. Repeated visits allow biologists to estimate how difficult it is to detect a species. One cannot always observe every animal that is using an area every time a site is visited. For example, if a raptor flies through the forest just after the observer leaves, does that mean that the forest is not occupied? Using information from repeated visits, biologists can then estimate the actual site occupancy. Overall, woodland raptors were observed at 38% of the survey sites, with an estimated site occupancy rate of 67%.

Increasing the Ability to Detect Species

To increase the ability to detect secretive species, like woodland raptors, surveyors broadcast pre-recorded calls. Surveys in 2006 used two different callback recordings so as to determine which callback was more effective. Callback tape A was a recording of a great-horned owl, while callback tape B was a recording of the six target raptor species. Analysis indicates that there was no significant difference between the two different callback recordings. (It is important to remember that the broadcast of recorded bird calls may cause stress to birds, which could result in site abandonment and could also expose birds to predation. Broadcast recordings should not be used for recreational birding.)

Finding Raptor Nests in CT

Woodland raptor survey observers were encouraged to search for nests during their surveys. In addition, survey sites with consistent raptor sightings (at least 2 visits) were also searched for evidence of nests with the assistance of DEP staff. The DEP also solicited public incidental sightings of raptor nests. Nest searches were conducted at 46

locations, and verification of publicly reported raptor nests were conducted at 18 locations. Nests were confirmed at 29 locations. These nest locations will be used by Wildlife Division biologists to assess woodland raptor nesting success.

Get Involved!

You can help the DEP monitor breeding raptors through reporting active nests or through conducting surveys. To report a woodland raptor, or for more information, please contact Shannon Kearney-McGee at the Wildlife Division's Sessions Woods office (860-675-8130; shannon.kearney@po.state.ct.us).

Woodland raptor species observed during callback surveys in March- July, Connecticut, 2006.

Raptor Species	# Individual Raptors Observed	# Sites with Raptors Observed
Sharp-shinned hawk	6	3
Northern goshawk	12	7
Cooper's hawk	16	16
Broad-winged hawk	27	15
Red-shouldered hawk	37	33
Red-tailed hawk	59	39
Unknown hawk	13	13
Any Woodland Raptor	145	100

Bird of the Barrens - The Horned Lark

Article and photography by Paul Fusco, Wildlife Outreach Program

The horned lark is a small, sparrow-sized, brown bird. It has a bold and unique plumage pattern on its head. The face and throat is yellowish, and there is a heavy black streak that extends from the bill to the eye, then down the side of the face. It also has a black bib. The horned lark's namesake black feather tufts, or "horns," are most apparent on males during the breeding season.

Along with the distinctive facial markings, identification of horned larks can be aided with a view of the tail, which is dark with white outer feathers. If a horned lark is overhead, the black tail contrasts with the pale underside of the bird. On close examination, horned larks have an elongated hind claw, which is almost straight. This claw is known as a "larkspur," which is characteristic of members of the lark family.

Horned larks are abundant in North America. Typically inhabiting areas with little or no vegetative cover, they are strictly open country birds. Their

population strongholds are centered in the prairie and tundra regions of North America, while their breeding range extends virtually continent-wide, from Mexico to the Arctic regions of the Alaskan and Canadian tundra. Their distribution does not extend into the southeastern United States. In the New England region, horned larks prefer the open habitats found at shorelines, airports, gravel areas, and agricultural fields.

In Connecticut, horned larks are rare nesters, but are common migrants and winter visitors. During winter, they are mainly found along the Connecticut shoreline, and, less commonly, at some inland locations. Look for horned larks in barrier beach habitat, short grass fields, and gravel areas at places like Hammonasset Beach State Park, Milford Point, and Sherwood Island State Park. Migrant horned larks may also show up at inland habitats, including farm fields, ball fields, and airports. Look over the winter flocks carefully, for the flocks

may also contain a few lapland longspurs and/or snow buntings.

Observations of horned larks as they feed on the ground reveal behavioral traits that are different from most other small birds. An observer may first notice that horned larks are ground birds; they are never seen perching in shrubs or trees. Also, horned larks do not hop, as most sparrows and finches do. They walk along the ground, similar to blackbirds. At times they will run, appearing mouse-like, as they meld into the short grass and gravel surroundings where they feed on small seeds from grasses and weeds.

Horned larks are gregarious birds that have a strong bond to the flock. When one bird takes flight, it is usually followed by the others in the band. Flocks will typically circle an area in low, undulating flight before alighting on the ground. Their dull, streaked, brown plumage blends into the substrate, making the birds seemingly disappear into the ground. While in flight, the

birds distinctively fold their wings close to their bodies after each wing beat. Some migrant flocks on the midwestern prairies have been known to be comprised of over a million individuals.

Voice

The call note heard from within a flock of horned larks as the birds take flight is a weak, but clear *tzee-ti-ti*. Male larks will perform a spectacular aerial display, somewhat similar to that of another ground bird, the woodcock. The lark will fly straight up to an elevation of 300 to 800 feet, then circle over its territory while singing a high-pitched musical song before returning to the ground headfirst, with wings closed, until it gets close to the ground and flares up to



Horned larks are common winter visitors along the Connecticut shoreline. They may also show up in open inland habitats, such as airports and agricultural fields.



Short grass fields are favored areas for feeding on small grass and weed seeds. Although horned larks are common in winter, Connecticut's breeding population is scarce and listed as endangered on the state's Endangered and Threatened Species List.

land. Horned larks will also sing from an elevated perch on the ground, such as a grassy knob or rock.

Conservation in Connecticut

Horned larks are much less common in the New England region, including Connecticut, than they are in other parts of North America. The breeding population in Connecticut is listed as endangered. Documented nesting on a small scale has occurred within the state at undisturbed shoreline locations and in large expanses of shortgrass habitat, primarily at airports.

Historically, horned larks from the prairie region expanded their breeding range to the east and eventually into New England as the great eastern forests were cleared. The first recorded nesting in Connecticut was in the 1890s. Over the last century, fallow agricultural fields were commonly used as nesting places. Since the 1960s, with the regrowth of forests and the loss of open habitat to development, the breeding population of horned larks in Connecticut has gradually been restricted and reduced to what it is today. Connecticut currently does not have a plentiful supply of the open

country habitat that these birds require.

Protection of remaining open grassland habitat and the setting aside of undisturbed shoreline habitat is essential for maintaining the breeding population of horned larks in Connecticut. These types of habitats have long been under pressure from the impacts of development and recreational uses. The fragmentation of undisturbed, quality bird habitat further degrades these areas so that they can no longer support populations of grassland breeding birds. The decline in grassland habitat has been occurring statewide, but losses in the Connecticut River Valley and coastal regions have had the greatest impact on grassland birds.

The horned lark is one of over a dozen species of grassland birds that are in trouble in Connecticut, primarily due to the loss of their habitat. Through the DEP's Grassland Habitat Conservation Initiative Project, cooperative efforts are being initiated to acquire, enhance, and maintain grassland habitats so that all grassland species have a chance to rebound in our state. Project cooperators include a diversity of state agencies, conservation organizations, sportsmen's groups, and municipalities, all working

Grassland Birds Listed on Connecticut's Endangered and Threatened Species List

Northern harrier	ENDANGERED
American kestrel	THREATENED
Upland sandpiper	ENDANGERED
Short-eared owl	THREATENED
Long-eared owl	ENDANGERED
Barn owl	ENDANGERED
Horned lark	ENDANGERED
Bobolink	SPECIAL CONCERN
Eastern meadowlark	SPECIAL CONCERN
Savannah sparrow	SPECIAL CONCERN
Grasshopper sparrow	ENDANGERED
Henslow's sparrow*	SPECIAL CONCERN
Vesper sparrow	ENDANGERED

* Believed extirpated from Connecticut

together to conserve grassland habitats and the wildlife species that depend on them. Connecticut's grassland birds stand to benefit in large measure from the project's success.

Celebrate International Migratory Bird Day on May 12

International Migratory Bird Day (IMBD), held annually on the second Saturday in May, is an invitation to celebrate and support migratory bird conservation. This year's theme is tackling a challenging, yet pertinent topic: "Birds in a Changing Climate."

The reactions of birds to weather have long been noted. For hundreds of years, farmers have used the arrivals of migratory birds to make decisions about planting crops. Changes in the movements of some species is just one indicator of the warming of the Earth's atmosphere. Today, as the rate of warming increases, scientists are exploring how climate change will affect birds and how we can reduce our impact.

The fact that the Earth is gradually warming is something most of us have heard about, although the cause for this trend is still being debated. Currently, the average temperature is predicted to rise by as much as six degrees by the year 2100. This will not only affect climate (all aspects of the weather over a period of time: temperatures, precipitation, storms) but may also affect sea level, coastal areas, and the timing of natural events. Climate change may also affect many forms of wildlife, including birds.

Changes may occur in the diversity of birds at given locations:

- Ranges could shift north as species move to areas that match their temperature tolerances. This effect may be dangerous for birds that live in the Arctic or mountainous regions, as they have distributions which can't shift any further north as the habitats around them change due to global warming.
- Nesting and feeding habits may change. Temperature changes will affect food availability for some birds.
- Migratory stopovers or breeding areas may be affected.

Changes may occur in the timing of events, such as migration and egg laying:

- Temperature increases may affect breeding success -- if nesting occurs earlier, primary food sources for hatchlings may not yet be available. Commonly known as mistiming, the discrepancy between a bird's hatch date and the arrival of its food source can affect its survival.

Global warming is of particular concern when viewed in concert with other already well established population stresses (e.g., habitat conversion, pollution, invasive species). It is the combination of these stresses that will likely prove to be the greatest challenge to wildlife conservation in the 21st century. It is important to understand as much as possible about the responses of animals to a changing climate in order to more effectively manage and protect species and habitats.

Quote from *The Birdwatcher's Guide to Global Warming*, produced by the American Bird Conservancy and the National Wildlife Federation.



The black-throated blue warbler is a neotropical migratory bird that returns to Connecticut by late April/early May for the nesting season.

Changes may occur in the foraging and nesting success of seabirds:

- Rising sea level, reduction of sea ice, and increased sea surface temperature may affect food availability.
- The effects of climate change may make conditions more favorable for certain species of birds as conditions become less favorable for others. As habitat and weather change in response to warming, the ranges of some birds may shift out of a given area while other species (previously unable to breed or live there) may now be able to move in.

Even if some species adapt or succeed in a world that is slowly warming, the fact remains that many will not. Those most at risk are those that are unable to generalize or adapt. Long-distance migrants and birds with limited geographical ranges may not be able to adjust to the changes caused by rising temperatures. Increased competition for habitat and the lack of suitable or available food in new locations also means that the shift northward will not be a permanent solution for bird populations adapting to climate change.

For More Information:

To learn more about birds and climate change, explore the following web sites:

- <http://birds.fws.gov/imbd> (U.S. Fish and Wildlife Service)
- www.birdday.org
- www.abcbirds.org (American Bird Conservancy)
- www.nwf.org/climate (National Wildlife Federation)

The American Bird Conservancy, in partnership with the National Wildlife Federation, has produced *The Birdwatcher's Guide to Global Warming* -- a state-by-state guide to the effects of climate change on America's birds. The publication can be downloaded from the American Bird Conservancy's web site.

This article was adapted from information provided on the IMBD web site: www.birdday.org.

The Secret Lives of the Northern Water Shrew and Southern Bog Lemming

Written by Ryan Dibala and Christina Kocer, Wildlife Diversity Program

Connecticut hosts a wide diversity of small mammals, many of which are not well understood. Two of Connecticut's most elusive small mammal species are the northern water shrew (*Sorex palustris*) and the southern bog lemming (*Synaptomys cooperi*). Both are listed as Greatest Conservation Need (GCN) species in Connecticut, with the southern bog lemming also listed as a state species of special concern. Little is known about either of these species and there have only been a few recent records of these mammals in Connecticut. In an attempt to better understand these small mammals and the role they play in Connecticut's ecosystems, DEP Wildlife Division staff conducted a statewide research project to examine their status and distribution.

Northern Water Shrew

The northern water shrew is a large, insectivorous shrew with a long tail and light to dark brown pelage that varies geographically and seasonally. It is an excellent swimmer and is perfectly adapted for an aquatic environment, actively diving and holding its breath for up to 45 seconds. This is an amazing feat for an animal with such an incredibly high metabolic rate. Unlike other shrews, it is almost always found feeding on macro-invertebrates in the water of pristine streams and lakes. Its large hind feet are fringed with stiff hairs called fibrillae that aid in swimming. These hairs provide additional surface area that allows this animal to briefly skim across the surface of the water. In the early 1900s, one scientist observed a water shrew skimming the surface of a calm pond for a distance of close to five feet!

In winter, when rivers freeze over, this shrew remains active under the ice, trapping pockets of air in its fur for better insulation.

The water shrew is known to feed exclusively on macro-invertebrates, and it has a low tolerance for poor water quality, making it a good biological indicator species. In addition, the water shrew is an important part of the ecosystem, controlling insect populations and serving as a prey-source for larger predators. Surveying Connecticut to determine the status and distribution of the water

shrew can shed light on the overall health of Connecticut's waterways.

Southern Bog Lemming

The southern bog lemming is a small, mouse-like rodent associated with moist areas within grassy, shrubby, and forested habitats. Its appearance is much like that of the meadow vole, except that bog lemmings have grooved incisors, a smaller body, and a relatively short tail.

When searching for the presence of southern bog lemmings, biologists examine frequently used runways within vegetation. These runways often contain diagnostic bright green fecal pellets and piles of grass cuttings that remain after these animals have consumed the tender fleshy parts of the grasses and have left the tougher parts behind. Runways, along with subterranean burrows used for rearing pups, can be shared with other small mammals, such as the meadow vole. Studies have shown that increasing populations of meadow voles are forcing populations of the generally submissive southern bog lemming out of their preferred habitat.

Research Efforts

Wildlife Division staff began researching the status and distribution of northern water shrews and southern bog lemmings in Connecticut during the summer and early fall of 2006. Trapping efforts were conducted statewide at 14 different sites in some of Connecticut's most pristine areas, such as within state parks, forests, and private land where permission was obtained. Traps were placed in grass runways in bogs, forested wetlands, and freshwater marshes for lemmings, and on rocky substrate under riverbank overhangs for shrews. Traps were checked once in the morning and once in the afternoon, and were opened and closed in accordance with the weather. The species most frequently captured was the white-footed mouse, but meadow and red-backed voles; short-tailed, masked, and smoky shrews; chipmunks; meadow jumping mice; and a weasel were caught as well. Many of these non-



L. SELNER

Lisa Fazzino, a Wildlife Division volunteer and Choate Rosemary Hall student, collects biological data from a small mammal that was captured in a live trap during a small mammal survey.

target species also are given GCN priority and, therefore, these encounters serve as a means to increase overall knowledge of their populations.

Research Results

After a season of trapping, only one encounter with each target species was documented. One northern water shrew was captured in a stream at Pachaug State Forest. No southern bog lemmings were captured during the trapping efforts. However, Wildlife Division staff did retrieve one southern bog lemming that had been killed by a cat near Vernon. Low capture rates may be a reflection of these species' secretive habits, making them extremely difficult to trap, and may reflect a need for improved trapping techniques. Poor water quality, unsuitable microhabitat, or resource competition may be explanations for the apparent low numbers of these species in Connecticut. Whatever reason it may be, this research has proven that the detection of these animals is incredibly difficult. It is a reminder that Connecticut residents live amongst highly secretive creatures that depend on high quality habitat. If you or anyone you know believes they have seen a northern water shrew or southern bog lemming, please contact Wildlife Division technician Christina Kocer at (860) 675-8130.



Deer Reduction at Bluff Point in Groton

DEP Wildlife Division biologists removed 11 deer from the Bluff Point Coastal Reserve in Groton as part of the ongoing efforts to maintain the ecological balance at the Reserve. The activities occurred on select nights in February 2007. The DEP conducted the culling after sunset when the park was closed to the public.

All of the culled deer were examined by DEP biologists to assess the overall health of the deer herd. Venison from the deer was donated to "Hunters for the Hungry" for distribution to local food charities.

"Since deer removal efforts began in 1996, the DEP has successfully reduced the overabundant population of deer at Bluff Point," said Ed Parker, Chief of DEP's Bureau of Natural Resources. "Such measures are necessary to not only increase the health of the deer herd at the Reserve, but also to help protect and maintain the biodiversity of flora and fauna. Yearly cullings allow the DEP to preserve this native and unique ecosystem not only for the species that inhabit the Reserve but also for people who visit the state park each year."

Before the reduction took place, the deer population was estimated at 36 deer. Reducing the deer population by 11 was necessary to achieve the "goal population" of 25 deer. The goal population needs to be maintained in order to protect the health of the species and prevent over-foraging by deer on native flora.

In February 2006, the DEP culled 20 deer from Bluff Point as part of its ongoing wildlife management program. Since the implementation of deer management efforts at Bluff Point Coastal Reserve in January 1996, the deer population has been reduced from almost 300 down to 25, resulting in an overall increase in deer health.

Report ruffed grouse observations to the Wildlife Division's Franklin office (860-642-7239; michael.gregonis@po.state.ct.us). Include information on date, town, specific location, what was heard, and actual observation.

Connecticut Walk Book West Now Available

The Connecticut Forest and Park Association (CFPA) has recently published the *Connecticut Walk Book West*. This definitive trail guide is the second of two 75th Anniversary volumes describing the statewide Blue-Blazed Hiking Trails. Within the pages you will find information on over 400 miles of hiking trails in central and western Connecticut, as well as clear, updated trail maps created from on-the-ground GPS data. Detailed driving directions and parking information also is included.



The *Connecticut Walk Book East* has already been published and contains the same information for trails on the eastern side of the state. Both books cover the Metacomet and Mattabeset trails, which are the dividing point between the east and west volumes.

Many of the trail descriptions in both books provide detailed information about cultural and historical features that are encountered along the way.

Copies of both books can be obtained from several locations:

- DEP Bookstore, located at the DEP Headquarters, 79 Elm Street, Hartford (860-424-3555). Walk-in store hours are Monday-Thursday, 9:00 AM-1:00 PM and 1:30 PM-3:30 PM. Items also can be ordered online at www.ct.gov/dep.
- Friends of Sessions Woods book cart, located at the Wildlife Division's Sessions Woods office on Route 69 in Burlington (860-675-8130). Office hours are Monday-Friday, from 8:30 AM-4:00 PM.
- Connecticut Forest and Park Association, 16 Meriden Road, Rockfall (203-346-2372; www.ctwoodlands.org).

Art for Nature's Sake

Saturday & Sunday, May 19 & 20, 2007
10:00 AM to 4:00 PM, rain or shine
On the grounds of and to benefit the Connecticut Audubon Society Center at Glastonbury
1361 Main St. (Route 17), Glastonbury
860-633-4885

A juried show and sale of work by outstanding artists and artisans whose work is inspired by the natural world. Come meet these creative, talented people.



Step Up to the Plate for Wildlife...

... and show your support by displaying a wildlife license plate on your vehicle

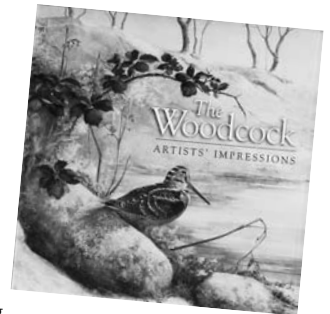
There are two great designs to choose from: the state-endangered bald eagle or the secretive bobcat.

Funds raised from sales and renewals of the plates will be used for wildlife research and management projects; the acquisition, restoration, enhancement, and management of wildlife habitat; and public outreach that promotes the conservation of Connecticut's wildlife diversity.

Application forms are available at DEP and Department of Motor Vehicle offices and online at www.ct.gov/dmv.

New Art Book on Woodcock

If you have an interest in woodcock and in art as well, there is a new book available to satisfy both interests. In *The Woodcock, Artist's Impressions* leading sporting artists write about the woodcock and illustrate it in their own unique style. The artists contributing to the book are Rodger McPhail, Keith Sykes, Simon Gudgeon, Ben Hoskyns, Terence Lambert, Alastair Proud, Jonathan Sainsbury, and Owen Williams. This 11" x 11" book has 148 pages with color and black and white illustrations throughout. It is available for \$49.95 and all royalties from the sale of the book are being donated to The Game Conservancy Trust. For more information on how to obtain this book, contact Stackpole Books at 717-796-0411; www.stackpolebooks.com.



New Research Lab at Franklin WMA

A laboratory was recently completed at the DEP Wildlife Division's Franklin Swamp Wildlife Management Area. The lab will be used for a variety of projects, including surveillance for chronic wasting disease in deer and animal necropsies. It provides a safe and sterile work environment to conduct these studies.

Many thanks are extended to those that spent much time and effort designing and building the lab, including Steve Merchant, Steve Arcel, Doug Patterson, Mike Zajac, Dave Pawlak, Jack Bonin, Bill Coleman, Deborah Corcoran, Ray Szajkowski, George Avery, George Krecidlo, Sheila Kuuttila, and Ken Newman.

Moose Study Underway

Moose are one of the largest land mammals in North America. About 15 years ago, a population of moose became established in northern portions of Connecticut. To date, little information is known about the state's growing moose population. To collect baseline data on population dynamics, survival, reproduction, movements, and distribution of moose in Connecticut, the Wildlife Division initiated a study in late February 2007. The study involves capturing 10 to 20 female moose with a tranquilizer gun and attaching ear tags and Global Position System (GPS) collars. Moose will be located for capture using reports of moose sightings from the public and by searching with a helicopter. Capture efforts will be focused in northern Connecticut towns.

GPS collars will allow the Division to remotely collect data on movement and survival. After moose are captured and marked, aerial surveys will be systematically conducted to estimate population size, based on the ratio of marked and unmarked moose in the population. During aerial surveys, number of cows with calves also will be recorded to estimate average number of calves recruited into the population, as an index to population growth.

Howard Kilpatrick, Deer/Turkey Program

2006 Deer Hunting Season Results

A preliminary count of the total deer harvest during the 2006 deer hunting season indicates that harvest rates decreased by about 10%. Although the shotgun-rifle deer harvest decreased by 12%, the archery deer harvest increased by five percent. Long seasons, availability of replacement antlerless tags, and use of bait likely contributed to the increase in harvest during the archery season. Several factors likely influenced the decrease in harvest during the shotgun-rifle season, including changes in deer population size, acorn abundance, and weather conditions. During years with an abundant acorn crop, deer travel less for food, reducing their vulnerability to hunting. Rain and warm weather during high harvest days (opening day, Saturdays, and holidays) often reduce deer movements and hunter participation.

Once all the harvest data has been entered into a database, final harvest counts will be generated. Harvest rates will be calculated on both a statewide and regional basis to assess trends in deer harvest. A booklet summarizing harvest data and other deer-related data from the 2005 deer-hunting season is currently available on the DEP web site (www.ct.gov/dep). A summary of the 2006 harvest data is expected to be compiled in a booklet and posted on the DEP web site by summer.

Howard Kilpatrick, Deer/Turkey Program

CT to Host the Northeast Fish & Wildlife Conference

The Connecticut Department of Environmental Protection is hosting the 63rd Annual Northeast Fish and Wildlife Conference at the Mystic Marriott in Mystic/Groton from April 22-25, 2007. An estimated 400 to 500 professionals from state and federal fish and wildlife agencies, colleges, and universities throughout 13 northeastern states and several Canadian provinces are expected to attend the conference, many giving presentations on their research and work.

The theme of the conference is "Putting the Pieces Together: The Ecosystem Approach to Habitat Conservation and Multispecies Management, and the Importance of Partnerships." This topic will be addressed at the general session on Monday morning. The conference also will feature professional papers addressing fisheries and wildlife biological topics, law enforcement, and outreach subjects.

Visit the Northeast Association of Fish and Wildlife Agencies web site (www.neafwa.org) to see the general schedule for the conference. Registration fees are \$100 for one day, or \$300 for the entire conference. Conference planning and arrangements are by Delaney Meeting & Event Management (802-655-7769; info@delaneymeetingevent.com).



BioBlitz 2007 to Be Held June 8-9

The University of Connecticut's Center for Conservation and Biodiversity and Connecticut State Museum of Natural History will be partnering with the City of Middletown, Wesleyan University, and United Technologies to host the 2007 Connecticut State BioBlitz on June 8-9. Designed as part contest, part festival, part educational event, and part scientific endeavor, BioBlitz brings together scientists from across the Northeast in a race against time to see how many species of animals and plants can be discovered in 24 hours. Much of the second day will be given to public events: lectures, nature walks with some of New England's finest naturalists, and guided tours through the event's "BioBlitz Central," where scientists race to sort, identify, and catalogue their specimens. Thirty middle school and high school students from around the state will be selected to participate in a BioBlitz Camp, during which they will work side-by-side with the invited scientists.

BioBlitz is designed to increase the public's awareness of the variety of life in their immediate neighborhood and the services these various species provide to improve the quality of their lives. Too often people take for granted clean water and air, fertile soil, or the pollination services of insects. What better way to address these topics than to invite people to experience the vast array of wildlife that can be found in Connecticut's neighborhood parks in the cycle of just one day? All six Connecticut State BioBlitzes (www.mnh.uconn.edu/BioBlitz/) have yielded dozens of worthy scientific discoveries: new state records and several state-rare species. BioBlitzes have proved useful in the early detection of several invasive species. Specimen vouchers are prepared and deposited in public institutions and schools for research and education.

Middletown, Connecticut, has been selected as the site for the 2007 BioBlitz! The event will kickoff at 3:00 p.m. on Friday afternoon, June 8, and end Saturday afternoon, June 9. "BioBlitz Central" will be at Wilbur Snow Elementary School on Wadsworth Street, with off-site "blitzing" occurring at Long Hill Estate, Wadsworth State Park, the north end peninsula along the Connecticut and Mattabesset Rivers, and include one of the city's characteristic trap rock summits.

The 2007 event promises to be the richest BioBlitz in North America--organizers expect to record more than 2,500 different species. As the event gets closer, maps and additional details will be posted at www.mnh.uconn.edu/BioBlitz/.

Testing Continues for Chronic Wasting Disease in Deer

Written by Andrew LaBonte, Deer Program

Chronic wasting disease (CWD) is a neurological disease (brain and nervous system) that belongs to a family of diseases known as transmissible spongiform encephalopathies (TSE). This disease attacks the brains of deer, elk, and moose (cervids) and produces small lesions that eventually result in death. CWD is known to occur in both wild and captive cervids. Prior to 2005, the disease had only been found in North America west of Illinois. CWD was documented in New York and West Virginia in 2005. It has not been found in Connecticut or any other New England state.

2003

In 2003, a tri-state CWD surveillance program was developed by Connecticut, Massachusetts, and Rhode Island and approved by the U. S. Department of Agriculture-Animal Plant Health Inspection Service. In accordance with the plan, the DEP conducted surveillance of free-ranging deer. Surveillance involved collecting samples from each of Connecticut's 12 deer management zones in proportion to the density of deer in each zone. Samples were collected from hunter-harvested deer at state-operated deer check stations, butcher shops, and deer killed by motor vehicles. A total of 274 samples were collected and all samples tested (231) were negative for CWD. Testing was conducted at the University of Connecticut's Department of Pathobiology and Veterinary Science. An additional four deer exhibiting some symptoms similar to CWD (emaciation, abnormal behavior, excessive salivation) were tested; however, all tests were negative.

2004

In 2004, the CWD surveillance program was designed to focus sampling efforts in areas that were considered high-risk. Deer management zone (DMZ) 11 comprised 16% of the total deer population (highest in the state), contained the highest number of captive cervid facilities (6), and bordered New York, which has over 400 captive deer facilities with almost 10,000 deer and elk. In addition, the use of bait is legal for harvesting deer during the hunting season in DMZ 11.

In accordance with federal surveillance guidelines, at least 298 samples needed to be collected to detect CWD.

In all, 375 samples were collected from hunter-harvested and road-killed deer in DMZ 11. Of those, 298 samples were tested. An additional 19 samples were collected from unknown locations in Connecticut. All 317 were negative for CWD. An additional four deer that exhibited some symptoms similar to CWD tested negative for CWD.

2005

In April 2005, the New York Department of Environmental Conservation reported five cases of CWD in two captive cervid facilities located within 180 miles from Connecticut's border (DMZs 1, 6, and 11). One of the captive facilities also cared for white-tailed deer fawns that were later released into the wild. Intensive monitoring outside the captive facility documented two free-ranging deer within a mile that tested positive for CWD. Although intensive sampling efforts in New York since 2005 have resulted in no additional deer testing positive for CWD, deer management zones in Connecticut that border New York are still considered "high-risk" areas.

In 2005, the CWD surveillance program was designed to focus sampling efforts in areas that were considered "high risk" (DMZs 1, 6, and 11) and "moderate risk" (all remaining zones). The goal was to collect 298 samples from high-risk areas and 298 samples from moderate risk areas. A total of 643 testable samples were collected throughout the state: 263 from the high-risk area and 380 from the moderate-risk area. All samples tested negative for CWD.

In addition to random surveillance, the DEP increased its effort to conduct targeted surveillance and test free-ranging cervids statewide that exhibited any symptoms consistent with CWD. Nine animals (8 white-tailed deer and 1 moose) were collected by DEP staff and tested. Results from all suspect animals were negative. The DEP also depopulated two small herds of wild white-tailed deer illegally possessed at two captive facilities. All eight deer tested negative for CWD. In addition, three fallow deer at the facility that were slaughtered for consumption tested negative for CWD.

2006

The same sampling scheme that was

used in 2005 was followed in 2006. A total of 666 testable samples were collected throughout the state: 310 from the high-risk area and 356 from the moderate-risk area. All samples tested negative for CWD. An additional two deer exhibiting some symptoms similar to CWD were collected and both tested negative for CWD. However, one of the deer from Thomaston tested positive for rabies, the second documented case of rabies in free-ranging, white-tailed deer in Connecticut.

Notes of Interest

In 2005, West Virginia documented its first case of CWD in a roadkilled deer in Hampshire County. An additional four deer that were collected by the West Virginia Department of Natural Resources in 2005 and 2006 tested positive for CWD. Also, in December 2006 the first hunter harvested deer tested positive for CWD in West Virginia.

A recent study confirmed that CWD can spread from one infected deer to another by oral ingestion of saliva or blood from the infected animal. However, the study was not able to determine if feces or urine from deer with CWD could spread the disease to other deer. It is still believed that if CWD is contained in saliva, the potential for the disease to spread via feces still exists.

Another recent study confirms the presence of CWD in cardiac muscle of white-tailed deer and elk. However, researchers were unable to detect CWD in other muscle, such as diaphragm, triceps, thigh, or tongue. Given the uncertainties about incubation period, exposure, and clinical detection, the possibility that CWD might cause human disease cannot be eliminated. Therefore, scientists still suggest, as a precaution, that hunters NOT consume any venison from a contaminated animal.

Monitoring Continues

The DEP plans to continue monitoring for CWD in 2007. Hunters may request to have their deer tested free-of-charge during the monitoring period. For more information, contact the Division's Deer Program at the Franklin office (860-642-7239).

Safety Comes First While Hunting Turkeys in Spring

Connecticut's spring turkey hunting season will be here soon, and now is the perfect time to practice and prepare. Spring turkey hunting requires a great deal of skill to be successful, and the best way to acquire these skills is to heed the advice of seasoned turkey hunters and to practice. Hunters also should make sure every field adventure is safe and enjoyable.

One way to prepare is to attend a turkey hunting safety seminar in early spring. The Connecticut Chapter of the National Wild Turkey Federation and the Wildlife Division's Conservation Education/Firearms Safety Program, as well as several local sportsmen's clubs, sponsor training seminars every year.

These seminars usually cover hunting techniques, but they stress safety and ethical hunting most of all. There are several basic safety rules that all turkey hunters must follow while out in the field:

- Prior to the hunt, pattern your shotgun to determine the best shotshell to use for a given distance.
- Absolutely identify your intended target and what lies beyond before pulling the trigger. Be positive it is a legal turkey and make sure the shot path to the bird and beyond is safe. Pre-select a zone of fire. Shoot at a turkey only in the predetermined zone, and only when you are certain it is safe.
- Always stay fixed in your location and call the bird to you. Never stalk a turkey or turkey sound. Movements or sounds you think are a turkey may be another hunter. Be patient.
- Do not think you are alone in the woods. Assume every noise and movement is another hunter. If there is any doubt whatsoever, DO NOT shoot.
- Always position yourself in a spot that makes you completely invisible from the back side, such as against a tree trunk that is at least shoulder wide. For your own safety, you may choose to wrap and secure a four to six-inch wide fluorescent orange safety band around the tree, about six feet up. This band should alert other hunters of

your sitting position.

- Shout "stop" to alert approaching hunters. Never move, wave, or make turkey sounds to alert hunters of your position. Your movements may look like the movement of a turkey.
- Eliminate red, white, blue, or black from your hunting clothing. Red, white, and blue are found on the head and neck of mature gobblers, and all turkeys have black bodies. It is a good idea to have a fluorescent orange vest to wear while walking out of the woods and an orange wrap for the harvested bird.

Hunters should also be aware of several activities that are prohibited while turkey hunting:

- The use of bait, electronic calling devices, live decoys, or animals (including dogs) to hunt wild turkeys is prohibited.
- You may not call turkeys for another hunter unless you possess a valid turkey permit with at least one unused tag.

Spring Turkey Junior Hunter Training Day: April 28, 2007

The spring turkey junior hunter training day provides junior hunters with an opportunity to learn safe and effective hunting practices from experienced hunters. Licensed junior hunters may hunt for turkeys when accompanied by a licensed adult hunter 18 years of age or older. The adult mentor may not carry a firearm. The junior hunter must have a valid spring season turkey permit for state or private land. Those hunting on private land also must have written consent from the landowner. The adult mentor may assist in calling turkeys.

- You may not attempt to take turkeys by participating in a cooperative drive.
- You may not shoot turkeys from a building or other permanent structure. Turkeys roosting in trees are not allowed to be shot.

Hunting can be a safe and enjoyable activity. Thinking before you react will keep it that way. Remember, once the trigger is pulled, there is no calling back the shot.



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P. J. FUSCO

Spring turkey hunting requires a great deal of skill to be successful, and the best way to acquire these skills is to heed the advice of seasoned turkey hunters and to practice.

*The 2007 spring turkey hunting season runs from May 2-26. The lottery for spring turkey permits on state land has been discontinued this year. The **2007 Connecticut Hunting and Trapping Guide** contains information on open state land hunting areas. The Guide can be obtained at DEP offices, town halls, and on the DEP's web site (www.ct.gov/dep).*

Keep Cats Indoors for the Sake of Wildlife!

How many birds and other wildlife do domestic cats kill each year in the United States? Exact numbers are unknown, but scientists estimate that nationwide, cats kill hundreds of millions of birds, and more than a billion small mammals, such as rabbits, squirrels, and chipmunks, each year. Cats kill common species, as well as rare and threatened species.

There are more than 90 million pet cats in the United States. A 1997 nationwide poll showed that only 35% are kept exclusively indoors, leaving the majority of owned cats free to kill birds and other wildlife at least some of the time. In addition, millions of stray and feral cats roam cities, suburbs, farmlands, and natural areas.

Loss of wildlife habitat and fragmentation due to human development are the leading causes of declining bird populations. However, scientists now list invasive species, including cats, as the second most serious threat to bird populations worldwide.

Not a Natural Part of Ecosystems

Domesticated cats may be the most widespread predator in the world.

Cats were not abundant in the United States until the late 1800s when they were brought to help control burgeoning rodent populations. Some view cat predation of rodents as beneficial, but native small mammals are important to maintaining biologically diverse ecosystems. Mice and shrews are also important prey for birds, like great horned owls and red-tailed hawks.

Compete with Native Predators

Owned cats have advantages over native predators. They receive protection from disease, predation, competition, and starvation—factors which control native predators, like owls, bobcats, and foxes. Cats with dependable food sources are not as vulnerable to changes in prey populations. Unlike many native predators, cats are not strictly territorial. Thus, cats can exist at higher densities and may out-compete native predators for food.

Cats Transmit Disease to Wildlife

Unvaccinated cats can transmit diseases, such as rabies, to other cats, native wildlife, and humans. Cats are the domestic animal most frequently reported

The only way to prevent domestic cat predation on wildlife is for owners to keep their cats indoors!

to be rabid to the Centers for Disease Control and Prevention.

The Truth About Cats and Birds

Well-fed cats kill birds and other wildlife because the hunting instinct is independent of the urge to eat. Cats with bells on their collars can still kill birds.

Most birds that seem to escape don't survive. Wildlife rehabilitators report that most small animals injured by cats die. A large percentage of animals taken to wildlife rehabilitators are cat attack victims and animals orphaned by cats.

For more information, contact: American Bird Conservancy, Cats Indoors! 1731 Connecticut Avenue, NW, 3rd Floor, Washington, DC 20009 (202-234-7181; E-mail: abc@abcbirds.org; web site: www.abcbirds.org).

Text for this article was reprinted from the American Bird Conservancy web site.

The Wildlife Observer



Richard Conklin had an interesting wildlife observation in early January 2007 and sent the Wildlife Division this photograph.

“While working in Stamford, Connecticut, we observed this red-tailed hawk that had captured a squirrel and was having lunch. The hawk had landed on an SUV in downtown Stamford while it ate the squirrel. We see a lot of red-tailed hawks in this area. There are many large trees and much prey, including pigeons, squirrels, rodents, and starlings. Many people were coming and going in this area but no one saw the hawk until we pointed it out to a number of people.

A couple of years ago, you published a photo of a red-tailed hawk that had taken a crow in the snow in this same area. When we looked at that photo closely we noticed that the hawk had a metal band on one of its legs.

It is surprising how much wildlife you can see, even in an urban area, if you keep your eyes open!”

Do you have an interesting wildlife observation to report to the Wildlife Division?

Please send it (and any photos) to:

Wildlife Observations
DEP - Wildlife Division
P.O. Box 1550
Burlington, CT 06013

Email: katherine.herz@po.state.ct.us
(photos will be returned if requested)

Wildlife Calendar Reminders

January-April Donate to the Endangered Species/Wildlife Income Tax Check-off Fund on your 2006 Connecticut Income Tax form.

Late April-August Respect fenced and posted shorebird nesting areas when visiting Connecticut beaches. Also, keep dogs off of shoreline beaches to avoid disturbing nesting birds.

Late March Remove bird feeders from your yard to avoid attracting hungry bears that are emerging from their winter dens. Feeders can be put back up by November in time for winter bird feeding. Whenever a bear visits a bird feeder, take the feeder down immediately. To learn more about what to do if you encounter a black bear, visit the DEP's web site (www.ct.gov/dep).

April 22 Earth Day

May 12 **International Migratory Bird Day.** To learn more about this annual celebration, read the article on page 12 and also visit the U.S. Fish and Wildlife Service web site at www.fws.gov/birds/IMBD or the International Migratory Bird Day web site at www.birdday.org.

Public Program Series at the Sessions Woods Conservation Education Center

The Public Program Series is a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please preregister for these programs by calling the Sessions Woods office at 860-675-8130 (Monday-Friday, 8:30AM-4:30PM). Programs are free unless noted and all children under 12 years old must be accompanied by an adult. **Sessions Woods is located on Route 69 in Burlington.**

April 22 **Friends of Sessions Woods Annual Meeting**, from 12:00-3:00 PM. All are welcome to attend the Friends of Sessions Woods Annual Meeting at the Conservation Education Center. Hank Gruner, Education Director at The Children's Museum, will present this year's special program: "Poisonous and Venomous Animals." A potluck luncheon precedes the presentation. Please bring a side dish to share.

May 5 **Spring Bird Walk**, starting at 7:30 AM. Warblers and songbirds are on their way back to Connecticut to take advantage of our healthy insect populations emerging this time of year. Join Paul Fusco of the Wildlife Division for a two-mile walk in search of early migrants. Paul will provide bird identification tips to participants. This walk is suitable for adults and children over 12. Bring binoculars and meet at the flagpole in front of the building.

May 10 **Migratory Bird Educator Workshop**, from 8:00 AM to 11:00 AM. (Rain date is May 11.) Educators can earn 0.3 CEUs while attending this informative workshop on neotropical migratory birds. Workshop participants will learn about Connecticut's migratory birds during a field walk, and also discover ways to teach about birds in the classroom. A pre-registration application is required. Please contact Laura Rogers-Castro at the Wildlife Division's Sessions Woods office (860-675-8130) or send email to laura.rogers-castro@po.state.ct.us.

Programs and workshops at Sessions Woods are sometimes scheduled between issues of *Connecticut Wildlife* and cannot always be advertised in the magazine in a timely manner. To stay informed about fun and interesting programs offered by the Wildlife Division, regularly check the calendar section of the DEP's web site (www.ct.gov/dep) or call the Sessions Woods office during business hours.

Hunting Season Dates

April 28 **Spring Turkey Junior Hunter Training Day** (see page 18 for more information).

May 2-26 **Spring Turkey Hunting Season** (The lottery for spring turkey permits on state land has been discontinued. Refer to the 2007 Connecticut Hunting and Trapping Guide for information on open state land hunting areas.) See article on page 18 to learn about hunting safety for the spring turkey season.

..... See the 2007 Connecticut Hunting and Trapping Guide for specific season dates and details. The Guide is available at Wildlife Division offices, town halls, and on the DEP's web site, www.ct.gov/dep.

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On a rainy spring night, wood frogs will move from their forested homes and travel to vernal pools. The males float in the water and “quack” all night long to attract females. Within a few days, the frogs lay their eggs and then travel back to their homes in the woods.

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