

January/February 2007

Connecticut Wildlife

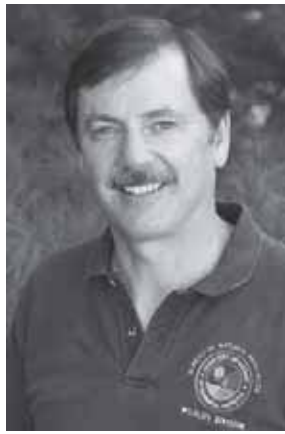
PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF NATURAL RESOURCES • WILDLIFE DIVISION

© PAUL J. FUSCO

All Rights Reserved



From the Director



The "Year in Review" article in this issue of Connecticut Wildlife summarizes many Wildlife Division program highlights from 2006. On behalf of everyone who is interested in Connecticut's wildlife, I thank Wildlife Division and DEP staff and our many conservation partners for their efforts and accomplishments over the past year. I would like to recognize a few of the most notable Wildlife Division accomplishments in this column.

In January 2006, the U.S. Fish and Wildlife Service approved Connecticut's Comprehensive Wildlife Conservation Strategy (CWCS), a document that will guide many Wildlife Division activities over the next decade. The Strategy was the result of an intensive 2-year effort and is now being coordinated with other DEP plans and Commissioner McCarthy's Stewardship Initiative. The Strategy provides a blueprint for DEP to work with a wide variety of partners to address state and regional priorities to assist species that are in the greatest need of conservation.

In May, the Wildlife Division co-sponsored Connecticut's first statewide wildlife conference held at the University of Connecticut. This event, attended by more than 250 people, was the perfect venue to frame the challenges and opportunities contained in the CWCS. It serves as a template for a planned statewide natural resources conference where scientists can annually present and share results of studies conducted in Connecticut. The outcome of the annual conferences will be improved communication and coordination among wildlife researchers and managers.

After much administration and preparation, the Wildlife Division's Landowner Incentive Program (LIP) began implementing projects to improve wildlife habitat on private land. Two Division biologists, Paul Rothbart and Judy Wilson, were primary authors on a regional publication (Managing Grasslands, Shrublands, and Young Forest Habitats for Wildlife: A Guide for the Northeast) instructing landowners on how to manage early successional habitats. Also, Ken Metzler of the Division's Natural History Survey co-authored The Vegetation of Connecticut, which presents a classification and description of the vegetation types that occur within the state.

2007 promises to be as busy and challenging as 2006. The Division has embarked on a cooperative research study with the State of Massachusetts to evaluate habitat use and movements of moose. We will expand black bear research as part of an effort to develop a black bear management plan. We will continue to coordinate with national and regional agencies to conduct surveillance for chronic wasting disease and avian influenza. Please follow our progress on these and other activities by reading future issues of Connecticut Wildlife. -- Dale W. May

Cover:

Many of the habitat management projects undertaken by the Wildlife Division in 2006 have created or enhanced early successional stage habitat, which is important to several wildlife species, including the northern harrier.

Photo courtesy of Paul J. Fusco

Connecticut Wildlife

Published bimonthly by

State of Connecticut

Department of Environmental Protection

www.ct.gov/dep

Gina McCarthy Commissioner

Edward C. Parker Chief, Bureau of Natural Resources

Wildlife Division

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

Dale May Director

Greg Chasko Assistant Director

Mark Clavette Recreation Management

Laurie Fortin Wildlife Technician

Elaine Hinsch Program Specialist

Brenda Marquez Secretary

Shana Scribner Office Assistant

Chris Vann Technical Assistance Biologist

Kenneth Metzler Natural History Survey

Dawn McKay Natural History Survey

Nancy Murray Natural History Survey

Karen Zyko Natural History Survey

Eastern District Area Headquarters

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

Robin Blum Habitat Management Program Technician

Ann Kilpatrick Eastern District Biologist

Carrie Pomfrey Habitat Management Program Technician

Paul Rothbart District Supervising Biologist

Jane Seymour Belding WMA Steward

Judy Wilson Private Lands Habitat Biologist

Franklin W.M.A.

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

Paul Capotosto Wetlands Restoration Biologist

Michael Gregonis Deer/Turkey Program Biologist

Min Huang Migratory Bird Program Biologist

Howard Kilpatrick Deer/Turkey Program Biologist

Kelly Kubik Migratory Bird Program Technician

Andy LaBonte Deer Program Technician

Heather Overturf Office Assistant

Winnie Reid Secretary

Julie Victoria Wildlife Diversity Program Biologist

Roger Wolfe Mosquito Management Coordinator

Sessions Woods W.M.A.

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

Trish Cernik Secretary

Jenny Dickson Wildlife Diversity Program Biologist

Peter Good Supervising Wildlife Biologist

Jason Hawley Furbearer Program Technician

Shannon Kearney-McGee Wildlife Diversity Program Technician

Christina Kocer Wildlife Diversity Program Technician

Geoffrey Krukar Wildlife Diversity Program Technician

Dave Kubas CE/FS Program Coordinator

Peter Picone Western District Biologist

Kate Moran Wildlife Diversity Program Technician

Paul Rego Furbearer Program Biologist

James Koert Riley Field Assistant/Maintainer

Laura Rogers-Castro Education/Outreach Program

Laura Saucier Wildlife Diversity Program Technician

Jim Warner Field Assistant

Connecticut Wildlife

Kathy Herz Editor

Paul Fusco Media Designer/Photographer

Wetlands Habitat & Mosquito Management Crew

51 Mill Road, Madison, CT 06443

Steven Rosa Mosquito Control Specialist

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



The Department of Environmental Protection 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, DEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities need auxiliary aids or services, or for more information by voice or TTY/TDD, call 860-424-3000.

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.

The Year in Review 2006

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION - BUREAU OF NATURAL RESOURCES - WILDLIFE DIVISION

This “Year in Review 2006” provides a summary of the many accomplishments and responsibilities of the DEP Wildlife Division.

LIP Projects Launched

The Landowner Incentives Program (LIP) is up and running in Connecticut, becoming the first fully functioning private lands habitat management program of the Wildlife Division. Management activities for the first LIP project began on November 7, 2006, at the Naromi Land Trust property in Sherman, when Division staff, along with Colleen Sculley, Regional LIP Coordinator from the U.S. Fish and Wildlife Service (USFWS), and Land Trust members, met with the press on site to review the program objectives and observe the first active LIP project in the state. The project involves the enhancement of old field habitat to improve conditions for at-risk species, including chestnut-sided warbler, blue-winged warbler, eastern towhee, and American woodcock.

Through grants awarded by the USFWS, LIP provides technical and cost-share assistance to landowners for habitat management projects that restore, protect, reclaim, enhance, maintain, and create early successional and wetland priority habitats for at-risk species on private lands. The first open application period conducted in 2005 resulted in the approval of 43 projects involving 29 different landowners. Projects awarded funding included control of invasive plants in tidal and freshwater marshes, old field restoration, wet meadow mowing, seedling/sapling forest creation, warm season grass plantings, and ecotone management. All of these projects directly support at-risk species, like the blue-winged warbler, hognose snake, New England cottontail, savannah sparrow, Eastern meadowlark, saltmarsh sharp-tailed sparrow, and seaside sparrow, by improving the quality and quantity of priority habitats vital to their survival.

All projects require a 25% non-federal match, which can be met through landowner funds, in-kind services provided by the landowner, and/or funding from a third party. LIP funds are paid directly to the state approved contractor, not to the landowner.

The second application period for LIP closed recently and 41 new applications were received from 34 separate landowners. Program staff has begun the process of reviewing, approving, and awarding grants to these potential applicants. For more information, visit the LIP website at www.ct.gov/dep or call the DEP’s Eastern District Headquarters at 860-295-9523.



P. J. FUSCO (2)

A brontosaurus is used to remove large trees to aid in the restoration of an old field area at Naromi Land Trust in Sherman. Approximately 15 onlookers from the Naromi Land Trust, other land trusts, and the press were on hand to observe the brontosaurus in action.

Wildlife Habitat Projects

The goal of the Wildlife Division’s State-lands Management Program is to provide habitat diversity to maintain stable, healthy, and diverse wildlife populations throughout Connecticut and to maintain and enhance operational requirements, such as boundary marking, signage, and public access for improved opportunities for wildlife-based recreation. During the past year, management activities emphasized early successional habitats. Such sites are rapidly declining due to the loss of farmlands, development, and the absence of fire within the Connecticut landscape. These declining habitats have been identified in Connecticut’s Comprehensive Wildlife Conservation Strategy as priority habitats in need of conservation and active management to ensure abundant and diverse wildlife populations throughout Connecticut.

State-lands Management Program staff worked in conjunction with other region-wide state biologists to develop a comprehensive



Judy Wilson (left), LIP Coordinator, and Marge Josephson, President of the Naromi Land Trust, at the initiation of the first LIP project in Connecticut.

guide entitled “Managing Grasslands, Shrublands, and Young Forest Habitats for Wildlife: A Guide for the Northeast.” This guide provides novice and experienced land managers with important information on how to maintain and restore early successional habitats. The document is available on the

2006 - The Year in Review

DEP website (www.ct.gov/dep), or call the Division's Western District (860-675-8130) or Eastern District offices (860-295-9523) for additional information.

Additional habitat-related technical assistance provided through LIP and the State-lands Program involved 2,203 acres of private land at 16 sites. Involvement included general land review and habitat management recommendations, Environmental Review Team assessments, use of funding from the

USFWS's Partners Program to implement old field enhancement and warm season

grass establishment on 20 acres at the Bigelow Howard Club in Hampton, and the development of a 7-acre patch cut to diversify forest species and age structure at the Northwest Sportsmen's Club in Colebrook.

Operational activities included: boundary posting of 16 miles at 3 sites (Centennial Forest, Wopowog WMA, Flaherty); grading of access roads at 3 sites totaling 6,500 feet (Spignesi WMA, Higganum Meadows

WMA, Mad River FCA); installation of standard signs at 5 WMAs (Babcock Pond, Eightmile River, Zemko Pond, Bartlett Brook, and Kollar); improvement of ADA hunting and recreational access on 4,500 feet of trails at Bear Hill WMA; improvement of 4,500 feet of access roads to the High Rock Range in Naugatuck State Forest. Maintenance was conducted at 25 inland marshes, including vegetation control via mowing and herbiciding and management of water levels, to maximize wetland wildlife values and minimize human public safety conflicts. The Connecticut Duck Stamp Program funded a seasonal position to help complete this task.

Wildlife Habitat Incentives Program (WHIP)

Although state and federal Pittman-Robertson funding has been limited over the past several years, the Division has applied for and received funding through the U.S. Department of Agriculture's Wildlife Habitat Incentives Program (WHIP). This program was reauthorized under the Farm Security and Rural Investment Act of 2002 (The Farm Bill) and was the first Farm Bill program specifically developed to address wildlife resource needs on non-federal land throughout the country.

Connecticut received \$1,082,263 in WHIP grants in 2006, resulting in the development of 51 projects encompassing 1,463 acres. Projects included warm and cool season grass establishment, riparian native tree and shrub plantings, water control structure replacement/enhancements, aspen/young forest regeneration, and old field enhancement/non-native plant management targeting invasive species. Management practices included brush mowing, heavy-duty brush and tree removal with specialized equipment, prescribed burning, no-till fluffy grassland seedings, and selective herbiciding.

WHIP projects were undertaken at the following state-owned areas encompassing 652 acres:

Barn Island WMA (Stonington)
Flaherty Management Area (East Windsor)
Bear Hill WMA (Bozrah)
Goodwin State Forest (Hampton)
Mad River Flood Control Area (Winchester)
Machimoodus State Park (Moodus)
Pachaug State Forest (Voluntown, Sterling)
Naugatuck State Forest (Hunter's Mountain, Naugatuck)

Babcock Pond WMA (Colchester)
Housatonic River WMA (Kent)
Goshen WMA (Goshen)
Higganum Meadows (East Haddam)
Belding WMA (Vernon)
Quinebaug WMA (Plainfield)

P. J. FUSCO



A brush hog was used at Mad River Flood Control Area in Winchester to maintain early successional stage habitat.

Education/Outreach

At the Wildlife Division's Sessions Woods WMA in Burlington, educational signs used on the inner loop trail system were redesigned and reformatted. New sign bases and covers were installed for signs on the inner loop trail. New trail maps were created and installed at trailheads. The exhibit area in the Conservation Education Center also underwent changes in 2006. The entryway to the exhibit area was moved to facilitate better use of building space and make the exhibit room more "visitor friendly." A new window overlooks a bird feeding station and a sound system was installed to provide background ambient environmental sounds while visitors view the exhibits.

The Sessions Woods Conservation Education Center served as the host site for the 6th Master Wildlife Conservationist (MWC) Program series, providing training for 19 more volunteers who will assist the Division with outreach and research efforts.

The first annual Connecticut Natural Resource Conference was held in May at the University of Connecticut. It was co-sponsored by the University's College of Agriculture and Natural Resources and the DEP. Over 200 natural resource professionals, educators, and community leaders attended the conference to learn more about Connecticut's Comprehensive Wildlife Conservation Strategy and how everyone can work together to ensure that our wildlife resources remain viable, relevant, and accessible for generations to come.

MWCs and Division Outreach Program staff presented 81 wildlife-related programs to various school, scout, and civic groups. Thirty programs also were offered to the general public; some of the programs were held at the Sessions Woods Conservation Education Center. Three educator workshops were presented to 39 teachers, state park interpreters, and nature center personnel with outreach materials provided for future distribution. The Division, with MWC assistance, manned displays at 18 public events, including fairs and expos in Woodstock, Hartford, Hamden, Essex, and

Activities at Belding Wildlife Management Area

Belding WMA, in Vernon, is a 282-acre parcel that was donated to the State in 1982 by Max Belding. The Wildlife Division conducts ongoing research and inventories, and incorporates educational outreach programs at the site and within the local community. The Belding family established a trust that allows the Division to employ a full-time technician to oversee the management of the property. Activities this past year included:

- Construction of a bridge, in cooperation with the Connecticut Forest and Park Association (CFPA), to facilitate safe public access to the site.
- Development of a WHIP contract and initial implementation of invasive plant control, old field enhancement, and riparian zone tree/shrub establishment on 12 acres.
- Repairs to the Belding pond dam after severe spring storms.
- Addition of plantings to the butterfly garden, in cooperation with the Vernon Garden Club.
- Completion of a forest inventory as a preliminary step for conducting management enhancement activities.
- Presentation of 15 off-site programs on wildlife ecology and habitat management at local schools, public libraries, and the Tolland County Agricultural Center. Approximately 216 people participated in these programs.
- Presentation of 5 formal programs at Belding WMA involving 98 students. Topics included wildlife ecology, habitat, wildflowers, invasive plants, tree identification, stream and fish survey techniques, forestry inventory practices, and deer survey methods.
- Annual surveys of birds and invertebrates.
- Presentation of a trails workshop, in cooperation with CFPA, where practical training was provided to volunteers on all aspects of trail maintenance. The Shenipsit Trail, a blue-blazed trail that is maintained by CFPA, runs through Belding WMA. Teams of volunteers cleared vegetation, removed non-native invasive plants, re-blazed trail markers, and constructed water run-offs to protect water quality.



Paul Rothbart (left), Supervising Wildlife Biologist, and Jane Seymour, Belding WMA Steward, discuss habitat management projects at Belding WMA in Vernon.

P. J. FUSCO (2)

Sharon. Over 30 formal habitat management outreach programs were conducted reaching an audience of over 1,200 participants from land trusts, sportsmen's clubs, Natural Resource Conservation Service staff, University students, garden clubs, the Invasive Plant Working Group, Connecticut Envirothon, Forest Stewardship Workshops, and the Landowner Incentive Program workshop.

Furbearer program personnel gave 17 informational presentations on bears and furbearers and were interviewed over 60 times. Approximately 50% of the interviews concerned bears. Educational and informative presentations on wildlife and wildlife issues were presented to various groups by Wildlife Diversity Program staff, including conservation organizations, scout and school groups, high school and

university students, and professional meetings, with the number of attendees ranging from two dozen to over 400. Interviews were given to newspapers, magazines and television stations on topics such as snakes, turtles, peregrine falcons, ospreys, nesting shorebirds, and bald eagles. Division staff also participated in the Annual Connecticut River Eagle Festival, which is sponsored by Connecticut Audubon.

The Wildlife Division has a representative on the Connecticut Envirothon Steering Committee who participated in the wildlife

Early Successional Stage Habitat Projects

Early successional stage habitat management (non-WHIP funded) occurred on 13 areas, totaling 150 acres. This included 65 acres of brush mowing at Skiff Mountain WMA (Sharon), Goshen WMA, Greenwoods Permit-Required Area (Hartford), Cromwell Meadows WMA (Cromwell), Bartlett Brook WMA (Lebanon), Mansfield Hollow WMA (Mansfield), and Larson Lot WMA (Colchester), and 85 acres of prescribed burning at Sessions Woods WMA (Burlington), Shenipsit State Forest (Stafford Springs), Babcock Pond WMA, Pease Brook WMA (Lebanon), and Harkness State Park (Waterford). The State-lands Management Program also continues to administer 7 Conservation Reserve Program contracts that involve the establishment and maintenance of grassland sites for a period of 10 years at Robbins Swamp WMA (2), Pease Brook WMA, Bartlett Brook WMA, Spignesi WMA (2), and Bloomfield Flood Control Area. The Program oversees 50 agricultural agreements on approximately 1,000 acres. Agricultural agreements allow farmers to use state-owned agricultural lands when properly managed and in the context of overall wildlife management goals for an area.



Robbins Swamp WMA in Canaan.

2006 - The Year in Review

section of the 2006 Connecticut Envirothon. Teams of high school students prepare all school year for the Envirothon competition where they are tested on their environmental knowledge. The first place team for 2006 was Litchfield High School Team #1, followed by Housatonic Valley Agricultural Team in second place and Housatonic Valley Regional High School Team in third place.

A grant was obtained to develop and distribute "No Feeding" brochures and signs to coastal towns experiencing nuisance goose problems.

Presentations were given to town officials in Middlesex, New Haven, and New London counties regarding Canada goose management. Presentations were given at a Ducks Unlimited banquet, the Citizen's Advisory Council, 3 middle schools, a private hunt club, and the annual DEP hunting regulations meeting.

The 2006 Northeast Partners in Amphibian and Reptile Conservation (NEPARC) Conference was held in August at the Sessions Woods Conservation Education Center. It was co-hosted by the DEP Wildlife Division and The Children's Museum in West Hartford. NEPARC is a regional working

group of Partners in Amphibian and Reptile Conservation (PARC). Both groups

are dedicated to the conservation of herpetofauna – reptiles and amphibians – and their habitats.

The 311 volunteer Conservation Education/Firearms Safety (CE/FS) instructors donated 12,953 hours of service to graduate 3,618 students from 151 courses (firearms-83, bowhunting-63, trapping-5). The home study version of the firearms course continued to be offered as an alternative for students who are unable to attend the traditional classroom course. Four home study courses were held, with 33 students completing the program.

An Internet firearms hunting home study program was initiated in September. Four courses were given with 77 students completing the program. This type of hunter education is well suited for those whose schedules do not allow attendance over a period of time. The Internet home study students are required to read the entire text of the International Hunter Education Association's Internet program and complete all of the "end of section" tests prior to attending the mandatory field day. The field day takes a full day to complete during which 4 additional topics are taught. These are Hunter Responsibility and Ethics,

Connecticut Hunting Laws and Regulations, Introduction to Bowhunting, and Introduction to Trapping. Instruction in the safe use of firearms and live firing also are included in the field day.

As a supplement to the regular trapping course, 6 specialized coyote land trapping courses were provided. Trappers (215) were certified as required by DEP regulations that established a land trapping season for coyotes. The course will be maintained separately from the regular trapping education curriculum.

The Glastonbury Public Shooting Range, in the Meshomasic State Forest, which was refurbished using federal aid Section 10 funds, was operational for its first full season starting in April 2006 and continuing through November. The range was staffed by certified range officers and received high use from the public, with 1,375 shooters (pistol, rifle/shotgun, and air gun) using the range.

A project to renovate bow target stations at the Nye Holman Archery Range, located in the Nye Holman State Forest in Tolland, was completed by an Eagle Scout candidate. Materials purchased using federal aid funding were used to rebuild 17 of 21 existing target stations. The range became available for use by the public and CE/FS classes on an as-needed basis in June 2006.

Wetland Habitat Projects Completed in 2006

The South Cove Marsh Restoration Project in Old Saybrook was completed in February 2006. This project involved the creation of 7 small pools in 32 acres of the cove. The spoil material from the pool excavation was used to fill in old grid ditches. Phragmites control also was done and vegetation and bird changes were monitored at the site. Funding was provided by the USFWS and the DEP's Wetland Habitat and Mosquito Management (WHAMM) Program.

The Quinnipiac River Marsh Restoration Project in New Haven and North Haven was completed in March 2006. Several pools and plugged ditches were excavated on 34-acres. The spoil material from the pool excavation was used to fill in old grid ditches. Phragmites control also was done. Funding was provided by the USFWS, Connecticut Waterfowling Association, Connecticut Duck Stamp Program, O.F. Mossberg & Sons, Campfire Club of America, American Environmental Technologies, Inc., The Marlin Firearms Company, DEP Natural Resource Bureau funds associated with Superior Block Products oil spill on the Quinnipiac River, and the WHAMM Program.

The Hammonasset Beach State Park Marsh Restoration Project in Madison was completed in June 2006. Fill was removed from 6.3 acres. A 2-acre high marsh was created with 10 small pothole pools and a 4-acre low marsh was created with a pool and meandering creek. All spoil material was trucked to the beach nourishment area. Vegetation, water quality, and bird life were monitored at the site. Funding was provided by Save the Sound, Connecticut Duck Stamp Program, Natural Resources Conservation Services WRP Program, and the WHAMM Program.

The Mount Hope River Restoration in Ashford was completed in October 2006. Riparian habitat and instream fish habitat were restored on 1,500 feet of stream in a pastureland with cattle. Two cattle crossings were built with electric fencing and 7 instream habitats were created with large boulders forming "J" hooks. Funding was provided by the Environmental Protection Agency 319 NPS funds and Department of Transportation (DOT) Funds.

The invasive plant, Phragmites, was controlled on 75 acres throughout the state. The DOT funded control efforts on 14-acres at the Wheeler WMA (Milford). The WHAMM Program funded projects at other areas. Phragmites control involving herbicides usually begins the day after Labor Day and continues until mid-October or the first frost. Mowing of Phragmites starts in mid-November and continues until early spring.

The WHAMM Program hired two seasonal employees to monitor several wetland projects in 2006. The lower Connecticut River Marsh Restoration Project was completed in 2001. In an effort to monitor the site after 5 years, surveys for bird use and vegetation recovery were conducted. South Cove, Mile Creek, Lynde Point, and Hammonasset marshes, where other restoration projects had been conducted, also were monitored for water quality, vegetation, and bird use.



A glossy ibis, a state species of special concern, wades in a healthy, restored tidal marsh along Connecticut's coastline.

© PAUL J. FUSCO
All Rights Reserved

P. J. FUSCO



The Wildlife Division's Sessions Woods WMA in Burlington was the site for a variety of wildlife-related educational programs offered to the public, including scout groups, in 2006.

Wildlife Management, Research, and Monitoring

In February 2006, the DEP announced that Connecticut's Comprehensive Wildlife Conservation Strategy (CWCS) had been approved by the U.S. Fish and Wildlife Service. The CWCS aims to reverse the decline of wildlife populations and the loss of key habitats in the state. Federal approval of the CWCS creates a road map that will guide the state's approach to protecting wildlife species and their habitats for the next decade. In addition, the state remains eligible to receive continued federal funding for wildlife management and conservation projects.

The Wildlife Division received a grant for \$75,000 from the U.S. Department of Agriculture (APHIS) to conduct surveillance for chronic wasting disease (CWD) in Connecticut's deer population. Tissue samples were collected from about 600 vehicle-killed and hunter-harvested deer. All samples tested negative for CWD. Over the past 3 years, about 1,200 samples tested for CWD have been negative. Surveillance efforts will continue in 2007.

Health of Connecticut's deer herd and changes in hunting pressure are assessed by collecting biological data from hunter harvested deer at check stations. Division staff collected biological data from about 2,500 deer during the 2006 shotgun/rifle hunting season.

A random survey was distributed to hunters when they purchased a hunting

license in 2005 and 2006 to collect baseline data on distribution of ruffed grouse populations in Connecticut and to assess hunter effort and success. Over the past 2 years, 1,313 surveys have been completed, yielding a 95% response rate. About 17,000 hunters pursued the challenge of harvesting a grouse and about 30% of those hunters were successful. Most hunters (74%) believe the grouse population is declining. Highest harvest rates appear to be in northern portions of Connecticut. This data and other information collected over the next few years will be valuable in developing a management plan for Connecticut's ruffed grouse population. A question about grouse observations was included on the 2006 spring turkey hunter survey. According to the results, 204 hunters saw or heard grouse in 71 towns. The top towns were Goshen (18), Hartland (13), Cornwall (11), and Woodstock (11).

A ruffed grouse drumming survey was initiated to assess changes in the grouse population over time. Drumming survey routes were conducted on private and state lands in 12 locations during April. Drumming is an activity exhibited by male ruffed grouse to attract females to their location during the mating season. Each route was 1.25 miles in length with 10 survey points distributed about 225 yards apart along a predetermined route. At each point, participants were instructed to listen for 4 minutes, and record the number of drum sequences and the number of birds heard. All routes were conducted twice, on different days starting 30 minutes before sunrise. Of the 12 surveys routes walked,

grouse were heard drumming on half and 20 drummers were recorded. The actual number of unique males heard drumming was between 13 to 20 birds. Because surveys were conducted twice, participants may have recorded the same drumming male during each of the survey periods. The survey route that produced the most number of birds was in Hartland; 5 unique drummers were heard during a survey. Survey information indicates that grouse continue to persist in pockets of habitat throughout Connecticut.

Residents of the Mumford Cove community in Groton were surveyed to assess their opinions and experiences with deer in their area. Mumford Cove historically had a deer population of about 80 deer per square mile and many residents complained about the size of the herd. The community voted to implement a controlled deer hunt in 2000, which reduced the population to about 10 deer per square mile. Hunters using bait and replacement tags have maintained the population at low levels from 2001 through 2006. Surveys were mailed to all residents and 90% of surveys were completed and returned to the Division. Results of the survey indicated that hunting in the community has successfully reduced deer damage to landscape plantings and reduced the number of Lyme disease cases. Most residents were pleased with the effectiveness of the hunt and no conflicts have been reported between residents and hunters over the past 3 years.

The Division continues to work with towns in evaluating and implementing deer management activities on a local level, especially in more developed areas, such as Fairfield County. In recent years, use of bait during the hunting season, issuance of free replacement antlerless tags, and the

Wildlife on the Web

www.ct.gov/dep

During 2006, it is estimated that there were over one million visits to the Wildlife Division's website. The hunting and trapping page was the most frequently visited page. This page provides information and links to pages about new hunting opportunities, hunting area maps, hunter and trapper education classes, and articles about Connecticut's wildlife. Other web pages of high interest included the hunting area map directory, black bear fact sheet, and the listing of the number of black bear sightings by town. Close to 1,000 bear sightings were reported on the website in 2006. Starting in 2007, the DEP plans to transfer its website to a new web portal. In preparation for this transfer, all of the current website's 700 pages and files had to be converted to the new format being used on the portal.

2006 - The Year in Review

implementation of an "earn-a-buck" program have increased deer harvest rates in Fairfield County and shoreline towns.

A deer management plan implemented for the Bluff Point Coastal Reserve in Groton has reduced the deer herd from about 222 deer per square mile to a goal density of about 20 deer per square mile. In 2006, 20 deer were removed by DEP staff to maintain the deer population in balance with the habitat and at goal density.

Surveys were mailed to youth hunters (12-15 years old) to assess youth hunting activity and to identify incentives and roadblocks for young hunters in Connecticut. Eighty percent of the youths that completed the CE/FS course purchased a hunting license and 70% actually hunted. A detailed analysis of all youth hunter data is being completed.

During the 2006 spring turkey hunting season, 6,624 hunters harvested 1,760 turkeys. Birds were harvested from 147 of 169 Connecticut towns. Spring turkey hunters generated \$86,646 in permit sales and an additional \$911,355 in turkey hunting related expenses.

Early in 2006, state, provincial, and federal wildlife agencies were called upon to mount an early detection system to determine if and when the avian influenza (AI) virus arrives in North America. As part of a national plan to monitor the potential spread of AI into North America, Connecticut is collecting at least 800 samples from live and hunter killed birds. Resident Canada geese, mallards, greater scaup, long-tailed ducks, Atlantic brant, semi-palmated and least sandpipers, dunlin, sanderlings, and black-bellied plovers are targeted for sampling in Connecticut. Samples

are being obtained across the state throughout the migration and wintering periods. This spatial and temporal variation in sampling provides the most representative sample of these birds. In July, samples were collected from 120 Canada geese. Shorebird trapping began in August. Over 500 semi-palmated sandpipers were trapped and 206 samples were obtained from these birds. In September, 104 samples were collected from hatch-year mallards. Of important interest was the collection of samples from shorebirds throughout the migration period. In October, samples were collected from 121 sanderlings, 74 dunlin, and 12 black-bellied plovers.

Banding data are an integral part of waterfowl management that is used to

ascertain data on migration patterns, survival rates, and distribution of harvest, as well as help to assess the vulnerability of different age and sex classes to harvest. A total of 848 ducks were captured at 11 sites across the state. The total included 782 mallards, 59 black ducks, 5 mallard-black duck hybrids, 1 green-winged teal, and 1 pintail. All captured ducks were aged, sexed, and banded with a metal leg band before release.

Canada geese were banded during the molting period at 48 sites throughout Connecticut. Sites were distributed statewide, with a minimum of 2 sites per county. Geese were driven into a portable net using small boats on water bodies or people on the ground. A total of 2,074 geese were captured (1,514 adults and 560 local juveniles).

The data collection portion of the resident Canada goose study was completed. Over the course of 4 years of field work, 2,000 neck collars were placed on resident geese and 6,219 geese were banded. Using the more than 5,000 catalogued and geo-referenced goose collar observations over the past 4 years, the Division began to look at resident goose movement patterns across the

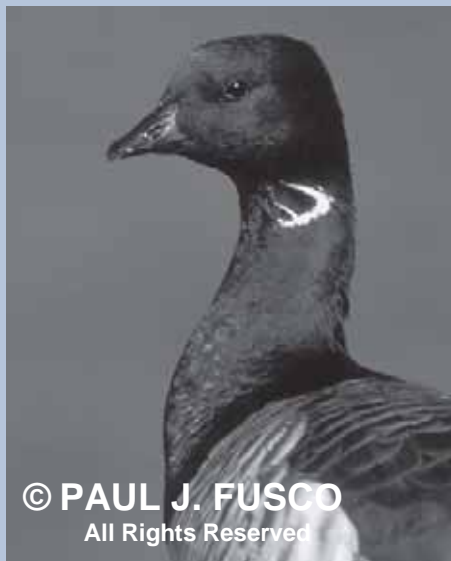


© PAUL J. FUSCO
All Rights Reserved

The Wildlife Division received a grant for \$75,000 from the U.S. Department of Agriculture (APHIS) to conduct surveillance for chronic wasting disease in Connecticut's deer population.

New Research on Atlantic Brant

The Wildlife Division, along with several other states in the Atlantic Flyway, began a research project in November to investigate time and energy budgets and available food resources for wintering Atlantic brant. This project, when completed, will provide important information to guide management of wintering habitats for Atlantic brant. Brant rely on submerged aquatic vegetation throughout winter to sustain themselves before heading to their arctic breeding grounds. Recently, however, brant have begun using manicured lawns, particularly when winter conditions are harsh or submerged aquatic resources are depleted.



© PAUL J. FUSCO
All Rights Reserved

New England Cottontail Study Continues

Since 2001, the Wildlife Division has been collecting baseline data on population status and distribution of New England cottontails (NEC) in Connecticut. After reviewing the information available for NEC, the U.S. Fish and Wildlife Service designated the NEC as a candidate for Endangered Species Act protection in September 2006.

Over the past 5 years, the Division has been assessing distribution of NECs in Connecticut by live trapping and conducting fecal DNA analysis. NECs have been found to occupy 22 towns in the state. Efforts will continue in 2007 to look for presence of NECs in towns where there is little or no information. In October 2006, a survey of small game hunters was initiated to collect baseline data on hunter effort, distribution, and success of Connecticut rabbit hunters. The survey was completed in January 2007.



P. J. FUSCO (2)

Travis Goodie, a research assistant for the Wildlife Division, releases a cottontail rabbit after collecting data, including a sample for DNA analysis.

landscape. These data will be used to examine movement patterns and distribution across the state. Another portion of this research was geared at assessing human attitudes towards resident geese. Surveys were sent to all municipalities, public water suppliers, and golf courses in the state. Surveys also were sent to a sample of the dairy and turf farmers and current and past federal goose depredation permit holders.

An analysis was conducted on the effects of special goose seasons, specifically the September season, on resident goose survival rates. Mean survival rates of adult resident geese prior to initiation of the September season from 1987-1995 were about 79%. Mean survival rates of adult resident geese from 1996-2004 were about 69%. Based upon the analysis and current trend in breeding pair numbers, the resident goose population may be declining slightly.

Due to unsafe ice conditions during the winter of 2005-2006, wood duck box checks were limited to those located directly over land. Thirty-eight boxes were checked. This sample was too small to infer anything about wood duck production in the state in 2005. The current state of the wood duck nest box program is being evaluated and a plan is being developed for new box placements in 2007.

The Division continued collecting ducks from select parts of the state for an assessment of the health risk of duck consumption. A total of 105 ducks, encompassing 7 species, was collected from all 8 counties. The collection followed on the heels of a survey that was sent to hunters inquiring about their duck hunting

Wintering Waterbirds in Long Island Sound

A study of distribution, abundance, and activity of wintering waterbirds in Long Island Sound was completed. Systematic ground surveys of Long Island Sound were conducted from mid-November 2005 through mid-April 2006.

Boat and aerial surveys also were conducted. A total of 197,023 birds, comprising 66 species, were observed over the course of the survey effort. Rare species, such as Eurasian wigeon, king eider, northern gannet, and razorbill, were observed. The 2 years of data from this project are currently being analyzed.



© PAUL J. FUSCO
All Rights Reserved

Common loons were one of the 66 species of birds observed in the wintering waterbird survey.

habits and duck consumption levels. Duck collection should be completed in 2007.

Waterfowl surveys conducted in 2006 included the breeding waterfowl survey, Atlantic Flyway summer swan survey, and the midwinter waterfowl inventory. Due to the Division's concern about the inland expansion of mute swans, a statewide breeding survey was initiated in 2004. The

survey covers the entire coastline, selected portions of the three largest river systems, and 25 randomly selected inland plots. This swan specific survey provides more precise estimates of breeding mute swan numbers than the breeding waterfowl survey. The 2006 estimate of 831 swans was lower than

continued on page 12

Lively Visitors from the Far North - Redpolls in Connecticut

Article and photography by Paul Fusco, Wildlife Outreach Program

The cold stillness of a brisk winter morning is broken by the lively chatter of a flock of small birds as they jostle for position while feeding on seeds that are suspended on grasses above the snow crust in an old field. The birds are bound by the flock, yet constantly fighting for their position of hierarchy. The frigid cold doesn't seem to bother them on a sunny morning as they ruffle their drab feathers, trying to retain warmth. Some in the flock have colorful pink breast plumage, which provides a bright contrast to the snow. The birds are right at home in the cold and snow, for they are redpolls, belonging to the winter finch group. They migrate to Connecticut from northern Labrador to spend the winter in a place that offers them a source of food.

Winter finches are a group of songbirds that breed in the far north of Canada, Alaska, and Greenland. The group includes such species as pine grosbeaks, evening grosbeaks, pine siskins, crossbills, and redpolls. All members of this group are "irruptive," meaning that their winter movements happen irregularly but periodically. Every few years, there is an irruption, forcing large numbers of these seed-eating birds much farther south than they normally would go. Irruptions occur when there is a shortage of food within their normal winter range. It is in those irruption winters that winter finches come as far south as Connecticut and beyond. Redpolls can be found south of their normal winter range in very large numbers during these times.

Two Species

Redpolls are small, sparrow-sized finches, closely related to goldfinches. They are pale, grayish brown, with streaking on their backs and flanks. Their namesake mark is a small red cap, or poll, on the forecrown. They have pale, yellowish bills, black chins, and a deeply notched tail. In breeding plumage, males have a brilliant, deep pink breast. Females and young males are somewhat duller.

There are two species of redpolls, the common redpoll and hoary redpoll. Both are similar in appearance, but the hoary is generally paler and has an unstreaked rump. Common redpolls are by far the more abundant of the two in our area. Hoary redpolls are usually found mixed into larger flocks of commons. Identification of hoary redpolls in the field can be difficult to impossible.



Male common redpolls have stunningly bright pink breast plumage that becomes bolder during the breeding season.

Habitat

Redpolls are birds of the northland, where boreal forest and muskeg come together with the vast willow scrub and tundra of subarctic and arctic regions. They are circumpolar, being found in arctic and subarctic latitudes of North America, Europe, and Asia. Hoary redpolls are found farther north into the arctic than commons, but their ranges overlap in many areas.

During the breeding season, redpolls are typically found in these semi-barren and boreal habitats. They will nest in whatever cover is available to them, including dwarfed spruces, stunted willows, and alder thickets. They also have been known to nest on the ground in rock crevices. Redpolls build their nests with small twigs, rootlets and mosses. They will frequently line their nests with a thick layer of ptarmigan feathers and sometimes lemming fur.

In winter, most redpolls will retreat somewhat from the northern areas of their breeding range. Their normal winter range is from the southern parts of their breeding range south to the northern United States. Winter movements can be highly erratic, with birds ending up far south of their typical wintering areas.

South of their breeding range, redpolls will frequent open woodlands, weedy fields, and agricultural lands. Wintering redpolls in the north feed on the seeds, catkins, and buds of birches, willows, and alder. Birds that move farther south typically feed on the weed seeds of a wide variety of grasses and forbs.

Behavior

Redpolls are highly social birds. They constantly make vocalizations within their flocks. Birders often locate redpolls by their vocalizations, including contact calls and their coarse, rattling flight calls, *chet, chet, chet, chet*. Flocks are typically restless and move about in unison. The birds have an undulating flight pattern, similar to other finches.

Frequently seen feeding at the very tips of small branches, redpolls often use their feet to hold food items, such as birch catkins. They will sometimes feed on the ground in a manner similar to some sparrows, where they hop and kick away debris to uncover food morsels. Flocks of redpolls also may be seen feeding at the tops of grasses that are sticking up above the snow in weedy fields.

Studies have shown that redpolls can survive colder temperatures than any other songbird. Redpolls must feed at a high rate every day in order to build up energy reserves and to replenish lost energy. They favor energy rich foods, such as birch seeds. To compensate for energy losses at night, redpolls have a special pouch in their throat. The pouch allows



© PAUL J. FUSCO

All Rights Reserved

Redpolls are known to hollow out little snow caves to shelter themselves from the elements.



© PAUL J. FUSCO

All Rights Reserved

Hoary redpolls can be difficult to identify in our region because their appearance is so similar to the common redpoll. Differences between the two are subtle and sometimes difficult to see.

Is it a Common or a Hoary?

Common and hoary redpolls are similar in appearance and their traits can be variable. There also may be hybridization between the two species. Although it can be very difficult to distinguish the two species in the field, there are some characteristics to look for that will help an observer differentiate them.

Hoary redpolls are generally paler, having a “frosty” appearance.

Hoarys are slightly larger than commons, and have a smaller bill.

Hoary redpolls have less streaking in their plumage and a white, streakless rump.

Commons have streaking on the undertail coverts, while hoarys have very little to no streaking there.

Range is an important consideration also. The normal range of the hoary redpoll is farther north than the common, so hoarys are less likely to be found in Connecticut. When hoarys are present in the Northeast, they are usually small in number, with a few individuals mixed in with larger flocks of commons.

them to temporarily store large amounts of food that will be eaten in a safe location or roosting place.

Small birds, such as redpolls, must find sheltered roosting places that protect them from the elements, especially in frigid northern regions. In extremely harsh conditions, redpolls have been known to tunnel into snow, creating a roosting chamber.

Like their relatives, the goldfinches and siskins, redpolls can be attracted to backyards by offering thistle seed at feeding stations. Tube feeders work well, as do thistle bags. Redpolls also will eat white millet and sunflower seeds at feeders.

Because their winter visits are erratic and unpredictable, it’s hard to say where to find these cheerful and lively cold weather birds. The best approach, aside from monitoring a backyard feeder, is to visit places that have the right habitat of weedy fields and hedgerows. Several state properties that have hosted redpolls over the years and are worth checking out include Hammonasset Beach State Park in Madison, Sherwood Island State Park in Westport, and Durham Meadows Wildlife Management Area in Durham.



© PAUL J. FUSCO

All Rights Reserved

Redpolls are attracted to backyard feeding stations that offer small seeds, such as thistle.

2006 - The Year in Review

2006 - The Year in Review, continued from page 9



P. J. FUSCO (2)

Min Huang (left), Waterfowl Program Biologist, and Dennis Varza, a research assistant, prepare to trap shorebirds along Connecticut's coastline as part of a national monitoring program for avian influenza.

the estimated 988 in 2005 and well below the estimate of 1,214 in 2004.

Work on a woodcock research project continued. 2006 was the first year that 10 routes were surveyed statewide as an index to woodcock population and habitat status. From 2003-2005, these 10 routes were reasonably consistent in their detection rates. They also possess a good mix of habitat and are fairly well distributed across the state. Additionally, most routes are located in areas that are likely to experience some degree of development pressure in the

next decade. Since 2003, there has been no significant change in the total number of birds heard on the routes.

The second year of woodcock telemetry work began in March 2006. Forty-nine birds were live-trapped and fitted with radio tags. Predation and mortality of radio-tagged woodcock was much higher in 2006 than in 2005. Predation claimed 15 birds, including 4 females that were either nesting or had broods. Small mammals and housecats accounted for most of the mortalities. A final year of telemetry work will be conducted in

2007. Data gathered from the population surveys, habitat work, and telemetry studies will be used to develop management guidelines and strategies for woodcock.

In 2005-2006, the Wildlife Division completed its final assessment of a marsh restoration project at East River WMA in Guilford. Three separate avian use assessments of the restoration efforts, spanning 6 years post-restoration, consistently indicated that wading bird, shorebird, and waterfowl use of restored areas was significantly higher than on unrestored areas. Further, the use of restored areas increased over the course of the 3 separate assessments. The newly-constructed ponds and the plugging of ditches created habitat that is used by a wide array of birds.

A new project was initiated to detect and monitor owl species in Connecticut. Because of the secretive and nocturnal behavior of owls, they are not likely to be counted in large-scale daytime bird monitoring programs. Between the second week of March and third week of April, a species-specific callback tape was used to identify northern saw-whet, eastern screech, barred, barn, and great horned owls. With the help of 7 volunteers, Division staff surveyed 13 survey routes (130 points) out of 29 designated routes. Surveyors detected 6 northern saw-whet owls, 3 eastern screech owls, 14 barred owls, and 5 great-horned owls.

Five historic breeding locations, as well as existing barn owl nest boxes, were searched for breeding barn owls. Two successful barn owl pairs were detected, which fledged 4 chicks. Seven new barn owl boxes will be erected and two older boxes repaired. Barn owl pellets were collected and examined to provide information on diet. Preliminary results from 67 pellets indicate that the barn owls' diet sample consists mainly of meadow voles and Norwegian rats.

The Woodland Raptor Surveys entered a third season of monitoring. Surveys were conducted 6 times between March and July. Callback recordings were used to detect sharp-shinned hawks, Cooper's hawks, northern goshawks, broad-winged hawks, red-shouldered hawks, and red-tailed hawks. Two different callback recordings were used in 2006 to help determine which callback is more effective. Point count surveys were conducted at 265 locations by DEP staff and 17 volunteers. Woodland raptors were observed at 38% of the survey sites, with an estimated site occupancy rate of 67%. Preliminary analysis indicates that there was no significant difference between the two different callback recordings. During June and July, nest searches were conducted at 34 survey site locations with consistent woodland raptor sightings. Staff also visited 12 sites to verify woodland raptor nests reported by the public.

Surveys for golden-winged warblers entered a sixth season. A callback recording

Moose Study Launched

The Wildlife Division has developed plans to study Connecticut's expanding moose population. The study will be a cooperative project between the Division, Massachusetts Fish and Wildlife, and the Universities of Connecticut and Massachusetts. The project will involve capturing 5-10 moose in Connecticut and equipping them with GPS tracking collars. This will allow the assessment of movements, habitat use, and population growth, as well as provide viewing opportunities.



© PAUL J. FUSCO
All Rights Reserved

was used to search for golden-winged warblers between May 15- June 15 at 33 out of 65 potential sites. Golden-winged warblers were observed at 3 sites and golden-winged hybrids were observed at 2 sites.

Surveys for birds that nest in shrubland habitat continued. Between May 15-July 15, point count surveys were conducted by staff and 2 volunteers at 24 sites in early successional habitats (old fields, shrublands, woodland edges, powerline right-of-ways). Sixty-seven greatest conservation need (GCN) species were observed, most commonly the veery, eastern towhee, and blue-winged warbler.

A new project was initiated to develop appropriate protocols for monitoring chimney swift populations. Surveys in 2006 were designed to determine if randomly placed points would adequately detect chimney swifts and if survey timing affected chimney swift detection. Surveys were conducted along 13 routes (130 points), once in the morning and once in the afternoon for each of the months of May, June, and July. Detection probability was not significantly different for any of the survey periods.

Efforts to monitor migratory chimney swifts continued by counting swifts as they entered migration roost colonies. With the help of public reports, 9 migration roost sites were identified. Roost counts were conducted at least once between August 1- September 15. Roost numbers appear to be lower than in 2005, but analysis awaits full data reporting from volunteers. The Division partnered with the Maritime Aquarium at Norwalk to take video of chimney swift activity at a roosting location in Norwalk. The Maritime Aquarium recorded activity at the roost from August 1- September 15 and provided a live link, as well as DVD copies, of the footage. The footage will help educate the public about chimney swifts, as well as monitor roost activity.

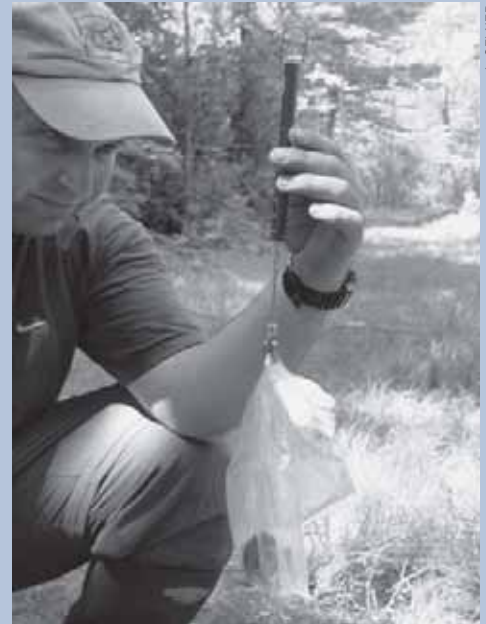
Grassland bird surveys on state-owned properties were conducted once again in 2006. Seventeen sites throughout Connecticut were surveyed twice between May 15-July 15.

The Wildlife Division cooperated in the development of a regional monitoring protocol for whip-poor-wills. Activities focused on developing a preliminary state inventory, improving survey point placement, and estimating whip-poor-will detection. New regional protocols incorporated more specific survey timing. Surveys were only conducted when the moon was at least 50% illuminated, above the horizon, and not obscured by cloud cover. Thirty-five survey routes of 10 points each were designated for survey in 2006, of which 34 (340 points) were surveyed by Division staff and 12 volunteers. Whip-poor-wills were detected at 16 survey points. Preliminary analysis indicated that observers were 41% likely to detect a whip-poor-will if it was present at the survey point, and whip-

In Search of Small Mammals

Wildlife Division staff continued efforts to monitor small mammal populations. A project to assess the status and habitat associations of northern water shrews and southern bog lemmings was conducted throughout Connecticut. Water shrews are secretive small mammals that live near water, such as streams and marshes. However, there have only been a few recent records of this mammal in the state. Similarly, there have only been a few sightings of southern bog lemmings (state species of special concern) in Connecticut. Both species are considered to be of greatest conservation need (GCN). A number of volunteers helped Division staff conduct this survey at 14 sites throughout the state. Each species was encountered only once throughout this survey. Low encounter rates are likely a reflection of these species' secretive habits, making them extremely difficult to trap. The good news is that throughout the survey, a number of Connecticut's other GCN species, including southern red backed voles, meadow and woodland jumping mice, and short-tailed weasels were encountered. Additional surveys for bog lemmings and water shrews will be refined and conducted in the future.

An additional short survey was conducted for least shrews during fall. Least shrews are a state endangered species, so it is important to continue monitoring the population. During this short survey, trapping techniques were revised from last year's efforts and a more refined approach proved effective. Least shrews were again captured at one site. Efforts also were made to identify new potential sites for future surveys, hopefully resulting in the documentation of additional populations of this small shrew.



L. SELNER

James Fischer, a research assistant for the Wildlife Division, weighs a small mammal captured during survey efforts.

poor-wills were almost two times as likely to occupy forested survey points which contained shrubby openings, especially powerline right-of-ways.

The search continues for breeding common nighthawks (state endangered species). Potential and historical locations were identified for inventory. Criteria for site selection included historical records, recent bird sightings, presence of flat roofs, and presence of landfill or barren ground. Twenty point locations were surveyed during July. No breeding common nighthawks were located through the surveys. An inventory of potential breeding habitat (gravel roofs) in historical breeding locations is being conducted. A new monitoring program was initiated to assess regional common nighthawk populations through migration counts. Volunteers were asked to count common nighthawks seen between August 15- September 15. These data may be useful in estimating regional population changes.

Field surveys for Connecticut's Grassland Habitat Conservation Initiative began in June and continued through late July. Using land cover data and soil maps,

393 grasslands, ranging in size from 50 to 850 acres, were identified in Hartford and Windham Counties. Visits were conducted for the 50 largest sites in each county. Field observers collected data, including current habitat conditions, bird species detected, current management practices, and potential for future surveys.

Division staff participated in a BioBlitz at Brooksvale Park in Hamden in June 2006. Besides capturing and identifying three species of bats, staff documented the presence of several small mammals and led informational programs for the public. Over the course of 24 hours, at least 658 species were counted by Bioblitz participants, representing taxa from mushrooms and invertebrates to bats and herpetofauna.

For two nights in late April, bats emerging from winter hibernation at Roxbury Iron Mine were captured with harp traps. Biological data and fur samples were collected to aid in a regional stable isotope study. For two nights in September, bats were captured during the autumn "swarm" at Roxbury Iron Mine using harp traps. Biological data were collected for each bat and the bats were fitted with numbered metal wing bands. The three species

2006 - The Year in Review

P. J. FUSCO



Examinations of otter carcasses collected during the regulated trapping season indicate that Connecticut's otter population continues to show good evidence of reproduction.

captured were little brown bat, northern long-eared bat, and eastern pipistrelle.

Suitable habitat was surveyed as part of a long-term effort to determine locations of viable populations of the Puritan tiger beetle (state endangered, federally threatened). This beetle's decline may be attributed to loss and degradation of sandy beach habitat due to human activities. For the seventh year in a row, larvae were removed from one site and transported to Massachusetts to augment the declining population there.

The seventeenth field season of a long-term bog turtle (state endangered, federally threatened) study to survey historic or new locations for the presence or absence of suitable habitat and/or turtles was completed. The decline of bog turtles may be attributed to habitat loss and, in small part, to collection pressure. No bog turtles were found at any new or historic sites.

With the help of fencing and other protection efforts, 37 pairs of ground nesting piping plovers (state and federally threatened) fledged 79 young and 126 pairs of least terns (state threatened) fledged 11 young. Human activity at nesting beaches continues to impact reproductive success. Forty volunteers (including several MWCs), trained about plover and tern biology and how to educate the public about recovery efforts, monitored several beaches and distributed educational materials to beachgoers. Twenty-one fireworks permit applications were

reviewed for impacts to piping plovers.

Six breeding pairs of peregrine falcons (state endangered) nested; 4 nests produced and fledged 12 chicks (which were banded by the Division). Five chicks fledged from 1 of the successful nests, which is uncommon. One nest failed and another was probably successful, but the number of chicks fledged is not known due to limited visibility.

Nine breeding pairs of bald eagles (state endangered, federally threatened) attempted to nest; 6 nests produced and fledged 12 chicks (10 of which were banded by the Division) and 2 nests failed. One pair built a nest but did not lay eggs.

The 2006 Midwinter Bald Eagle survey was conducted in January with the help of 183 volunteers, who counted 44 adult eagles, 19 immature eagles, and 3 unknown for a statewide total of 66.

Over 2,000 sightings of black bears or their sign were reported to the Division between October 2005 and September 2006. Sighting reports have steadily increased over the last two decades. Bears were reported from 74% of the state's towns. Dens of 12 radio-collared sows were visited in February and March and 7 of the sows had cubs. The average litter size was 2, lower than averages seen in previous years. In addition to smaller litters, survival of cubs from the previous year decreased. A scarcity of acorns in the falls of 2004 and 2005 probably lowered bear productivity.

Carcasses of bobcats, fishers, river otters, and black bears were examined for reproductive indices and diet analysis. Otters continued to show good evidence of reproduction. The most frequent food item in bobcat and fisher stomachs was squirrel. Although coyotes consumed a wide variety of plant and animal foods, deer was the item most commonly found in coyote stomachs. Deer may be over represented because many stomachs only contained traces and most coyotes are collected at the time of year when other foods are less available. Over half the bears examined had human-provided foods, such as birdseed, in their stomachs.

Harvest levels of some furbearer species were determined through mandatory pelt tagging, while a trapper questionnaire was used to estimate harvest of other species. Most harvests have not changed dramatically in recent years. Over 40% of the 1,100 beaver trapped during the regulated trapping season were harvested at problem sites. Trappers indicated that 37% of the coyotes they trapped were taken to resolve problems. Division staff coordinated the authorization of trapping on selected state forests and wildlife management areas. Approximately 20% of the statewide harvest of furbearers occurs on state lands.

During the fall hunting season, 17,153 adult ring-necked pheasants were purchased for release on 48 state-owned, state-leased, and permit-required hunting areas. Cooperative sportsmen's clubs also released pheasants at 7 public hunting areas. The Division continues to use volunteers to assist with stocking on several public hunting areas.

The Division concluded a 3-year project to fund the purchase of pheasants for clubs hosting youth pheasant hunter training days. Funding was provided by the National Shooting Sports Foundation's Heritage Partnership Grant. A follow-up survey of participating clubs and junior hunters was conducted to assist in program evaluation. Most clubs indicated an interest in continuing to offer similar events, regardless of funding assistance.

Technical Assistance

The Wildlife Division continually responds to calls from the public regarding sick, injured, and orphaned wild animals. Because the Division does not have the resources to provide care for these animals, it relies on a network of volunteer wildlife rehabilitators that consists of private individuals, staff at nonprofit nature centers, and local veterinarians who have the proper training, as well as the appropriate facilities to house wildlife species until they can be returned to the wild. There are 244 individuals authorized to care for animals in need. Of that group, 5 are authorized to care for orphaned fawns and 37 are recognized as having the specialized training and authorization for handling rabies vector species

(RVS; skunks, raccoons, foxes). In addition, 67 individuals have federal permits to care for migratory birds. In 2005, wildlife rehabilitators cared for 12,945 animals, which included 8,345 birds, 4,420 mammals (of which 163 were fawns and 527 were RVS), and 180 reptiles and amphibians. Approximately 8,669 of the animals cared for were released back to the wild.

Technical advice was provided to town health departments, school and recreational facilities, and numerous landowners to assist in solving nuisance waterfowl problems. Numerous federal Canada goose depredation permit applications were reviewed and commented upon.

Nuisance Wildlife Control Operators (NWCOS) were trained in the capture of flightless (molting) Canada geese. Criteria were developed for the certification of NWCOS to conduct roundups of resident geese.

Hundreds of furbearer and bear related information requests and calls regarding problems were received by the Division. Approximately 275 calls concerning coyotes and foxes were handled. Over 200 reports of property damage by bears were received. Wildlife Division and Conservation Law Enforcement personnel attempted to trap bears at 14 problem sites and responded to 9 cases of bears in urban settings.

There was a slight decrease in complaints about beavers in 2006. The majority of complaints are generally received during April to October and are usually weather related – an increase in rain is generally accompanied by an increase in calls. The slight decrease for 2006 may have been due to less rain within that specific time frame. Human-beaver conflicts are aggravated by the loss of suitable beaver habitat and an increase in development. Concerns involve the cutting of trees; flooding of roads, septic systems, and structures; increase in standing water; increase in mosquitoes; threats to fish and aquatic flora; and potential spread of diseases. Most of these concerns can be addressed with information on beaver behavior and the majority are deferred until the regulated trapping season, which runs from December 1 through March 15. Some issues are covered under state statutes and can be addressed with out-of-season trapping under specific authorization, usually for health and safety concerns. All beaver activity is dealt with through tolerance measures or trapping.

Two New Publications

The Natural History Survey made two important contributions to Connecticut's scientific literature in 2006. "The Vegetation of Connecticut, A Preliminary Classification," by Kenneth Metzler and Juliana Barrett, describes the hierarchical structure and floristic composition of vegetation types linked to NatureServe's National Vegetation Classification, which has been adopted as the standard by many federal agencies.

The second publication, "The Connecticut Butterfly Atlas," is the result of a comprehensive statewide survey of butterflies that took place from 1995-1999, using volunteers guided by a steering committee. Life history information is provided for all 117 butterfly species that regularly occur in Connecticut. Historic and current distribution maps for each species are accompanied by color photographs illustrating life history stages.



© PAUL J. FUSCO
All Rights Reserved

Eastern tiger swallowtail

There is no relocation of beaver in the state.

The Deer Damage Program provides farmers with a means to protect their commercial crops from the impact of deer. Applicants must be active farmers with a potential income of \$2,500 or more. Permits are valid from January 1 through October 31 and are issued only after an inspection is completed and the farmer qualifies based on income and evidence of damage.

Natural History Survey

The Natural Diversity Data Base (NDDB) conducted more than 720 Environmental Reviews. NDDB maps are available in pdf form on the DEP website (www.ctgov/dep) or in a kiosk in the open file room at the DEP Headquarters in Hartford (79 Elm Street). The maps generated by the NDDB are used by many Connecticut towns when their Plan of Conservation is developed.

The Natural History Survey has an ongoing relationship with the New England Wildflower Society's Plant Conservation Program (NEPCoP). NEPCoP volunteers visited known locations of state-listed plants and provided updates, as well as researched new sites and tracked down historic or anecdotal observations. Three state-listed plants, which were thought to be extirpated from the state, were rediscovered by these

volunteers in 2006.

For the past 15 years, Natural History Survey botanists have been monitoring and managing the only extant site in Connecticut for sandplain gerardia (*Agalinis acuta*), a federally endangered plant species. The population has increased since it was first observed in 1990, but the numbers vary annually and, overall, it is a small population. Management of the site includes mowing and soil scarification to encourage seed set. These actions are done with permission from the landowner. According to NatureServe, the Connecticut site is one of only 22 sites left in the world. The plant's range is restricted to Connecticut, Massachusetts, New York, Rhode Island, and Maryland.

Since the establishment of the Endangered Species/Wildlife Income Tax Checkoff Program in 1994, this voluntary taxpayer contribution fund has received \$881,554. The DEP has undertaken 112 projects that benefit state-listed species, nonharvested wildlife, and State Natural Area Preserves. (To learn about projects, see www.ctgov/dep.)

Hydrilla (*Hydrilla verticillata*) is a highly invasive non-native aquatic plant that has spread to the New England area. Three populations in coastal counties have been documented in Connecticut. Natural History Survey staff prepared a Rapid Response Plan for Hydrilla. DEP staff from the Fisheries, Forestry, and Wildlife Divisions spent a day removing Hydrilla from select areas of the Silvermine River in Fairfield County that could be safely accessed on foot. This helped in the development of protocols for future harvesting efforts that hopefully will be accomplished with the help of volunteers. Close coordination and communication with municipal officials from Wilton, New Canaan, and Norwalk facilitated this effort.

Summary of the Wildlife Division's Nuisance Beaver Management Program for 2006

District	Phone Advice	Field Inspections	Total # Complaints	NWCO Permits Issued	Volunteer Authorizations Issued
Eastern	82	45	127	4	38
Western	61	58	119	14	9



Spring Cleaning Time for Bluebird Nest Boxes

It is time to clean and repair all bird nesting boxes in your yard. Boxes should be cleaned and in good repair by the end of February, well before nesting season begins.

Old nesting materials from the year before should be removed from any boxes. Even if you did this at the end of the nesting season, you should clean out the boxes again and make sure spider webs, old wasp nests, etc., are removed. Scrape out any old droppings with a stiff-bristled brush and make sure drainage holes in the bottom are unclogged.

Make any necessary repairs to the boxes at this time. If much of the wood is rotted, the entire box may need to be replaced. Otherwise, replace sides, tops, or bottoms as needed. Check the post and attachment site and repair or replace as necessary. Think about adding a predator guard if there isn't one already. Even using a metal pole instead of a wooden post will help keep most predators at bay. Prune any limbs, vines, or other vegetation from around the box that might help a climbing predator gain access to the box.

Gray squirrels and flying squirrels will enlarge entrance holes. If this has happened, metal flashing can be added around the entrance to keep squirrels from

gnawing. Hole dimensions also can be modified to deter nesting starlings, and slot entrances can be used to deter English sparrows. Perches are not necessary on the outside of boxes and may attract English sparrows and starlings, which can stand on perches and kill and remove any bluebird adults, young, and eggs that are inside.

On a side note, don't raise bluebirds to feed your cat! The best advice is to keep cats indoors so that they won't prey on nesting birds.

To learn more about bluebirds and building your own bluebird nest box, visit the DEP's website (www.ct.gov/dep).



Step Up to the Plate for Wildlife...

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

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

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

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

P. J. FUSCO



© PAUL J. FUSCO
All Rights Reserved

Bluebird nest boxes should be cleaned out and repaired before the spring nesting season.

Letter to the Editor

I read Kelly Kubik's article "Why Are Birds Banded?" with great interest (Connecticut Wildlife -- Sept/Oct 2006). I don't dispute any of the historical information presented, but thought that I might add something to the record.

The issue of systematic bird banding in the United States has a Connecticut connection. In 1901, not aware of Audubon's first forays into banding, Dr. Leon J. Cole gave a talk before the American Ornithologists Union advocating tagging birds to track their movement. With the exception of one gentleman in Michigan, there was no advancement of the idea for the next 6 years.

In 1907, Leon came to Yale to teach biology. At that time, the New Haven Bird Club was being organized. Leon joined the Club and found an interested, willing audience for his idea. A committee was formed and procedures for banding were developed, including collection and retention of data. The number of birds banded in 1908 was below their expectations. The committee, made up of Leon Cole, Dr. Louis B. Bishop, and Clifford H. Pangburn, looked to expand the work outside the auspices of the Club. They enlisted the help of ornithologists from other parts of the country, and soon the effort was national in scope.

In the next couple of years, Dr. Cole accepted a job at the University of Wisconsin and would become an expert in genetics. Clifford Pangburn graduated from Yale College in 1912 and pursued a career in writing and advertising. He would serve in the military during both WWI and WWII. Dr. Bishop gave up medicine in 1908 to concentrate on ornithology full-time. His collection of 53,000 bird skins was donated to the Field Museum in Chicago after his death in 1950.

The New Haven Bird Club is celebrating its centennial this year with a host of indoor and outdoor activities. A full list of the centennial activities can be found at our website, www.newhavenbirdclub.org.

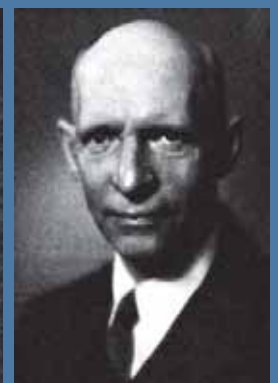
John Triana
President, New Haven Bird Club



Dr. Louis B. Bishop



Clifford H. Pangburn



Dr. Leon J. Cole

PHOTOS COURTESY YALE UNIVERSITY (Dr. Bishop, C. Pangburn) AND WISCONSIN SOCIETY OF ORNITHOLOGY (Dr. Cole)

Participate in the Great Backyard Bird Count on February 16-19

The Great Backyard Bird Count (GBBC) is an annual four-day event that engages bird watchers of all ages in counting birds to create a real-time snapshot of where the birds are across the continent. Anyone can participate, from beginning bird watchers to experts. It takes as little as 15 minutes. It's free, fun, and easy. It also is an excellent activity for families and kids, especially for those who have an interest in birdwatching. This year's event will be held from February 16-19, 2007.

Participants count birds anywhere for as little or as long as they wish during the four-day period. They tally the highest number of birds of each species seen together at any one time. To report their counts, they fill out an online checklist at the Great Backyard Bird Count website (www.birdsource.org)

As the count progresses, anyone with Internet access can explore what is being reported from their own towns or anywhere in the United States and Canada. They also can see how this year's numbers compare with those from previous years. Participants may also send in photographs of the birds they see. A selection of images is posted in the online photo gallery.

In 2006, participants reported a record-breaking 7.5 million birds of 623 species. They submitted 60,616 checklists, just 433 shy of an all-time record for total checklists. In Connecticut, 117 species were reported and 44,692 individual birds were counted.

Why Count Birds?

Scientists and bird enthusiasts can learn a lot by knowing where the birds are. Bird populations are dynamic; they are constantly in flux. No single scientist or team of scientists could hope to document the complex



© PAUL J. FUSCO
All Rights Reserved

The Great Backyard Bird Count (GBBC) will be held on February 16-19, 2007. Participants are asked to count birds, like the Northern cardinal, anywhere for as little or as long as they wish during the four-day period and record their results on the GBBC website.

distribution and movements of so many species in such a short time.

Your help is needed. Make sure the birds from your community are well represented in the count. It doesn't matter whether you report the 5 species coming to your backyard feeder or the 75 species you see during a day's outing to a wildlife area.

Scientists use the counts, along with observations from other citizen-science projects, such as the Christmas Bird Count and Project FeederWatch, to provide an immense picture of our winter birds. Each year that these data are collected makes them more meaningful and allows scientists to investigate far-reaching questions.

How to Participate

1. Plan to count birds for at least 15 minutes during February 16-19, 2007. Count birds at as many places (backyard, parks, wildlife areas) and on as many days as you like—just keep a separate list of counts for each day and/or location. If you can spend more than 15 minutes, you'll get a better sense of which birds are in your area.

2. Count the greatest number of individuals of each

species that you see together at any one time, and write it down.

3. Enter your results on the Great Backyard Bird Count web site!

What if I'm unable to identify some of the birds I see? Take a look at your state or province checklist on the GBBC website to help narrow down the possibilities. See if you can find the bird you're looking for in a field guide. The All About Birds website also provides photos, sounds, maps, and information about birds. If you're still not sure about species identification, that's OK. You don't have to report every species you see. When you enter the data on the website, just be sure to check the box indicating that you are not reporting everything you saw.

When should I report my counts?

Enter your counts on the GBBC web site any time after you have finished your count for the day at a particular location. If you enter your counts as soon as possible, others can see the results as the count progresses. However, you may enter data as late as March 1.

The Great Backyard Bird Count is led by the Cornell Lab of Ornithology and National Audubon Society, with sponsorship from Wild Birds Unlimited. Information in this article was reprinted from the GBBC website

Counts can help answer many questions:

- How will this winter's snow (or lack thereof) and cold temperatures influence bird populations?
- Where are winter finches and other "irruptive" species that appear in large numbers during some years but not others?
- How will the timing of birds' migrations compare with past years?
- How are bird diseases, such as West Nile virus, affecting birds in different regions?
- What kinds of differences in bird diversity are apparent in cities versus suburban, rural, and natural areas?
- Are any birds undergoing worrisome declines that point to the need for conservation attention?

Just for Kids

Fisher

P. J. FUSCO



The fisher is a large member of the weasel family. It has a long, slender body, short legs, and a long, bushy tail and is usually dark brown to nearly black.

Fisher Facts

- Fishers lived in Connecticut when the settlers arrived.
- But as the land was cleared, fishers were gone from the state by the 1900s.
- Fishers moved back into eastern Connecticut from populations in Massachusetts.
- In 1988, the DEP Wildlife Division purchased live-trapped fishers from New Hampshire and Vermont to help restore the population in western Connecticut.

Now, fishers are found in forests throughout Connecticut and can be trapped by licensed trappers in the fall.

Fishers and Forests

Fishers are forest animals. They almost always den in tree hollows. They hunt by zig-zagging through the forest.

Food for Fishers

Fishers do not eat fish! They are famous for being one of a few animals that eat porcupines! In Connecticut, wildlife biologists have found that fishers primarily eat squirrels and other small animals. Fruit, beechnuts, and dead animals also are eaten.

The Weasel Family: Match the Family Member to Its Description

1. Striped Skunk

A. This animal is not found in Connecticut, but is found in pine forests in the north. It is smaller than a fisher.

2. River Otter

B. This animal is easily recognized! It is known for making holes in lawns when digging for grubs.

3. Mink

C. Water is a must for this animal! A "playful" mammal, it eats fish, amphibians, crayfish, and other animals.

4. Marten

D. Usually found near water, this animal is known for its fur. It is a very capable hunter.

Answers: 1B, 2C, 3D, 4A

Wildlife Calendar Reminders

Dec. 27-Mar. 14 Shepaug Bald Eagle Viewing Area, in Southbury, is open for viewing bald eagles three days a week -- by advance reservation only -- on Wednesdays, Saturdays, and Sundays. Call 1-800-368-8954, Tuesday through Friday, from 9:00 AM-3:00 PM, to make reservations.

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

Feb. 16-18 Visit the exhibit sponsored by the DEP's Fisheries, Wildlife, and Law Enforcement Divisions at the 10th Annual Hunting and Fishing Expo, at the Connecticut Convention Center in Hartford. For more information on the Expo, visit the website for North East Promotions, www.northeastpromo.com.

Feb. 17-18 **8th Annual Connecticut River Eagle Festival.** To find out more information about the Festival, visit Connecticut Audubon's website at www.ctaudubon.org.

Early March Clean out bluebird nest boxes and install new ones.

Public Program Series at the Sessions Woods Conservation Education Center

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

Feb. 23 **Children's Program: Wildlife Tracks**, starting at 10:00 AM. Learn about wildlife tracks during February vacation with Natural Resource Educator Laura Rogers-Castro of the Wildlife Division and then head outside for a short walk to look for animal signs. Participants also will make a wildlife track to take home. An adult must accompany all children.

Feb. 25 **Birds of Prey Program**, starting at 1:00 PM. The Friends of Sessions Woods is delighted to sponsor a special program presented by Hope Douglas of Wind Over Wings. Hope, a wildlife rehabilitator, will be bringing a live bald eagle and other birds of prey. Their stories will be told, along with the natural history of the species. This program is possible due to the generous contributions made in memory of longtime Friends of Sessions Woods board member Paul Peterson.

March 24 **Spring Hike**, starting at 10:00 AM. Join Natural Resource Educator Laura Rogers-Castro for a hike at Sessions Woods to learn about this unique wildlife management area and talk about wildlife in spring. Meet in the exhibit area at the Conservation Education Center.

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

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

Hunting Season Dates

Jan. 2-31, 2007 Extended deer bowhunting season on private land in deer management zones 11 and 12. A 2007 deer permit and private land consent forms for 2007 are required.

Jan. 15-Feb. 15 Late Canada goose hunting season in the south zone.

Feb. 28 Send in permit-required (small game season) survey cards.

March 15 State land lottery deadline for deer hunting season.

..... See the 2007 Connecticut Hunting and Trapping Guide for specific season dates and details. The 2006-2007 Migratory Bird Hunting Guide contains information on duck, goose, woodcock, rail, and snipe seasons. Both guides are available at Wildlife Division offices, town halls, and on the DEP's website, www.ct.gov/dep.

Connecticut Wildlife

Subscription Order

Please make checks payable to:

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

Check one:

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

Name: _____

Address: _____

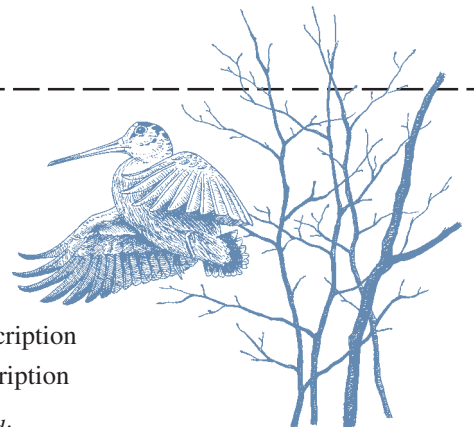
City: _____ State: _____

Zip: _____ Tel.: _____

Check one:

Renewal
 New Subscription
 Gift Subscription

Gift card to read: _____





© PAUL J. FUSCO
All Rights Reserved

A state-endangered American bittern wades in pond in a restored Connecticut saltmarsh. Several wetland restoration projects undertaken by the DEP Wildlife Division have provided important habitat for waterbirds, shorebirds, and waterfowl that live or migrate along the Connecticut coastline.

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

STANDARD
PRESORT
U.S. POSTAGE
PAID
BRISTOL, CT
PERMIT NO. 6