

January / February 2000

# Connecticut Wildlife

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



© PAUL J. FUSCO  
All Rights Reserved



# From the Director

Experience has shown that daily newspapers and television news reports are poorly suited to fairly covering wildlife issues. Unfortunately, these media do not have the time or space to present basic information to educate uninformed citizens about complex topics. Therefore, it was with dismay, but not surprise, that I recently read the headline "DEP Declares War On Beavers." However, it was difficult to let that one roll off my shoulders. Whether because of the significant amount of time that the Wildlife Division staff spends on beaver issues or because of my own admiration for beavers based upon personal experiences, I feel the need to set the record straight.

There are more beavers in Connecticut today than at any time during the past three centuries. This is due to protective Department regulations regarding trapping and decades of restoration work by wildlife personnel from the DEP. Beavers were extirpated from Connecticut and much of their eastern range by the mid-1800s before being reintroduced to Connecticut near the beginning of the 20<sup>th</sup> century. For several decades, especially in the 1950s-1970s, biologists and conservation officers routinely live-trapped and relocated nuisance beaver throughout the state to hasten their recovery and expansion into suitable habitat. Needless to say, they were successful. By the 1980s, the trap and transfer activity came to a halt. Beavers were restored in every watershed and we simply ran out of places to put them.

As with many wildlife restoration programs, the beavers and the wildlife agency are the victims of our own success. Along with the ecological and aesthetic benefits presented by a thriving beaver population, we now are faced with an ever-increasing rise in beaver complaints. We respond to most of the hundreds of complaints we receive annually by extolling the virtues of beavers and preaching tolerance and appreciation. We do this sincerely and effectively. In addition, we provide technical assistance on options such as fencing and piping. However, we also recognize that beavers do cause serious problems that cannot be solved through tolerance alone. In some cases, such as where public health and safety are jeopardized, beavers may have to be removed completely from a site. In others, landowners employ trapping to maintain beaver populations at a manageable and consistent level.

Our goal is to maintain a balance between beaver populations, suitable beaver habitat throughout the state, and human land uses. This cannot be accomplished in the absence of some form of population control, such as trapping. We provide landowners with information, technical assistance, and options (both lethal and nonlethal) to ensure that beavers are viewed as an asset rather than a liability. Now that we have successfully restored beavers to the state, we must accept the obligation to manage them responsibly. This may be a challenge, but it certainly is not a war. -- Dale W. May

## Cover:

Winter is the best time to view bald eagles in Connecticut. To learn more about eagles, see pages 7, 16 and 19.

Photo by Paul J. Fusco

# Connecticut Wildlife

Published bimonthly by

State of Connecticut

Department of Environmental Protection

<http://dep.state.ct.us>

Arthur J. Rocque, Jr. .... Commissioner  
David K. Leff ..... Deputy Commissioner  
Edward C. Parker ..... Chief, Bureau of Natural Resources

## Wildlife Division

79 Elm Street, Hartford, CT 06106-5127 (860-424-3011)

Dale May ..... Director  
Peter Bogue ..... Assistant Director (Management)  
Greg Chasko ..... Assistant Director (Assessment)  
Mark Clavette ..... Recreation Management  
Chris Vann ..... Technical Assistance  
Laurie Fortin ..... Wildlife Technician  
Brenda Marquez ..... Secretary

## Eastern District Area Headquarters

209 Hebron Road, Marlborough, CT 06447 (860-295-9523)

Paul Rothbart ..... District Supervising Biologist  
Ann Kilpatrick ..... Eastern District Biologist  
Rich Garini ..... DEP-DOC Crew Supervisor

## Franklin W.M.A.

391 Route 32, N. Franklin, CT 06254 (860-642-7239)

Paul Merola ..... Waterfowl Program Biologist  
Howard Kilpatrick ..... Deer/Turkey Program Biologist  
Mike Gregonis ..... Deer/Turkey Program Biologist  
Julie Victoria ..... Nonharvested Wildlife Program Biologist  
Paul Capotosto ..... Wetlands Restoration Biologist  
Roger Wolfe ..... Mosquito Management Coordinator  
Bob Kalinowski ..... CE/FS Coordinator (East)  
Winnie Reid ..... Secretary  
Georgie McGlinchey ..... Program Assistant

## Sessions Woods W.M.A.

P.O. Box 1550, Burlington, CT 06013-1550 (860-675-8130)

Peter Good ..... Supervising Wildlife Biologist  
Steve Jackson ..... Supervising Wildlife Biologist  
Paul Rego ..... Furbearer Program Biologist  
Jenny Dickson ..... Nonharvested Wildlife Program Biologist  
Peter Picone ..... Urban Wildlife Program Biologist  
Judy Wilson ..... Western District Biologist  
Dave Kubas ..... CE/FS Coordinator (West)  
Sandy Jacobson ..... Program Assistant  
Trish Cernik ..... Program Assistant  
Jim Warner ..... Field Assistant  
Lew Hale ..... Field Assistant

## Public Awareness Program / Connecticut Wildlife

Kathy Herz ..... Editor  
Paul Fusco ..... Media Designer/Photography  
Laura Rogers-Castro ..... Education/Outreach

## Wetlands Habitat & Mosquito Management Crew Hdqtrs. 51 Mill Road, Madison, CT 06443

Daniel Shaw ..... Mosquito Control Specialist  
Steven Rosa ..... Mosquito Control Specialist



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. It places an excise tax on firearms, ammunition and archery equipment. Articles reporting on Wildlife Division projects funded entirely or in part with federal aid monies are depicted with the logo of the Wildlife Restoration Program.

The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities, and employment opportunities without regard to race, color, religion, age, sex, physical and mental disability, national origin, ancestry, marital status, and political beliefs.

The Wildlife Division grants permission to reprint text, **not artwork**, provided the DEP Wildlife Division is credited. Artwork printed in this publication is copyrighted by the CT DEP Wildlife Division. Any unauthorized use of this artwork is prohibited. Please contact the editor at the Sessions Woods office to obtain permission for reprinting articles.

# UConn's Wildlife Conservation Research Center

## A proactive research program for addressing wildlife conservation issues

Written by Kathy Herz, Editor

At the University of Connecticut (UConn), a unique research center was formed in 1997 for conducting research on the ecology and management of wildlife, primarily in Connecticut and the Northeast, and to address concerns arising from interactions between people and wildlife. The Wildlife Conservation Research Center (WCRC) is a privately funded research program within the University system. It aspires to become self-sustaining through endowment growth, without dependence upon state tax funds for support.

### Mission of the Center

Headed by Director Dr. Jack Barclay, an associate professor of wildlife ecology in the Department of Natural Resources Management and Engineering, the Center strives to use scientific research, outreach efforts and education to address wildlife conservation issues. The Center has the ability to organize specific research teams to address those issues. Members of the teams can have experience in such diverse areas as wildlife ecology, pathology, neuroendocrinology and genetics, to name a few. Additionally, Center staff conduct their own research with other specialists and graduate students.

Outreach efforts of the Center involve the dissemination of reports, fact sheets and research publications to private landowners, conservation organizations, resource management agencies and other audiences. A major role has been to assist private landowners in developing wildlife stewardship objectives for their properties.

Wildlife faculty teach regularly scheduled wildlife courses at UConn

each year and they advise graduate and undergraduate students. WCRC staff have also participated in secondary school education programs, including Envirothon workshops, UConn Mentor Connection for exceptional students, classroom presentations and guided tours of local natural areas.

### Greater Scaup Researched

Center personnel have been busy from the start, focusing their initial efforts on studying the greater scaup, a diving duck that spends the winter in Long Island Sound. Researchers from the Center have documented a significant (greater than 90 percent in Long Island Sound) population decline over the last 40 years in Atlantic Flyway greater scaup populations. This decline may be caused by a combination of poor nutrition, the effects of contaminants and a decline in the quality of habitat.

Greater scaup have been found to bioaccumulate higher levels of contaminants in their livers and kidneys than most other waterfowl species. Scaup consume mussels, clams, snails and zooplankton, which may contain contaminants. Research has also confirmed that contaminants, like PCBs, mercury and selenium, are increasing in some scaup populations and their habitats. Researchers believe the birds pick up contaminants during their migration to and from Long Island Sound, through the Great Lakes Region and on to their breeding grounds in western Alaska. The contaminants may be causing an increase in the proportion of males in the population, as well as increases in the number of nonbreeding birds and infertile eggs.

A new graduate research project is being initiated at the Center to determine the effects of contaminants on greater scaup reproduction in Alaska. The project, to be conducted by graduate student Jeff Warren, will involve the live capture of hen scaup at their nesting sites. The hens will be color-marked or banded, and, if funding allows, radio transmitters will be inserted into their abdomens. The transmitters will allow researchers to follow the hens during the nesting season.

### Coyotes Studied on Cape Cod

Assistant professor Dr. Morty Ortega supervises projects at the Center that focus on mammals. One project he is currently supervising is a study of the ecology of suburban coyotes on Cape Cod. Graduate student Jonathan Way has been capturing coyotes in box traps as foot-hold traps (also known as leg hold traps) are no longer legal in Massachusetts. Using this technique has been a challenge as it has never before been described in research literature. Foot-hold traps are usually used to catch coyotes and foxes for research purposes. Because coyotes are extremely wary, luring them into a box trap is difficult. Untargeted species, such as cats, dogs, raccoons, skunks and occasionally crows, are usually captured in box traps more often than coyotes.

Once the coyotes are captured, they are fitted with a radio collar. Way uses radio telemetry data and results to map each coyote's home range size

*Continued on next page*



Linda Dufresne



Dr. Morty Ortega



Jonathan Way



Dr. Jack Barclay

and to determine its use of the habitat. So far, nine coyotes have been radio tagged. Initial results of the study show that the coyotes living in this heavily populated, typically suburban area have large home ranges and they are almost always active at night. Some of the captured coyotes have been particularly large for eastern coyotes. One female weighed in at 50 pounds; the average eastern coyote weighs between 25 and 40 pounds.

One interesting part of this study involves a male coyote pup that had mange when it was captured. The pup was treated for the mange and kept in rehabilitation for seven weeks until its fur grew back and the animal regained its strength. During the entire rehabilitation process, this young coyote, which has grown up in a suburban area, remained extremely wary of people. It was released in late November and, within three days, it had rejoined the adult female. This male pup will continue to be monitored so that researchers can collect information on the progress of a rehabilitated animal that was released back into the wild.

### ***Tick-borne Pathogen Examined***

Graduate student Linda Dufresne is currently studying the prevalence of human granulocytic ehrlichiosis (HGE) in the state. HGE is generally

an animal disease caused by a bacteria that can be transmitted to humans through the bite of the black-legged (deer) tick, the same species of tick that can transmit Lyme disease. The symptoms of HGE include fever, headache, anorexia, vomiting, chills/rigors, nausea, weight loss and a fleeting rash, in some cases. The disease has been known to cause multi-organ failure and death if left untreated.

The mammalian reservoirs for the bacteria are small rodents, such as deer mice, from which the tick larvae and nymphs feed. White-tailed deer are the primary food source for adult ticks and may act as a reservoir of infection for the disease. As part of her study, Linda and a crew of volunteers collected blood from deer harvested during the 1999 fall hunting season. The blood samples were collected at various deer check stations throughout the state. Serological testing of the blood samples will help researchers determine if deer are in fact reservoirs of the pathogen causing HGE.

### ***Plans for the Future***

Numerous other WCRC research projects are currently underway or are being planned. A current project being funded by the Connecticut Army National Guard involves the survey of

plants and wildlife found on National Guard properties in Connecticut. Another project, currently under development by Dr. Barclay and an associate from The Nature Conservancy (TNC), involves the enhancement of the American woodcock population on private land. Dr. Barclay sees the Research Center as an important resource for conservation organizations like TNC, as well as nature centers, land trusts, private landowners and the general public. With continued financial support from gifts, research contracts and the general public, the Center is well on its way to addressing the needs of wildlife populations and their habitats, finding answers for problems in natural ecosystems and improving interactions between people and wildlife.

If you would like more information on the Wildlife Conservation Research Center, contact Dr. Jack Barclay, at the Wildlife Conservation Research Center, UCONN Box U-87, 1376 Storrs Rd., Storrs, CT 06269-4087; (860) 486-5896. Dr. Barclay can also be contacted by email at [JBarclay@CANR.UCONN.edu](mailto:JBarclay@CANR.UCONN.edu).

**This article was compiled with the assistance of Dr. Jack Barclay and the staff at the Wildlife Conservation Research Center.**

## **DEP Property in Goshen to Be a Wildlife Management Area**

The DEP has designated the recently acquired 848-acre open space parcel in Goshen as a state wildlife management area (WMA). As a WMA, the DEP will be actively managing the habitat to benefit a variety of wildlife species. The parcel, acquired from Anthem Blue Cross and Blue Shield of Connecticut in May 1999, will provide the public with a wide variety of recreational pursuits, including hunting, fishing, hiking, birdwatching and other wildlife viewing activities. The naming of the property will occur at a later date.

Located along Blackland Road and North Goshen Road, the property is composed of a mix of rolling meadows and mature woodlands of hardwoods and pine. The elevation of the land ranges from 1,300 feet to 1,636 feet and offers exceptional views of the

Litchfield Hills, Berkshire Mountains and Catskill Mountains. More than 100 acres of meadows extend over one mile from a prominent hilltop. There are two major and several smaller ponds on the property, as well as wetland habitat along the streams.

The extensive grasslands throughout the Goshen property are a habitat that has rapidly declined in Connecticut. These fields provide the DEP, through the use of wildlife management techniques, with an opportunity to enhance populations of grassland birds, some of which are listed on Connecticut's Threatened and Endangered Species List. "When the DEP became aware of this property and made it one of its top acquisition priorities, we saw the very significant potential it offered as wildlife habitat and a recreational area in northwestern

Connecticut," said DEP Deputy Commissioner David K. Leff. "By designating the property a wildlife management area, we have not only established a place where the public can experience many recreational activities, but where the emphasis will be on maintaining the land for the broadest possible types of wildlife, including rare and declining species."

Over the next several months, the DEP will be working to survey and post property boundaries and develop specific management plans. The DEP has also received offers from organizations to help with habitat management activities and bird surveys. "We look forward to working with local conservationists to expedite the implementation of a variety of programs on the property," concluded DEP Deputy Commissioner Leff.



# An Environment is Only as Healthy as Its Bugs!

Written by Laura Rogers-Castro, Public Awareness Program

Butterflies, fish and frogs. What do they all have in common? Each of these animals has been used at one time or another to assess the condition of the environment. Referred to as biological indicators, or “bioindicators” for short, their presence or absence helps “indicate” whether or not there is a potential environmental problem. Other organisms, including lichens, aquatic insects, salamanders and freshwater mussels, have also been used as bioindicators. The importance of these “canaries in the coal mine” can’t be overstated, especially because many of our natural areas have been developed or are in close proximity to industrialization and our reliance on chemicals for food production and preservation has increased.

What makes a good bioindicator? Indicators must be measurable. For instance, they must be easily seen and/or collected in the area being studied. Aquatic insects, such as caddisflies, are excellent indicators of water quality since they occur in a wide variety of aquatic habitats, are easily collected and are dependent, in part, on the level of oxygen in the water. In Connecticut, insects are collected in streams and used as bioindicators to help evaluate spill incidents, pollution source impacts and effectiveness of waste treatment

installations. Fish are also used in Connecticut to assess water quality in certain situations.

Amphibians are good bioindicators because they breathe through their skin and the lining of their mouth, allowing any abnormality in the air to be taken into the animals. Unfortunately, amphibians have been declining worldwide and no single cause has been identified. The Connecticut Amphibian Monitoring Project, a partnership among nature centers and conservation organizations, is currently surveying amphibians across the state (see the January/February 1999 issue of *Connecticut Wildlife*). Hopefully, this baseline data will help in the effort to qualify important habitats in Connecticut.

Butterflies also make good bioindicators because they occur in a variety of habitats and are easy to see. Many have a high specificity for particular habitat types and scientists use the butterflies as indicators of certain biotic communities. It is interesting to note that researchers at Cornell University have discovered that a genetically-engineered corn might pose a threat to monarch butterfly populations. This new feed corn has been “made” to produce Bt, a pesticide that is lethal to select insect pests of corn. Unfortunately, the corn’s pollen also contains Bt and, when dispersed by the wind, could potentially land on other plants, including milkweed, the food plant of monarch caterpillars. If the caterpillars feed on

the milkweed, they can inadvertently pick up the Bt and die. If the Bt-laden pollen can land on milkweed, it could also land on other food plants for various butterflies.

Even birds are used as bioindicators. In Canada, the eggs of double-crested cormorants are examined for polychlorinated biphenyls (PCBs), highly toxic, persistent environmental contaminants, which can cause birth defects in mammals and birds and reduced reproduction in fish. The level of PCBs in the cormorants’ eggs reflects the state of the marine environment. Peregrine falcons, ospreys, bald eagles and bluebirds have all served as bioindicators in the past when their populations declined, in part, because of the use of DDT to control mosquitoes and other insect pests.

What does it mean when crows begin to die (see the November/December 1999 issue of *Connecticut Wildlife*) and frogs are discovered with deformities (see the November/December 1998 issue)? Although we do not have definitive answers to these questions, we do know that we need to take a closer look at the environment. Our wildlife seems to be telling us that changes are occurring in the environment and they are warning us that something is not right. Considering that wildlife breathe the same air and drink the same water we do, we might want to listen to what they have to say.



P.J.FUSCO(2)

© PAUL J. FUSCO  
All Rights Reserved

The presence or absence of some dragonflies in a habitat can serve as an indicator of water quality.



© PAUL J. FUSCO  
All Rights Reserved

Amphibians, such as this spring peeper, can serve as environmental indicators because they breathe through their skin and the lining of their mouth, allowing contaminants to be taken into the animals.

# 1999 Spring Wild Turkey Harvest

Written by Michael Gregonis, Deer/Turkey Program Biologist

During the 1999 spring wild turkey hunting season, hunters reported a record harvest of 1,910 birds, an increase of approximately 10 percent over the 1998 harvest of 1,710 birds. A total of 6,700 turkey hunting permits were issued for the season, with 1,490 hunters harvesting at least one bird, resulting in a success rate of 22.2 percent.

At least one gobbler was harvested from 153 of Connecticut's 169 towns,

with Woodstock reporting the highest harvest at 61 gobblers. On a regional basis, the northwest corner of Connecticut reported the highest harvest. Other productive turkey hunting areas included the northeast and southeast-central portions of the state.

The spring harvest was comprised of 70 percent adults and 30 percent juvenile birds. The higher harvest of adult birds may have resulted from lower productivity in the turkey

population during the spring of 1998 or greater hunter selectivity during the season. Lower productivity may have been due to the previous year's wet and cold spring weather. In addition, hunters may have been selecting for adult birds over juveniles because the warm, dry conditions experienced throughout the majority of the season increased the chances of hearing and seeing more birds.

All spring turkey hunters are required to complete and return a hunter survey. Information from the survey is used to estimate the economic and recreational benefits provided by spring turkey hunting. During the 1999 spring season, hunters enjoyed 22,381 days afield, generated \$62,990 through the purchase of permits, and spent an additional \$693,924 on hunting-related items. As participation in Connecticut's spring hunting season continues to increase, the recreational and economic benefits should increase accordingly.

The future of Connecticut's wild turkey population looks bright. Turkey nesting success was high in the spring of 1999 and hunters are expected to see even more turkeys next spring. With continued wise management of this natural resource, hunters and wildlife watchers will enjoy this bird throughout the next millennium.



## Participate in the Great Backyard Bird Count, February 18-21

The Great Backyard Bird Count, a joint project of the Cornell Lab of Ornithology and the National Audubon Society, is asking families, individuals, classrooms and community groups to count the numbers and kinds of birds

that visit their feeders, local parks, schools and other areas during February 18-21. Participants should tally the highest number of each bird species seen at one time and record the amount of time spent counting. Reports should

then be entered online at the BirdSource website <<http://www.birdsource.org>>. Results will be updated hourly in the form of animated maps and colorful graphs. For more information on this event, call 1-800-843-BIRD.



## Watchable Wildlife

### Bald Eagles -- A Special Sight at Shepaug

Connecticut residents have had an opportunity to observe wintering bald eagles at the Shepaug Dam in Southbury for more than a decade. The area was established at the Northeast Utilities property to allow the public to view eagles in a setting that minimizes human disturbance to the eagles. An observation building on a hill, overlooking the Housatonic River as it empties out from the Shepaug Dam, provides visitors with the perfect view of feeding and perching eagles, while shielding

their presence from the eagles. Over the years, countless groups and individuals have made reservations to observe eagles at the Shepaug Bald Eagle Observation Area. The regulated access has proven to be very effective at ensuring the welfare of wintering eagles and providing a quality educational experience for the general public.

Northeast Utilities has announced that it will continue to operate the observation area for the 1999-2000

viewing season. The observation area will be open three days a week, strictly by advance reservation, on Wednesdays, Saturdays and Sundays, from December 29, 1999, through March 22, 2000. Viewing times on these days will be from 9:00 a.m. to 1:00 p.m. All individuals and groups wishing to visit the site must make a reservation for a particular date, as there will be a limited number of visitors allowed per open day.

Reservations to view the eagles at Shepaug may be made Tuesday through Saturday (except holidays), from 10:00 a.m. to 4:00 p.m., by calling 1-800-368-8954. Reservations, whether for individuals or groups, will be accepted on a first-come, first-served basis for any open date during the season. Callers may be expected to wait 10 or more minutes before being helped by an operator.

During last year's viewing season, 35 eagles were seen on one day at Shepaug, the highest one day total of eagles in 14 years. Also, last year, nearly 6,259 people made reservations to view bald eagles at Shepaug.

The chances of observing bald eagles at Shepaug are partly dependent on weather conditions and on the food (fish) supply. If weather conditions are mild in northern New England, bald eagles may not migrate south to Connecticut. However, if colder weather arrives and, if the food supply is low, the number of eagles wintering in the state usually rises. Peak numbers of eagles seen at Shepaug usually occur during late January and early February.

P. J. FUSCO



To make reservations to view bald eagles at the Shepaug Bald Eagle Observation Area, call 1-800-368-8954, Tuesday through Saturday, from 10:00 a.m.-4:00 p.m.

## Hartford Peregrine Found Dead at Bradley Airport

On November 12, 1999, Wildlife Division biologists were notified by personnel from Bradley International Airport that a dead, badly decomposed, banded bird, that may have been a peregrine falcon, was found on the property. The dead bird turned out to be a peregrine falcon and the numbers on the band indicated that it was one of the three male chicks banded this year at the Travelers Tower in June.

The peregrine was not found in a runway area. Biologists presume that it had either been hit by a car or it flew into the ground while hunting and suffered an injury. Unfortunately, during their first year, peregrine chicks must perfect their hunting and flying skills and accidents are not uncommon. In 1997, a young male peregrine chick was found dead on the edge of the sidewalk on Central Row,

near the Travelers Tower. It may have hit a glass window while flying. These young fliers, when raised in urban areas, must learn to maneuver around obstacles such as tall buildings, bridges and cars.

The two young females from the 1997 nest will be ready to breed in the year 2000. Hopefully, they will return to the Hartford area to do so.

# Keeping Your Bird Feeders Safe for Birds

Bird feeding is a popular activity for many Connecticut residents. This enjoyable activity has many benefits for both people and the birds who visit feeders. However, poorly maintained feeding stations may contribute to the occurrence of infectious diseases in birds. Therefore, it is important for all bird feeding enthusiasts to know their responsibilities for maintaining feeding stations.

## Diseases Associated with Birds Using Feeders

There are five diseases associated with bird feeders, all of which can lead to death directly or more often indirectly because the birds are more vulnerable to the stresses of inclement weather, poor nutrition and concurrent infections. The causes of the diseases are food and water contaminated by mold, fungus and infected feces, and surfaces contaminated by viruses from other sick birds. Sick birds can be recognized by their unkempt appearance. They are less active and alert, feed less and may be reluctant to fly away when approached.

The five most common diseases affecting birds that use feeders are:

**Salmonellosis:** This is a general term for any disease in animals and people caused by *Salmonella* bacteria. Salmonellosis is the most common bird feeder disease. Birds get sick when they eat food contaminated by infected droppings.

**Trichomoniasis:** This disease is caused by protozoan (one-celled microscopic) parasites and is spread when birds eat contaminated food and water.

**Aspergillosis:** The *Aspergillus* fungus grows on damp feed and in the debris beneath feeders. Birds inhale the fungal spores and the fungus spreads through their lungs and air sacs, causing bronchitis and pneumonia.

**Avian Pox:** More noticeable than the other diseases, avian pox causes wartlike growths on the featherless surfaces of a bird's face, wings, legs and feet. The virus that causes pox is

P.J.FUSCO



American goldfinches are susceptible to mycoplasmosis, a recently discovered songbird disease, which causes an infection of the eye membranes.

spread by direct contact with infected birds, by healthy birds picking up shed viruses on food or feeders, or by insects carrying the virus on their body.

**Mycoplasmosis:** This recently discovered disease of songbirds is transmitted by direct contact or by airborne droplets or dust. It causes conjunctivitis (infection of membranes of the eye). It has spread rapidly through the eastern population of house finches. More recently, it has also been identified in American goldfinches. A survey conducted by the Cornell Lab of Ornithology has documented the spread of this disease from suburban Washington, D.C., in 1994 to the entire eastern half of the United States and Canada by the end of 1996.

## Maintaining Feeding Stations

People who feed birds have a responsibility to properly maintain their feeders to prevent or minimize disease problems. The following measures are relatively easy and very important.

**Clean and disinfect feeders once or twice a month; and more often if you observe sick birds.** Immerse an empty, cleaned feeder for two or three minutes in a solution of one part liquid chlorine household bleach and nine parts warm water, a 10 percent solution. Allow the feeder to air dry. Do not use vinegar as a substitute for bleach because it does not destroy bacteria, mold or yeast.

**Every few days, clean up waste food and droppings from the ground.** Use a shovel and broom or a rake. If you suspect a disease problem, rake the area under the feeder and cover the ground with a tarp for one to two weeks to prevent further contact between the contaminated site and unaffected birds. It is recommended that feeders be regularly relocated a short distance away from the previous location to prevent the buildup of contaminated seeds and droppings. Using a seed tray under tube feeders and selecting only seed mixes favored by songbirds will reduce waste under feeders.

**Give the birds space by providing an ample number of feeders.** Crowding is a key factor in spreading disease and it also creates stress which may make the birds more vulnerable to disease.

**Use feeders that don't have sharp points or edges.** Bacteria and viruses on contaminated surfaces infect healthy birds through even small scratches.

**Use only good food.** Discard food that smells musty, is wet, looks moldy or has fungus growing on it. Discard any food that has had rodents in it. Mice can carry and spread some bird diseases without being affected themselves. Disinfect storage containers and food scoops that have come into contact with spoiled food.

*Continued on next page*



**Tell your neighbors who feed birds about these precautions.** Birds move among feeders and spread diseases as they go.

### *Other Bird Feeding Concerns*

There are other things to think about when inviting birds to your yard. Many people feed birds suet all year, but sun-warmed suet can cause problems such as infected follicles and loss of facial feathers. Suet can mat feathers, reducing insulation and water-proofing. Use suet only from October through April or May, depending on the temperature.

Free-ranging cats prey on birds feeding on the ground and at feeders. Keep cats indoors, for the safety of the birds and the cats. Place feeders near



**Birds infected with mycoplasmosis usually have swollen and/or crusty eyes.**

cover so that the birds have a place to hide from feline predators.

Many birds die each year from landscape pesticides when they eat pesticide granules or eat poisoned prey, such as insects. You can reduce or eliminate your use of chemical

fertilizers and pesticides by using disease- and pest-resistant plant varieties, cultivating native plant species and reducing the lawn area. By managing your yard naturally, you can increase natural insect predators, such as ladybugs, praying mantises, toads and birds. Leaf mulches and compost add nutrients to soil and eliminate the need for weed killers and fertilizers.

For more information about diseases in wild birds, contact: National Wildlife Health Center, USGS Biological Resources Division, 6006 Schroeder Road, Madison, WI 53711, (608) 264-5411.

**Sources: National Wildlife Health Center, USGS Biological Resources Division and the University of Maine Cooperative Extension.**

## **CT Youths Participate in the 1999 Junior Hunting Days**

This past fall, two Junior Hunting Days were held at state wildlife areas to give junior hunters (ages 12 to 15) who have graduated from the Conservation Education/Firearms Safety (CE/FS) Program a chance to hunt small game under the guidance of a volunteer CE/FS instructor and a trained bird dog with handler. The events were cosponsored by the DEP and the DEP's Citizens Advisory Council.

The first Junior Hunting Day was held on Saturday, October 23, 1999, at the Dr. John E. Flaherty Field Trial Area in East Windsor. Eleven junior hunters had signed up for the morning hunt, with seven showing up for the event.

The second Junior Hunting Day was held on Saturday, November 13, at the Bear Hill Wildlife Management Area in Bozrah. Forty junior hunters had signed up for this event, with 32 participating.

The objectives set forth for the Junior Hunting Days were:

- To offer recent CE/FS Program graduates the opportunity to put into practice the techniques learned in the course.
- To provide an opportunity for licensed junior hunters to hunt with a CE/FS instructor, dog handler and trained hunting dog at a quality upland bird hunting area.



**During the Junior Hunting Day events, a dog handler works with a trained bird dog to locate game birds while a volunteer CE/FS instructor pays full attention to the junior hunter at all times, teaching safety, judgement and methodology.**

- To increase the junior hunters' opportunity for having a successful hunt in a setting that promotes responsible, ethical and safe hunting practices.

The 1999 Junior Hunting Days went far beyond meeting the original objectives set forth for the program. The junior hunters enjoyed learning upland bird hunting techniques from

experienced mentors. In addition, they were provided an opportunity to practice safe, ethical and responsible hunting principles in the field.

The Wildlife Division and the DEP's Citizens Advisory Council extend their thanks and appreciation to all who participated in and assisted with the 1999 Junior Hunting Day Program, making the event a success.

# North Winds Carry Phantoms of the Night

Written by Paul Fusco, Public Awareness Program

The bleak days of winter harbor phantom predators of the night. Most are active only in darkness. Most are absolutely silent in flight and many make eerie calls in the dead of night. They are hard to find, retiring during daylight hours into places with thick cover. Their camouflage blends into their surrounding habitat well enough to make them virtually invisible. Mysterious and secretive, owls are an unfamiliar sight to most people.

## Occurrence

Most of the owl species found in Connecticut are considered to be uncommon or rare. Many species do not breed in the state and the only time to find them here is during winter. This is especially true in "irruption" years, when large numbers of owls invade our region from the north. Irruptions occur every five to 10 years when there is a shortage of food in more northern latitudes where many owls would normally spend the winter. In years of food shortages, many owls wander south in search of a reliable source of food. Among the wanderers from the north are snowy, great gray, boreal and northern hawk owls, all of which are very rare visitors to Connecticut.

## Connecticut's regularly occurring owls

Common barn owl	<i>Tyto alba</i>
Eastern screech owl	<i>Otus asio</i>
Great horned owl	<i>Bubo virginianus</i>
Snowy owl	<i>Nyctea scandiaca</i>
Barred owl	<i>Strix varia</i>
Long-eared owl	<i>Asio otus</i>
Short-eared owl	<i>Asio flammeus</i>
Northern saw-whet owl	<i>Aegolius acadicus</i>

## Documented rarities

Boreal owl	<i>Aegolius funereus</i>
Great gray owl	<i>Strix nebulosa</i>
Northern hawk owl	<i>Surnia ulula</i>
Burrowing owl	<i>Athene cunicularia</i>



One irregular visitor from the far north is the snowy owl, which can occur in low numbers during irruption years.

Slightly more common winter visitors are the long-eared, short-eared and northern saw-whet owls. These species occur more regularly, but still are hard to find. Long-eared and saw-whet owls are rare breeders in Connecticut and both are on the state Endangered, Threatened and Special Concern Species list. Another breeder is the state endangered barn owl, which is at the northern limit of its range in our region. Barn owls are intolerant of cold weather and move south out of Connecticut for the winter.

Our most common owl species are the great horned, barred and eastern screech owls. All are regular breeders and are found throughout the state in suitable habitat.

## Habitat

During winter, owls can be found in a variety of habitats, from the deep forests of the northwest hills to the wide open dunes of the shoreline. Great horned owls favor mature upland forest, with a

component of white pine, and nearby open fields and meadows for hunting. At the opposite end of the spectrum are snowy owls, which prefer large, open habitats. When present in Connecticut, snowy owls normally can be found at coastal marshes, dunes and beaches. They will also use inland locations such as large agricultural fields and airports.

Barred owls typically inhabit hardwood forests associated with some type of wetland habitat. Wooded streambanks, wooded swamps and bottomlands are preferred. The tiny northern saw-whet owl is also associated with wetlands. During the nesting season, saw-whet owls are found in dense conifer habitat near swamps and bogs and, in winter, some will migrate to conifer stands near open fields and wetlands along the Connecticut shoreline.

The shoreline in winter is the place where two other owl species are most likely to be found. Long-eared and short-eared owls will migrate from areas farther north to the coastline in



search of more moderate temperatures and less snow cover, making hunting for their favorite prey of voles and mice a little easier. Long-eared owls prefer dense conifer stands for daytime cover, usually close to open field areas for hunting. Short-eared owls are open country birds and can be found in coastal salt marshes and nearby fields.

Rural and suburban woodlots are the typical habitat of the eastern screech owl. This bird prefers hardwoods with streams and open areas nearby. Screech owls are intolerant of high elevations and cold, making bottomlands and watercourses a favored winter location. They nest and roost in natural tree cavities and will also use nest boxes.

### Winter Rigors

One habitat component that most owls require is cover. This is especially true in winter for long-eared, northern saw-whet and eastern screech owls. They need protection not only from the elements but from predators, including bigger owls. Dense conifer stands, vine tangles and tree cavities are some of the types of cover used. The eastern screech owl can sometimes be seen sunning itself from a south-facing tree cavity or nest box on a cold winter day.

Aside from eastern screech and barn owls, Connecticut's other owl species are well adapted to cold winter weather. They have extremely thick plumage and feathered legs and toes that provide good insulation.

Low temperatures, coupled with heavy snow cover, can make hunting for food very difficult. At times when the temperature gets extremely low, owls need to conserve energy. One species normally not found south of its Canadian boreal/muskeg habitat, the northern hawk owl, has evolved with a way to survive under adverse winter weather conditions. It has learned to cache food for times of shortages by stuffing mice into tree crevices and old woodpecker holes that are accessible above any deep snow.

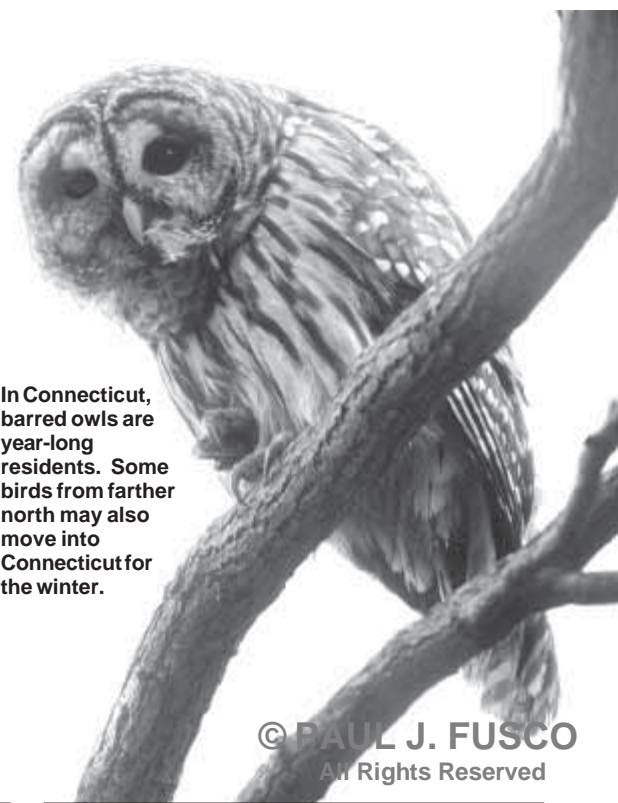
### Conservation

Many species of owls are declining or threatened in our region. Much of their habitat has undergone massive changes over the last 20 years.



© PAUL J. FUSCO  
All Rights Reserved

Eastern screech owls will sometimes nest and/or roost in artificial nest boxes. For nest box plans, contact the Division's Urban Wildlife Program at Sessions Woods.



In Connecticut, barred owls are year-long residents. Some birds from farther north may also move into Connecticut for the winter.

© PAUL J. FUSCO  
All Rights Reserved



© PAUL J. FUSCO  
All Rights Reserved

Long-eared owls sometimes roost in dense vine tangles as well as conifers.

Development of open lands continues at a fast pace, leaving fewer and fewer places for owls to hunt for food and find shelter. State parks, wildlife management areas and state forests are becoming more and more important as they provide habitat for owls as well as many other species of wildlife.

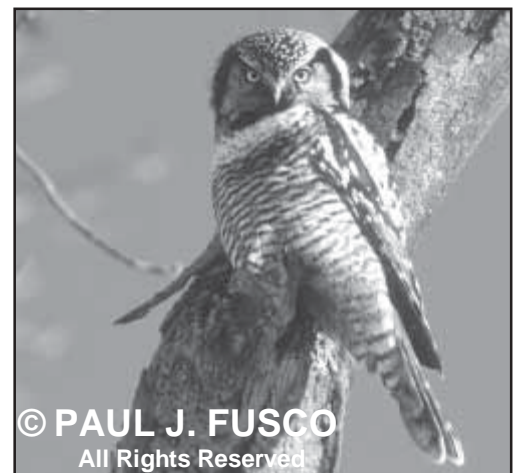
Protection of winter roost sites and the management of suitable habitat that includes the maintenance of open field areas are important for the conservation of these mysterious predators of the night.



© PAUL J. FUSCO  
All Rights Reserved

At 7 to 8 inches in length, the northern saw-whet is the smallest owl found in Connecticut.

P. J. FUSCO (6)



© PAUL J. FUSCO  
All Rights Reserved

Extremely rare in Connecticut, the northern hawk owl is one of the few owls that will hunt in daylight.



# Wildlife Management through the Century

With all of the hype during 1999 as the year 2000 approached, everyone was looking back to the past, reflecting on how life had changed over the years. Features in newspapers and magazines, short clips on news programs and newly published books reminded us throughout the year of the history of the 20th century. All of those flashbacks to the past got the staff of *Connecticut Wildlife* thinking about what an interesting history wildlife management has had in Connecticut and throughout the country. We began looking through old newsletters and documents and, in the process, came across some interesting stories and facts from the early days when the present DEP Wildlife Division was known as the Connecticut State Board of Fisheries and Game. Starting with this issue and continuing through the year 2000, various features in *Connecticut Wildlife* will take a look at the history of wildlife management in our state.



Coyotes were first documented in Connecticut during the 1950s. In 1963, when this photograph was taken, the coyote was still a fairly new and uncommon resident. Today, coyotes are commonly reported statewide.

At the start of the 20th century, many of Connecticut's wildlife populations were decimated, due chiefly to uncontrolled market hunting and habitat destruction brought about by man's agricultural and industrial activities. Native populations of beaver and wild turkey were gone from the Connecticut landscape. White-tailed deer numbers were substantially lower than in recent times. Migratory birds like great and snowy egrets, plovers and terns were at the brink of extinction. Fortunately, laws were passed to protect many species and there was improvement. The wildlife conservation movement

had begun. But then the "Dirty 30s" arrived and waterfowl populations hit an all-time low. The Great Depression encouraged wildlife poaching. A burgeoning human population and an increase in hunting and poaching brought about a need for more wildlife management and regulations.

Wildlife management was a fledgling profession at the beginning of the 20th century. Much of the work to protect and manage wild animal populations and their habitats was done by game wardens, sportsmen and early conservationists. Wildlife management finally became a recognized profession with the publication

of Aldo Leopold's famous book *Game Management* in 1933. The book provided the framework for modern wildlife management principles and practices. Since that time, the profession and the techniques used to manage and research wildlife have changed dramatically, mainly due to the advances of technology and the knowledge gained over time.

Early wildlife managers used various techniques, such as census counts, mortality counts, hunting statistics and mark and recapture methods, to monitor and research wildlife populations. Although many of these techniques are still used today, modern wildlife biologists now have computers, radio telemetry, Global Positioning System and Geographic Information System technology, remote sensors and other sophisticated techniques at their disposal.

One dramatic event that occurred during the century that helped advance the science of wildlife management was the establishment of the Pittman-Robertson Act, better known as the Federal Aid in Wildlife Restoration Program, in 1937. The legislation specified that an excise tax on firearms, ammunition and archery equipment be dedicated to state wildlife management programs. The funds are used for wildlife management and research programs, habitat acquisition, shooting range development and hunter education programs.

Once wildlife agencies had better funding to conduct their research and management programs, the knowledge base about the needs of wildlife and the importance of their habitats, as well as entire ecosystems, broadened significantly. Along with this increase

in knowledge came an important change in attitudes. For example, predators were once considered vermin and wildlife managers and game wardens were responsible for destroying animals like wolves, mountain lions, rattlesnakes, snapping turtles and raptors. Fortunately, it is now understood that predators are an important part of the ecosystem. In addition, biologists and ecologists are now starting to look at managing entire ecosystems to benefit a myriad of species rather than focusing on one or a few species. In the early days of wildlife management, the introduction of exotic plants and non-native wildlife was common practice. Today, as the negative effects of many of these efforts have become apparent, the current trend is to eliminate exotics and encourage native species.

The science of wildlife management has become more complex and challenging today due to an increasing human population and the degradation and loss of wildlife habitat. The Wildlife Division has evolved from the intensive management of habitat on state-owned lands in the early days to including the use of "specialists" who can assess wildlife population levels and develop long-term planning objectives. The planning process reflects sociological and biological factors, with emphasis on public education, communication and attitudes.

In the 1990s and now into the year 2000 and beyond, the Wildlife Division finds itself faced by a public with varying interests that often conflict with management goals. Many of these conflicts result from a misunderstanding of wildlife management practices and principles by a growing suburban population that has little interaction with the natural world. The Division has been attempting to respond to this situation by presenting educational programs to teachers and the public and by developing educational materials, such as *Connecticut Wildlife*, species fact sheets, program summaries

and press releases, to help foster a better understanding and respect for wildlife.

Currently, restricted funding limits the ability of the Wildlife Division to effectively manage all of the state's wildlife resources. Because the public has a great interest in wildlife issues, particularly those concerning non-game wildlife and endangered species, the funding base needs to be increased. Legislation currently being considered in the federal Congress

may eventually provide major funding for state wildlife conservation efforts and related education and recreation (see the May/June 1999 issue of *Connecticut Wildlife*). Known as the Conservation and Reinvestment Act, the proposed legislation could provide up to \$4.5 million dollars annually for addressing critical wildlife concerns in Connecticut. These new funds could help assure a future for all of Connecticut's wildlife.



CTDEP-WILDLIFE (2)

**These early wildlife habitat managers from the 1930s created open water areas in marshland at Great Island, in Old Lyme, (pictured at right) and other marsh areas by using dynamite. These ponds were created to provide quality waterfowl habitat. Today, the DEP uses specialized equipment to create open water without causing damage to the marsh ecosystem.**



# Wildlife Management through the Century

At the beginning of the 20th century, early conservationists had learned how unregulated hunting combined with habitat loss could devastate wildlife populations. Initial efforts to protect wildlife focused primarily on the establishment and enforcement of laws and regulations. Additional efforts included stocking populations and habitat protection and management. The following excerpts from reports of the Connecticut Board of Fisheries and Game, published at the beginning of the 1900s, provide an insight into the beliefs, attitudes and undertakings of the early wildlife managers in Connecticut. Although some of the managers' beliefs and attitudes may no longer be accepted today, it is apparent that these men were dedicated to their profession and they believed they were doing what was best for the state's wildlife.

## *Predators, 1928*

Predators were the "bad guys" in the early part of the century. Any animal classified as vermin was destroyed by sportsmen and conservationists alike. Hawks, owls, eagles and snapping turtles were among the species targeted for destruction. Attitudes about predators were evident in this excerpt from a report of the State Board of Fisheries and Game in 1928:

*"Predatory animals . . . are the sorts of animals which prey upon and kill for food the animals which man wishes to conserve in order that he may have the privilege of killing them. They are also very destructive to bird life so important to agriculture and this fact alone is sufficient warrant for attempting to keep under control the predatory animal life classed as vermin. . . .*

*The goshawks which invaded the state in the fall of 1926 are still with us in limited numbers. So long as they are present in large numbers, they may be classed as the most destructive of all kinds of vermin, not excepting the roaming cat. . . .*

*At the Shade Swamp Sanctuary in Farmington . . . broods of young ducks hatched under natural conditions steadily decreased in numbers and . . . the waters within the sanctuary were infested with black snapping turtles. . . .*

*As proof of the efficiency of the trap net (a special device used to capture snapping turtles) and the abundance of these destructive reptiles, more than three thousand pounds of snapping turtles were caught during a period of two months in the summer of 1928.*

*These turtles not only are destructive to ducks, but to the muskrats which constitute a very valuable asset of the sanctuary."*

This attitude about predators took a long time to change. Fortunately, today, biologists understand the important role predators play in the dynamics of their prey populations. Predator populations are now either being restored, protected or managed and the major war on wild predators is now a thing of the past.

## *Waterfowl Hunting, early 1900s*

Waterfowl populations were perilously low in the early part of the century. By 1903, the State Commissioners of Fisheries and Game began to question a spring hunting season on waterfowl, voicing the need for a change in hunting laws:

*"It is to be regretted that the law allows the killing of web footed wild fowls during the months of their breeding season."*

By 1908, a law closing the spring hunting season in Connecticut had passed, and waterfowl populations began to recover:

*"The law of 1907 prohibiting the shooting of ducks between January first and September first, has given such excellent results, and so general is the satisfaction with the new conditions resulting from the working of this law, that too much cannot be said in favor of it. The effect which this*

*law had against taking duck during the spring of 1908 has been something marvelous. Records are on file of many pairs of ducks, on their way north to their breeding grounds, having dropped out at various points within our State, as the direct result of their not being continually shot at as in former years, and large broods of young have been hatched out within our own State, which has helped the fall shooting materially throughout the interior."*



For over a half of a century, countless snapping turtles were trapped and destroyed throughout the state in an effort to "protect" ducklings in waterfowl breeding areas.



### ***Tern Colony Protection, 1928***

Terns and other nesting shorebirds were affected by human disturbance in 1928, just as they are today:

*“In the Connecticut waters of Long Island Sound, between Noank and the Connecticut River, are numerous islands which the tern try to use as breeding grounds. The nesting period, being rather late in the season, comes at a time when summer visitors are prowling around; as a result the birds have been much disturbed. . . .*

*It is believed that posters indicating that these islands are breeding places and requesting visitors not to disturb the nests of young birds will probably serve as sufficient protection for them during the nesting season.”*

Nesting shorebird populations today are also threatened by the loss of habitat due to development and predation by cats, dogs, raccoons and gulls. Signs asking beach visitors to avoid disturbing the birds are still used today, along with protective fencing and volunteers who patrol the beaches and try to inform beach visitors about the birds.

### ***White-tailed Deer, 1912***

White-tailed deer were so rare in Connecticut before the start of the 20th century that they were protected from hunting. This protection allowed the deer population to grow and, by the early 1900s, the State began receiving complaints of deer damage from farmers. According to this report from 1912, deer were starting to become a “problem:”

*The deer problem is a complicated one. The General Assembly of 1911, extended the closed season until June 1, 1917. From the point of view of many people, the sight of a wild deer is very attractive. To the farmer and fruit grower, to the nurseryman and gardeners, deer are a costly and unmitigated nuisance. . . .*

*The law permitting deer to be shot when found damaging any crop has resulted in the killing of a great many, which supplemented*

*by a considerable number killed by trolley cars, trains, and other accidents together with a large number illegally killed, have, to considerable extent, held them in check from a very great increase during the past year.”*

Connecticut’s current “deer problem” has changed from being mainly agricultural to now being a suburban problem. Because of high deer populations in some suburban areas of the state where hunting is restricted, landscape plantings are being destroyed, some ecosystems are feeling the effects of overbrowsing and the number of deer roadkills is increasing. Today’s deer problem has become more complex due to the demographics of our state and the many social and ecological issues surrounding the management of deer.

### ***Ducks, 1919-20***

The following excerpt from a report of the Board of Fisheries and Game for the years 1919-1920 describe early efforts to establish a breeding mallard population in the state. Mallard ducklings were raised on game farms and released at various wetland areas.

*“Another pleasing feature of the [State] Game Farm [at Madison] is the artificial lake converted from a once useless swamp, where an army of ducks and geese, but principally Mallard ducks, may be seen swimming around very much contented with their surroundings. Some wild ducks mingle with the others and are encouraged to breed with the Mallards in the hope that the latter will thereby become more like the original wild Mallard ducks and prove better hunting.”*

The status of Connecticut’s wood duck population was also mentioned in that report. Fortunately, at that time, the population was afforded protection through a closed hunting season. The management practice of erecting nest boxes in wetland areas, which still occurs today, helped the population recover.

*Under the protection of a closed season, the beautiful American Wood Duck is increasing in Connecticut, and many are being reared on the Farm and we have made a supply of proper nesting boxes which are put up in the haunts of these ducks to facilitate their breeding in places where their natural breeding places like hollow trees is lacking.”*



**In the 1920s, the State Board of Fisheries and Game leased land at the White Memorial Foundation, located in Litchfield and Morris, to operate a sanctuary and game farm. Wood ducks (pictured above), mallards, Canada geese and ring-necked pheasants were raised on the farm. During the game farm’s operation, almost 3,000 wood ducks were released from the sanctuary and other sections of the state in an effort to boost Connecticut’s wood duck population.**

WHITE MEMORIAL FOUNDATION

## Species Profile: *Bald Eagle*

Bald eagles are impressive birds. With a wingspan of up to 7.5 feet and body length of three feet, it is hard to miss these large birds. Adults are easily recognized with their snow-white head and tail and brownish-black body. Their bill, eyes and feet are yellow. The distinctive adult plumage is attained at four to five years of age. Immature eagles are uniformly grayish-brown during their first year and are mottled brown and white during their second to fourth years. Young bald eagles are often confused with golden eagles; however, they are grayer than the darker golden eagle, and the bill is much heavier.

The bald eagle's range is restricted to North America. The bird nests from Alaska and Newfoundland south to Baja California, the Gulf Coast and Florida. From one to two pairs of bald eagles have nested in Connecticut, most years, since 1992. The greatest concentrations of wintering bald eagles are found from November to March in the western and midwestern United States. Small concentrations of wintering eagles are also found in New England during this same time period. Up to 100 eagles have wintered each year in Connecticut from December to early March along major rivers and at large reservoirs.

Bald eagles use the same breeding area, and often the same nest, each year. They reach sexual maturity at four to six years of age. The nest, which sometimes measures seven to eight feet across, is a flat-topped mass of sticks, with a lining of fine vegetation such as rushes, mosses or grasses. It is built in

trees, 10 to 150 feet above ground. There are usually one to three (average two) dull, white eggs in a clutch. Both the male and female incubate the eggs and feed the young. The time period between egg

laying and fledging is approximately four months. The entire breeding cycle, from nest construction to fledging of young, lasts six months.

Bald eagle populations declined because of human disturbance at nest sites; the loss of waterside habitat due to human occupation; the loss of nesting trees; intentional shooting by poachers; illegal trapping, mostly in the western United States; and contamination of food sources, especially by pesticides, with subsequent ill effects on health and reproduction. The bald eagle was first declared an endangered species with the passage of the federal Endangered Species Act in 1973. However, due to the banning of DDT in the United States, the success of captive breeding programs, habitat and nest protection measures



Bald eagles can sometimes be seen along Connecticut's major rivers.

and other efforts to restore bald eagle populations, the U.S. Fish and Wildlife Service (USFWS) reclassified the bald eagle from endangered to threatened in the lower 48 states in 1995. In July 1999, the bald eagle was proposed for delisting, which is a year-long process. While this reclassification does not alter conservation measures already in force to protect the bald eagle and its habitats, it is a step closer to the main goal of the federal Endangered Species Act, which is to restore endangered and threatened plants and animals to the point where they are viable, self-sustaining members of their ecosystems. Despite the reclassification of the bald eagle's status by the USFWS or even a subsequent delisting, the species remains endangered in Connecticut.

## CT Conservationist Gene Billings Remembered

Gene Billings is remembered by many at the DEP and the Wildlife Division for his conservation efforts and his passion for birds. The active lives of Gene, his wife Barbara and their friend Henrietta Mead were tragically cut short in November when EgyptAir Flight 990 crashed near Nantucket.

An avid birder and a true conservationist, Gene spent years researching and writing about birds and bird habitat. He authored *Finding Birds of Prey in Connecticut* and coauthored *Finding*

*Birds in Connecticut*. At the time of his death, he was working on a habitat-based guide to finding birds in New England.

Gene and Barbara were also very active in The Nature Conservancy, the Norfolk Land Trust and various local conservation efforts.

In 1986, when the Nonharvested Wildlife Program was established in the Wildlife Division, Gene was appointed to the Nonharvested Citizens Advisory Board by Senate Majority Leader Reg

Smith. As a member of the Board, Gene was instrumental in helping to develop the foundation for the Division's Nonharvested Wildlife Program, which has continued to evolve over the past 13 years. Gene's involvement on the Board was greatly appreciated.

Gene will be sorely missed by both the Connecticut birding and conservation communities. He will be remembered for his genuine concern for wildlife and the environment and for his positive, gentle nature.



# Autumn Olive -- Once Heralded, Now Scorned

Written by Peter Picone, Urban Wildlife Program Biologist

In the early 1800s, the shrub or small tree known as autumn olive (*Elaeagnus umbellata*) was imported into the United States for a variety of uses, including wildlife habitat enhancement and soil conservation. The quest for a fast-growing and prolific berry producer led to a worldwide search for this type of plant. Because autumn olive, at maturity, can produce up to 80 pounds of berries annually and can grow in a variety of soils, it was a popular choice for planting.

With the arrival of the year 2000, habitat managers across the United States are now looking for ways to control the spread of autumn olive. Why? No one knew at the time of its introduction that autumn olive was going to spread aggressively and displace valuable native plants. The plant spreads rapidly from undigested seeds in the droppings of birds and mammals that feed on the berries.

Because of autumn olive's invasiveness, it creates a monoculture, dominating an area and thus displacing native shrubs that once formed local plant communities. One of the main principles in maintaining ecosystem integrity is maintaining species diversity. Autumn olive, by its aggressive displacement of native plants, reduces plant diversity by creating monocultures. Low plant diversity leads to low wildlife diversity because wild animals need a mixture of native plants to provide their seasonal needs for food and cover.

Managing or improving a site that has been invaded with autumn olive presents a challenge to a habitat manager. Mechanical removal of the shrub can help eliminate the species;



P.J.FUSCO

The invasive autumn olive spreads rapidly from undigested seeds in the droppings of birds and mammals that feed on the berries.

however, some selective use of herbicides may be required. Mechanical removal can be accomplished by using a pick and shovel, backhoe or tractor and chain. At the Wildlife Division's habitat management demonstration area at the Sessions Woods Wildlife Management Area, autumn olive shrubs were pulled out by the roots by wrapping a heavy duty, welded link chain at the base of the shrubs and attaching the chain to a tractor. This technique works best when the shrub is less than three inches thick at its base. Larger shrubs may need to be removed by using a larger backhoe tractor or bulldozer-sized equipment. Cutting down the shrubs is effective. However, a herbicidal treatment on the stump is required to stop stump sprouting.

Today's enlightened habitat manager tries to plant or encourage

native plants to diversify the wildlife food and cover values of an area. There are a variety of native shrub species, such as black chokeberry (*Aronia melanocarpa*), elderberry (*Sambucus canadensis*), arrowwood viburnum (*Viburnum recognitum*) and highbush blueberry (*Vaccinium corymbosum*) that can be planted to provide a variety of food and cover for wildlife. Time has taught habitat managers to avoid planting invasive, non-native species like autumn olive. The need to find the biggest and best plant is tempered with the need to match the site with plant species that are native and complementary to existing plant communities. Wildlife diversity is linked to plant diversity and monocultures of non-native plant species go against the grain of good habitat management.

## Attend a Teacher Workshop at Sessions Woods

The Wildlife Division will be hosting two teacher workshops at the Sessions Woods Conservation Education Center in Burlington during February and March. "Wildlife in Your Connecticut Backyard" serves as an introduction to the Division's traveling outreach kit available for free loan to educators. The kit is

comprised of a slide show with script, suggested student activities for use in the classroom and various wildlife-related props such as feathers, tracks and skulls. This workshop will take place on February 25 from 10:00 a.m. to 12:00 noon. Then, on March 31, from 1:00 to 4:00 p.m., educators can explore "Vernal Pools." Participants

will visit a vernal pool at the Sessions Woods Wildlife Management Area and learn about the importance of conserving these vital habitats.

Continuing Education Units are available for each workshop. Participants must preregister and can obtain an application form by contacting Laura Rogers-Castro at 860-675-8130.



# Report Rare Wildlife Sightings to the DEP

Written by Julie Victoria, Nonharvested Wildlife Program Biologist

The Wildlife Division's Nonharvested Wildlife Program is requesting the assistance of outdoor enthusiasts in submitting field records for threatened and endangered species to the DEP's Environmental & Geographic Information Center (EGIC) Database. The information provided on special

forms allows the DEP to verify the information and maintain a database that the different DEP divisions can draw on when making land use decisions.

Individuals often know where listed species winter or breed and either assume someone in the DEP knows about it or they want to keep it

quiet because they are afraid the "State" will publicize it. Please be assured that the DEP-EGIC Database of threatened and endangered species and all related memos and information on those species are protected. The information is not accessible to the public and the DEP does not share it. The DEP does, however, need the information to protect the species and the sites where they live from development and exploitation. Such reports may also alert the DEP to critical habitats which could be acquired as part of the Open Space Program.

People are encouraged to contact the Nonharvested Wildlife Program at the Division's Sessions Woods or Franklin offices to request copies of the Endangered and Threatened Species brochure and Special Animal Survey forms. Those who have extensive information on a property, either state or private, should complete and return these forms. If possible, records should be documented with photographs to aid in verification.

The Nonharvested Wildlife Program is responsible for 363 vertebrate species and numerous invertebrates with only two full-time biologists on staff. A helping hand and any information is always welcome.

P.J.FUSCO



The Wildlife Division is encouraging outdoor enthusiasts to submit field records to the DEP for threatened and endangered wildlife and other rare species, like the state-endangered grasshopper sparrow.

## Wildlife Calendar Reminders

- January ..... Tax forms arrive. Donate part or all of your state income tax refund to the Endangered Species/Wildlife Income Tax Check-off Fund to protect Connecticut's wildlife and their habitats. -- Send in turkey and deer hunting season survey cards to the Wildlife Division. -- Spring turkey hunting and state land deer lottery applications available at town clerks' offices.
- Jan. 15-Feb. 15 ..... Special late Canada goose season in the south zone only. For more details, see the 1999-2000 Waterfowl Hunting Guide, available at town clerks' and DEP offices. The guide can also be found at the DEP website: <http://dep.state.ct.us>.
- Jan. 23 ..... **Maple Syrup Demonstration**, at the Sessions Woods Conservation Education Center, in Burlington, starting at 1:30 p.m. Robert Lamothe, of Burlington, who operates a maple sugar house, will demonstrate how to collect maple sap and turn it into maple syrup. Call (860) 675-8130 to preregister.
- Feb. 5 ..... **Trout, Insects & Fly Tying**, at the Sessions Woods Conservation Education Center, in Burlington, from 1:30-3:00 p.m. Tim Berry and Ed Mahowski, DEP Fisheries biologists, will discuss the life history and feeding patterns of trout as well as fly tying for trout. Call (860) 675-8130 to preregister.
- Feb. 10 ..... Postmark deadline for the spring turkey season lottery.
- Feb. 15 ..... Send in special late Canada goose season survey cards.
- Feb. 26 ..... **Backyard Bird Photography**, at the Sessions Woods Conservation Education Center, in Burlington, from 9:00 a.m. to 12:00 noon. DEP staff Paul Fusco (photographer for *Connecticut Wildlife*) and Roger Lawson will lead this workshop on photographing birds at backyard feeders and beyond. Call (860) 675-8130 to preregister; class size is limited to 20 participants.
- Feb. 29 ..... Send in permit-required (small game) season survey cards.
- March 11 ..... **Dealing with Connecticut Bears**, at the Sessions Woods Conservation Education Center, in Burlington, starting at 9:00 a.m. Wildlife biologist Paul Rego will discuss the biology of bears, nuisance problems and radio telemetry. Conservation officer Paul Hilli will talk about trapping and tranquilizing bears. Call (860) 675-8130 to preregister.

# Just for Kids

## Soar Like an Eagle!

*Bald eagles are found in Connecticut. Up to 100 spend the winter and a few nest here during the summer.*

Eagles are large birds. A bald eagle's wingspan can be up to 7 feet. Females weigh 10 to 14 pounds, while males weigh 8 to 9 pounds. Adult bald eagles are easily recognized by their white head and tail. Young eagles (less than 4 years old) have dark-colored heads and tails which become whiter as they age.

### Deadly DDT!

Bald eagles are state-endangered in Connecticut and federally threatened in the lower 48 states. Their populations declined because their habitats were destroyed, eagles were illegally shot, their nests were disturbed by people and their foods were contaminated by the pesticide DDT. DDT had a great effect on the birds because it made their egg shells very thin; so thin that when the parent birds sat on them to incubate, the eggs collapsed. In 1972, the United States banned the use of DDT. This, along with laws passed to protect the birds, has led to an increase in some eagle populations.

### What do you think ...

*How many pounds can an eagle's nest weigh?*

Answer:

*Eagles usually use the same nest each year, adding more sticks every year. Sometimes, nests reach 10 feet across and weigh as much as 2,000 pounds!*

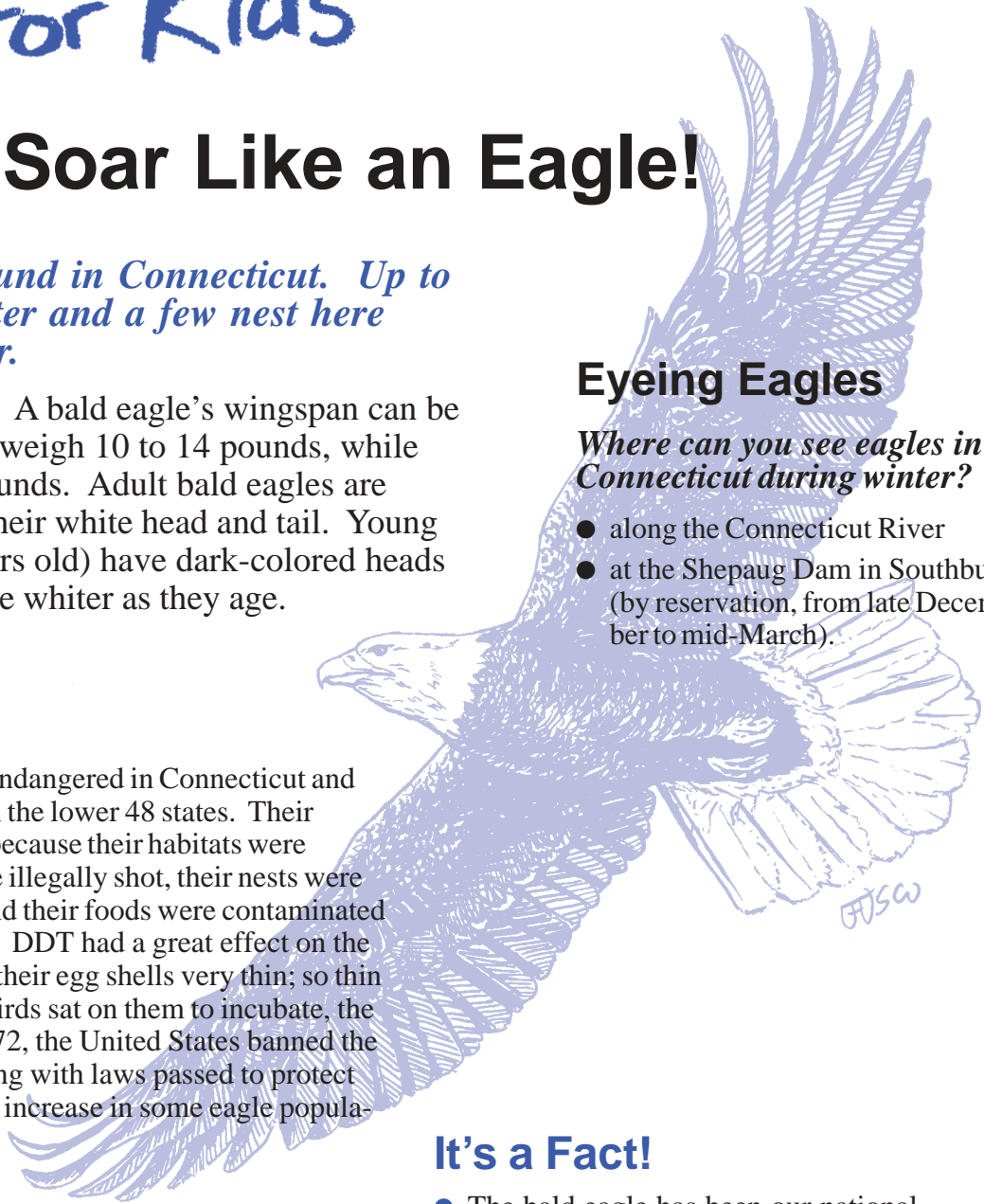
### Eyeing Eagles

*Where can you see eagles in Connecticut during winter?*

- along the Connecticut River
- at the Shepaug Dam in Southbury (by reservation, from late December to mid-March).

### It's a Fact!

- The bald eagle has been our national symbol since June 20, 1782.
- The bald eagle gets its name from an old English word, "balde" which means "white," not "hairless."
- Bald eagles eat fish. They also eat anything that can be caught easily or is found dead. But, they can't lift more than four pounds.
- Their eyesight is very powerful, at least 3 to 4 times greater than that of humans.



# Connecticut Wildlife

The official bimonthly publication of the  
DEP Wildlife Division

**Don't miss out . . . Get Connecticut Wildlife for yourself or for a friend!** Mail this form, along with a check or money order for a minimum contribution (payable to *Gift to Wildlife*) to: Gift to Wildlife, P.O. Box 1550, Burlington, CT 06013-1550.

1 Year (\$6.00)    2 Years (\$11.00)    3 Years (\$16.00)

Help fund critical programs for the state's nonharvested and endangered species by contributing to the Gift to Wildlife fund, which is supported solely by voluntary contributions. Please include a tax-deductible donation with your order for Connecticut Wildlife. Connecticut's Nonharvested Wildlife Program needs your help!

My additional contribution for Connecticut's Nonharvested Wildlife:

\$5.00    \$10.00    \$25.00    Other \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ Tel. \_\_\_\_\_

Gift card to read: \_\_\_\_\_

**Change of Address:** Advance notice of an address change will assure all issues are delivered correctly.

## Woodworking for Wildlife

### Homes for Birds & Mammals

The Wildlife Division's Nonharvested Wildlife Program is offering a revised second edition of this popular book for **\$10.00**. Now published with color photographs and an easy-to-use spiral binding, it is the perfect resource for anyone wishing to build homes for wildlife.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ Tel. \_\_\_\_\_

Mail completed coupon with a check or money order (\$10.00 per copy) to CT DEP Nonharvested Wildlife Fund, P.O. Box 1550, Burlington, CT 06013-1550.

# TIP

 Turn  
In  
Poachers

TO REPORT A WILDLIFE VIOLATION

# CALL 1-800-842-HELP

24 HOURS -  
TOLL FREE

REWARDS OFFERED AFTER ARREST  
ALL CALLS CONFIDENTIAL

For more information on TIP, call Conservation Law Enforcement at 424-3012

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

BULK RATE  
U.S. POSTAGE  
PAID  
WINSTED, CT  
PERMIT NO. 11