



From the Director

It is late autumn and some Connecticut residents have once again taken to the field with gun or bow. Our job at the DEP is to ensure that hunting is conducted safely and to ensure that the hunting seasons allow for the wise use of our natural resources so wildlife populations are healthy and sustainable. We regulate how, where, and when hunting occurs, but the issue of "why" falls to the individual.

There are a variety of obvious reasons why people hunt: to obtain high-quality food directly from nature, to share camaraderie with family and friends, or to perpetuate their cultural heritage. But to those who conservation writer John Madson refers to as the "genuine" hunter, this is a deeply personal subject and infinitely more complex. Thoughtful hunters have written passionately about this experience Madson describes as "metaphysical."

Madson observed how hunting, more than any other activity, immerses the hunter into his/her surroundings: "When you go into the woods, your presence makes a splash, and the ripples of your arrival spread like circles in the water. Long after you have stopped moving, your presence widens in rings through the woods. But after awhile, this fades, and the pool of silence is tranquil again, and you are either forgotten or accepted—you are never sure which. Your presence has been absorbed into the pattern of things, you have begun to be part of it, and this is when the hunting really begins."

As for one man's answer to the question, author David Peterson wrote: "Why do I hunt? It's a lot to think about and I think about it a lot. I hunt to acknowledge my evolutionary roots, millennia deep, as a predatory omnivore. To participate actively in the bedrock workings of nature. For the atavistic challenge of doing it well with an absolute minimum of technological assistance. To learn the lessons, about nature and myself, that only hunting can teach. To accept personal responsibility for at least some of the deaths that nurture my life. For the glimpse it offers into a wildness we can hardly imagine. Because it provides the closest thing I've known to a spiritual experience. I hunt because it enriches my life and because I can't help myself...because I have a hunter's heart."

No one can dispute that all humans are consumers. It is easy to lose sight of this fact amongst the cellophane and Styrofoam, the pavement and the brick. However, in this modern world, a relatively few are hunters. The act of hunting is worthy of a lifetime of contemplation and a privilege that no one should take for granted.

Dale W. May

Cover:

Steve Rosa of the Wetland Habitat and Mosquito Management Program operates an excavator with a grading dozer blade to help restore a tidal marsh to the proper elevation. To learn more about tidal wetland habitat restoration, see the article on page 4.

Photo by Paul J. Fusco

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The Federal Aid in Wildlife Restoration Program was initiated by sportsmen and conservationists to provide states with funding for wildlife management and research programs, habitat acquisition, wildlife management area development and hunter education programs. Each issue of Connecticut Wildlife contains articles reporting on Wildlife Division projects funded entirely or in part with federal aid manies



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Centennial Watershed State Forest

Connecticut's newest state forest dedicated by Governor Rell

Written by Gerald Milne, DEP Forestry Division

On September 16, 2004, Governor M. Jodi Rell officially dedicated the new Centennial Watershed State Forest, the largest single open space acquisition in the state's history. The new State Forest encompasses more than 15,000 acres acquired in 2002 from the Aquarion Water Company. Most of the land is in Fairfield County, but there also are parcels in Litchfield, New Haven, and Hartford Counties. The purchase price was \$90,000,000, including \$10,000,000 donated by The Nature Conservancy.

"Centennial Watershed" celebrates the 100-year anniversary of Connecticut's State Forest System, and also emphasizes that these lands still protect drinking water supplies and are subject to different rules than most state forests. All recreational uses are regulated by the Department of Public Health (DPH), and most of the property will not be open to the public until permits are granted by DPH.

The goals for the land are to: 1) permanently preserve open space; 2) provide safe drinking water; 3) manage healthy and diverse forests to provide forest products, plant and animal habitat, clean air, recreation, and aesthetics; 4) maintain large tracts of mature, diverse, and continuous forest cover; and 5) provide recreation consistent with the above goals.

A committee, consisting of representatives from DEP, Aquarion Water Company, and The Nature Conservancy, manages the property. Forest inventory data is currently being



A view of the Aspetuck River, in Easton, as it flows through part of the newly-acquired Centennial Watershed State Forest.

collected by the committee for use in drafting management plans for each watershed and to determine allowable uses. One of the most significant findings is that the high deer population found in Fairfield County is degrading the health of the forest by overbrowsing the understory. As a result, there is little or no regeneration of seedlings, saplings, and shrubs, resulting in poor habitat for ground-nesting birds, and no young forest to take over in the event of a catastrophe, such as a hurricane or large insect or disease infestation.

One of the first steps the management committee has undertaken to improve forest health is to increase regulated deer hunting on the land in Fairfield County. In 2005, roughly 5,300 acres will be opened to either shotgun or bowhunting. Consult the current Connecticut Hunting and Trapping Guide for more information, and or look for updates on newly approved areas on the DEP website (www.dep.state.ct.us).

Wood for Building Bluebird Boxes Available to Groups

The Wildlife Division is once again offering bundles of rough-cut lumber to **groups** for building bluebird nest boxes. For more than two decades, the Division has offered rough-cut wood, nest box plans, and fact sheets to Connecticut schools, scout and 4-H groups, nature centers, conservation commissions, and similar civic organizations as part of the Bluebird Restoration Project.

The wood for building nest boxes will be distributed to **groups only** on a "first come, first serve" basis. Group leaders should send a postcard to the Wildlife Diversity Program, P.O. Box 1550, Burlington, CT 06013-1550. Only one request per group will be accepted. Requests must be received by **January 15, 2005**, and include the following information: group leader's name, group name, mailing address, daytime phone number, and number of bundles requested (limit 2). Each bundle of wood makes approximately 18 to 20 nest boxes. Interested group leaders should be aware that the lumber comes as planks and all

groups will be responsible for cutting the wood to the correct size.

Participants will be notified by late January when they can pick up their wood at the Sessions Woods Wildlife Management Area, on Route 69 in Burlington.

For more information about this project, please contact Geoffrey Krukar either by email at geoffrey.krukar@po.state.ct.us or by phone at 860-675-8130.

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Connecticut's WHAMM Program Leads the Way in Wetland Restoration

Written by Kathy Herz, Editor

It is a well-known fact that Connecticut's once thriving coastal wetlands have declined over the decades. The causes are many--filling in of wetlands, construction of grid ditches in tidal marshes, expansion of residential and commercial development, replacement of natural salt marsh grasses by the invasive plant *Phragmites*, as well as pollution. Fortunately, strides have been taken to combat many of the effects of these destructive activities. And, if you were to take a tour along the coastline today, you will find places where the damage has been or is in the process of being reversed.

One such place is in Stratford, not far from Sikorsky Airport, on land now owned by the U.S. Fish and Wildlife Service's (USFWS)
Stewart B. McKinney National
Wildlife Refuge. The site is situated on filled-in marshland, bordered by warehouses on one side and a salt marsh on the other. At first glance, it looks like a construction zone.
Bulldozers, excavators, and huge military style dump trucks are busily working to dig up and haul away tons of sand. But a closer look reveals that it is not a construction zone at all but



Degraded tidal marshes that have been restored by the WHAMM Program improve habitat for American black ducks, as well as other waterfowl, shorebirds and waterbirds.

rather a restoration zone. The goal of this project is to remove sand that was used as fill and lower the marsh to the same elevation as the surrounding marsh so that the hydrology and vegetation will be the same. To restore the flow of tidal water into the marsh, an opening will be breached through the surrounding dike. In addition, a meandering stream and small ponds will be constructed to help

bring in salt water. Once the tidal flow returns to this site, natural salt marsh grasses will begin to grow; small fish, called mummichogs, will live in the ponds and feed on mosquito larvae; and, most importantly, shorebirds, waterbirds, and waterfowl will be a common sight at the ponds and among the grasses.

The big, earth-moving machines are actually specialized pieces of equipment



Site 4 (above) at McKinney National Wildlife Refuge is a 10-acre site in Stratford slated for restoration by the WHAMM Program. (right) This 27-acre site off Lordship Boulevard in Stratford was restored in 2002 by breaching the dike, creating several ponds, and excavating a meandering channel to bring tidal salt water into the marsh.



with wide tracks or pontoons that can travel over very soft wetland soils. The wide tracks result in low ground pressure (<3psi), enabling the machines to travel over a marsh without sinking or causing damage to the marsh surface.

The crew and most of the equipment working on this project are part of the DEP Wildlife Division's Wetland Habitat and Mosquito Management (WHAMM) Program. The WHAMM Program has been in the local news in recent years because of its efforts to monitor the presence of West Nile virus in mosquitoes and to manage mosquito populations. However, the WHAMM Program also plays a crucial role in the restoration of tidal wetlands in Connecticut. Established in 1994, the Program is one of the first

wetland habitat restoration programs in the country with dedicated staff and specialized, low-ground pressure equipment used exclusively in restoration activities.

Skilled Crew

The skilled and specialized WHAMM crew helps this program stand out. There are seven permanent crew members who work in the field year round and, depending on the budget, a number of seasonal workers are hired to help operate equipment and assist with mosquito management activities. Four of the crew members work directly for the Wildlife Division: Paul Capotosto (wetlands restoration biologist), Roger Wolfe (mosquito management coordinator), and Steven Rosa and Daniel Shaw (mosquito control specialists). Frank Shaw, Don Hargreaves, and Don Andersen all work for DEP Support Services on wetland restoration and mosquito management projects.

Crew members are able to "wear many hats"—they operate equipment, spray herbicides to kill *Phragmites*, collect mosquitoes for testing, participate in mosquito management activities, and even fix the equipment when it breaks down. The equipment is used year round in salt water environments. This takes a



At a restoration site in Stratford, the WHAMM crew uses a bulldozer and excavator to remove spoil material that is loaded into a dump truck. Approximately 35,000 cubic yards of fill are slated to be removed to restore the marsh to the proper elevation.

toll on the machines and, fortunately, when they do break down, crew members are able to work on the machines to get them running again.

The WHAMM crew usually has more than one wetland restoration project going on at a time, sometimes in completely different areas of the state. And, these projects are worked on year round, in all kinds of weather conditions. Several crew members also must accomplish their mosquito management duties from May to September. Such diverse responsibilities keep the job interesting for the crew. They all seem to enjoy working in the field in different parts of the state. Most importantly, they are rewarded when they see the results of their labor first hand—a site once filled-in and dominated by Phragmites now looking more like a natural salt marsh. Native salt grasses grow instead of Phragmites, small ponds and meandering channels mark the landscape, and ducks, egrets, and various shorebirds that rarely used the site before are now there in large numbers. Crew members have even noted that birds often start returning to a restoration site while the project is still in progress.

Specialized Equipment

The DEP Office of Long Island Sound Programs took the first steps in creating

the wetland restoration program by purchasing the first low ground pressure excavator and funding the crew for the first year. After that, the DEP Wildlife Division helped the WHAMM Program move forward by purchasing some specialized equipment with funds raised through the Connecticut Migratory Bird Conservation Stamp Program. The specialized equipment used by the WHAMM Program includes three low ground pressure excavators, one amphibious mulching machine, one low ground pressure Posi-Track machine that can mow or haul away material, one low ground pressure bulldozer, two military dump trucks and one International dump truck. The amphibious mulching machines, which can travel on water or land, are used to create openings in vegetation-choked wetlands. With the help of an attached dozer blade, these machines can also be used to create shallow ponds.

The value of the specialized equipment is often used as a state match to other funding slated for projects. In addition, the USFWS McKinney Refuge allows the WHAMM Program to use equipment, like a specialized bulldozer and a trailer to haul equipment.

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WHAMM, continued from previous page

Cooperative Funding

Most of the wetland restoration projects have been made possible due to cooperative efforts and funding from state and federal agencies, various grants, and private conservation and sportsmen's groups. The projects undertaken by the WHAMM Program do not receive any funding from the Connecticut General Fund. For example, a marsh restoration project completed in 2002 at the state-owned Roger Tory Peterson Wildlife Area in Old Lyme was funded in part by a grant provided by the North American Wetland Conservation Act (NAWCA). NAWCA grant funds must be matched by contributions from project partners. Partners for the Peterson Wildlife Area project included the USFWS, Ducks Unlimited, The Nature Conservancy, Connecticut Waterfowl Association, the Northeast Utilities' Foundation, and the Connecticut Migratory Bird Stamp Program. The current project in Stratford is being funded differently than most projects. The Stratford Land Development Company, which sold four different parcels of filled-in marshland to the USFWS, is paying for the restoration of the parcels as part of a wetland mitigation

The availability of funding is what determines when and if a wetland

restoration project is undertaken by the WHAMM Program. Fortunately, there are several special funds or environmental grants to draw from, as well as numerous conservation groups that donate money and services to see a project through to the end. All of these public/private partnerships help restore tidal wetlands essential to Connecticut's migratory and nesting shorebirds, finfish, invertebrates, and native plant species.

The Stand Against Phragmites

Restoring tidal wetlands is no easy task. Finishing a project can take several months, up to several years. And, depending on how extensive the restoration is, it may take a few years for the site to once again resemble a natural salt marsh. Many of the projects more or less "turn back the hands of time." Most tidal marshes were gridditched in the 1930s to drain off water and remove mosquito breeding areas. Unfortunately, this process removed the open water habitats most attractive to wildlife, especially waterbirds. Grid ditching also resulted in decreased soil salinity, thus enabling the salt-intolerant plant, *Phragmites*, to displace native plants and dominate tidal marshes. Thick stands of *Phragmites* have low habitat value for many fish and wildlife species compared to marshes with greater vegetative diversity.

> To tackle the problem of Phragmites in Connecticut, management efforts have focused on changing the environmental conditions favoring the plant and controlling its spread. By plugging and filling grid ditches and then creating ponds and meandering channels in



The invasive plant, *Phragmites*, has displaced native marsh plants and dominates many tidal marshes. Thick stands of *Phragmites* have low habitat value for most fish and wildlife species.

the marshland, environmental conditions change when the natural tidal flow of salt water is restored in the marsh. Salt water makes it difficult for *Phragmites* to grow and spread.

The application of herbicides, mainly Rodeo, and subsequent mowing also are used to kill stands of *Phragmites*. Rodeo, a nonselective herbicide, kills all grasses and broad-leafed emergents. It degrades quickly into natural products, so it is virtually nontoxic to aquatic animals. Mowing of the site is usually repeated for three years after the application of Rodeo. Most treated sites recolonize with native plants within three to five years, with very little *Phragmites* growing back.

The End Result

What is the final result of these wetland restoration efforts? The WHAMM Program and others have been monitoring birds, vegetation, and water quality at some of the restored marshes. For example, since the completion of the project at Peterson Wildlife Area, a number of brackish plant species have been reestablished, such as cattail, bulrush, water hemp, and marsh mallow. Several bird species also have returned in greater numbers to the wetland, like black ducks, mallards, green-winged teal, egrets, rails, and saltmarsh sharptailed sparrows. Other animals that have been observed include muskrats, meadow voles, and deer. These results demonstrate how fortunate Connecticut is to have a wetland restoration program in place that is working hard with other state and federal agencies and dedicated partners to conserve and restore such ecological treasures as our tidal wetlands.



Wildlife Division Assistant Director Greg Chasko (left) and Mosquito Management Coordinator Roger Wolfe review the plans for a tidal wetland restoration project in Stratford. The project calls for the restoration of four different sites that now belong to the U.S. Fish and Wildlife Service's Stewart B. McKinney National Wildlife Refuge.

American Woodcock Research Project Providing Answers

Written by Min T. Huang, Migratory Gamebird Program

In 2003, the Wildlife Division, along with the Wildlife Conservation Research Center at the University of Connecticut, embarked on a long-term research project of American woodcock. American woodcock have been declining across their range, including in Connecticut, for the past 35 years. This decline can largely be attributed to habitat loss and habitat degradation in both breeding and wintering areas. Other factors, such as contaminants and predation, may also be contributing to the decline. As the second year of the project comes to a close, we are encouraged by the progress made and intrigued by some of the information obtained.

During the second year, another year of the statewide population assessment was completed, habitat along each survey route was quantified, Geographic Information System (GIS) habitat assessment was further refined, and the Wildlife Conservation Research Center made much progress on the contaminant aspect of the study. Funds have been secured to equip woodcock with radio transmitters and that phase of the research will begin in 2005.

Population Surveys

The population assessment aspect of the project involves 30 survey routes throughout the state. These routes were laid out based upon an initial GIS analysis of existing woodcock habitat. Routes were then established along roads throughout that habitat. Routes were 3.6 miles in length and consisted of 10 listening points. In 2003, prior to the actual survey period, the habitat present was classified as either poor, good, or excellent at each listening point. Observers conducted the surveys during the evenings in late April or early May.

A total of 73 woodcock were heard on the 27 routes for which data were received at the time of this writing. As was the case in 2003, significantly more woodcock were heard at sites classified as having excellent or good habitat than at those with poor habitat.



The Connecticut Woodcock Council strives to foster conservation efforts to restore population levels of American woodcock and other early successional species.

Additionally, birds were consistently heard in powerline corridors that fell along the survey routes, as was the case in 2003.

Overall, there was no significant difference between years in the number of woodcock heard along the routes. This mirrors U.S. Fish and Wildlife Service survey results from the entire Eastern Management Unit (EMU). In fact, in the EMU, the 10-year trend from 1995 to 2004 is stable.

Between 2003 and 2004, significant habitat changes occurred on three of the routes along predominantly private land. These changes were all due to the construction of new homes along the routes at one or more stops. This is a development trend that is likely to continue over time, and is probably directly responsible for the long-term decline in woodcock and other early successional species. Interestingly, however, woodcock were still heard at two of the stops where habitat had been altered from 2003. Along another route where houses were constructed since 2003, woodcock were heard at the stop immediately before where a new house was built. This particular stop had existing houses, but large lawns and some pasture behind it. Woodcock were not heard at this particular stop in 2003. It seems that the loss of habitat may be causing woodcock to shift their displaying areas. However, it will not be known for sure if this is the case until the radio telemetry aspect

of the study can proceed. Data collected from the use of radio transmitters also will provide information on how well woodcock adapt to these other habitats.

Survey results for the second year of the study were similar to results from the first year. Mainly, woodcock were found to be using areas where the habitat was reasonably good. The data collected at each stop of each route will assist us in determining what habitat variables make an area attractive for woodcock to use as a display site. As we conduct radio telemetry studies, we will be able to ascertain habitat preferences for all parts of the woodcock life cycle, and deter-

mine survival rates and cause-specific mortality.

Analysis of Contaminants

The contaminants analyses that UCONN graduate student Brian Hiller and his advisor Dr. Jack Barclay are conducting as part of our collaborative project are also yielding interesting results. The results of this aspect of the study constitute Brian's Master's thesis and, as of yet, are not peer reviewed or published.

Hunters were asked to donate legally harvested woodcock for contaminant analyses. Livers, kidneys, and pectoral muscle were examined for heavy metals, including arsenic, cadmium, chromium, mercury, lead, and selenium. Abdominal fat pads were analyzed for various pesticides, including DDT, Chlordane, Dieldrin, and various PCB congeners. Undamaged wing-bones were removed and analyzed for lead.

During the 2002 woodcock season, 61 harvested woodcock were donated. Twenty-seven were adults (12 males and 15 females) and 34 were juveniles (15 males and 19 females). Wing-bone lead analyses indicated that 41% of adults and 25% of juveniles had wing-bone lead concentrations above 20 parts per million (ppm), considered an elevated level. These percentages are lower than those found in Wisconsin, where 53% of adults and 43% of juveniles had elevated wing-bone lead concentrations.

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Woodcock, continued from previous page

Cadmium levels in livers are considered elevated if they exceed 3 ppm (dry weight). All of the 61 livers exceeded this level. Cadmium in kidneys is considered elevated if it is 8 ppm (dry weight) or higher. Of the 58 kidneys examined, 100% had at least double this concentration.

The pesticide and PCB analysis also brought some surprises. PCBs were present in 100% of the 55 fat pads analyzed, but at generally low levels. Dieldrin was present in 87% of the birds examined, while chlordane was present in 93% of the birds. DDE, a breakdown product of DDT, was present in 95% of the fat pad samples and DDT was present in 65% of the samples. The use of DDT was banned nearly 30 years ago in the United States. The continued presence of DDT and DDE in these birds is testimony to its persistence in the environment. Although the origin of the 61 birds that were analyzed is unknown (Connecticut resident birds or migrants), these results indicate that contaminant loads, particularly heavy metals, are high in some woodcock, and that heavy

contaminant burdens may exacerbate range-wide woodcock population declines. It should be noted, however, that no significant concentrations of pesticides or heavy metals were found in the pectoral muscles that were sampled. Thus, consuming woodcock breasts poses no significant health risk.

Connecticut Woodcock Council Fundraiser

An exciting event took place on September 16, 2004, at Gillette Castle State Park in East Haddam, as the Connecticut Woodcock Council hosted a wine tasting fundraiser. The Connecticut Woodcock Council (CWC), which was incorporated in the summer of 2003 as a nonprofit organization, strives to foster conservation efforts to restore population levels of American woodcock and other early successional species, and to promote a greater public appreciation for woodcock and early successional habitats. To achieve its goals, the CWC plans to raise funds for supporting research efforts, producing educational materials, and disseminating habitat management information.

All of the principal partners involved with woodcock research and early successional habitat (USFWS, the Wildlife Management Institute, Ruffed Grouse Society, Wildlife Conservation Research Center, Connecticut Audubon, DEP Wildlife Division) attended the event, giving individual presentations to the attendees. All were very well received, and the event raised over \$20,000. This is an exciting start for the CWC and for woodcock and early successional habitat in Connecticut. It is hoped that this initial fundraiser will be the springboard and catalyst for much more interest and funding in the future.

We are learning much about wood-cock in Connecticut, but more work lies ahead. Guidelines for habitat management on state lands and, more importantly, on private lands, that are beneficial to woodcock and other early successional species is one of the goals for the woodcock project. As we continue to work with our various partners and gain more knowledge about what woodcock need in Connecticut, this goal should become closer to reality.

The Wildlife Observer

Clam vs. Cormorant



Connecticut
Wildlife reader Jeff
Feldmann, from
West Hartford, sent
in the following
interesting wildlife
observation and
photograph:

"I thought you might be interested in a wildlife 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

(submitted photos will be returned at your request)

observation I came across this summer. I like to photograph nature from my kayak. I was paddling the Mystic River (from the Interstate 95 bridge north). I saw this cormorant sitting on a dock. I tried to help, but couldn't get close before it would go in the water.

After getting out of my kayak, I reported the sighting to a wildlife phone number that was posted near the launch site. I had forgotten about it until I saw the unusual photo of the bear in the September/October issue. I wonder how often something like this happens. I hope the cormorant survived. Largest clam I ever saw!"

The Wildlife Division does not commonly receive such reports, although that doesn't mean it never happens. The cormorant in this photograph probably survived. If the bird didn't eventually remove the clam on its own, the clam would let go after being out of the water for an extended period of time.

Productivity Up for Piping Plovers and Least Terns

Written by Julie Victoria, Wildlife Diversity Program

Connecticut's piping plovers and least terns had a good breeding season this year, with an increase in productivity for both species. The DEP Wildlife Division and numerous volunteers keep a very close watch on these state-threatened shorebirds (the piping plover is also federally threatened) throughout the nesting season. Kerri Dikun, a research assistant for the Wildlife Division, spent many hours at nesting areas, monitoring plovers and terns, erecting fencing, observing nests, and educating beach visitors. Her position was funded through federal aid from Section 6 of the Endangered Species Act.

Forty pairs of piping plovers nested along the Connecticut coastline during 2004, three more pairs than last year. The number of young fledged (reached flying stage) reached 54, which is six more than in 2003.

The Wildlife Division also monitors the nesting activities of least terns. These small shorebirds are colonial nesters and are usually found near or among piping plover nests. Approximately 158 pairs of least terns nested in the state this season, a decrease from the 197 in 2003. However, the number of young fledged was high at 209, nine more chicks than in 2003. What is extremely encouraging is the increase in young fledged per nesting pair, which was 1.32 compared to 1.0 in 2003.

The consistent number of piping plover chicks fledged every nesting season since 1986 is very encouraging and reflects the success of aggressive management by the Wildlife Division. The Division uses specific and carefully researched procedures to protect nesting plovers and terns. Initially, beaches designated as breeding grounds are fenced off with string to discourage people and dogs from disturbing birds in the area. Educational signs, as well as "Keep Away" and "No Dogs" signs, also are posted around these areas. When individual plover nests are located, a wire "exclosure," with a top net, is erected around each nest. The exclosure is designed to keep dogs, house cats, skunks, raccoons, weasels, foxes, and avian predators from reaching the eggs.

Due to the flight patterns of least terns, individual nest fencing is not an effective technique for them. Consequently, walkers, anglers, and dogs often disturb these birds. This summer, the Connecticut Ornithological Society (COA) hired a tern warden to monitor activities at Sandy Point/ Morse Point in West Haven. The warden, Jennifer Healy, was trained by Milan Bull of COA and worked under the direction of the Wildlife Division. COA is currently analyzing data collected by Jennifer and is preparing a formal report to be released at a later date.

Piping plovers and least terns prefer to nest on sandy beaches, but only a limited number of sites are available due to current shoreline development and recreational use. Mammalian and avian predators, attracted to beach areas by human litter, hamper nesting success, as do human disturbances which keep the birds off their nests, preventing them from attending young.

The Wildlife Division appreciates the cooperation of those who respected the fenced and posted areas during the summer nesting season. Thanks to the public education efforts of volunteers from the Division's Master Wildlife Conservationist Program, The Nature Conservancy, and Connecticut Audubon, beach visitors and dog owners at several sites were very cooperative. The Division encourages volunteer assistance and hopes to continue public education next season. Volunteers are being sought to assist next summer with public education efforts at several nesting beaches in the West Haven, Stratford, and Milford areas. For more information, contact Julie Victoria, at the Division's Franklin Wildlife office, 391 Route 32, North Franklin, CT 06254, or send email to julie.victoria@po.state.ct.us.



The 40 pairs of piping plovers that nested along the Connecticut coastline during 2004 fledged 54, young. The consistent number of piping plover chicks fledged every nesting season since 1986 is very encouraging and reflects the success of aggressive management by the Wildlife Division.

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Shallow Water Fowl - Dabbling Ducks in Connecticut

Written by Paul Fusco, Wildlife Outreach Unit

Some of our most familiar ducks are the dabbling ducks, also known as puddle ducks. Dabbling ducks are commonly found in shallow water marshes and creeks where they feed by dabbling at the water's surface and by upending to reach food below the surface. Their legs are positioned toward the side of the body, causing the ducks to waddle when they walk on land, which they sometimes do to feed in farm fields and mudflats. They take flight by springing directly into the air, as opposed to diving ducks which need to get a running start across the surface of the water in order to take off. Dabbling ducks normally do not dive below the surface, although some may dive briefly to escape danger.

Most dabbling ducks have brightly colored secondary feathers in each wing called the speculum. Frequently, the speculum is iridescent or metallic in appearance. It is used in courtship by males seeking to attract a female. The color of the speculum is helpful in identifying many species of dabbling ducks.



American Black Duck

Breeding populations of the American black duck are found at low densities in both freshwater and saline wetlands in Connecticut. In freshwater habitats, they are associated with densely wooded forested swamps and beaver marshes, while coastal birds use tidal marshes. The black duck population in Connecticut has declined dramatically since the 1960s, due in part to competition from the increased population of highly-adaptable mallards. Black



Some dabbling ducks, including green-winged teal, may be seen feeding on mudflats in salt marshes as the tide recedes.

ducks are not as adaptable as mallards and have a low tolerance to human disturbance, especially during the nesting season. While their population

is currently stable, black ducks are under continued pressure from the loss of wetland habitat.

Mallard

The mallard, or "greenhead," is the most common breeding dabbling duck in Connecticut, as well as in the Atlantic Flyway. This popular gamebird has increased its population in eastern North America and Connecticut. Historically, the population stronghold of mallards was in the Midwest, where it still is. However, the widespread release of large numbers of captive

raised mallards during the last century in the east has resulted in the rapid expansion of mallard populations to the point that this once uncommon visitor to Connecticut is now the most common nesting duck in the state. Their adaptability and tolerance brings mallards close to human disturbance where they frequently are found living comfortably alongside people.

Northern Pintail

Found in Connecticut as an uncommon migrant, the northern pintail is abundant in the Great Plains and western North America. In winter this elegant duck may occur in small numbers at coastal marshes and shallow brackish ponds near the coast. Pintails are named for the long central

tail feathers of the drake.

Green-winged Teal

Named for its green speculum, the green-winged teal is a common migrant in Connecticut. It is rare in the middle of winter; however, it does breed in the state. Green-winged teal have been expanding their breeding range and are annually detected during breeding surveys in Connecticut.



Blue-winged Teal

Blue-winged teal are common breeders in the prairie states and southern Canada. They are intolerant of cold weather and have a winter range that extends from the southern United States to northern South America. Their rare breeding population in Connecticut is classified as threatened under the state Endangered and Threatened Species Law.

Gadwall

Gadwall are also more common in the Great Plains than in Connecticut. The first definitive breeding by gadwall in Connecticut was in 1972 at Barn Island Wildlife Management Area in Stonington. Since then, gadwall have maintained a small nesting population in a few coastal marshes along the Connecticut shoreline.



American Wigeon

The American wigeon is a common migrant in Connecticut, and can be locally abundant at some coastal locations during winter. Based on its recent southeastward range expansion from Canada into Pennsylvania, western New York, and Long Island, American wigeon may be found nesting in Connecticut sometime in the not to distant future.



In recent years, small numbers of a close relative, the European wigeon, have been wintering in Connecticut at some coastal locations.

Northern Shoveler

The northern shoveler is not commonly found

in Connecticut. Occasionally, small numbers are found primarily in coastal

salt marshes. There are no records of northern shovelers breeding in the state, although there are records of breeding on Long Island. The Northern shoveler is another species of dabbling duck that is much more common in the Great Plains than in eastern states.

Wood Duck

Another favorite among duck hunters is the drake wood duck. With its boldly patterned plumage and crest, the drake wood duck is among the most spectacular of

waterfowl. Wood ducks frequent timbered freshwater wetlands, including beaver swamps.

Wood ducks are cavity nesters that will use either natural tree cavities or nest boxes. DEP and volunteer efforts to put up and maintain wood duck nest boxes across the state have helped this species to recover from the population declines of the early 1900s. Also critical to their recovery was the

captive breeding and release of thousands of wood ducks that took place between 1924 and 1936. Today, the wood duck is the second most abundant breeding, dabbling duck in Connecticut.

Conservation

It was the plight of shorebirds, egrets, and waterfowl that first led to the establishment of bird protection laws, the establishment of sustainable hunting laws, and



During summer, drake wood ducks have a more subdued appearance than at other times of the year.

the federal Duck Stamp Program, as well as the creation of the National Wildlife Refuge System and the U.S. Fish and Wildlife Service (USFWS).

Overexploitation by unregulated market hunting in the late 1800s and early 1900s brought many bird populations to the brink of extinction. In response to this critical situation, the United States government passed the Lacey Act in 1900 and, then, the Federal Migratory Bird Treaty Act in 1918, which established important measures for protecting migratory birds and other wildlife. Subsequently, programs were initiated to acquire wildlife habitat and create waterfowl impoundments, evolving into what has become the National Wildlife Refuge System. Today, the refuge system is a primary source of critical habitat for ducks and other wildlife in the United States. Additionally, state and federal wildlife agencies, along with international partners and non-governmental organizations, have built upon this strong history to further waterfowl conservation across the continent by undertaking wetland protection and restoration projects that are essential for maintaining waterfowl populations.

Conservation efforts and the protection of wetland habitat have enabled waterfowl populations to recover from overexploitation. Today, the USFWS, together with state wildlife agencies, assesses waterfowl populations annually. This assessment guides biologists in setting waterfowl hunting regulations.

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Colonial Waterbirds Surveyed in 2004

Written by Julie Victoria, Wildlife Diversity Program

Since 1977, colonial waterbird surveys have been conducted in Connecticut every three years from Greenwich to Stonington. Connecticut's offshore islands and rocks provide nesting habitat for several species of colonial waterbirds, such as herring gulls, great black-backed gulls, snowy egrets, great egrets, double-crested cormorants, black-crowned night herons, yellowcrowned night herons, little blue herons, green-backed herons, glossy ibises, and common terns. The objectives of the survey have been to document changes in the numbers of species and total nesting pairs and to try to determine what factors may be causing a species to decline in certain areas. The survey concentrates on birds that nest in colonies (herons, egrets, gulls, terns) but other shorebird species, such as oystercatchers, are included as well.

During the nesting season, many waterbirds form dense colonies. If a colony is disturbed, the birds may move from one site to another. Assessing trends of waterbird populations is necessary because these species have been under increasing pressure from recreational uses in their habitats.

Our records indicate that the distribution of the birds shifts from year-to-year from one island or rock to another. This shift may occur naturally, but if a decline in several species occurs over a period of years, there would be concern. This is why biologists from Connecticut, New York, Rhode Island, and Massachusetts have been meeting yearly to compare numbers and see if declines or increases are the result of shifting colonies or if they are actual changes in numbers.

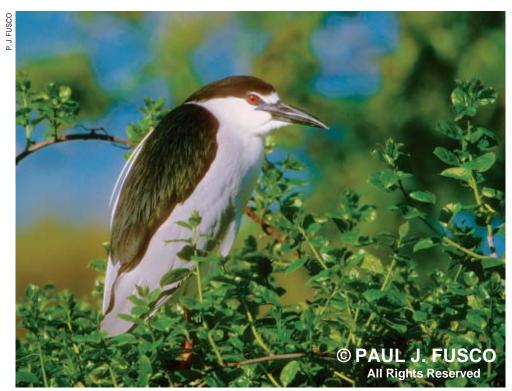
Biologists from the DEP Wildlife Division, along with U.S. Fish and Wildlife Service employees and several volunteers, completed the eighth colonial waterbird survey this past June. During the survey, 95 sites were checked and 21 species of waterbirds were censused at nesting colonies located primarily on barrier beaches and coastal marshes and islands. The large size of many waterbird colonies makes it difficult to accurately count all breeding pairs; therefore, population numbers typically are estimated. Field censuses were conducted using ground methods (foot, boat).

The Colonial Waterbird Survey concentrates on birds that nest in colonies (herons, egrets, gulls, terns) but other shorebird species, such as oystercatchers, are included as well.

The number of breeding pairs of double-crested cormorants has shown a steady increase since the species was first detected breeding in Connecticut in 1982. However, the number of great black-backed gulls and herring gulls has been decreasing over the years. Pairs of great egrets and glossy ibises have increased while pairs of snowy egrets and black-crowned night herons have decreased since 2001. Trends such as these will be used to evaluate the longterm health of waterbird populations in Long Island Sound. The species observed in Connecticut are part of a regional population; therefore, population trends for neighboring states will be used to draw regional conclusions about the status of these waterbird populations.

Two offshore islands that are important to nesting herons and egrets are Charles Island (Milford) and Duck Island (Clinton). Survey results indicated that the number of great egrets and snowy egrets increased on both islands this year compared to the last survey in 2001. Disturbance and vandalism have been persistent problems at the nesting areas on these islands. Every year, the nesting areas are fenced off and posted with informational signs to alert visitors of the importance of these sensitive areas. Access restrictions may be extended to other islands as the distribution of birds shifts to these different islands over the course of time.

The Wildlife Division appreciates the efforts of boaters who respected the fencing and supported protection efforts at Charles and Duck Islands. The Wildlife Division also extends its thanks to the many volunteers who have helped make these surveys possible during the past 27 years.



The number of pairs of black-crowned night-herons counted in the 2004 Colonial Waterbird Survey decreased from the last survey in 2001.

FROM THE FIFILD



Connecticut River Eagle Festival, February 19-20

The Connecticut Audubon Society will present the 6th Annual Connecticut River Eagle Festival on February 19-20, 2005, in Essex. The festival saw more than 14,000 visitors in 2004 come to Essex over a two-day span to view bald eagles. Visitors also filled the lectures, live demonstrations, and boat trips to capacity, during this fun, but educational weekend.

Visitors to the event can enjoy a wide variety of free activities at the Festival, including an opening parade, land-based eagle viewing tours, environmental lectures, and live birds of prey demonstrations. There will be free nature programs, crafts, and games offered for children, Native American presentations, nature exhibits, music, ice carvings, and a host of entertainment. Boat tickets for viewing eagles along the Connecticut River are the only cost associated with the Festival and reservations are required. DEP Wildlife Division biologists will also be presenting wildlife lectures at the Festival.

A complete Connecticut River Eagle Festival Program Guide, listing boat tours, programs, and events will be available and can be obtained by calling 1-800-714-7201. To find out more information on the Festival, visit Connecticut Audubon's website at www.ctaudubon.org.

FOSW Receives Grant

Friends of Sessions Woods received a \$4,500 grant towards completion of the classroom space allocated in the exhibit room at the Sessions Woods Conservation Education Center in Burlington. The grant was received through the Main Street Community Foundation from the Merriman Family Fund and the James R. Parker Trust. Friends of Sessions Woods also will donate \$2,700 to complete the classroom. Tables, benches, and audiovisual equipment are among the items to be purchased with the funds, providing visiting school children and the public a special area of the center to enjoy. Plans include providing a space to view items through a microscope and explore hands-on wildlife items, and a reading area stocked with various Division publications, including Connecticut Wildlife magazine. The Wildlife Division would like to extend thanks to all who have made this classroom possible.



Friends of Sessions Woods member Cheryl Hubble helps children make crafts at the Halloween in September event.

Halloween in September Event a Hit!

Friends of Sessions Woods and the DEP Wildlife Division's Outreach Unit hosted a special event for children during September at the Sessions Woods Conservation Education Center in Burlington. The second annual "Halloween in September" offered children the opportunity to participate in several wildlife-related crafts, bob for apples, and eat powdered donuts on a string. Live animals, including a big brown bat, corn snake, and various native spiders, also were on display and provided a learning experience for over 150 people who attended the program. Local performers Josh Black and Laura Gabor of "Gabosh" were a special treat for children with their rhythm and musical performance given midway through the afternoon. This event proved to be a fun and learning experience for all!

Moose and Bears Keep DEP Busy

In the early 1990s, reports to the DEP Wildlife Division about moose or black bears wandering through backyards were few and far between. However, that has all changed and now reports of moose and bear sightings are keeping the Wildlife Division and State Environmental Conservation (ENCON) Police very busy. As of the end of October, 2004, the DEP has received 45 reports of moose sightings or complaints, as well as 1,753 reports concerning bears.

Responding to some of these sightings or complaints is extremely time-consuming for DEP staff. In the last issue of *Connecticut Wildlife*, an article detailed the tracking, immobilization, and release of a

Massachusetts moose that found its way near Interstate 95 in Old Lyme. Not too long after that encounter, the DEP found itself once again pursuing a wandering moose, this time in East Granby, just off Route 20 near

Bradley International Airport. A young bull moose weighing approximately 750 pounds was immobilized and relocated into a remote forest in northwestern Connecticut after being examined and ear-tagged. The ENCON Police, Wildlife Division biologists, and the Connecticut State Police from Troop W all assisted in this effort

What stood out this year with all of the bear sightings was the unprecedented number of responses to bears in urban areas, including Waterbury, Hartford, West Hartford, Granby, Middletown, and Willimantic. In addition, nine bears had been killed by vehicles as of the end of October

The Wildlife Division monitors moose and black bear sightings through reports received from the public.

Anyone who observes a moose or bear in Connecticut is requested to report the sighting by calling the DEP's 24-hour dispatch line at (860) 424-3333 or the DEP Wildlife Division's Franklin office (for moose sightings) at (860) 642-7239 or Sessions Woods office (for bear sightings) at (860) 675-8130. Because some moose and bears have been ear-tagged for research, information on the presence or absence of tags on these animals is also valuable when reporting sightings to the DEP.

Shepaug Eagle Viewing Area Opens Dec. 26

Northeast Generation Services has announced that the Shepaug Bald Eagle Observation Area will be open to the public for its 20th consecutive winter season. The observation area will be open on Wednesdays, Saturdays, and Sundays from December 26, 2004, through March 16, 2005, from 9:00 AM to 1:00 PM--strictly by advance reservation. The only exception will be Saturday, January 1, when the observation area will be closed for the holiday. All individuals and groups wishing to visit the site to view eagles must make a reservation for a particular date, as there will be a limited number of visitors allowed per open day.

Starting December 7, 2004, reservations for the Shepaug Eagle Area can be made Tuesday through Friday, from 9:00 AM to 3:00 PM, by calling 1-800-368-8954.

Bristol Girl Scout Reaches Her Gold Award through Conservation Project

Written by Sarah Arnone, Senior Girl Scout Troop # 6239

Wildlife is an essential aspect of the natural world. Bats are a particular group of species that plays a very important role in Connecticut's ecosystems. According to recent research, habitat loss for these nocturnal creatures has caused dramatic declines in their populations and has, therefore, affected their ability to impact populations of the night-flying insects which they consume. To help aid in the loss of bat habitats and provide the community with environmentally safe insect control, Bristol Girl Scout Sarah Arnone constructed 10 bat houses for the Department of Environmental Protection. The DEP Wildlife Division's Sessions Woods Wildlife Management Area (WMA) in Burlington was the recipient of several of the bat houses, while the remaining houses are being donated to local nature facilities.

Bat houses provide artificial roosting sites, particularly for little brown and big brown bats. The artificial roosts function as efficient alternate homes for bats because of their similarity to natural caves or hollow trees. The bat houses were built using rough cut, pine lumber, non-toxic stain to avoid odors, and silicone caulk. The bat houses were constructed to blend in with the surrounding environment. Because bats are the only major predators of night-flying



Bristol Girl Scout Sarah Arnone (left) presents Wildlife Division technician Geoff Krukar with one of 10 bat houses that she constructed. Some of the bat houses will be erected at the Sessions Woods Wildlife Management Area in Burlington.

insects, primarily mosquitoes and similar pests, they are extremely beneficial to humans.

What Happens Now?

Bat houses placed in good habitat are usually used by bats. The ideal location for bat houses is usually on the side of a building or pole positioned at least 10 feet high. However, it is not uncommon for it to take up to a year or more for bats to find and settle into a bat house. Sarah, with the assistance of Wildlife Division technician

Geoff Krukar, plans to ensure that all of the constructed bat houses will be placed appropriately and their use by bats will be recorded. The several houses stationed at Sessions Woods WMA will act as an extended research opportunity and educational tool for continued observation by Bristol Eastern High School's Environmental Club, headed by Sarah's Project Advisor, Elizabeth DiLernia.

When Can Results Be Found?

Bat houses are usually occupied by little and big brown bats. From the end of May to the end of July, little and big brown bats are giving birth and rearing their flightless young. From the end of

August through October is when bats prepare for hibernation, swarm around winter roosts (hibernaculum), and mate. This is the ideal time to install bat houses. Little and big brown bats hibernate from mid- to late October until the end of May and do not actively seek roost sites at this time. The future of Connecticut's bats is highly dependent on habitat conservation. Bat houses can provide important supplemental roosting and birthing sites for bats.

Volunteers Sought for the 2005 Midwinter Bald Eagle Survey

The DEP Wildlife Division is looking for volunteers to assist with the 2005 Midwinter Bald Eagle Survey in Connecticut. Bald eagles migrate south from the northern states during winter to areas of open water where they are able to catch fish, their main food item. Cold weather conditions, which keep most waterways to the north covered with ice, mean that higher numbers of eagles will be counted here. Each year since 1979, volunteers from private conservation organizations, the DEP, and the general public have helped conduct the Midwinter Bald Eagle Survey by

recording all eagles seen at areas traditionally used by eagles, as well as areas of suitable wintering habitat.

The 2005 survey will be held on Saturday, January 8, from 7:00 AM - 11:00 AM. In 2004, 92 bald eagles--50 adults, 41 immature eagles and 1 unknown--were recorded statewide. The Midwinter Bald Eagle Survey is not a complete census of the entire wintering population in Connecticut, but an index of the species' use of Connecticut, which can be compared year to year. The survey is conducted nationwide during a target time period and is coordinated by the

U.S. Department of the Interior, U.S. Geological Survey, and Forest and Rangeland Ecosystem Science Center at the Snake River Field Station in Oregon.

If you would like to participate in the 2005 survey, please email your name and mailing address to Wildlife Division biologist Julie Victoria (julie.victoria@po.state.ct.us). Efforts will be made to assign you to a survey location closest to your home. Volunteers are particularly being sought for two sites which were not covered in 2004, Lake Waramaug in Warren and Margerie Reservoir in Danbury.

Just For Kids Hunting Why Do People Hunt?

It's a Tradition!

Many hunters have been taught by their parents who were taught by their parents! Hunting is a tradition that is passed down from one generation to the next.

Hunters Help Keep Deer Numbers Down!

Too many deer eat too many plants and can affect the quality of habitat for other animals. Deer crossing the road can cause accidents. There are few natural deer predators in Connecticut. Hunters can act as predators and remove some deer from the environment.



Hunting laws allow hunters to take some animals, while leaving enough to maintain a healthy population. The number of animals hunters are allowed to take is roughly equal to the number that would die from disease or lack of food, or be taken by predators.

Hunting Gives Us Food!

Venison, or deer meat, can be made into sausages, steaks or stew. Wild turkeys and geese can be served for a holiday dinner.

Hunting Takes Place Outdoors!

People hunt because they like to be outdoors. Hunters often awake early and are outdoors and ready to go by sunrise. Early risers get to observe wildlife in the field. Hunters tell stories of seeing bobcats, foxes catching their prey, and even bears! Hunters love being outside!

To Hunt or Not to Hunt?

Hunting is a choice. It is also a privilege. Hunting is not for everyone. But for those who choose to hunt, it is a rewarding experience when rules are followed and safety is kept in mind.

Hunters Help Biologists!

What's the best way to tell the age of a deer? Is it by looking at the antlers? body size? hair color? or teeth?

The answer is teeth! When a hunter brings a deer to a check station, biologists look at the deer's jaw and can tell how old it is by checking the number and quality of the teeth.

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Winter Is for the Birds

Written by Laura Saucier, Research Assistant, Habitat Management Program

Winter is not an easy time for anyone...especially birds. While we humans are warm inside our houses, birds are actively searching for food to keep their metabolism primed for staying warm through the cold weather months. During spring and summer, a songbird's diet is mainly composed of insects and spiders. These food sources are high in protein and bountiful at that time of year. However, when fall and winter arrive and insects are dormant, a songbird's diet shifts to what is available, typically fruits and seeds.

If you enjoy watching wildlife, you may decide to keep a bird feeder stocked throughout the winter. Feeding birds is a great way to observe birds and their behavior from the comfort of your own home.

Finding a Feeder

When deciding on a feeder, it should be one that is easy to refill and clean, and be conducive to the seed you want to provide as well as the birds you would like to attract. Here are examples of basic styles:

- A platform feeder is simply a flat surface with edges where seed is piled (ideally there are holes drilled in the platform to allow water to drain out). This feeder can be mounted on a pole or placed on a patio, and it may have a roof to keep snow off the seed. Platform feeders are ideal for feeding sunflower and safflower seeds, millet, and mixed seed.
- A hopper feeder is similar to a platform feeder but it has a container to dispense and keep seed dry. This feeder, too, is ideal for sunflower, safflower, millet and mixed seed. Cardinals,

chickadees, tufted titmice and house and purple finches will visit hopper feeders.

- A tube feeder is a plastic tube with openings along the sides and perches for birds to land on. The length of the perch determines which birds can access the seed. This feeder is ideal for any seed that can fit through the openings. Many of the same birds that use hopper feeders will also visit tube feeders.
- A suet feeder is a metal basket or plastic mesh bag that can be hung off your bird feeder, a tree, or clothesline. Suet can also be provided by drilling holes into a three to sixinch diameter log and filling the holes with suet or a peanut butter and birdseed mixture. The log can be hung from a low tree branch or off of your patio.

Placement of Feeders

When deciding where to place your feeder, you want it to be easy to see and fill. Place it in a quiet part of your yard within 20 feet of cover, such as evergreen trees or shrubs. If there are no trees or shrubs close by, put your discarded Christmas tree near the feeder to serve as a place for ground-feeding birds (mourning doves and sparrows) to hide from predators or seek shelter during bitter winds. If there are free roaming house cats in your neighborhood, feeders placed too close to cover may give the cats a place to hide and thus catch the birds off guard.

Baffling Squirrels and Other Mammals

If squirrels become a problem, try using baffles or placing

the feeder approximately 10 feet away from overhanging tree or shrub branches or structures to keep them from landing and feasting. Baffles, also called predator guards, are devices that can be attached to bird feeders to keep mammals, such as squirrels, raccoons, and mice from eating all of your seed, which can become costly. Squirrels can also become troublesome when they scare birds away or even damage feeders by chewing through plastic to get to the seeds.

There are many different styles of baffles on the market. However, you can easily make one at home as well. Baffles can be as simple as taking a petroleum product, like Vaseline, and coating the pole that your feeder is mounted on (this is ideal

for metal poles). This will make for slick conditions for animals trying to climb up the pole. If your feeder is on a wooden pole, using a conical baffle is quite effective. This baffle is created by taking a piece of sheet metal, making a cut through half and overlapping the metal to make a cone. Fasten it together with bolts. The cone can then be attached just below the feeder to keep any mammals from climbing up the pole. A variation of the conical baffle is the PVC baffle. This baffle is a piece of four-inch PVC piping cut into a two-foot section. It can be attached to the pole just below the feeder. The PVC baffle also keeps mammals from climbing the pole and onto your feeder. Additionally, you can purchase various styles of feeders that have been designed to discourage squirrels and other mammals.

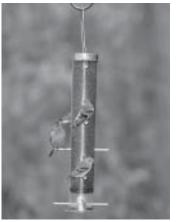




Hopper feeders (left) and platform feeders (right) are ideal for feeding sunflower and safflower seeds, millet, and mixed seed.



Suet feeders (above) can be used to attract woodpeckers, while tube feeders (right) filled with thistle are ideal for goldfinches.





The colorful male cardinal is a favorite visitor to backyard bird feeders. Cardinals will eat sunflower and safflower seeds offered at feeders.

Planning a Menu

There is a variety of seed types and mixes, as well as suet, available on the market. Different birds prefer different seeds.

Suet is a high-energy food made of beef fat and/or peanut butter. This is a great winter food for insect-eating birds, such as woodpeckers, chickadees, and nuthatches, due to the high fat content. Suet can be purchased in ready-made "cakes," often with birdseed or peanuts mixed in. If you would like to make your own suet, beef fat can be purchased at most supermarket meat departments. Because suet can go rancid if exposed to warm temperatures, it should only be used during cold weather.

Black oil sunflower seeds will be the favorite seed of the majority of birds that visit your feeder. This type of sunflower seed has a high meat-to-shell ratio, is high in fats, and the small size enables birds to easily crack the seeds open. If you have ever used a mixed seed blend, you may have noticed birds kicking out the less desirable seeds to find black oil sunflower seeds.

Grey-striped sunflower seeds have many of the same benefits of black oil sunflower seeds but the shell is thicker and tough to crack. Birds, such as blue jays and tufted titmice, do not have a problem cracking open grey-striped sunflower seeds.

Safflower seeds are readily consumed by cardinals, tufted titmice, and chickadees. They are popular with people due to its limited appeal to non-native European starlings and English



Black oil sunflower seeds



Striped sunflower seeds



White millet



Commercial seed mix



Safflower seeds



Niger (thistle) seeds



Chopped peanuts (unsalted)



Cracked corn

house sparrows. These birds may find another food source if a favorite feeder only offers safflower seeds for a week or

Millet comes in two varieties, red proso and white proso. Most birds that eat millet in the northeastern United States prefer white over red. Mourning doves, slate-colored juncos, and American tree sparrows readily eat millet.

Niger (also called thistle) seed is a small black seed that is heartily consumed by goldfinches, siskins, and redpolls. It is advisable to purchase a tube feeder or a niger seed satchel to attract finches and sparrows. This seed is more

continued on next page

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Winter Bird Feeding, continued from previous page

expensive than other seed-types, but if you enjoy watching finches, it will be worth the price.

Peanuts can also be used as a winter food choice. Woodpeckers, blue jays, chickadees, and tufted titmice will readily consume peanuts.

Commercial mixes contain a variety of seed types and grains. Typically, commercial mixes are less expensive but may have grains and seeds that birds do not like or won't readily eat (such as milo seed). Grains, like cracked corn, could attract larger birds, like blue jays and crows, that may monopolize your feeder. Grains can also attract undesirables, such as European starlings or blackbirds, as well as squirrels and raccoons. Watching which seed the birds kick out of your feeder may alert you to what they don't like. It may be more economical to create your own seed mix to avoid waste.

If You Build It...They Will Come

Once you have placed your feeder and filled it, it is just a matter of time before the birds find it. Don't worry if it takes a couple of weeks or more. If you have an established feeder and birds stop visiting it, there may be rancid or spoiled seed in it, which will need to be replaced.

Storing Seed

Purchasing seed in bulk can be economical as well as timesaving by limiting your trips to the store. Keep seed in a waterproof container to prevent mold from spoiling the seed. Metal containers (like a metal trash can) are also ideal to keep rodents from gnawing their way into your supply.

Keep those Feeders Clean

Feeders and feeding areas should be cleaned often throughout the cold months. A poorly maintained feeder can spread diseases among birds. Aspergillosis, a potentially fatal bird infection, is caused by a fungus that grows in wet bird seed. The spread of salmonella poisoning also has been linked to

Predators at Bird Feeders

Many feeder watchers are dismayed when they observe one of their visiting birds being preyed upon by free-roaming cats or raptors. Predation by cats is not a natural situation and should not be tolerated. The best solution is to keep house cats indoors. Try to talk to your neighbors about their free-roaming cats and explain why cats should be kept indoors. Predation by hawks, on the other hand, is part of the natural predator-prey relationship. Plus, observing a Cooper's hawk or a state endangered sharp-shinned hawk flying over your feeders may be a big enough thrill to overshadow the realities of predation.



Squirrels are sometimes unwelcome visitors to bird feeders and it is a challenge to keep them at bay. However, it is amusing to watch them as they try to outdo your best squirrel-proofing efforts.

bird feeders, causing widespread deaths in the Northeast. Some suggestions to prevent disease are to use weather-proof feeders where possible; use only clean, dry bird seed; discard seed that becomes moldy; in wet weather, put out only enough seeds that can be consumed in several hours; and regularly rake up seed hulls. Feeders should be cleaned regularly by scrubbing with soap and water, and then sanitized by being dipped into a one part bleach, nine parts water solution.

Be Bear Aware

Black bears looking for food can do a lot of damage to bird feeders. Make feeders and bird food inaccessible to bears by discontinuing feeding from late March through November.

Do Bird Feeders Keep Birds from Migrating?

Bird migration is cued by day length rather than temperature or food availability. Peak migration is late summer through early fall. Wild food sources are readily available to birds during this time. You may even want to consider planting berry-producing shrubs, such as winterberry or high-bush cranberry, in your yard for additional bird watching opportunities.

Another concern may be that the birds that frequent your feeder will go hungry if you go on vacation. Studies have shown that feeder seed is not a songbird's primary source of food. There are plenty of food sources in the wild. Providing seed for birds just makes searching for food during the harsh winter months a bit easier.

"Give a Gift to Wildlife" this holiday season by donating to the Wildlife Division's Nonharvested Wildlife Fund and help finance projects to conserve songbirds, bats, ospreys, least terns and other nongame wildlife. Send tax-deductible donations to the DEP Nonharvested Wildlife Fund, P.O. Box 1550, Burlington, CT 06013.

Wildlife Calendar Reminders

Dec. 1	Beaver trapping season opens.
Dec. 8-21	Deer muzzleloader season.
Mid-Dec	2005 Connecticut Hunting and Trapping Guide available at town halls and Wildlife Division offices. The guide can also be found at the DEP's website: www.dep.state.ct.us .
Dec. 22-31	Second part of the fall wild turkey bowhunting season on state and private lands.
Dec. 26-Mar. 16	Shepaug Bald Eagle Viewing Area open for the 2004-2005 viewing season (see page 13).
January	Donate to the Endangered Species/Wildlife Income Tax Check-off Fund on your 2004 Connecticut Income Tax form.
	Spring turkey hunting and state land deer lottery applications available at town halls and Wildlife Division offices, or apply on-line on the DEP's website: www.dep.state.ct.us .
Jan. 8	Midwinter Eagle Survey. Volunteers are needed (see page 14).
Jan. 1-31	Extended archery deer season on private land in deer management zones 11 and 12. A 2005 deer permit and private land consent forms for 2005 are needed.
Jan. 15-Feb. 15	Special late Canada goose hunting season in the south zone only. For more details, consult the 2004-2005 Migratory Bird Hunting Guide, available at town halls and DEP offices. The guide can also be found on the DEP's website: www.dep.state.ct.us .
Feb. 17-20	Visit the exhibit sponsored by the DEP's Bureau of Natural Resources and the Division of Law Enforcement at the 7th Annual Hunting and Fishing Expo, at the Connecticut Expo Center in Hartford. For more information on the Hunting and Fishing Expo, visit the website for North East Promotions, www.fishingandhuntingexpo.com .
Feb. 19-20	6th Annual Connecticut River Eagle Festival

Do You Have a Wildlife License Plate?

Enter the Wildlife Division's License Plate Contest!

We want to know if our readers have a wildlife license plate on their vehicles. Please send us a photograph of your license plate, along with your name and address. Every two months, we will pick



(see page 13 for more information).

a name and that lucky person will receive a one-year subscription (new or extended) to Connecticut Wildlife. The photograph of your license plate will not be published unless permission is granted.

Send photos to Connecticut Wildlife, P.O. Box 1550, Burlington, CT 06013 or email to katherine.herz@po.state.ct.us (type "license plate photo" in subject line).

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 stateendangered 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 on-line at www.ct.gov/dmv.



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Connecticut Wildlife	, P.O. Box 1550,	Burlington,	CT	06013

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The challenges of expanding deer populations in urban-suburban settings have become greater in recent years. Although hunting is the most effective and cost-efficient means of deer population control, opinions regarding the use of different options for managing urban deer herds vary greatly. The Wildlife Division continues to provide technical assistance on deer control options to interested communities.

Bureau of Natural Resources / Wildlife Division Connecticut Department of Environmental Protection 79 Elm Street Hartford, CT 06106-5127

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