

May/June 2010

# Connecticut Wildlife

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



# Eye on the Wild

Bird nesting season is here! Neotropical migrants have returned and are breeding, building nests, and caring for young. Piping plovers, least terns, and other shorebirds are tending their nests along the shoreline. Unfortunately, some of these nests and the young will be lost to predation by raccoons, gulls, snakes, hawks, and a host of other predators. That is the natural way of life. However, this “way of life” becomes unnatural when predation by pet and feral cats enters the picture. Seasonal Research Assistant Jeremy Liefert outlines the dangers that domestic cats pose to wildlife populations in his article on page 3. All cat owners should read this article to learn how they can protect wildlife and their cats by keeping them indoors.

As a lifelong cat owner, myself, I am a strong advocate of keeping cats indoors. However, there was a time long ago when I didn't know any better and I thought my cats were much “happier” being able to go outdoors at their leisure. I was so wrong! The cats would occasionally bring home their prey of mice, chipmunks, birds, snakes, and rabbits, often leaving them by the back door or even bringing them inside. However, I had no idea how many wild animals they were actually killing or injuring. The evening grosbeak flying around the house after it escaped the clutches of my cat and a severely injured baby rabbit were the last straw. It also didn't help that two cats were killed by cars and others suffered injuries from fights with neighbors' cats. And, knowing that coyotes lived nearby, it was only a matter of time before my cats would become prey themselves. I finally decided many years ago that my cats should be indoor cats. We all adjusted to this change quite well and it is one of the best decisions I ever made. My cats are healthy and injury-free, and they are perfectly content to watch the birds and squirrels at my feeders through the window. I never put up bird feeders when my cats went outside because I didn't want to attract birds to my yard, only to be killed by a cat. Now, I feed birds every winter, which provides entertainment for all of us.

Even those who may be more concerned about the “happiness” of their cat by being able to go outdoors over the welfare of wildlife should pay attention to the fact that coyote depredation on pet cats is a reality in Connecticut. One of the more common complaints received by the Wildlife Division concerns pet cats being killed or injured by coyotes. Many pet owners are unaware of the presence of coyotes and the threat they pose, only to learn the hard way after their pet is seriously injured or killed. The best way to ensure the safety and well-being of your cat is to keep it indoors! A resulting benefit is the safety and well-being of wildlife. Help protect wildlife and your cat – keep cats indoors!

Kathy Herz, Editor

## Cover:

Red foxes are common and abundant in Connecticut and can be found throughout the state. They often live in close association with human residences and communities where they can find plenty of food, water, and cover. To learn more about the red fox, see the species profile on page 13.

Photo courtesy of Paul J. Fusco

# Connecticut Wildlife

Published bimonthly by

State of Connecticut  
Department of Environmental Protection  
Bureau of Natural Resources  
Wildlife Division  
[www.ct.gov/dep](http://www.ct.gov/dep)

Commissioner  
Amey Marrella

Deputy Commissioner  
Susan Frechette

Chief, Bureau of Natural Resources  
William Hyatt

Director, Wildlife Division  
Rick Jacobson

## Magazine Staff

Editor Kathy Herz

Art Director/Photographer Paul Fusco

Circulation Trish Cernik

## Wildlife Division

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

Office of the Director, Recreation Management, Technical Assistance,  
Natural History Survey

Sessions Woods Wildlife Management Area  
P.O. Box 1550, Burlington, CT 06013 (860-675-8130)

Wildlife Diversity, Birds, Furbearers, Outreach and Education, Habitat  
Management, Conservation Education/Firearms Safety, *Connecticut  
Wildlife* magazine

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

Migratory Birds, Deer/Moose, Wild Turkey, Small Game, Wetlands  
Habitat and Mosquito Management, Conservation Education/Firearms  
Safety, Wildlife Diversity

Eastern District Area Headquarters  
209 Hebron Road, Marlborough, CT 06447 (860-295-9523)  
State Land and Private Land Habitat Management

*Connecticut Wildlife* magazine (ISSN 1087-7525) is published bimonthly by the Connecticut Department of Environmental Protection Wildlife Division. Send all subscription orders and address changes to *Connecticut Wildlife*, Sessions Woods WMA, P.O. Box 1550, Burlington, CT 06013. Subscription rates are \$8 for one year, \$15 for two years, and \$20 for three years. No refunds. Periodical postage paid at Burlington, CT, and additional entry offices. Postmaster: Please send all address changes to *Connecticut Wildlife*, P.O. Box 1550, Burlington, CT 06013.

Web site: [www.ct.gov/dep/wildlife](http://www.ct.gov/dep/wildlife)

E-mail: [dep.ctwildlife@ct.gov](mailto:dep.ctwildlife@ct.gov)

Phone: 860-675-8130



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. *Connecticut Wildlife* contains articles reporting on Wildlife Division projects funded entirely or in part with federal aid monies.



The DEP is an affirmative action/equal opportunity employer, providing programs and services in a fair and impartial manner. In conformance with the Americans with Disabilities Act, individuals with disabilities who need this information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call 860-424-3051 or 860-418-5937, or email Marcia Z. Bonitto, ADA Coordinator, at [Marcia.Bonitto@ct.gov](mailto:Marcia.Bonitto@ct.gov). Requests for accommodations must be made at least two weeks prior to the program date.

Copyright 2010 by the Connecticut DEP Wildlife Division. The Wildlife Division grants permission to reprint text, **not artwork or photos**, provided the DEP Wildlife Division is credited. Artwork and photographs printed in this publication are copyrighted by the CT DEP Wildlife Division. Any unauthorized use of artwork and photos is prohibited. Please contact the editor at the Sessions Woods office to obtain permission for reprinting articles.

Printed on recycled paper



# Protect Wildlife Populations by Keeping Cats Inside

By Jeremy Leifert

With the arrival of spring and eventually summer, the controversial issue of indoor versus outdoor cats often comes to the forefront. Pet owners that choose to allow their cats outside are adding to an already large feral cat population. These combined populations of cats are responsible for killing millions of birds and small mammals each year, placing additional strain on some species already stressed by other factors. Stray cats, which are difficult to control, are a large part of this issue, but pet owners who let their cats outside add to the problem.

## “Happy” Cats?

Domesticated cats were first introduced to North America in the colonial period. During that time, cats were mainly kept outdoors to keep rodent populations in check. In modern times, this attitude has drastically changed, with many cat owners now viewing their cats as a member of the family instead of a means of rodent control. This has shifted the perception of many owners to put an emphasis on the “happiness” of their cats. Although more cat owners are seeing the benefits of having an indoor cat, there are still owners who believe that allowing their cats to roam freely outdoors makes them healthier and happier. But is this belief of a “happier” cat worth the toll these animals take on native wildlife populations? Learning about the potential dangers and wildlife impacts of allowing cats to roam outside may help cat owners realize that pet cats live longer and healthier lives indoors, if only for the sacrifice of a small amount of “happiness.”

## Millions of Cats Impact Bird and Small Mammal Populations

According to U.S. Census data, there are an estimated 60 million pet cats nationwide, with a significant but unknown number being outdoor cats. This estimate does not include feral (wild) cats, which could conservatively put the number above 100 million nationwide. These “introduced,” or non-native, predators put a tremendous strain on many bird and small mammal populations that are already stressed due to habitat destruction and development. Even the most well-fed pet cat retains its primal instinct to hunt, and will do so when the opportunity arises. Although debatable, some believe that

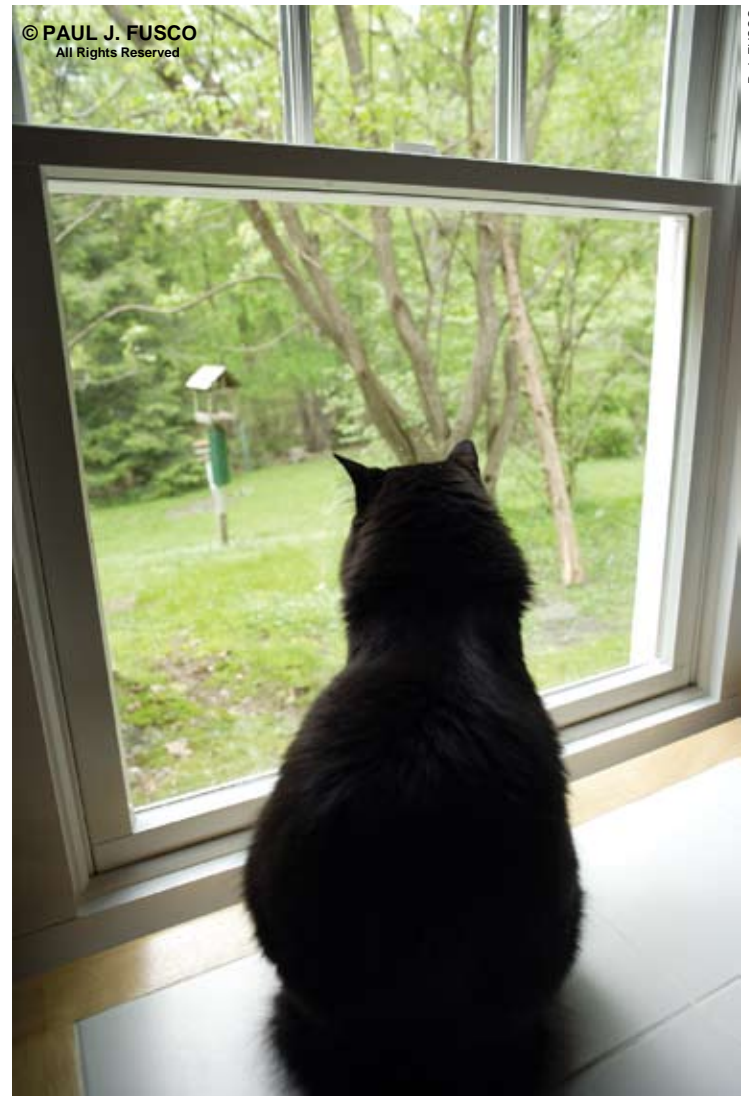
cats are second only to habitat destruction as a leading cause of native wildlife extinctions.

## Indoor Cats Are Healthier

The average lifespan of an outdoor cat is drastically less than that of an indoor cat. The average age for an indoor cat is about 14 years, while an outdoor cat lives for only about 5 years. Outdoor cats, particularly those not current in their vaccinations, are highly susceptible to contracting diseases. Some of these diseases also can be transmitted to other cats and animals, and even people. Cat diseases include feline leukemia, rabies, feline immunodeficiency virus, feline infectious peritonitis, toxoplasmosis, distemper, and roundworm. In populated areas, there also is a heightened danger of being hit by cars and from infections due to fights with other animals. Free-roaming cats also can be killed by wild predators, such as coyotes, raccoons, bobcats, and even bald eagles (see page 18).

## What You Can Do

Conflicts often arise between neighbors with outdoor cats and others with bird feeders. Rather than arguing with your neighbor about their cat killing the birds at your feeders, you and other wildlife enthusiasts can participate in several opportunities to help reduce the populations of outdoor cats. Many citizen



Indoor cats can still watch birds at backyard feeders through the windows, but cannot prey on the animals attracted by the seeds. The best way to ensure the safety and well-being of your cat is to keep it indoors. A resulting benefit is the safety and well-being of wildlife.

organizations sponsor “Cats Indoors” campaigns to educate the public. Your town could enact pet cat registration and restraint ordinances, but these are difficult to enforce. Being aware of the potential problems that an outdoor cat can cause, along with educating fellow citizens, are the first steps in curbing the problem and sparing your cat and countless wildlife from unnecessary harm.

Visit the American Bird Conservancy Web site ([www.abcbirds.org/cats](http://www.abcbirds.org/cats)) to obtain more detailed information about the dangers outdoor cats pose to wildlife.

*Jeremy Leifert is a Seasonal Resource Assistant for the Wildlife Diversity Program*

# Much Needed Bird Research Takes Flight

Written by Geoffrey Krukar

The Wildlife Division is gearing up for several new avian research projects in 2010. Funding is being provided by the State Wildlife Grants Program and the Connecticut Endangered Species/Wildlife Income Tax Check-off Fund (shrubland and forest interior bird projects).

## *Purple Martin*

Population numbers for the purple martin are stable region wide, except in New England where numbers are declining. Purple martins nest in both natural cavities and man-made structures. However, in New England, they only use artificial nesting structures, such as bird houses or gourds. Given this state threatened bird's affinity for artificial housing, one would assume that it should be relatively easy to document the location of every colony in Connecticut and the number of nesting pairs each year. This has not been the case, to date, as many separate efforts have been working independently of each other. The first step of this project involves working with the New England Purple Martin Working Group to consolidate known nesting information and develop a method for obtaining nesting reports from martin colony "landlords." The next step is to field check historic colony locations using a network of volunteers and interns to determine the bird's current status. Habitat measurements taken around active colonies will assist with deter-



The Wildlife Division is initiating a project to consolidate known nesting information about purple martins. These birds nest in artificial structures such as martin houses or gourds.

mining what constitutes optimal purple martin conditions.

## *Forest Interior Birds*

Another study planned for the 2010 field season focuses on forest interior bird species. This suite of birds requires large tracts of contiguous forest to successfully rear young. Regionally, populations of many forest interior birds have suffered severe declines due to the fragmentation of forests from residential and commercial development. Despite past survey attempts, the status and distribution of these bird species remain unclear in Connecticut. Forest interior birds are often missed by large scale monitoring programs, like the Breeding Bird Survey, because samples are not typically collected in the middle of large forests.

To overcome this limitation, 20 survey routes with 4 points each have been randomly distributed statewide in areas that were identified by The Nature Conservancy as the last remaining large, contiguous forests. Several of the routes are not on or near established trails. All 80 survey points are situated a minimum of 100 meters from any forest edge to negate the possible influence of that habitat type on the survey. DEP staff and volunteers will conduct 3 surveys between mid-May and late June during the breeding season to document 4 target species – cerulean, black-throated blue, black-throated-green, and worm-eating warblers. Abundance and distribution of all birds observed during these surveys, particularly



Despite past bird surveys, the status and distribution of the black-throated green warbler and other forest interior bird species remain unclear in Connecticut. New survey routes have been established to obtain more data about these birds.



the focal species, will be assessed.

Another objective of this project is to measure productivity of each species relative to habitat and landscape conditions. A fourth visit to the study sites is scheduled for July when juvenile birds will be leaving their nests. Observers will slowly walk a transect line, attempting to document all juvenile birds. The distance of each juvenile from the line will be recorded. These data, along with habitat measurements taken around each point, will allow for inferences about ideal conditions for increased productivity. The information will provide meaningful recommendations to forest managers.

### ***Shrubland Birds***

Habitats dominated by shrubs and shrubland birds have declined from historical levels in the northeastern U.S. and continue to decline rapidly due to forest succession, changes in timber harvest practices, disruption of natural disturbance regimes, and residential and industrial development. The conservation of these habitats and species will depend to a large degree on human activities because natural disturbances are no longer a reliable source for creating shrubland habitats.

A statewide shrubland bird project will investigate which management activities yield the best avian species composition. Surveys of shrubland birds will be conducted in both actively managed shrublands and regenerating forest clearcuts to allow for direct comparison. Active management will occur in the near future at a number of the survey sites so as to provide baseline information. Rather than merely focusing on bird abundance and species composition, researchers will try to relate vital rates (i.e., productivity) with the habitat features on the landscape. Determining how birds fare in various habitats rather than if they are present or not is the real measure of habitat quality. The main targets of this work are the prairie warbler, eastern towhee, field sparrow, and blue-winged warbler. These 4 birds are shrubland obligate species that are declining across their range. This monitoring program will aid in developing adaptive management recommendations to conserve and increase shrubland bird species in Connecticut.

### ***Chimney Swifts and Whip-poor-wills***

Other specific bird survey work that is going on this year is related to chimney swifts and whip-poor-wills. Both of these species are declining across their range, and survey work targeting these birds has been ongoing for several years. A group of long-standing and excellent volunteers will continue to assist the Division in assessing the status of the two species. Surveys will be kicking off in May.

A new twist on the chimney swift project is some collaborative work with the University of Connecticut to assess food habits and nesting microhabitat. One of the hypotheses for the decline of chimney swifts is that the forage base (insects) has changed over time. This hypothesis speculates that changes in insect abundance and composition have resulted in poor fitness for chimney swifts. The initial test for this hypothesis is to assess what the birds are foraging on currently relative to what they foraged on in the past. To accomplish this, the Division is



**The prairie warbler and 3 other shrubland bird species are the focus of a monitoring program that will aid in developing adaptive management recommendations to conserve and increase shrubland bird species in Connecticut.**



**A chimney swift project will include collaborative work with the University of Connecticut to assess food habits and nesting microhabitat.**

working with homeowners that have swifts using their chimneys to collect excrement throughout the season. Sites also are being identified where there is long-term use and excrement accumulation (e.g., abandoned buildings) so that a time series is available. Ongoing research in other locations of the chimney swift's range has acquired a time series of excrement for comparative purposes. Another potential project involving chimney swifts will be to place a number of nesting structures in various habitat types to investigate potential use of artificial structures and the habitat features that are conducive to occupancy.

### ***Volunteers Needed***

The Wildlife Division is looking for volunteers to help with these projects. Potential volunteers should contact Division technician Geoffrey Krukar at 860-675-8130 or by E-mail at [geoffrey.krukar@ct.gov](mailto:geoffrey.krukar@ct.gov).

*Geoffrey Krukar is a technician with the Division's Bird Program*

# CE/FS Instructors Awarded with Governor's Proclamation

By Charles Bruckerhoff

Lieutenant Governor Michael Fedele visited the Fairfield County Fish and Game Protective Association in Monroe in late February to deliver a proclamation from Governor M. Jodi Rell. The proclamation recognizes the Wildlife Division's Conservation Education and Firearms Safety (CE/FS) Program volunteer instructors for their unwavering commitment to the safety of Connecticut's hunters and non-hunters. The proclamation reads in part:

*"Whereas the CE/FS instructors have annually provided the necessary volunteer time to allow the State of Connecticut to receive the entire apportionment of the U.S. Fish and Wildlife Service Pittman-Robertson Grant money;*

*"Whereas the CE/FS instructors work tirelessly on behalf of their sport in order that it may be the safest in the State; . . .*

*"Therefore, I, M. Jodi Rell, Governor of the State of Connecticut, thank the Conservation Education and Firearms*



Senior instructors (from left to right) Ray Hanley, Anthony "Del" Delmastro, Gary Bennet, and instructor Chas Catania display the Governor's proclamation at the Fairfield County Fish and Game Protective Association in Monroe. These instructors were involved in planning the meeting with Lieutenant Governor Fedele.

*Safety volunteers for their dedicated efforts on behalf of conservation education and hunter safety, and do hereby proclaim Wednesday, February 24, 2010 as Conservation Education and Firearms Safety Volunteer Day in the State of Connecticut."*

Approximately 30 instructors attended the dinner event. The instructors and Lieutenant Governor Fedele also discussed the possible negative impact the state's restrictions on spending may have on the CE/FS Program.

The CE/FS Program is funded through the Federal Aid in Wildlife Restoration Program, also known as the Pittman-Robertson Act. This Program, which was created in 1937, provides federal funding to states for wildlife management and research programs, habitat acquisition, wildlife management area development, hunter education programs, and the development and management of shooting ranges. The federal money comes from an excise tax on sporting arms and ammunition paid by sportsmen and women. Federal aid dollars are used

## Anyone Can Take a Hunter Safety Class!

Whether you are interested in getting a hunting license or you just want to learn more about wildlife management, conservation, and hunting ethics, you can take a hunter safety course. Courses are offered year-round and they are free-of-charge. Check the DEP Web site ([www.ct.gov/dep/hunting](http://www.ct.gov/dep/hunting)) to find a class near you or call the Wildlife Division's Sessions Woods office at 860-675-8130 or the Franklin Wildlife office at 860-642-7239 (Mon.-Fri., 8:30 AM-4:30 PM).

to purchase materials and supplies for hunter education and may be used to recognize the commitments of its volunteers, including an annual instructor award and recognition event and workshop, which had been a fixture for over 25 years.

The annual award and recognition workshop provides an opportunity for active instructors to converse with their colleagues about CE/FS classes, discuss current hunter education issues with program



Senior instructor Warren Speh holds the framed proclamation at the Bozrah Rod and Gun Club.



## A Look at the Conservation Education/Firearms Safety Program

Hunter education started in Kentucky in 1946. Three years later, New York became the first state to require hunter education for first time hunters. Connecticut initiated mandatory hunter education classes in 1955. Instructors were originally certified by the National Rifle Association. The DEP Wildlife Division revised the hunter safety program in 1981 and initiated the Conservation Education/Firearms Safety (CE/FS) Program, with course offerings in three disciplines: firearms hunting, bowhunting, and trapping. The objective is to teach new hunters and trappers proper hunting and trapping ethics, firearms safety, and wildlife conservation. The goal of Connecticut's hunter education program is to maintain the traditions of hunting and trapping as safe, enjoyable, and productive activities that are available to all state citizens.

All courses are open to the public and offered free-of-charge. Students must be at least 10 years of age to sign up for a firearms or bowhunting course. A list of current course offerings can be found on the DEP Web site at [www.ct.gov/dep/hunting](http://www.ct.gov/dep/hunting). It is recommended that individuals check the Web site often for updates as courses fill up quickly.

Interested in becoming a volunteer hunter education instructor? The CE/FS Program is always looking for new recruits to join the team. If you are passionate about hunting and teaching others about the sport, please call the Wildlife Division's Sessions Woods office at 860-675-8130 or the Franklin Wildlife office at 860-642-7239 (Mon.-Fri., 8:30 AM-4:30 PM). Program staff will gladly explain the certification process and help you get started on your way to becoming an instructor.

coordinators and other DEP officials, receive updates on program development, and listen to formal presentations from a variety of specialists, including state wildlife biologists, U.S. Fish and Wildlife Service officials, and nationally recognized experts in conservation.

A key feature of the annual event is the presentation of awards and recognitions to individual instructors for outstanding performance. Also recognized at the event are supporting companies and organizations in the private sector and privately-owned sportsmen's clubs where most of the classes are held—at no cost to the state. The event includes a social hour and formal dinner, and an auction is held to raise money for the Friends of CE/FS. Additionally, the annual event provides an efficient means for CE/FS Program staff to distribute program materials and

### 2009 CE/FS Program Statistics

	Firearms	Bowhunting	Trapping	Coyote Land Trapping	Total
Instructor Hours	6,815	2,324	230	52	9,421
Graduates	2,248	1,510	121	74	3,953
Classes	72	57	5	2	136

uniforms to instructors. The instructors encouraged the Lieutenant Governor to support reinstating the annual award and recognition event in 2011.

There are currently 328 certified volunteer CE/FS instructors who annually present hunter education classes. They provide regular classes at private and public facilities statewide in firearms hunting, bowhunting, and trapping, as well as instructor workshops and seminars on related topics, such as wild turkey hunting. CE/FS instructors are strictly volunteers, receiving no pay for their time

and service. They make many sacrifices and also absorb the costs associated with transportation. The instructors take great satisfaction in knowing that they are introducing new generations to the knowledge, skills, and attitudes for safe hunting, and also ensuring that the valued tradition of hunting continues. Approximately 3,953 students graduated from CE/FS classes in 2009.

*Charles Bruckerhoff is the Coordinator of Connecticut's Conservation Education/Firearms Safety Program*

## What Causes "Warts" on Deer?

*Written by Bill Embacher*

The Wildlife Division frequently fields questions from hunters and the public concerning deer with odd warty growths. These are most often harmless tumors caused by a viral skin condition called cutaneous fibroma.

Cutaneous fibromas are tumors found in the skin of white-tailed deer. They are gray or black in color, range from 0.25 inches to over 8 inches in diameter, and they may grow alone or in groups. Most tumors consist of smooth peeling skin; however, it is not uncommon for tumors to also have a warty appearance. The tumors are most often found on the front half of the animal, more specifically on the head, neck, and shoulders, but can occur anywhere on the deer's skin. Although similar tumors may appear on

other mammals, they are unrelated to cutaneous fibroma, which is caused by a virus found only in white-tailed deer. Cutaneous fibromas are not a danger to humans, pets, or livestock.

Fibromas are transmitted from deer to deer by insect bites; scratches from sharp objects such as barbed wire fences, briars or branches; or other close contact of open wounds between animals. The virus typically lasts about 2 months and, outside of appearance, rarely causes any health issue in the infected deer. However, large tumors on the head may result in eating difficulties or impaired vision. The tumors are rarely attached to any part of the animal underneath the skin, and are harmless to humans who may come into contact with the deer during hunting



G. TIMKO, MARYLAND DNR

season. Large open lesions on tumors may lead to bacterial infections, in which case the deer may be unsuitable for consumption. Bacteria-infected deer will be obvious due to a strong odor.

*Bill Embacher is a Seasonal Research Assistant for the Division's Deer Program.*

# Wintering Black Duck Study Finishing its Third and Final Year

Written by Min T. Huang

M. HUANG, WATERFOWL PROGRAM



Seasonal research technicians Samantha Collins (left) and Kevin Rogers install a backpack VHF radio on a hen black duck.

The Wildlife Division began a 3-year study in November 2007 on wintering American black ducks. The black duck has been identified as a species of greatest conservation need in Connecticut. A number of critical data gaps exist that hinder the long-term management of this species, not only in Connecticut, but throughout its wintering range. One large data gap is how wintering black ducks use existing habitat and the condition of that habitat. Winter condition of ducks is largely governed by the amount of food resources available. Loss of coastal wetlands in Connecticut and the infringement of development may impact black duck use of available habitat. If black ducks preferentially select certain habitats, it is critical to understand why.

Researchers are investigating habitat use and energy budgets of wintering black ducks. In addition, they are developing estimates of the carrying capacity of various wintering habitats. In conjunction with the determination of habitat use, time and energy budgets are being assessed and available food resources are being quantified throughout the wintering

and spring staging periods. This information will guide wetland restoration work throughout the Atlantic Flyway.

## Collecting Data

In the first 2 field seasons, researchers placed 60 radio transmitters on hen black ducks at 4 study sites. Over 1,250 locations of birds were obtained from monitoring with radio telemetry. Researchers also conducted several thousand hours of time budget surveys to assess how the ducks spent their time (feeding, resting, etc.). Marshes were surveyed to document the presence or absence of black ducks, and samples were taken from the study sites to assess winter food availability.

## Satellite Transmitters Donated

An exciting addition to the final year of the study, with the gracious help of the Livingston Ripley Waterfowl Conservancy in Litchfield, involved the use of satellite transmitters. Researchers were able to equip 3 ducks with satellite transmitters to better investigate spring migration timing, settling rates, and nesting.

## Finding Answers

The wealth of data that was collected over the first 2 years of the study has enabled researchers to estimate black duck annual wintering survival rates, time and energy budgets, and winter carrying capacity at coastal study sites. Researchers also have been able to characterize wintering black duck habitat use. Fortunately, Connecticut experienced variable winter conditions during the first 2 years of the study. The winter of 2007-2008 was mild, while the winter of 2008-2009 was more severe. This allowed the collection of data across the environmental extremes that wintering black ducks face.

The final year of the study (2009-2010) included another cold winter. Ice conditions, heavy winds, and changing water levels contributed to challenging and sometimes difficult trapping efforts. Despite the weather, researchers were able to place 25 VHF radio transmitters and the additional 3 GPS (global positioning system) satellite transmitters on black ducks during the winter of 2009-2010.

Data collected during the first 2 years of the study have been analyzed; analysis is ongoing for the third year of work. Post-hunting season survival rates varied between the first 2 years of study, with much lower survival rates in the winter of 2008-2009. Hunting mortality was slight; 4 radio-tagged birds were harvested over both years during the regulated hunting season.

## How Do Black Ducks Spend Their Time and Where?

Black ducks spend the majority of their time feeding during winter, followed by sleeping, swimming, and loafing. The amount of time spent feeding differed across study sites and months, among





**Wildlife Division researchers are investigating habitat use and energy budgets of wintering black ducks. In addition, they are developing estimates of the carrying capacity of various wintering habitats. In conjunction with the determination of habitat use, time and energy budgets are being assessed and available food resources are being quantified throughout the wintering and spring staging periods.**

habitat types, and by tidal stage. As suspected, hunting affected time budgets of wintering black ducks. Black ducks spent less time feeding, loafing, and engaging in comfort activities during the hunting season (portions of the months of November, December, and January) than they did outside of the regulated hunting season (February, March, and April).

Energetic models were constructed for each study site and for all study sites combined using 4 general approaches. (An energetic model describes the balance between energy gained from food and spent through feeding, flight, and other body functions.) These approaches varied in the ways that energetic costs of thermoregulation were levied on the birds and how temperature and wind affected those costs. Energetic models were then contrasted with the estimates of food availability (invertebrates and seeds) to develop energy balances (supply

versus demand). Estimates of carrying capacity indicated that the study sites provided ample nutrition for the number of wintering black ducks that were observed throughout the study period. The problem for wintering ducks occurs when ice excludes them from feeding. It is during these critical periods that black ducks begin to lose weight and succumb to starvation.

Of continued interest is the extreme fidelity that these birds showed to specific wintering areas in both years. Despite difficult conditions, the vast majority of birds did not move out of the study areas, and exhibited very little movement within the study areas. Even during prolonged cold snaps, birds stuck to the marshes, waiting it out. This lack of movement indicates the importance of creating and maintaining the quality and quantity of suitable habitat for wintering ducks.

### *Effect of Disturbance*

Interestingly, researchers detected the negative effect of disturbance on habitat use by wintering black ducks in the second winter. As the ratio of roads to marsh surface increased, black duck use of an area declined. This disturbance index was not found to be a significant determinant of black duck habitat use in the first year of the study, so it will be interesting whether the index is truly a factor in determining whether available habitat is used by wintering birds.

*Funding for this project was provided by the State Wildlife Grants Program, Federal Aid in Wildlife Restoration Program, a competitive grant from the Black Duck Joint Venture, and the Livingston Ripley Waterfowl Conservancy in Litchfield.*

*Min Huang is the leader of the Wildlife Division's Migratory Gamebird Program*

# The Bird with the Bleeding Heart - Rose-breasted Grosbeak

Article and photography by Paul Fusco

A walk in the woods on a bright morning in early May reveals the heightened excitement and activity levels of the forest ecosystem coming back to life after a long winter season. Squirrels and chipmunks chatter back and forth to each

pale bill. In flight, the males show flashes of a large white wing patch and white rump patch, seen as they fly through the trees. Females are brown with heavy streaking, and have a yellow underwing lining. They have bold striping on the crown, and a broad white eyebrow stripe. At first look, females appear to be a large sparrow with a large bill.

## Range

Being neotropical migrants, rose-breasted grosbeaks spend their winter in Latin America, from the West Indies and southern Mexico, south throughout Central America to the northern South American countries of Venezuela, Colombia, and Peru. Their breeding range includes southern Canada, south to the northern United States, primarily east of the Great Plains.

Traditionally found in mature and second-growth deciduous forest habitat,

rose-breasted grosbeaks have become increasingly common in early successional and suburban habitats where they favor areas of dense trees and shrubs along forest edges and large shade trees in backyards. Rose-breasted grosbeaks are fairly common and widely distributed in Connecticut. They are absent from heavily developed areas, and are less common along the shoreline than they are inland.

## Behavior

The nests of rose-breasted grosbeaks are typically built in sheltered small trees or shrubs at heights of 6 to 15 feet. Nests higher than 15 feet are unusual. Rose-breasted grosbeaks normally have clutches of 3 to 5 eggs, with incubation taking approximately 14 days. Young

fledge the nest after 9 to 12 days.

Grosbeak nests are frequently victimized by cowbirds, which lay their eggs in other birds' nests. Grosbeaks and other birds will incubate the cowbird eggs and raise the young.

The song of the rose-breasted grosbeak is a series of rich, continuous warbles and whistles, similar to a robin, but more melodic and liquid. The call note is an easily recognized, high pitched, metallic "chink."

Among the food that grosbeaks prefer are beetles and caterpillars, many of which are injurious forest pests. Included in the list are cankerworms, borers, tent caterpillars, army worms, gypsy moths, tussock moths, and leaf beetles. Wild fruits, such as mulberry and cherry, are relished when in season. Grosbeaks also eat the seeds, and some buds, of many types of trees. Backyard bird feeders that are active through the month of May may attract rose-breasted grosbeaks with black oil sunflower seeds. People in areas with bears should be prudent about their use of bird feeders as black bears may also be attracted to sunflower seeds.

## Conservation

Forests comprise the dominant habitat type in Connecticut. The state's forests are home to many species of migratory



© PAUL J. FUSCO  
All Rights Reserved

other as the last leaf buds are breaking open to bask in the sunlight. A morning cloak butterfly flutters across the path in front of you while from deep within the forest, a pileated woodpecker can be heard pounding on a dead tree limb, its calls echoing through the trees.

Migratory forest songbirds have returned in a frenzy to stake out the best breeding territories, bringing the forest alive with the sounds of singing birds. Among the different trills, chirps, and tweets is a melodious song coming from high in the top of a dominating oak tree. The singing bird is a rose-breasted grosbeak, a neotropical migrant that breeds in eastern deciduous forest habitat.

## Description

Rose-breasted grosbeaks are medium-sized, stocky songbirds. They are slightly smaller than a robin. Grosbeaks get their name from their bill, which is large and thick. The bill is used to crush beetles, crack seeds, and eat wild fruit.

The male is striking black and white, with a rose red triangle on its breast, suggesting the bird has a bleeding heart. It has a black upper side and head, and a



© PAUL J. FUSCO  
All Rights Reserved

**Females are brown with heavy streaking. They have a large bill, white stripe over the eyes, and their breast is washed with buff.**

and resident birds that breed in them. Forests in Connecticut have been maturing over the past 100 years, benefitting many species, including the rose-breasted grosbeak. Although rose-breasted grosbeaks





Male rose-breasted grosbeaks are black and white with a large red triangle on the breast. Their large pale bill is offset by their black head.

are now fairly common in our state, this was not always the case.

European settlers had cleared most of the Connecticut landscape for agriculture by the 1850s, causing rose-breasted grosbeaks to become rare in southern New England. As forests regenerated and gradually matured, grosbeak populations began to rebound, and the birds started to adapt to using young forests and suburban habitats, not just mature forests.

Rose-breasted grosbeaks appear to be less sensitive to forest fragmentation than other forest songbirds. However, all is not well with the grosbeak. Sprawling development has increased rapidly since the 1960s, taking its toll on forested areas. According to breeding bird survey data from the National Audubon Society and the U.S. Geological Survey, rose-breasted grosbeaks have undergone a population decline of two-thirds in Connecticut over the last 40 years. The loss and degradation of forest habitat in both breeding and wintering areas, harmful pesticide use, and victimization by cowbirds have all contributed to the decline.

There were an estimated 3,124 square

miles of forest in Connecticut in 1995. The amount changed to 2,922 square miles by the end of 2006. A study conducted by the University of Connecticut's Project CLEAR (Center for Land Use Education and Research) found that Connecticut's forest habitat was reduced by 185 square miles between 1985 and 2006, equating to a loss of 6% of the forested land in the state. The amount of land that became developed increased by 18% during the same time span. Such large scale forest clearing and fragmentation mean that there will be fewer areas of quality habitat for the rose-breasted grosbeak and other forest dependent wildlife into the future.

Sustainable forest practices that main-

tain the integrity of the forest on state and private land can improve or maintain the quality of our remaining forest habitat, thus benefitting migratory forest birds. Forest bird breeding surveys play an important role in determining population changes and trends. Assessments of forest quality and breeding bird populations help managers make decisions on how best to carry out conservation efforts for forest interior birds. The DEP is working to ensure the continued good health of Connecticut's forests and forest wildlife, including that of the bird with the bleeding heart.

*Paul Fusco is the Art Director and Wildlife Photographer for the Division's Outreach Program*

### ***Habitat Loss and Forest Fragmentation***

**Many species of neotropical migrant birds are dependent on large forested habitats to reproduce successfully. The loss and degradation of forest habitats can adversely affect the populations of these birds, many of which have been declining for decades. Habitat loss and forest fragmentation on breeding and wintering grounds are the primary causes for the decline of warblers, tanagers, thrushes, and other neotropical migrants, including the rose-breasted grosbeak.**

**When large forest blocks are chopped into smaller pieces by roads and development, populations of these birds experience tremendous stress. Forest fragmentation opens a path into the forest for nest predators, cowbirds, and human disturbance. On a population level, the birds cannot withstand being squeezed into smaller and less desirable space without being affected in a negative way.**

# Managing the Roger Tory Peterson Wildlife Area

## *Van Winkle Fund at Hartford Foundation Provides Financial Support*

By Paul Rothbart

A major herbicide treatment project has been completed at the Roger Tory Peterson Wildlife Area, a 588-acre parcel located in Old Lyme, thanks, in part, to the generosity of a woman who had fond memories of the area and left a bequest for the site to be managed by the Hartford Foundation for Public Giving.

The site, previously known as Great Island Wildlife Management Area, was acquired by the Wildlife Division through numerous purchases dating back to the 1930s. The majority of the funding came from the Federal Aid in Wildlife Restoration Program. Through this program, sportsmen pay an excise tax on sporting arms, ammunition, and bowhunting equipment. The funds are then allocated to state wildlife agencies to use for land acquisition, wildlife management and research, and hunter education.

Well-known to waterfowlers and birdwatchers, the area is a tidal marsh located near the mouth of the Connecticut River that provides habitat for a variety of wildlife, especially birds. The area contains critical habitat required by 42 species of greatest conservation need. Among these are several Connecticut endangered, threatened, or special concern species, such as the northern harrier, piping plover, least tern, snowy egret, glossy ibis, great egret, American bittern, king rail, peregrine falcon, sharp-shinned hawk, and bald eagle.

Dr. Roger Tory Peterson, a world renowned birder, naturalist, artist, and conservation educator, as well as a lifetime resident of Old Lyme, often frequented the wildlife area. After documenting the decline of osprey at Great Island in the 1950s and early 1960s, Dr. Peterson erected the first osprey nesting platform on the area in 1962. By the mid-1970s, a ban on organochlorine pesticides and the placement of nest structures led to the beginning of a population rebound. The area was dedicated as the "Roger Tory Peterson Wildlife Area" on July 24, 2000, to recognize his lifetime of achievements.

Another Connecticut resident, Marguerite Van Winkle, a retired executive secretary from Newington, was so impressed with the beauty and wildlife diversity that she observed during many visits to the Roger Tory Peterson Wildlife



**A Marsh Master (an amphibious tracked machine) was used at the Roger Tory Peterson Wildlife Area in Old Lyme to apply herbicide to invasive phragmites and then mow the dead stems.**

Area that she was moved to establish a permanent trust in her estate upon her passing in 2005 at age 87.

The gift created the *Van Winkle Fund at the Hartford Foundation for Public Giving*. Grants from this fund will be provided to the DEP each year for maintenance, purchase of equipment, acquisition, and other expenses associated with the management of the Roger Tory Peterson Wildlife Area. Each year, the Wildlife Division can submit a project proposal to the Hartford Foundation for consideration. If approved, the Department will conduct the agreed upon activities and, upon completion, submit an invoice, a project completion report, and photographs.

The first project, which received \$25,000 in funding, was completed during the 2009 field season. Using the grant from the Hartford Foundation as a substantial match, a partnership was developed between the Department and the USDA's Natural Resources Conservation Service to complete approximately 150 acres of phragmites control (herbicide treatment and follow-up mowing). Phragmites is an invasive plant that can overtake saltmarsh habitats, reducing their value to

wildlife. The project implemented out by the DEP's Wetlands Habitat and Mosquito Management Program. The use of the money from the Van Winkle Fund was directly responsible for funding 75 acres of this project. The Department is deeply appreciative of the generous gift provided by Marguerite Van Winkle through the Hartford Foundation, and we look forward to working cooperatively with the Foundation on future management projects at the Roger Tory Peterson Wildlife Area.

*Paul Rothbart is the leader of the State Land and Private Land Habitat Management Programs*



**Habitat improvements at Peterson Wildlife Area will benefit willets and other shorebirds.**



# Red Fox

*Vulpes vulpes*

## Background

The red fox is common and abundant in Connecticut and can be found throughout the state. The population that exists today is made up of hybrid foxes, a result of interbreeding between native red foxes and the European red fox, which was introduced into the eastern coastal areas of the United States in the mid-18th century. The native red fox was a boreal species that historically occurred in the northern regions of North America and at higher elevations (montane areas) in western areas. Foxes are members of the dog family, Canidae, just like domestic dogs and coyotes.

Red foxes occur over most of North America from Baffin Island, Canada, and Alaska to the southern U.S., except for coastal western Canada, Oregon, and California, the Great Plains, the southwestern desert and the extreme southeastern U.S.

## Description

The red fox is best identified by its reddish coat, black legs and ears, and long, white-tipped, bushy tail. It has an elongated muzzle, pointed ears, and a white underside. Other color phases are uncommon but include silver, black, and a cross, always with a white-tipped tail and dark feet. The tail is proportionally longer than the tail of a coyote and it is held horizontally behind the fox when it is running. Red foxes weigh between 7 and 15 pounds, averaging 10 to 11 pounds, and measure between 39 and 43 inches long, including the tail. Males are slightly heavier and generally larger than females. The gray fox, which also is found in Connecticut, is often confused with the red fox because of the rusty red fur on its ears, ruffs, and neck. Although somewhat similar in size, the gray fox has a gray coat, with a whitish belly, throat, and chest, and a shorter muzzle and ears. It also lacks the white-tip on the tail exhibited by the red fox.

## Habitat and Diet

Red foxes inhabit a mixture of forest and open fields. They use the transition zone or "edge" between these habitats as hunting areas. Suburban and urban areas are commonly inhabited.

The red fox is an omnivore, meaning that it eats both plant and animal foods. Food items include small rodents, squirrels, woodchucks, rabbits, birds and eggs, amphibians, and reptiles. Foxes also will eat vegetation, fruits, nuts, insects, carrion, and garbage. Red foxes may partially bury, or cache, excess food, cover it with soil, grass, leaves, or snow, and mark it with urine.

## Life History

The breeding season is from January through March. After a gestation period of 51 to 53 days, females give birth to a litter averaging 4 or 5 pups. Red foxes may dig their own burrows but they usually improve an abandoned woodchuck burrow. It also is common for foxes to den in the crawl space under decks and sheds. Most foxes have more than 1 den and will readily move their young if disturbed. The pups stay in the den until they are about 4 to 5 weeks of age, after which they emerge and begin to play outside the den entrance. Both adults care for the young by bring-

ing food and guarding the den site. The pups are weaned at about 12 weeks and join the adults on hunting forays, learning to catch food on their own. The young disperse from the family unit in fall and will usually breed during their first winter.

## Interesting Facts

Red foxes tend to be solitary, usually hunting alone. They can be active at any time of day, but appear to hunt most often during dawn and dusk. It is not unusual to observe foxes during daytime. They remain active all year and do not hibernate. The normal home range for a fox is about 2 to 4 square miles in Connecticut, but it may vary depending on the abundance of food.

Foxes are quite vocal, exhibiting various barks, howls, and whines. The sounds vary from a short, sharp "yap" or bark, followed by a "yap, yap," to a combination of screeches, yells, and long howls. A common report to the Wildlife Division involves the sounds made by red foxes (e.g., a raspy, single syllable scream or bark, repeated regularly every 3-10 seconds).

Foxes are valuable as important predators of prolific prey species like mice, rats, and rabbits, in addition to their value as a furbearer. Adult foxes have few predators, although coyotes likely will not tolerate foxes within their territories. Several studies have found that red foxes only occur in the gaps between the larger territories of coyotes. The relatively recent expansion of coyotes throughout Connecticut may have displaced red foxes from much of their prime habitat.

Disease and roadkills are important fox mortality factors in Connecticut. Foxes can carry the organisms that are responsible for several contagious diseases, such as mange, distemper, and rabies. Sarcocystis is contagious and sometimes deadly to foxes and coyotes. It is caused by a microscopic mite that lives



© PAUL J. FUSCO  
All Rights Reserved

in the skin. Animals with mange lose hair and weight; their skin becomes cracked and encrusted with heavy scabs. Infected foxes usually die from the affliction within 2-4 months.

Raccoon rabies is the most common strain of rabies found in Connecticut. Raccoons are the primary carrier but foxes also can be infected. Foxes are the primary carrier of different strains of rabies that occur in other regions of North America. Most red foxes die from rabies too quickly to spread the disease to other animals or humans. Nevertheless, animals that appear sick or are acting abnormally should be avoided. The following symptoms may indicate the presence of rabies or other neurological diseases in mammals: unprovoked aggression, impaired movement, paralysis or lack of coordination, unusually bold behavior, and disorientation. The local animal control officer or police should be contacted if assistance is needed with a potentially rabid animal. If you are unable to contact local authorities, call the DEP at 860-424-3333.

### Living with Foxes

Foxes commonly live in close association with human residences and communities where they can find plenty of food, water, and cover. They frequently inhabit yards, parks, and golf courses, especially areas that adjoin suitable, undeveloped habitat. Foxes can grow accustomed to human activity but are seldom aggressive toward people. Problems include depredation on domestic animals, perceptions of danger to humans (healthy foxes pose virtually no danger to humans), and their potential to carry disease organisms. The mere presence of a fox should not be perceived as a problem and foxes need not be feared. However, those who are uncomfortable with the presence of foxes can take certain actions to reduce the chance of problems:

**Do not allow pets to run free!** Keep cats indoors, particularly at night, and small dogs on a leash and under close supervision at all times.

**NEVER feed foxes!** DO NOT put out food for any mammals. Feed pets indoors. Clean up fruit dropped from trees and bird

seed below feeders. Secure garbage in animal proof containers and store in a garage or shed. Refrain from putting meat scraps in compost piles. Feeding, whether direct or indirect, can cause foxes to act tame and may lead to bold behavior over time.

**Close off crawl spaces under decks and sheds.** Foxes will use these areas for resting and raising young.

**Protect livestock.** Foxes will prey on small livestock, such as ducks, chickens, rabbits, and young lambs, but generally do not bother larger livestock. Livestock can be protected with secure pens, coops, or fencing. Make sure the enclosures prevent entry from above and below as foxes will dig or squeeze under poorly maintained fences and may climb over small fences. Some electric fence designs can provide good protection.

**Use frightening techniques.** Human presence often is a deterrent to foxes. Foxes that travel into residential yards can be harassed or scared with loud noises, bright lights, or spraying water from a hose to prevent them from becoming habituated. Disturbing a den site physically or with unnatural odors (e.g., moth balls) during spring may prompt foxes to move to another den which may be farther from yards and houses.

### Trapping and Hunting

Foxes are classified as furbearer species, and thus Connecticut has established regulated hunting and trapping seasons. Hunting and trapping can be used to regulate fox populations while providing recreational opportunities for sportsmen and women. Nationally, millions of dollars are generated every year from fox pelt harvests. The silky, dense fur of the red fox is more valued than the fur of the gray fox, which is coarse and thin.

Live-trapping and relocating foxes is not recommended because the state's fox population and fox "problems" are widespread, and relocated foxes can cause problems in new locations. Removing problem foxes through trapping or hunting is only recommended during designated seasons or in situations where individual foxes show a pattern of preying on livestock.

© PAUL J. FUSCO  
All Rights Reserved





# White Nose Syndrome Continues to Decimate Bats

A syndrome that attacks hibernating bats continues to kill them at alarming rates, both in Connecticut and in expanding areas range-wide, which will likely lead to a dramatic reduction in the size of Connecticut's bat population this summer. The massive die-off of the bat population from white nose syndrome (WNS) may have serious impacts on agriculture, forestry, and other sectors of our economy. WNS continues to have a catastrophic effect on bats. Just 3 short years ago, one of Connecticut's largest hibernacula (caves and mines where bats hibernate) had over 3,300 wintering bats. This year, fewer than a dozen bats remained at the hibernacula, and all but one showed active signs of WNS. Visits by Wildlife Division staff to other winter hibernacula revealed similar mortality rates. Another large site showed a 95% decline in bat numbers since a winter count in 2007. A positive note from the 2010 surveys was that only 3 of the remaining bats at that site showed visible signs of the fungus.

WNS continues to take a devastating toll in New York, Massachusetts, and Vermont, where a significant percentage of Connecticut's bat population hibernates for the winter. The presence of WNS in bats has spread geographically at an



Wildlife Division technician Christina Kocer (left) and biologist Jenny Dickson collect data on hibernating bats and their environment during winter hibernacula surveys. The data will be used to gain a more complete picture of WNS and its affect on Connecticut bats.

spread to other bat species. Bats live long lives and have few young, so there is no doubt that WNS will have a major impact on bat populations, as well as on the biodiversity of ecosystems throughout the U.S. and Canada for decades to come.

Bats with WNS have a white fungus on their noses, and occasionally other parts of their bodies, that is only visible during hibernation. The identity of the fungus (*Geomyces destructans*) was confirmed late last year. It has been genetically linked to a European fungus, and there are strong indications it is a non-native, invasive species. The exact role of the fungus in bat deaths is still unclear, but it has been documented that hibernating bats inflicted with the fungus alter their normal sleeping patterns, causing them to use their stored fat reserves before winter ends. There is no indication that humans are susceptible to the fungus.

## How You Can Help

The DEP is asking the public to report any known summer bat colonies by calling the Wildlife Division at 860-675-8130 (Mon.-Fri., from 8:30 AM-4:30 PM) or via E-mail to Wildlife Technician Christina Kocer at [christina.kocer@ct.gov](mailto:christina.kocer@ct.gov). As bats continue to return to maternity sites and summer roosts, the

agency would like to hear from people about changes in the number of bats they are seeing or even about bat colonies that once existed but did not return to their previous homes.

People concerned about WNS and Connecticut's bat population can install bat houses on their property to provide summer homes for these animals. Detailed plans for building your own bat house are available on the DEP Web site ([www.ct.gov/dep/wildlife](http://www.ct.gov/dep/wildlife)); click on "wildlife publications" and then click on the link to the bat fact sheet). Kits and pre-made bat houses can be ordered from [www.batmanagement.com](http://www.batmanagement.com). The Bat Conservation International Web site ([www.batcon.org](http://www.batcon.org)) is a good source of information on bat house construction or where to purchase certified bat houses.

The DEP is working with other affected states and provinces, federal agencies (U.S. Fish and Wildlife Service, U.S. Geological Survey), and several research universities to learn more about WNS, possible control methods, and to develop conservation strategies to protect remaining bat populations and hopefully prevent the continued spread of this fatal fungus. Additional information about WNS – and its impact in various states – can be found at [www.fws.gov/northeast/white\\_nose.html](http://www.fws.gov/northeast/white_nose.html).



The wings and muzzle of this little brown bat are covered with the white, powdery fungus associated with WNS. Although this cold-loving fungus is only visible on hibernating bats, fungal spores may be present, though not visible, on active bats as well.

alarming rate. After first being discovered in caves in New York in the winter of 2006-2007, the syndrome is now in 2 Canadian Provinces and 11 states from New Hampshire south to Tennessee.

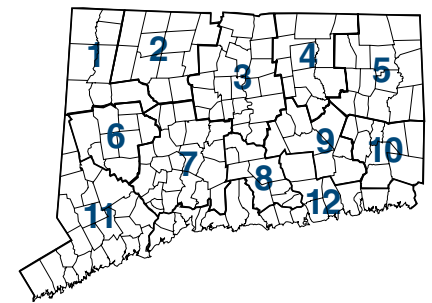
WNS continues to kill some of our most common, backyard bats, including the little brown, northern long-eared, and tricolored bats (pipistrelle), but it also has



## 2009 Turkey Brood Survey

The fourth annual wild turkey brood survey was completed in August 2009. Brood surveys are conducted to assess annual fluctuations in wild turkey populations. Volunteers and Department staff were asked to report turkey sightings, categorized by total hens, total poults, and total number of hens with poults. These observations were analyzed to obtain an annual productivity index and to evaluate recruitment into the fall population. By evaluating recruitment over time, biologists quantify changes and trends in Connecticut's statewide wild turkey populations.

The Wildlife Division received 323 wild turkey observations from 75 cooperators in 2009. Reported observations consisted of 1,660 individual turkeys comprised of 611 hens and 1,049 poults. Twenty-nine percent of all hens were observed with poults. The average statewide brood index (total number of poults/total number of hens) was 2.2 poults per hen, the same as 2008 but lower than 2007 (2.6 poults per hen).



Survey results also suggest that turkey management zones 1 and 4 had the highest productivity, while zones 2 and 9 had the lowest. Spring weather has the greatest impact on overall annual turkey productivity. Productivity decreases in years when the spring is cold and wet because survival rates for poults and hens decrease. Based on other states' brood index literature, Connecticut's annual turkey productivity remains toward the lower end of the productivity spectrum. However, wild turkey populations remain healthy and relatively abundant throughout the state.

The Division will continue to conduct the yearly brood survey. Survey dates are from June 1 through August 31. Those interested in participating in this research should contact Michael Gregonis at 860-642-7239 or by E-mail at [michael.gregonis@ct.gov](mailto:michael.gregonis@ct.gov) to obtain the survey protocol and data sheets. Information on the survey and a link to download the data sheet are on the wildlife section of the DEP Web site ([www.ct.gov/dep/wildlife](http://www.ct.gov/dep/wildlife); click on "volunteer opportunities"). A high number of survey participants will improve the Division's ability to track the annual cycle of Connecticut's wild turkey population on a statewide and regional basis.

*Mike Gregonis, Deer/Turkey Program*

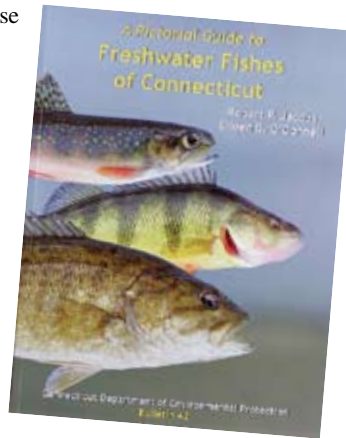
## Pictorial Guide to Freshwater Fishes of CT

Ever see or catch a fish that you couldn't identify because it didn't look like any of the tiny photos or line drawings in your field guide? For New Englanders, those times are over. Written by DEP staff Robert P. Jacobs and Eileen B. O'Donnell, *A Pictorial Guide to Freshwater Fishes of Connecticut* is the first publication to present multiple, high resolution, full-color photos of most New England and all Connecticut freshwater fish species, including all anadromous species and occasional visitors from salt water.

The typical field guide format illustrates one photo per animal which cannot express the variation in form and color that is common among fish species. This guide presents an assortment of large, color photos for most fish species to aid in identification and illustrate the variety to be found in freshwater lakes, ponds, and rivers. Most photos are of fishes caught in Connecticut that show what a fish looks like "in the hand." In addition, aquarium shots are presented for some species because colors and patterns look different underwater. Also included are photos of juvenile fish, which can look very different from adults of the same species.

This field guide simplifies the process of fish identification for beginners. Included is an easy-to-see graphic, "Guide to Families of Connecticut Freshwater Fishes." Readers can easily find the correct "fish family" on the graphic, which will direct them to a section of the book with photos where they can narrow down the field and make identification easy and fun. For those more scientifically inclined, the book also contains a standard taxonomic key to fish families and species. Detailed information is presented for each species on identification, distribution, size, abundance, habits, and unique attributes. The book includes sections on how to catch and observe fish in nature, including tips on angling and snorkeling and how to keep freshwater fish in aquariums.

The book is dedicated to the late Walter R. Whitworth, who wrote the definitive work on our state's fishes, *Freshwater Fishes of Connecticut*. This new book does not replace his publication, but instead acts as an update, supplement, and companion to his work. *A Pictorial Guide to Freshwater Fishes of Connecticut* is available from the DEP Store for \$19.95. You can visit the store at the DEP Headquarters, 79 Elm Street, Hartford (Mon.-Fri. from 9:00 AM-3:30 PM). Books also can be ordered on-line at [www.ctdepstore.com](http://www.ctdepstore.com).



## Rick Jacobson Selected as New Wildlife Division Director

Rick Jacobson, who has been Acting Director for the Wildlife Division since June 2009, was recently selected to fill the position on a permanent basis. Rick received his B.S. in Biology from the University of Wisconsin at La Crosse, M.S. in Fisheries Ecology from UConn, and is currently a Doctoral Candidate at UConn in Natural Resource Conservation. He also has provided leadership in numerous governmental and professional organizations, including the Executive Committee of the American Fisheries Society, Executive Committee of the Instream Flow Council, and several committees of the Association of Fish and Wildlife Agencies. Rick has over 30 years of experience in natural resources management, having worked in public (Wisconsin Department of Natural Resources; U.S. Fish and Wildlife Service), private (Dairyland Power Cooperative, Environmental Division; Ocean Surveys Inc.), and academic (Syracuse Research Corporation) sectors and has been with the DEP for over 22 years, in positions of increasing responsibility in the Inland Fisheries Division; most recently serving as the Assistant Director.



Rick comes from a family with a rich tradition in farming, land stewardship, and outdoor recreation (fishing, hunting, and camping). Throughout his career, he has been committed to all facets of natural resource conservation.



## 2010 Federal Junior Duck Stamp Contest

Young Connecticut artists recently competed in the Junior Duck Stamp competition sponsored by the Connecticut Waterfowlers Association (CWA). Members of CWA judged the 90 entries received this year and chose, as Best of Show, an oil on canvas painting of a pair of Buffleheads by 16-year-old Matthew Messina, of Avon. Matthew is student from Studio 8A Farmington Art Center in Avon. His painting took first place in Group IV, which includes students in grades 10-12. Matthew's painting will go on to compete in the National Junior Duck Stamp Contest.

The first place design from the national contest is used to create a Junior Duck Stamp for the following year. Junior Duck Stamps are sold by the U.S. Postal Service for \$5 each. Proceeds support conservation education and provide awards and scholarships for the students, teachers, and schools that participate in the program.

More information about the Junior Duck Stamp Program is on the U.S. Fish and Wildlife Service Web site at [www.fws.gov](http://www.fws.gov). To learn more about the Connecticut Waterfowlers Association, visit the organization's Web site at [www.ctwaterfowlers.org](http://www.ctwaterfowlers.org).

*Paul Capotosto, Wetlands Habitat and Mosquito Management Program*



## Piping Plover Spends Winter Break in the Caribbean

The piping plovers that nest on Connecticut beaches migrate south for the winter, much like other birds. You may ask, how far south? Biologists thought that our plovers migrate to coastal Florida, or a little farther west of that on the Gulf Coast. This thought was based on the results from banding studies of piping plovers in New York, but the results weren't definitive.



A. MADDOCK for ENVIRONMENT CANADA

This past winter, Sidney Maddock and Peter Doherty from Environment Canada marked 57 piping plovers in the Bahamas to learn more about where these birds go during summer and the routes they take to get to their summer breeding grounds. Each bird was individually marked with a unique color band combination. The color band combination is described as a black flag (a band that has a tab sticking out slightly) on the upper left leg, nothing on the upper right, a single color band on one lower leg, and two color bands (which can be the same color on top of each other) on the other lower leg. Band colors used included red, orange, yellow, white, light green, dark green, dark blue, and black.

It may have been thought that chances were slim of seeing a piping plover from the Bahamas in Connecticut. Sure enough though, the Wildlife Division received a call from someone who saw and photographed a piping plover at Harkness Memorial State Park in Waterford with bands that matched those marked in the Bahamas! This banded bird was reported to the biologists at Environment Canada who replied that this particular plover was banded on January 23, 2010, at Pelican Point on Grand Bahama Island. Quite a journey!

Anyone who observes a piping plover with colored bands on its legs at Connecticut beaches is encouraged to send an E-mail to Cheri Gratto-Trevor at Environment Canada ([cheri.gratto-trevor@ec.gc.ca](mailto:cheri.gratto-trevor@ec.gc.ca)), as well as the Wildlife Division ([laura.saucier@ct.gov](mailto:laura.saucier@ct.gov)). Observers should note the color band combination (band colors and location of the bands on the legs), date of observation, and where the bird was seen.

*Laura Saucier, Wildlife Diversity Program*

## Eagle and Peregrine Nests Under Watch

Once again, several bald eagle and peregrine falcon pairs are being monitored during the nesting and fledging periods. The Wildlife Division would have a difficult time keeping track of all these birds if not for the valuable assistance provided by the dedicated volunteers who watch the nests from a safe distance. The Division has received reports of 17 pairs of bald eagles. Two pairs have failed in their nesting attempts, but 15 pairs are still active. Thirteen pairs of peregrine falcons are known



© PAUL J. FUSCO  
All Rights Reserved



© PAUL J. FUSCO  
All Rights Reserved

in the state, but as of this writing, the Division only had confirmation of nesting from 4 pairs. Stay tuned to *Connecticut Wildlife* to learn if these state endangered birds of prey have a successful nesting season.

### Watch These Birds from a Distance

As exciting as it is to observe a bald eagle or peregrine falcon in the wild, please remember to keep your distance from these birds and their nests to avoid causing disturbance. In

addition, all of the nest locations are posted against trespassing. Nests are continuously patrolled by DEP Environmental Conservation Police Officers. According to Connecticut State Statutes, disturbance of a bald eagle nest is prohibited and a "no access area" for nests is 700 feet away. Any person who violates this statute is subject to a fine and/or possible imprisonment.

# The Wildlife Observer



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, or email: [dep.ctwildlife@ct.gov](mailto:dep.ctwildlife@ct.gov)



## Backyard Bald Eagle Preys on Cat

In November 2009, John DePietro was driving home in Manchester when he spotted this bald eagle in a field. Using a pocket camera, he snapped a quick picture. After speaking with a neighbor, he discovered that this eagle had been seen swooping down on a cat in the field. The cat actually belonged to the owner of the house seen in the background. Unfortunately for the cat, the eagle was successful in its pursuit and flew off with pieces of its prey in its talons.

This incident is a reminder that outdoor cats are not only predators themselves, but can end up as prey for other predators, even bald eagles. See page 3 for more about cats and wildlife.

## Your Questions Answered

**Do you have a wildlife question you would like to have answered?**

Please send it to: *Your Questions Answered*, DEP - Wildlife Division, P.O. Box 1550, Burlington, CT 06013; Email: [dep.ctwildlife@ct.gov](mailto:dep.ctwildlife@ct.gov)

*There are skunks living near our home and we have a dog. What should I do if our dog is sprayed by a skunk?*

If possible, do not let your dog in the house if it has been sprayed by a skunk. Gather up some old towels or rags and put on a pair of rubber gloves before handling your dog. First check your dog's eyes and skin for signs of irritation from the spray. A skunk's spray is normally directed toward the eyes and may cause temporary blindness. If your dog's eyes are red and irritated, try rinsing them out with water. If the irritation appears extreme, you may want to consult your veterinarian. You should also check your dog for any deep scratches or bites. Skunks can carry rabies and you will need to contact your vet if you find any bite or scratch marks.

Next, you should use the rags to wipe the skunk musk off of your dog. Wrap the rags in plastic bags for disposal once you are finished with them.

Skunk musk contains compounds called "thiols," which include sulfurous chemicals. The strong smell is difficult to eradicate. A variety of commercial odor-control products are available that claim to remove skunk odor and you may want to keep one on hand. However, you also can prepare a homemade remedy that seems to work well. It contains ingredients that you may already have at home. However, do not mix the solution until you are ready to use it.



### Solution

1 quart (32 oz.) of hydrogen peroxide (3% solution)  
½ cup baking soda  
1-2 tsp. dish soap

Mix the ingredients well and use the solution immediately. Do not store the solution in a closed container because the container may explode or erupt due to gases that are given off. This solution works because the baking soda counteracts the acids in the musk, while the combination of the peroxide and soap loosens and removes the proteins that cling to the hair. If you are concerned about the bleaching effect

of hydrogen peroxide on your dog's hair, try substituting vinegar for the peroxide. Do not use the solution on clothing, carpets, or furniture because it can cause bleaching and discoloration.

Wet your dog with warm water and use a wash cloth to rub the solution into the dog's fur. Concentrate on the spots that were directly hit by the musk, but take special care not to get the solution in the eyes, ears, nose, or mouth. Leave the solution on the fur for 5-10 minutes, then rinse thoroughly and repeat the process as many times as necessary. Follow up with regular dog shampoo and a rinse, and then leave your dog outside (or in a closed room) until it is dry.



# Wildlife Calendar Reminders

- May-August..... Respect fenced and posted shorebird nesting areas when visiting Connecticut beaches. Also, keep dogs and cats off of shoreline beaches to avoid disturbing nesting birds. Herons and egrets are nesting on offshore islands in Long Island Sound. Refrain from visiting these areas to avoid disturbing the birds.
- ..... Dispose of fishing line in covered trash containers or specifically marked recycling receptacles. Improperly discarded fishing line is a hazard for wildlife.
- June 5..... **National Trails Day**, sponsored by the Connecticut Forest and Park Association (CFPA). Hikes and other events will be held throughout the state. To learn more, visit the CFPA Web site ([www.ctwoodlands.org](http://www.ctwoodlands.org)) or call 860-346-2372.
- July 4..... Respect fenced and posted shorebird nesting areas and offshore heron and egret rookeries while viewing fireworks displays at Connecticut coastal areas.

## Programs at the Sessions Woods Conservation Education Center

Programs are a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please pre-register by calling 860-675-8130 (Mon.-Fri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must accompany children under 12 years old. No pets allowed! Sessions Woods is located at 341 Milford St. (Route 69) in Burlington.

- June 5..... **Trails Day Wildlife Walk**, from 1:00-3:00 PM. Learn about wildlife and wildlife habitat on this 1-mile hike to a beaver marsh. Return the same way or continue on your own to complete a 3-mile loop of the property. Meet Natural Resource Educator Laura Rogers-Castro at the flagpole in front of the Sessions Woods Conservation Education Center. Heavy rain cancels. Pre-registration is required.
- Sept. 25..... **Sportsmen's Appreciation Day** (see below)

## Programs at the Kellogg Environmental Center

The DEP's Kellogg Environmental Center is located at 500 Hawthorne Avenue, in Derby. Call 203-734-2513 for more information. Visit the Calendar Events section of the DEP Web site for a complete listing of programs offered at the center.

- May 29..... **The Birds Are Back**, from 10:00-11:30 AM. An outdoor family activity where you can learn all the interesting things that make birds so unique. Meet in the center lobby and dress for the weather.
- June 15..... **What Is Long Island Sound for?**, starting at 7:30 PM. Tom Anderson, author and former environmental newspaper reporter, answers the question of what Connecticut would be like without Long Island Sound. There is a requested donation for this presentation of \$4 per adult and \$2 per student/child.
- June 19..... **Saturday Morning Bird Walk**, starting at 8:00 AM. Join volunteer Maria Stockmal for a relaxing weekend walk in search of local birds. All levels of birders are encouraged to participate. Meet in the parking lot.

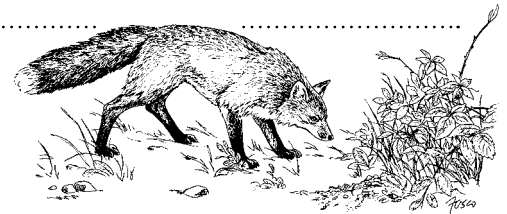
## Hunting Season Dates

April 28-May 29 ..... Spring Turkey Hunting Season

..... Consult the 2010 Connecticut Hunting and Trapping Guide for specific season dates and details. The guide is on the DEP Web site ([www.ct.gov/dep/hunting](http://www.ct.gov/dep/hunting)), and also is available at town halls, DEP facilities, bait and tackle shops, and outdoor equipment stores. Go to [www.ct.gov/dep/sportsmenlicensing](http://www.ct.gov/dep/sportsmenlicensing) to purchase Connecticut hunting, trapping, and fishing licenses, as well as all required deer, turkey, and migratory bird permits and stamps. The system accepts payment by VISA or MasterCard.

**Save the Date!** September 25, 2010, is Sportsmen's Appreciation Day at the Sessions Woods Wildlife Management Area in Burlington. This free event is sponsored by the Friends of Sessions Woods and the Wildlife Division. Presentations, activities for adults and children, interpretive walks, informational booths, and more are planned. Stay tuned to the DEP Web site ([www.ct.gov/dep/wildlife](http://www.ct.gov/dep/wildlife)) and Connecticut Wildlife magazine for more information as the date approaches.

# Connecticut Wildlife



## Subscription Order

Please make checks payable to:

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

Check one:

1 Year (\$8.00)     2 Years (\$15.00)     3 Years (\$20.00)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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

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

Check one:

- Renewal  
 New Subscription  
 Gift Subscription

Gift card to read:

\_\_\_\_\_  
\_\_\_\_\_

### Donation to the Wildlife Fund:

\$ \_\_\_\_\_

Help fund projects that benefit songbirds, threatened and endangered species, reptiles, amphibians, bats, and other wildlife species.

# Connecticut Wildlife

Connecticut Department of Environmental Protection  
Bureau of Natural Resources / Wildlife Division  
Sessions Woods Wildlife Management Area  
P.O. Box 1550  
Burlington, CT 06013-1550

PERIODICALS  
POSTAGE PAID AT  
BURLINGTON, CT,  
AND ADDITIONAL  
OFFICES



© PAUL J. FUSCO  
All Rights Reserved

P. J. FUSCO

An industrious beaver works at building up its dam and lodge by carrying piles of mud to add to the structures.