January/February 2011

Connecticut Wildlife

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF NATURAL RESOURCES
DIVISIONS OF WILDLIFE, INLAND & MARINE FISHERIES, AND FORESTRY

From the Director's Desk

The old saying "time flies when you're having fun" couldn't be more true, at least so in my case. It seems as though it's been a simple matter of days – ok, weeks – since I've joined the wonderful, smart, dedicated, engaging, and somewhat unique staff of the Wildlife Division. But alas it's been some 18 months. Again, time flies . . . In that short time, we've implemented several changes; many small and not obvious to the casual observer, while others have been substantial and overwhelmingly successful, including the 2010 Connecticut Hunting and Fishing Appreciation Day. Another has been the evolution of Connecticut Wildlife*, an evolution that will continue throughout the coming year. But first, a brief history of where we've been and then where we plan to go.*

In July 1981, the precursor to the magazine was born, and it was called SCOPE. This fledgling, informal newsletter was the brainchild of Paul Herig, a former director of Connecticut's Wildlife Unit (now known as the Wildlife Division). Paul's vision was to provide information to cooperators and sportsmen about wildlife projects and issues.

By 1988, SCOPE had evolved into a 12-page, two-color, bimonthly newsletter with black-and-white photographs. That year Kathy Herz (editor) joined the magazine staff, followed several months later by Paul Fusco (production editor/photographer), and both have been working together on the publication ever since. This talented duo made many improvements to the magazine over the years and eventually the name was changed to Connecticut Wildlife *in 1993. Extra pages and new features were added. Distribution increased as marketing efforts were expanded. The most notable increase occurred once subscriptions could be ordered through the DEP sportsmen's licensing system. By 2002, color photographs began to appear in the magazine and, in 2010, we achieved our goal of going full-color.*

Now, beginning with this issue, you'll see the next chapter in the life of the magazine unfold. With the support of Bill Hyatt, Chief of the Bureau of Natural Resources, and the Directors of the Inland Fisheries, Marine Fisheries, and Forestry Divisions, the content will expand to include articles and features about fisheries and forest resources and management. To support these broader themes, four pages have been added so that we can continue to provide the wildlife news and information you expect. I hope you will join me in welcoming the magazine's new contributing editors: George Babey (inland fisheries), Penny Howell (marine fisheries), and Chris Martin (forestry).

As we embark on this new adventure, we hope that as loyal readers of Connecticut Wildlife *you enjoy what it has become and share your appreciation for the magazine with family and friends. We also encourage comments and suggestions from our readers. Please let me know how we are doing and if there is anything we can do better by contacting us at* Connecticut Wildlife*, P.O. Box 1550, Burlington, CT 06013, or by E-mail at dep.ctwildlife@ct.gov.*

Rick Jacobson, Director – Wildlife Division

Cover:

An American robin feeding on winterberries during a Connecticut snowstorm highlights the importance of persistent winter food sources for songbirds.

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

Commissioner
Amey Marrella

Deputy Commissioner
Susan Frechette

Chief, Bureau of Natural Resources
William Hyatt

Director, Wildlife Division
Rick Jacobson

Magazine Staff

Managing Editor Kathy Herz
Production Editor/Photographer Paul Fusco
Contributing Editors: George Babey (Inland Fisheries)
Penny Howell (Marine Fisheries)
Christopher Martin (Forestry)
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
E-mail: 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 and service provider. In conformance with the Americans with Disabilities Act, DEP makes every effort to provide equally effective services for persons with disabilities. 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 e-mail Marcia Bonitto, ADA Coordinator, at Marcia.Bonitto@ct.gov. Persons who are hearing impaired should call the State of Connecticut relay number 711.

Printed on recycled paper

Sand Dunes Stabilized at Harkness State Park

Written by Paul Rothbart

Coastal habitat loss and degradation were identified as priority concerns in Connecticut's Comprehensive Wildlife Conservation Strategy. Degradation of coastal habitat occurs when people hike in fragile dunes and non-native invasive plants, including multiflora rose, bittersweet, and barberry, out compete native species (e.g., Virginia rose, bayberry, and butterfly weed).

To address these problems, the Wildlife Division applied for a Wildlife Habitat Incentives Program (WHIP) grant through the USDA Natural Resources Conservation Service to provide funding for stabilizing and enhancing sand dune habitat at Harkness State Park, in Waterford. Approximately 1,000 feet of dune habitat was targeted. Activities have included mowing and herbiciding to control non-native plants like Japanese knotweed, autumn olive, Japanese barberry, Asiatic bittersweet, and multiflora rose.

After two years of controlling non-native invasive plants at the park, staff from the Wildlife Division and Harkness State Park worked cooperatively to plant 6,000 native seedlings and grasses, forbs, and shrubs.

The dune area was planted with 5,000 two-inch plugs of American beachgrass (*Ammophila breviligulata*). This grass species is native to eastern North America, where it grows on sand dunes along the coasts of the Atlantic Ocean and Great Lakes. Beachgrass thrives under conditions of shifting sand and high winds. It is a dune-building grass that builds the first line of sand dunes along the coast. Beachgrass is less vigorous in stabilized sand, and is only found infrequently further inland.

The more upland zone in back of the dune was planted with a combination of plugs and containerized species, including Virginia rose, shadbush, bayberry, New York aster, switchgrass, and coreopsis. A fence was installed to minimize human disturbance to the area while allowing plants to become well established. These plantings will assist in erosion stabilization on the fragile dune habitat and also increase plant diversity, benefiting a variety of birds and insect pollinators.

R. WOLFE, WETLAND RESTORATION PROGRAM (3)

American beachgrass is native to eastern North America, where it grows on sand dunes along the coasts of the Atlantic Ocean and Great Lakes. It thrives under conditions of shifting sand and high winds, and it helps build the first line of sand dunes along the coast.

The Wildlife Division would like to thank the Connecticut Waterfowl Association for its support of this project.

Paul Rothbart is the supervisor of the Wildlife Division's Habitat Management Program

DEP staff planting 5,000 American beachgrass plugs to restore fragile sand dune habitat at Harkness State Park in Waterford.

Five Bee Species Added to CT's Endangered Species List

Written by Laura Saucier

Most people may not realize that bees are keystone species of terrestrial ecosystems. The ecological service bees provide, through pollination, produces fruits and seeds, thus supporting entire food webs. Biologists noted a decline in the distribution and abundance of many common wild bumble bee species in the late 1990s. About the same time this decline was noticed by scientists, there was a disease outbreak in commercially raised western bumble bees which were used for greenhouse pollination purposes. The possibility of an escaped pathogen from commercially raised bees affecting wild bumble bees is currently being studied. While the reason for the decline is not yet clear, bees, like other wildlife species, are susceptible to habitat fragmentation and degradation by pollution, pesticides, and other environmental stressors. These stressors can take a toll on a species' ability to adapt to its changing environment.

There was a need to compile and update any existing information about bees in Connecticut because it was spread out among many institutions. With State Wildlife Grant funding, Dr. David Wagner of the University of Connecticut was able to compile, survey, and update the Wildlife Division's information on these important animals. Because of his work, we have a clearer picture of which bees need protection under Connecticut's Endangered Species Act. Connecticut has become the first state to add bees to its Endangered, Threatened and Special Concern Species List with the 2010 update to the list.

P. J. FUSCO (2)

Bumble bees are typically the first bees to emerge from winter hibernation and to be seen at early flowering plants in spring.

Bees Added to CT's List

Special Concern: Affable, or rusty-patched, bumble bee (*Bombus affinis*), which was once common east of the Mississippi, has only been found in small numbers and in isolated pockets throughout its former range. The last time this species was documented in Connecticut was in the early 1990s.

Special Concern: Yellowbanded bumble bee (*Bombus terricola*) was once commonly found east of the Rocky Mountains south to the Appalachian Mountains. It also has only been found in isolated pockets and has not been seen in Connecticut for over 10 years.

Special Concern (historic): Ashton's bumblebee, or Ashton's cuckoo bee (*Bombus ashtoni*), parasitizes nests of the rusty-patched bumble bee. This bee is rare because the host that it evolved with is rare. It has not been documented in Connecticut since the 1960s.

Special Concern: The fringed loosestrife oil-bee (*Macropis ciliata*) has an interesting life history as it is a specialist on *Lysimachia* (loosestrife) plants. This bee collects and combines pollen and floral oil from loosestrife to provide food for its larvae. This collected oil also is used to line the brood cells of underground nests. This oil-bee was most recently found in eastern Connecticut in 2006.

Endangered: Macropis cuckoo (*Epeoloides pilosula*) is a nest parasite of the fringed loosestrife oil-bee. It is rare because its host is rare and it has been considered one of the rarest bees in North America. The Macropis cuckoo has only been found twice in the past 50 years, in Nova Scotia in 2002 and in eastern Connecticut in 2006. Little is known about its life history.

More information on native pollinators is on the Xerces Society for Invertebrate Conservation Web site at www.xerces.org.

Laura Saucier is a technician for the Division's Wildlife Diversity Program

State Wildlife Grants

The Timber Rattlesnake: A Modern Day Legend

Written by Dennis Quinn

Surprise, quickly followed by fear, is the typical response when Connecticut residents learn about their neighbor, the timber rattlesnake. This snake's reputation is tangled in myth, legend, and folklore, rendering them ruthless killers that are better off dead in the eyes of most. Although a tough reputation to abate, it is both unjust and undeserved as timber rattlesnakes are docile and unlikely to impose harm on people.

The timber rattlesnake is a large snake that measures up to 4.5 feet in length, although larger individuals are not uncommon. It occurs in two color phases, "yellow" and "dark," both with dark brown or black banding. Banding patterns are more pronounced on yellow phase individuals because of the stark contrast to the lighter, yellowish background color. Facial pits, used to detect heat radiation from prey, are located between the nostril and eye on either side of the head. Distinctive only to the rattlesnake is the "rattle" at the base of the tail composed of loosely interlocking, keratinized segments, which cause the distinctive rattlesnake buzzing sound when vibrated.

Although great strides to protect timber rattlesnakes have occurred in the past 20 years, continuous efforts are needed to effectively protect and manage the remaining stronghold populations.

In Connecticut, timber rattlesnakes reside in northwest Litchfield, southeastern Hartford, and northern Middlesex Counties. Recent radio-tracking studies conducted in Connecticut by the DEP, coupled with years of population monitoring within the state's forests, have uncovered a vast amount of knowledge regarding the biology, movements, and threats to rattlesnake populations.

Spending winters in communal den sites located on rocky hillsides, where upwards of 100 or more snakes can reside, rattlesnakes start to emerge in early spring to soak up the warm daytime sun.

D. QUINN for DEP WILDLIFE DIVISION

This yellow phase timber rattlesnake basks in the early spring sun prior to dispersing to its summer foraging grounds.

As springtime temperatures rise, rattlesnakes begin dispersing into forested foraging grounds where they spend the summer feeding primarily on small rodents and birds. During this period, snakes will travel distances in excess of two miles from den sites, using a home range area of 500 acres. As fall approaches, the snakes start moving back to the denning areas for their long winter's rest.

Pregnant (gravid) females use habitats differently than males and non-gravid females. Gravid females typically remain sedentary within open rocky habitats, called rookeries, usually within one mile of denning areas. There, they bask in the warm summer sun to aid in the proper development of young. Gravid females give live birth in early fall to an average of 10 young. Although the young are born capable of self survival, the female will remain with them for one to two weeks post-birth, leading the young by scent trail back to the winter den site.

An endangered species in Connecticut, the timber rattlesnake continues to face threats to long-term survival in the state. As urbanization encroaches and suitable rattlesnake habitat continues to diminish, contact with humans increases, with potentially deadly consequences for the snakes. With development comes habitat fragmentation, increasing the likelihood of snakes crossing roads to reach their summer foraging grounds and leading to higher road mortality. Rattlesnakes are subject to large scale collection pressures for illegal live animal trade, especially in early spring and fall when the snakes congregate around den areas. Once depleted, populations are extremely vulnerable to extirpation, primarily due to the rattlesnake's low reproductive rate. With a single female taking as long as 10 years to reach sexual maturity and only reproducing once every three to four years, it could take years for a population to recover.

Although great strides to protect timber rattlesnakes have occurred in the past 20 years, continuous efforts are needed to effectively protect and manage the remaining stronghold populations. Connecticut's rattlesnake populations have a chance to survive into the future with continued education of the public, local municipalities, and state agencies; creative land use planning at town and state levels; increased protection of important rattlesnake habitat; and continued law enforcement efforts to prevent poaching.

Dennis Quinn is the owner of CTHerpConsultant, LLC

Long Island Sound – CT's Unique Biological Highway

Written by Penny Howell; Photos provided by DEP Marine Fisheries Division

The waters of Long Island Sound provide nursery and feeding grounds for over 100 species of finfish. The wide variety of bottom types, water depths, currents, and tidal ranges found in different parts of the Sound create a myriad of habitats which attract this large array of species. There is a species adapted to take advantage of conditions in every mud patch and rock pile, in a few feet of water to more than 120 feet. The Sound, and the rivers that feed into it, make up an estuary – one of the most unique ecosystems on the planet.

In 1987, the U.S. Congress designated Long Island Sound an *Estuary of National Significance* because of its high biodiversity and coinciding function as an "urban sea" and well-used travel route.

Crew of the research vessel *John Dempsey* beginning to sort the catch of scup, flounder, and other fish species. The entire catch is documented right down to algae and litter. All animals are sorted into holding tanks so they can be counted, weighed, and released. Some fish are taken back to the DEP Lab in Old Lyme to determine age, monitor for disease or contaminants, and record food habits and other biological data.

The John Dempsey crew reeling in the research trawl net after a half-hour sample tow.

Traffic Monitoring

The DEP Marine Fisheries Division oversees the marine resources in the state's waters (except shellfish aquaculture) and safeguards the health of these populations – or "biological traffic"– that uses our local estuarine "superhighway." Although portions of the Sound's finfish community have been documented for centuries in commercial and recreational catch records, as well as in localized research studies by academic institutions, the most comprehensive data comes from the DEP Long Island Sound Trawl Survey (LISTS). This survey began in 1984 and covers Connecticut and New York waters from the Thames River in the east to waters off Stamford in the west.

Sampling in Three Dimensions

After a quarter century of standardized bottom trawl sampling, the Survey catch indices have shown that overall abundance of finfish in the Sound has

Crew members holding a large striped bass captured during one of the cold spring surveys. The fish was measured, weighed, and released.

stayed remarkably stable. Trawling for three months in spring (April-June) and two months in fall (September-October), the Survey is designed to randomly sample 12 habitats: three bottom types (sand, mud, and transitional between the two) at four 30-foot water depths. Average catch over the time series among these 12 habitat types ranges from 27 fish per sample at deep (greater than 90 feet) sand sites (primarily found mid-Sound west of the mouth of the Connecticut River) up to an average of 99 fish per sample at mud sites in the western basin at mid-depths of 60 to 90 feet. Although the abundance of individual species has gone up and down, this spatial pattern of total abundance has remained fairly constant over 25 years. Despite continuing assaults to Long Island Sound's ecosystem (sewage and industrial discharges, hypoxia, water diversions, loss of buffering wetlands), this important estuary is holding its own as a vibrant and productive finfish nursery and feeding ground.

Penny Howell is a fisheries biologist with the DEP Marine Fisheries Division and a contributing editor to Connecticut Wildlife *magazine*

Estuaries Are Special Places

- **An estuary is the mixing zone for saltwater from the ocean and freshwater from rivers. This zone is a natural interchange connecting the terrestrial, freshwater, and marine systems. Much of an estuary's biological production is exported out to these adjoining systems.**
- **Estuaries are rare. When adding up all the "water real estate" on the globe, estuaries cover only two million square kilometers (sq. km), or 0.6% of the total.**
- **Estuaries are highly productive. When adding up all the biological energy produced on the globe (also known as the Global Energy Budget or GEB), estuaries contribute four percent to the GEB. This may not seem like much compared to the seven percent contributed by coastal seas, 33% contributed by the open oceans, and 56% contributed by agriculture, and temperate and tropical forests on the terrestrial side. However, if energy production is calculated per square kilometer, it only takes one-half million sq. km of an estuary to produce one percent of the GEB, while it takes about five million sq. km of the coastal zone and 10 million sq. km of open ocean to produce the same one percent GEB, making estuaries 20 times more productive per square kilometer than the open ocean.**

This striped burr fish, a rare tropical migrant, was captured during a fall survey when the Sound's water is warmest.

A common local spawner, this female winter flounder is the largest captured in the survey.

Black seabass used to be rare in the Sound but now are more commonly captured in the survey and by recreational and commercial fishers.

A close up of this sea raven shows the barbles and spines used for camouflage as the fish swims in kelp beds on the bottom of the Sound. This cold-adapted species is becoming less common in the Sound.

Why Trees Are Harvested in Connecticut State Forests

Bureau of Natural Resources, Division of Forestry

An often heard comment to the DEP Division of Forestry is that there should be no harvesting of trees in Connecticut. However, the science of sound forest management actually encourages the periodic harvesting of trees to weed out diseased or deformed trees and to make room for the healthiest, most vigorous trees to grow. A healthy, vigorous forest is better able to ward off diseases, defoliating insects, and the effects of natural events, such as fires and hurricanes. A well-managed forest provides a variety of habitat conditions and contributes to biological diversity, while being resilient enough to handle the recreational and forest product demands of Connecticut's increasing population.

F. TRAFIDLO, DEP FORESTRY DIVISION

DEP Forester David Irvin collects stand data, such as diameter at breast height (dbh), during a forest inventory.

The Division of Forestry's mission is to promote healthy and high-quality sustainable forests, not to cut trees to obtain the most money. In fact, many times the cost of cutting hundreds of small trees that have no value is absorbed so as to allow more sunlight to reach the ground for seed germination or to achieve a better distribution of tree sizes. In general, DEP foresters will select the least healthy and poorer quality trees for harvesting first, leaving the better quality trees to grow. However, society's huge demand for wood products makes the timber harvested from the state forests valuable. Certified Forest Practitioners bid on the right to cut trees that have been designated for harvest by a DEP Forester. Harvesters are required to comply with standards that minimize adverse environmental impacts, promote safety, and protect Connecticut's woodlands.

History of Connecticut's Forests

When the first European settlers arrived in what was to be the Connecticut colony, the forest they encountered was quite different from what you might imagine. It was not a sea of mature, old-growth forest. There were grasslands along the coast and major rivers; areas of woodlands with open, park-like understories; and mature forest interrupted by patches of young and middle-aged forest growth. This patchwork provided specialized habitats for a wide variety of native plant and animal species.

What accounted for this variety of habitats? From the time the Native Americans returned after the glacial period, they used fire to create a forest that better suited their needs. Native Americans burned the forest to improve habitat for game animals, increase berry production, enhance firewood and acorn production, ease travel through the forest, facilitate hunting, and clear land for agriculture. By their frequent and widespread use of fire, Native Americans were responsible for creating and maintaining diversity throughout the forests of the region.

Connecticut's landscape has changed dramatically over the centuries. Natural weather events, fire, and human appetite for forest products have altered forests. European settlers cleared forests to provide areas for livestock grazing and wood to warm their homes and fuel their industries. They continued clearing the forest until the early 1800s – to a point where nearly 80% of Connecticut had been transformed into agricultural fields. It wasn't until the late 1800s, when Connecticut's farmers began to abandon their farms to move west or to seek steady employment in the cities, that the forest began to reclaim the countryside. Today, a dramatically different forest has returned. Today's forest is less diverse in age, species, and cover types – and yet, this is an era when Connecticut residents look to the forests to fulfill a spectrum of social and economic needs unprecedented in history.

P. J. FUSCO

Mature forests in Connecticut provide nesting habitat for the wood thrush, a bird of conservation concern across its range. Wood thrushes use the interior, as well as the edges, of deciduous and mixed forests, often near water.

Promoting Healthy, Sustainable State Forests

A forester's work is based on science and designed to imitate, in a controlled way, the natural and Native American disturbances that created the healthy and diverse forests that greeted the Europeans. The forester seeks a careful balance because too much disturbance and too little disturbance are both detrimental to forest diversity.

To start, DEP foresters carefully identify and map the different stands of trees found in each state forest. Then, the foresters examine each stand, collecting scientific data that are later analyzed and used in management planning. Long-term forest management plans are developed for each state forest, incorporating measures to address the needs of wildlife, water quality, recreation, and the sustainable production of forest products. Foresters then implement the plans by overseeing commercial harvests, prescribed fires, or

other techniques to shape the forest.

Forest management plans may call for a harvest in a forest stand to thin overcrowded trees, salvage trees dying from disease or insect infestations, or regenerate a new forest stand. Foresters often prescribe management that favors trees best suited for the site. For instance, white pine thrives in sand and gravel soils, while sugar maple prefers fertile, moist soils.

Seedlings of different tree species germinate and grow best with various amounts of sunlight. To take advantage of the specific requirements of each tree species, foresters will employ particular management systems to encourage certain tree species.

Even-aged System: This system is used to develop a forest stand of uniform age. It works well if the forester wants to favor trees that need a lot of direct sunlight to germinate and grow, such as oaks and aspen. Two different cutting methods are used in even-aged management, clearcutting and shelterwood cuts. Occasionally a clearcut is prescribed in a stand with sufficient, existing, advanced regeneration to stimulate rapid seedling growth by removing the overstory in one harvest. These harvests may exceed 10 acres in size, but typically the patches are five to 10 acres. In shelterwood cuts, all trees are removed from the stand, but in two or three phases rather than all at once. This method encourages the development of new seedlings in partial shade until they are ready to be "released" to grow in full sunlight. The trees left standing in the early stages of a shelterwood cut are an "insurance policy" that provides a valuable source of seed. The goal is to regenerate one percent of the even-aged areas each year.

Uneven-aged System: This system relies on "selection cutting" to create, over time, a forest stand with at least three distinct age classes. Selection cutting means that individual trees or individual groups of trees are harvested to create small openings in the forest canopy. These small openings allow sunlight to reach the forest floor and stimulate seed germination. However, the crowns of the surrounding trees close the openings within a few years. This system favors tree species that are tolerant of shade, such as sugar maple, yellow birch, and beech.

Forest stands that are being thinned or managed with an uneven-aged system may only experience some harvesting every 25 or so years.

P. J. FUSCO

As part of the DEP Division of Forestry's mission to promote healthy and high-quality sustainable forests, trees are cut to restore the forest landscape and the diversity of forest life, as well as to provide society with forest products.

Over the centuries, Connecticut's forests have demonstrated how well they can rebound after being harvested. Most planned harvests on state forests are designed to take advantage of the abundance of naturally-occurring seeds and the aggressive capacity of the forest to rapidly regenerate on its own. Planting seedlings is usually not successful due to heavy browsing by deer and competition from naturally-occurring seedlings and stump sprouts. Planting can be useful if there is no desirable seed source on site, but it is done only on a limited basis.

Some areas within each state forest will never be harvested because of certain factors, such as inaccessibility, severe topography, or unique plant/animal communities.

Challenges for the Future

A century ago, Connecticut's first foresters began to work with forests that had been devastated by overcutting and widespread wildfire. Through the efforts of those foresters and an involved public, substantial headway was made in creating the State Forest System in the 20th century. Today, DEP foresters face many new challenges that threaten the future of healthy Connecticut forests and a diverse wildlife population. Those 21st Century challenges include:

- Loss of continuous habitat due to development (fragmentation);
- Lack of new generations of oak (due to deer damage, absence of fire, and harvesting practices on private land);
- Loss of conifer habitat because of infestations of the hemlock woolly adelgid;
- A general scarcity of early successional, or young-forest, habitat; and
- Increasing populations of invasive, exotic plants.

DEP confronts these new challenges through active forest and wildlife management programs that are based on the latest research, certifying forestry professionals, informing the public, educating private woodland owners, and increasing land acquisition for open space.

Foresters with the Division of Forestry believe that providing forest products from local forests in a manner that sustains ecological, societal, and economic values is part of their ethical responsibility as stewards for the future. "Sustainability" of our forests means not harvesting and using more than can be grown. It ensures there will always be a forest to use and enjoy. If not supplied locally, our demand for forest products is transferred to other places around the world where environmentally sound forest practices may not always be followed.

This article was prepared by the Division of Forestry. To learn more about forestry in Connecticut, visit the DEP's Web site at www.ct.gov/dep/forestry.

Native Wildflower Meadow at Belding WMA

Written by Jane Seymour

A wildflower meadow planted in 2008 with seeds of native species has become beautifully established over the past two years at the Belding Wildlife Management Area in Vernon. Native wildflowers bloomed from spring into fall this past year.

A bumble bee visits a purple coneflower in the Belding WMA wildflower meadow.
PHOTO BY J. SEYMOUR, HABITAT MANAGEMENT PROGRAM

With the arrival of spring, lupine filled the meadow, putting on a show of vibrant purple. Lupine is a native plant that provides nectar for a variety of insects, and is also a host plant for the eastern tailed-blue butterfly.

As the lupine went to seed, a variety of summer-blooming wildflowers took over the show. Wild bergamot, purple coneflower, and ox-eye sunflower attracted a variety of bees, butterflies, and other insects. Great-spangled fritillaries, red admirals, monarchs, tiger swallowtails, and eastern tailed-blues were some of the butterflies seen feeding in the meadow. The meadow also provided nesting cover for red-winged blackbirds and song sparrows.

By September, New England aster took over the field as summer blooms turned to seed. Once the wildflowers go to seed, they become an important food source for seed-eating birds, such as American goldfinch, indigo bunting, and song sparrow. The seeds also are eaten by meadow jumping mice and meadow voles. The voles, in turn, become food for red-tailed hawks that hunt the wildflower meadow and adjacent fields.

Establish Your Own Wildflower Meadow

There has been increased interest in cultivating wildflower meadows in recent years. When establishing your own wildflower meadow, select native plants that will provide nectar sources throughout the season. Seed mixes are available that also include native grasses, which provide nesting cover and food for wildlife. (Check the seed mix to be sure it contains native species.) Wildflower meadows require some maintenance, but less than a lawn. A meadow will eventually grow into a forest through natural succession. Therefore, woody plants must be weeded out to maintain the meadow habitat. This can be done by hand in small areas as tree and shrub seedlings begin to sprout. Meadow habitat is maintained in larger areas through occasional mowing or burning, usually every two or three years and after the nesting season.

If you have questions about establishing a wildflower meadow, send an E-mail to dep.belding@ct.gov.

Jane Seymour is a technician for the Wildlife Division's State Lands Management Program

C. BUNCE for DEP WILDLIFE DIVISION

J. SEYMOUR, HABITAT MANAGEMENT PROGRAM

New England aster (top right) and lupine (above) are some of the native flowers that bloom in the wildflower meadow at Belding Wildlife Management Area in Vernon.

The Race to Save Bats Continues

A silent invader moves rapidly through the darkness, reaching out to ensnare its peacefully sleeping victim. What may sound like the plot of the newest scary movie is actually a real conservation horror story occurring right here in Connecticut. In less than four years, white-nose syndrome (WNS) has killed thousands of Connecticut's bats and more than a million bats throughout the Northeast. It has spread to over a dozen states and two Canadian provinces, leaving a trail of ecological havoc in its wake.

Bats are a key part of healthy ecosystems, providing tremendous economic benefits to agriculture and forestry through their insect control abilities. The DEP, other state wildlife agencies in the Northeast, the U.S. Fish and Wildlife Service (USFWS), and many other academic and conservation partners are working in concert to find solutions and stop this unparalleled mortality.

Several bat species that call Connecticut home have been affected by white-nose syndrome. Known as "cave bats," they include little brown, northern long-eared, tri-colored (pipistrelle), big brown, and the Indiana bat (a state and federally endangered species.) The DEP has been actively involved with investigating the impact of WNS since 2007.

The Good News

The USFWS, through its Preventing Extinction Program, awarded $1.6 million this past October to six new projects aimed at detailed studies of the fungus associated with WNS. Through the federal Competitive State Wildlife Grant Program, the DEP and its counterparts in the Northeast received funding to address the growing problem of WNS from a regional perspective. These 11 partner states were recently awarded $200,000 from the grant to provide funding for research projects that will target urgent research needs — testing the safety and efficacy of non-invasive antifungal treatments; determining safe antifungal drug doses for affected bats; and determining if rehabilitated bats have successfully shed the fungus and can survive in clean sites without any regrowth of the fungus.

The National Plan

This past fall, the USFWS released a national white-nose syndrome management plan for review. In an effort to gather additional scientific and commercial information for consideration before the plan becomes final, public comments on the plan were accepted through December 26, 2010. The national plan, along with more information on WNS and related conservation efforts, can be viewed at www.fws.gov/WhiteNoseSyndrome.

The white fungus associatied with WNS is clearly visible on the hibernating little brown bat on the left.

P. J. FUSCO (2)

Several cave-dwelling bat species have been severely affected by WNS, especially little brown bats.

What Is Connecticut Doing?

Wildlife Division biologists continue to diligently observe the state's bats for the impacts of WNS. Since WNS emerged in the state in 2008, biologists have closely monitored hibernating bats for signs of WNS and to document mortality. Over the past two years, biologists also have begun intensively tracking summer maternity colonies to see if WNS is having a negative impact on bat survival and the ability to give birth and raise young.

Biologists, with the help of citizen scientists, were able to identify 41 summer maternity colonies throughout Connecticut during summer 2010. Over 2,065 bats were counted due to the efforts of about 80 volunteers. The majority of the bats identified were big brown bats. Sadly, other WNS affected "cave bats" were only rarely encountered. The good news is that, through these surveys, biologists were able to document the birth and survival of pups.

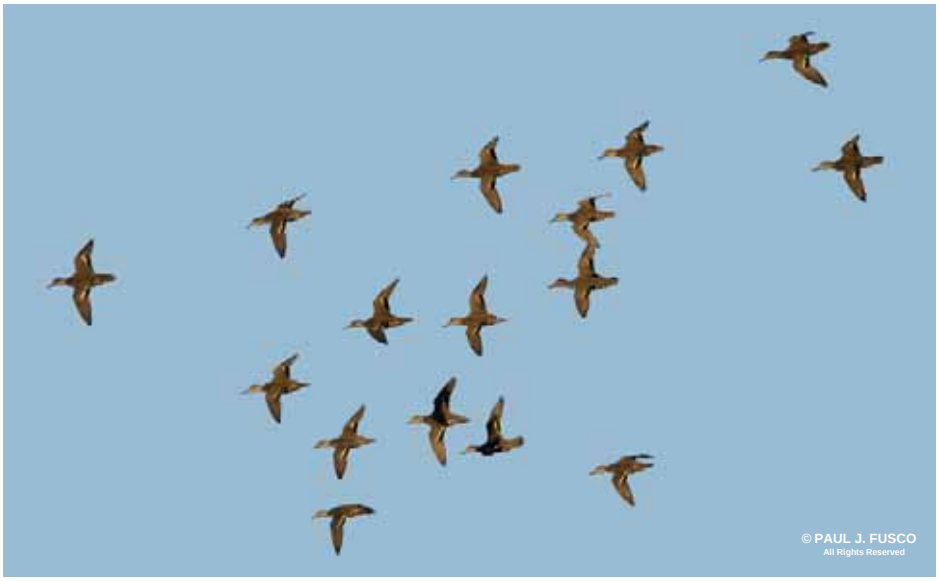
The DEP also was able to log over 500 citizen reports of bats throughout the state. While this may sound like a high number of sightings, reports of vacant bat houses and barns were equally common. These reports, along with the summer maternity colony counts, are all important to the research of WNS and our understanding of bats in Connecticut.

Residents are encouraged to help monitor WNS by reporting to the DEP any bats found outdoors from November through February. The characteristic white, fuzzy fungal growth is typically only visible on bats while they hibernate in cool, moist conditions in caves and mines. Even though the fungus may not be readily seen on a bat's nose, bats seen flying during the day or clinging to the outside of a building during winter are signs that WNS may be at work. Please submit the details of your sighting, including the date, location, what you observed, and digital photos, if possible, to Wildlife Division Technician Christina Kocer at christina.kocer@ct.gov.

Please remember that cave etiquette is critical to reducing the spread of WNS. If you visit a cave or mine in an area of the country affected by WNS, do not wear or bring any of the same gear to other sites. You also should heed closure signs for caves with restricted access.

The Importance of Migratory Bird Stopover Habitat

Article and photography by Paul Fusco



Green-winged teal rely on small ponds for refuge along their migration route to and from their northern breeding grounds.

In a world of increasingly dramatic changes happening across the landscape, the question arises, what are the impacts to wildlife? With urban sprawl, development, pollution, and progress continually degrading and destroying critical wildlife habitat, what consequences are wildlife experiencing? There are many critical habitats within the landscape that are of supreme importance to a wide range of wildlife, especially to migratory birds. Some of the most critical, and threatened, habitats are migratory bird stopover areas. These are the places where migrating birds congregate to feed, rest, and take cover during the part of their lives when they are most at risk – during migration.

Migratory bird stopover areas are generally habitats that provide essentials for birds to survive and continue their journey. Food plays such a big part that some migrations are timed to take advantage of a temporary abundance of food, which can be insect population explosions, ripened berries, or an abundance of fish. Most stopover areas also provide critical habitat for cover and rest. Whatever the attraction, migrating birds need to have safe and reliable habitats along their journey in order to survive. They may spend a few days or a few weeks at these locations, refueling and resting in preparation for the journey that lies ahead. Any loss of these important habitats can have a huge impact on bird populations.

A bird's migratory journey can be likened to a chain, with the stopover habitats being links in that chain. Birds stop at places along the chain for a period of time to feed, rest, and rebuild their fat reserves before continuing their journey to the next stopover habitat. When habitats are degraded or disappear, the links in the chain become weakened or lost, and thus the continuity is broken and migrations are at risk. If migrations are at risk, then bird populations also are at risk.

In some cases, whole species depend on just a few places to keep their life cycle intact. For instance, a small sandpiper, the red knot, has evolved to be heavily dependent on the food resources of the Delaware Bay during its spring migration. Abundant deposits of horseshoe crab eggs give the knots the energy they require to make the last leg of the journey to their Arctic breeding grounds. The entire East Coast population of red knots relies on the crab eggs. In recent years, overharvesting of horseshoe crabs has left a depleted number of eggs, resulting in dire consequences for the knot population which has dropped by an estimated 90%. The knots still show up in the traditional Delaware Bay stopover area, but they are unable to find enough food to pack on the fat reserves they need to reach their breeding areas, and their reproductive success has declined significantly.

Berries are an important food source for migratory birds, including this yellow-rumped warbler seen feeding on poison ivy berries.

Connecticut has some regionally significant migratory bird stopover areas that include the habitat complex at the mouth of the Housatonic River, the lower Connecticut River, the New Haven Harbor area, and parts of Long Island Sound. While these areas have regional importance for migratory birds, many other areas are significant on a statewide level. Some of these places include East Rock Park in New Haven, Cove Island Park in Stamford, and Bluff Point State Park in Groton for landbirds. Hammonasset Beach State Park in Madison and Great Meadows Marsh in Stratford are important for marshbirds and shorebirds, while Barn Island Wildlife Mangement Area in Stonington and Bantam Lake in Litchfield/Morris are significant for waterfowl.

Habitat corridors play a large role for migrating birds. The Conte National Wildlife Refuge is made up of a loose collection of property agreements protecting habitat along the length of the Connecticut

Migrants frequently run into inclement weather along their journey and need to find a place to rest and feed until the weather improves. These greater yellowlegs gathered on a small grass patch in a marsh to wait out bad weather during their southward migration.

River, recognizing the river's importance as a habitat corridor for migratory birds. Other rivers, like the Housatonic, Shetucket, and Quinnipiac, are similarly important.

On a smaller scale, local properties can be important as well. Even the smallest thickets or weedy fields can serve as stopover areas for birds that need to find food and cover as they pass through. Town parks, state parks, farm fields, ponds, and backyards can be used and are important stopover areas for a variety of birds.

Protecting habitat for migratory birds and other wildlife is one of the main goals of the DEP Wildife Division. In Connecticut, coastal habitats are probably the most critical areas for the conservation of migratory birds. In general, birds tend to congregate in greater numbers at coastal areas than at inland locations. Waterfowl and shorebirds are not the only birds that build their numbers along the coast — so do songbirds and raptors. Connecticut's geography tends to naturally concentrate migrating birds along the shoreline, especially in fall and winter. The protection of coastal habitats, large and small, is imperative to migratory bird conservation in Connecticut. But it doesn't end there. Not only is it important to protect habitats along the coast and close to the coast, but it also is important to protect the smaller thickets and weedy fields further inland.

Migratory bird stopover areas are islands of high quality habitat. They often are surrounded by degraded or lesser quality habitat and development. The distance between stopover habitats may be hundreds of miles or more. For a small bird depending on finding food and cover, traversing that distance can be challenging to that bird's very survival.

Weedy habitats, such as those found at migration hotspots along the coast, provide many fall migrant songbirds with an excellent place to find seeds and insects.

Protection of stopover areas is of equal importance for the conservation of migratory birds as the protection of breeding and wintering habitats. Even though Connecticut is a small state, it still has a number of high-profile stopover areas that are on both public and private properties. The Wildlife Division is working to conserve critical habitats on state land that serve as stopover areas. Towns and private land owners also can protect habitat for birds by leaving fallow areas uncut, planting native food-producing plants, and monitoring birds on their property. The average homeowner can make a difference by providing migrating birds with stopover habitat in their own backyard.

Paul Fusco is the Production Editor and Photographer for the Division's Outreach Program

Ice Fishing Anyone?

Written by George Babey

Hundreds of adventurous New Englanders joined CARE instructors at Burr Pond State Park in Torrington last winter.

Volunteer instructors with the Connecticut Aquatic Resources Education (CARE) Program have been teaching family ice fishing classes across the state for the past two decades. Over 100 ice fishing events and derbies have attracted thousands of participants who seem to enjoy the outdoor adventure, laughter, and opportunity for exercise with family and friends. If this interests you, read on.

CARE volunteers operate about a dozen classes and events each winter. Most are indoor classes followed by a fishing opportunity on a frozen pond at a later date. Some are outdoor events held right on the ice. Families, youth groups, and adults looking to develop new skills can all expect to have a fun and interesting time. Instructors cover all the topics you might expect, from safety to clothing to tackle. You'll learn, in an entertaining way, with video presentations, demonstrations, and the opportunity to try some of the equipment for yourself. Instructors will have equipment, cold-weather clothing, safety equipment, and other items for you to inspect at the class or event.

AIMEE CARLIN, DEP PARKS DIVISION (3)

This young angler is happy that he attended a CARE family ice fishing event.

It's easy to locate a family ice fishing class near you by visiting the CARE Schedule of Classes Web page (www.ct.gov/dep/calendar). Most classes require pre-registration to ensure that there is enough interest and room for all who wish to attend. Add some excitement and adventure to your winter by registering for a class today!

Family Ice Fishing Trips

If you want to try ice fishing, CARE instructors can help. Equipment will be available for you to borrow at the annual Family Ice Fishing Derby on January 29, 2011, at Coventry Lake, in Coventry. You should take a family ice fishing class **before** attending the Derby, so you are well prepared. Good boots, warm clothing, a 2011 fishing license (required for those 16 years and older), and other items will help ensure a wonderful day. CARE instructors will offer a second opportunity to try ice fishing at another lake on February 5, 2011, as part of DEP's Great Parks Pursuit. (Location and time will be announced soon.) In addition to ice fishing, other activities will make the day complete. Check the CARE Schedule of Classes Web page for more information.

Would You Like to Help?

The CARE Program is always looking for sporting men and women who would like to share their love of fishing with families across Connecticut. CARE New Instructor Training is scheduled for February 26, 2011. Teaching materials, equipment, and a statewide team of other CARE instructors are available to help you get started. The training is fun and the rewards are endless. For more information, contact the CARE Center at 860-663-1656 for more information.

The CARE Family Ice Fishing Derby is set for January 29, 2011, in Coventry. Attend an ice fishing class earlier in the month to prepare your family for the outdoor adventure.

George Babey is a Supervising Fisheries Biologist for the Inland Fisheries Division and a contributing editor to Connecticut Wildlife *magazine*

Coyote

Canis latrans

P. J. FUSCO

Background

Coyotes were not originally found in Connecticut, but have extended their range eastward during the last 100 years from the western plains and midwestern United States, through Canada and into the northeastern and mid-Atlantic states. Coyotes were first reported in Connecticut in the mid-1950s. For the next 10 years, most coyote reports were from northwestern Connecticut. Coyotes eventually expanded their range throughout the entire state and are now a part of Connecticut's ecosystem. The coyote is one wildlife species that has adapted to human-disturbed environments and can thrive in close proximity to populated areas.

Range

Originally an inhabitant of the western plains of the United States, the coyote now occurs from Alaska south into Central America and east from the Atlantic Provinces to the southeastern United States.

Description

A typical coyote resembles a small, lanky German shepherd, but several characteristics distinguish it from a dog. Coyotes tend to be more slender and have wide, pointed ears; a long, tapered muzzle; yellow eyes; slender legs; small feet; and a straight, bushy tail which is carried low to the ground. The pelage (fur) is usually a grizzled-gray color with a cream-colored or white underside, but coloration is variable with individuals having blonde, reddish, and charcoal coat colors. Coat color does not vary between the sexes. Most coyotes have dark hairs over the back and a black-tipped tail, which has a black spot near its base covering a distinctive scent gland. However, not all coyotes have the black markings.

The eastern coyote is larger than its western counterpart. Most adults are about 48 to 60 inches long from nose to tail and weigh between 30 to 50 pounds, with males typically weighing more than females.

Habitat and Diet

Coyotes are opportunistic and use a variety of habitats, including developed areas like wooded suburbs, parks, beaches, and office parks. Their ability to survive and take advantage of food sources found in and around these "man-made" habitats has resulted in an increase in coyote sightings and related conflicts. A coyote's diet consists predominantly of mice, woodchucks, squirrels, rabbits, deer, some fruits, carrion, and when available, garbage. Some coyotes will also prey on small livestock, poultry, and small pets. In Connecticut, unsupervised pets, particularly outdoor cats and small dogs (less than 25 pounds) are vulnerable to coyote attacks.

Life History

Coyotes are monogamous. The male and female usually maintain pair bonds for several years. In Connecticut, the breeding season is from January to March, and the gestation period is about 63 days. Although adults can dig their own dens, they often enlarge an abandoned woodchuck or fox burrow. Pups are born in spring (April to mid-May), and litters range in size from one to as many as 12 pups; the average in Connecticut is seven. Both adults care for the young and will readily move them if disturbed. Pups are weaned at about six to eight weeks and begin foraging and hunting with the adults when they are eight to 13 weeks old.

The family group usually breaks up in fall or early winter when the young disperse. Young coyotes may travel long distances in search of new territories, giving this species a rapid potential for colonization. Although nearly full grown by their ninth month, eastern coyotes may not breed until they are nearly two years old.

Interesting Facts

Eastern coyotes are generally larger in size than their western counterparts. Recent genetic research has attributed the eastern coyote's larger size to interbreeding with Canadian gray wolves.

Coyotes are biologically able to reproduce with domestic dogs, although because of several barriers, they rarely do. For instance, both male and female coyotes are fertile for only a short time during the year. Also, young coydogs rarely survive because male domestic dogs that breed with female coyotes do not remain with her to assist with parental care. The offspring of a coyote/domestic dog mating are often infertile.

Coyotes use a variety of vocalizations to communicate with one another. Howls, yelps, and high-pitched cries are best known, but they also bark, growl, wail, and squeal. Family groups yelping in unison can create the illusion of a dozen or more performing together. Coyotes are most often heard around dawn and dusk. However, they may respond to sirens and fire whistles at any time of day or night.

A coyote's social unit consists of the adult pair and their young; they may be encountered singly, in pairs, or in groups of three or more. Mated pairs maintain territories which are scent-marked and defended against other coyotes as well as foxes.

P. J. FUSCO

A coyote's sense of hearing, sight, and smell are well developed.

Coyotes normally run as fast as 25 to 30 miles an hour, but can run 35 to 40 miles an hour when pursued. They are also strong swimmers.

Living with Coyotes

As coyotes have become more common, public concerns about coyotes attacking pets and people, especially children, have increased. Although some coyotes may exhibit bold behavior near people, the risk of a coyote attacking a person is extremely low. This risk can increase if coyotes are intentionally fed and then learn to associate people with food.

Coyotes will attack and kill pets, especially cats and small dogs (less than 25 pounds). **The best way to protect pets is to not allow them to run free.** Cats should be kept indoors, particularly at night, and small dogs should be on a leash and under close supervision at all times. The installation of a kennel or coyote-proof fencing is a long-term solution for protecting pets. In addition, homeowners should eliminate other sources of attraction to coyotes including pet food left outdoors, table scraps on compost piles, and decaying fruit below fruit trees.

Coyotes will attack a variety of livestock but sheep and fowl are at greatest risk. Coyotes pose very little danger to horses and cattle. The probability of a coyote attack can be reduced by penning susceptible livestock and poultry at night. Some fences effectively exclude coyotes but require careful maintenance. Guard dogs have been used successfully to reduce coyote depredation. The removal and proper disposal of dead poultry or livestock is highly recommended as a preventive measure. Carrion left in the open may attract coyotes and bring them into close and more frequent contact with live animals. Livestock owners may use trapping or shooting to remove coyotes that have attacked their animal stock.

Coyotes seen near homes or in residential areas rarely threaten human safety. Coyotes are abundant across North America, yet only a very small number of attacks on humans have ever been reported. Like many animals, coyotes can grow accustomed to buildings and human activity.

NEVER feed coyotes! DO NOT place food out for any mammals. Homeowners should eliminate any food sources that may be attractive to coyotes. Clean up bird seed below feeders, pet foods, and fallen fruit. Secure garbage and compost in animal-proof containers.

You can attempt to frighten away coyotes by making loud noises (shouting, air horn, or banging pots and pans) and acting aggressively (e.g., waving your arms, throwing sticks, spraying with a garden hose). Homeowners should realize that if they live near suitable habitat, fencing may be the only method to completely eliminate coyotes from travelling near homes. In rare cases, efforts to remove coyotes may be justified.

Coyotes are most active at night but may be active during daylight hours, particularly during the young-rearing period and longer days of summer. Daytime activity alone is not indicative of rabies. Coyotes appear to have low susceptibility to the "raccoon" or mid-Atlantic strain of rabies found in Connecticut. Coyotes are susceptible to strains of rabies that occur elsewhere in North America and to the other common canine diseases, such as canine distemper. Sarcoptic mange, a parasitic disease, can affect large numbers of coyotes, particularly when the population is dense and the chance of transmission is high. In Connecticut, many are also killed on roadways by automobiles.

It is legal to trap and hunt coyotes in Connecticut. Hunters and trappers are required to follow strict laws and regulations. Hunters and trappers are required to report and tag coyote pelts before they are sold, tanned, or mounted. There are special provisions for using land sets to trap coyotes on private land from December 1 through January 31. For more information on coyote hunting and trapping seasons, consult the current Connecticut Hunting and Trapping Guide or go to the DEP website at www.ct.gov/dep/hunting.

Tracks

Front 2Ó - 3" Long
Hind 2Ó - 3" Long

Members of the dog family (domestic dogs, coyotes, wolves, foxes) have similar track patterns that show four toes and usually the toenails. The front foot is slightly larger than the hind foot. Coyote tracks are pointed, while dog tracks are more circular.

Despite Drought Conditions, WNV and EEE Persisted

Written by Roger Wolfe

It is impossible to predict what the mosquito season will be like year after year. Connecticut experienced a wet, mild spring in 2010, and from that it could have been speculated that an active mosquito season was in store. Several heavy rain events resulted in localized flooding with bridge and road washouts. This also resulted in a good hatch of spring mosquitoes. Spring, floodwater mosquitoes hatch from eggs that were laid the previous fall and overwintered in the egg stage. As the days grow longer and the water warms up in spring, these eggs hatch into larvae and eventually emerge as adult mosquitoes. This process takes about a month and a half in Connecticut, with adult mosquitoes usually emerging just in time for Memorial Day weekend. However, in 2010, the rains quickly ended and most of Connecticut experienced drought-like conditions for the bulk of the summer. While less rain usually means fewer mosquitoes, these weather conditions tend to favor those mosquitoes that amplify and transmit West Nile virus (WNV), and that is indeed what Connecticut experienced this past year.

West Nile virus and eastern equine encephalitis (EEE) are bird viruses that are naturally present in the wild bird population and are transmitted primarily by a dozen or so of Connecticut's 50 different species of mosquito. Over time, wild birds have developed a natural immunity to these viruses and therefore are not normally affected by the diseases. On the other hand, non-native or exotic birds (e.g., emus, ostriches, pheasants) do not have these built-in immunities and can be susceptible to the diseases.

Monitoring Mosquitoes

As part of Connecticut's Mosquito Management Program, the Connecticut Agricultural Experiment Station (CAES) began trapping and testing mosquitoes in early June for EEE, WNV, and other mosquito-borne diseases. Mosquito traps were set at 91 sites throughout the state and attended by CAES staff every 10 days on a regular rotation. Two trap types were used at all trapping stations: a CO^2-baited CDC Light Trap, designed to trap host-seeking adult female mosquitoes (all species); and a Gravid Mosquito Trap, designed to trap previously blood-fed adult female mosquitoes (principally Culex species) looking for a place to lay their eggs.

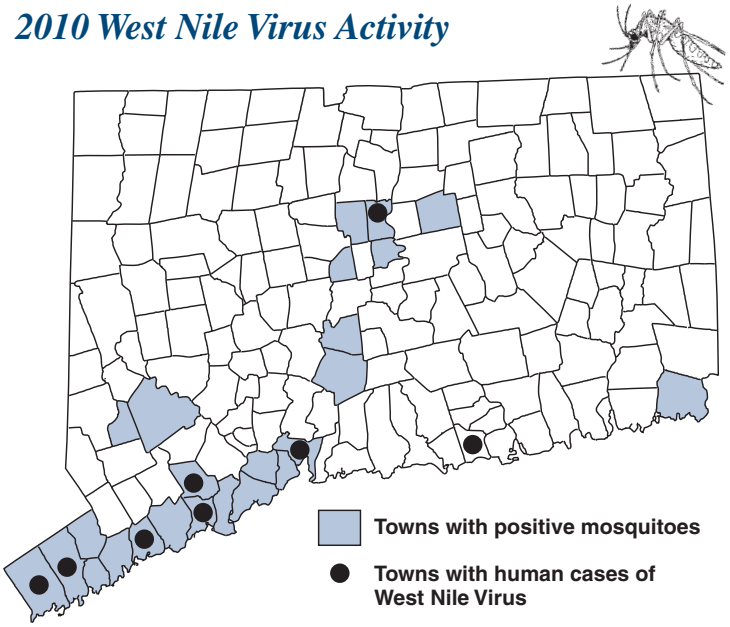
By the end of October, the CAES had trapped and tested almost 116,000 mosquitoes. Although this appears to be a significant number, it is more an indication of the drought as it is a far cry from the 286,000 mosquitoes that were tested in 2009. Despite the lack of rain and more than 30 days with temperatures above 90° F, the CAES isolated 220 WNV-positive pools of mosquitoes and 4 EEE isolations. In addition, the Department of Public Health confirmed eight human cases of WNV. There were two additional human cases of WNV, but it was determined through travel history that these infections were obtained while the individuals were out-of-state.

Some individual towns opted to spray (adulticide) for mosquitoes on their public lands. However, the DEP did not spray because virus isolations were too widespread geographically and spatially. Mosquito surveillance reports, as well as helpful information for homeowners to minimize the risk of mosquito-borne diseases, can be found on the Mosquito Management Program Web site (www.ct.gov/mosquito).

It can never be predicted from year to year what the mosquito season will be like, but we can learn from the past, look for long-term trends in weather and mosquito activity, use new technology for surveillance and control as it becomes available, and be better prepared for when mosquito and viral activity rises and becomes a risk to public health.

Roger Wolfe is the coordinator of the DEP's Mosquito Management Program

2010 West Nile Virus Activity



Remember Your "Other Dependents" at Tax Time

Tax time may be a dreaded time for most people, but something good can come out of it. Connecticut taxpayers have the opportunity to "give back to wildlife" by voluntarily donating a portion of their state tax refund to the Endangered Species/Wildlife Income Tax Check-off Fund. This special fund supports efforts aimed at helping Connecticut's endangered species, natural area preserves, and watchable wildlife. Recently-funded projects include moose research and a study of endangered populations of spadefoot toads and blue-spotted salamanders (see articles in the November/December 2010 issue of *Connecticut Wildlife*).

When filling out your tax form, remember your "other dependents," our state wildlife species, and please donate a portion of your tax refund. Citizens also can contribute directly by sending a check (payable to DEP Endangered Species/Wildlife Fund) to: DEP, Bureau of Financial and Support Services, 79 Elm Street, Hartford, CT 06106.

Thank you for supporting Connecticut's Wildlife!

How to Be a Good Bluebird Box Landlord

Written by Geoffrey Krukar

PHOTO BY P. J. FUSCO

Countless bluebird nest boxes are in yards, parks, golf courses, and cemeteries throughout Connecticut. While putting up a box is a good first step towards helping bluebirds, much still needs to be done after the box is installed. Assuming boxes were placed in the proper habitat, the success or failure of boxes will be greatly influenced by care and diligence. Proper management can be achieved by following certain guidelines.

Preparation and Monitoring

Prepare boxes for the nesting season each year by cleaning and repairing them no later than the first week of March. Male bluebirds begin selecting nest sites as early as mid-March and will be less likely to use dirty, broken boxes. Remove old bird or mouse nesting materials. Use caution when removing mouse nests as they may still be active. The walls, roof, and floor of the boxes need to be checked for cracks or breaks and damaged pieces should be replaced. Vent holes on the sides and drain holes in the floor should be free of obstructions.

Be prepared to visit your nest boxes at least once per week for the entire nesting season (March – July). Routine visits allow you to track the progress of nesting birds and detect any problems early enough to be corrected. Keeping a journal or log also is a good idea. Bluebirds are tolerant of occasional human interference and will not abandon the nest.

The proper technique of monitoring boxes is simple and straightforward and will ensure that the experience is mutually beneficial. First, observe the box from a distance and take note of birds going in and out. Then, approach the box, giving it a gentle tap to warn the birds that you will be opening it. Try not to approach the box from the same direction every time because doing so will create a scent trail that could lead predators to this location. Next, slowly open the door and peek inside. You should take note if there is a nest, what kind it is, the number of eggs or nestlings, and any signs of parasites or predators. If there are nestlings on a prior visit and the nest is empty on a subsequent visit, the birds likely fledged (unless there are signs of predation, such as chew marks or fur around the hole).

One benefit of weekly visits is that you can obtain an estimated age for nestlings. This is important because you should avoid opening the box when the nestlings are more than 14 days old to prevent them from jumping out of the box and fledging early.

Once the nestlings have fledged, the nest should be removed from the box. Eastern bluebirds have been reported to nest up to three times over the same season in Connecticut. Even though the birds will build a new nest on top of the old one, it is best to remove the old material.

Knowing which species of bird is nesting in your box is important. Eastern bluebirds, tree swallows, house wrens, chickadees, and tufted titmice are native species that commonly use bluebird nest boxes. All are protected by federal laws and should be allowed to finish any nest they start. The non-native, invasive English house sparrow is another common nester in Connecticut. House sparrows are aggressive competitors to native bird species and any nesting attempts should be discouraged through nest removal, egg removal, or euthanasia.

Report Nesting Results

Nest box successes and failures should be reported to the Wildlife Division at the end of the nesting season. These data are used to track bluebird population distributions and trends. Plans are in the works to allow nest box landlords provide their information through the DEP Web site. In the meantime, landlords can contact Wildlife Division technician Geoffrey Krukar at 860-675-8130 or send an E-mail to geoffrey.krukar@ct.gov.

Geoffrey Krukar is a technician for the Wildlife Division's Avian Program

Quick Guide to Nest Identification

Bluebird: a neat nest of fine grasses or pine needles.
Tree swallow: a nest of grasses lined with feathers.
Black-capped chickadee or tufted titmouse: a downy nest of mosses, fur, and soft plant fibers.
House wren: a messy nest of twigs, occasionally lined with finer fibers.
House sparrow: a nest with a jumble of odds and ends, such as grasses, cloth, feathers, twigs, and possibly bits of litter.

American Woodcock Demonstration Area at Roraback WMA

Written by Paul Rothbart

The Wildlife Management Institute, in partnership with state wildlife agencies, the U. S. Fish and Wildlife Service and the Ruffed Grouse Society, spearheaded an effort to develop an American Woodcock Conservation Plan. The plan was completed in 2008. To best implement the plan, managers have established "Woodcock Regional Habitat Initiatives." These initiatives are partnerships between government agencies, conservation organizations, and private landowners in the geographic areas within the woodcock's range. Currently, there are four such initiatives:

- Atlantic Coast area that stretches from southwestern Maine to the Chesapeake Bay, which includes most of Connecticut.
- Northern Forest comprising most of New England, the Adirondack Mountains of New York, and Atlantic Canada. The extreme northwest corner of Connecticut falls within this area.
- Appalachian Mountains covering southern New York, much of Pennsylvania, western Maryland, all of West Virginia, and parts of Ohio and Virginia.
- Upper Great Lakes region of Michigan, Wisconsin, and Minnesota.

Project at Roraback WMA

The Wildlife Division began a project in 2009 at the Roraback Wildlife Management Area (WMA) in Harwinton to create and renew the young forest habitats on which more than 47 wild species depend – animals from reptiles and amphibians to birds to large mammals, which are identified in Connecticut's Comprehensive Wildlife Conservation Strategy as species of greatest conservation need. This initial phase of the project is designed to promote public awareness of, and support for, management efforts that provide habitat for woodcock and other young-forest wildlife.

Roraback WMA, at 1,975 acres, is the state's largest wildlife management area. Its varied habitats include streams, wetlands, mixed hardwood forest (aspen, hickories, oaks, maples, black cherry, white pine), farmed land, and brushy fields. Ruffed grouse, woodcock, songbirds, cottontail rabbits, deer, fisher, and porcupine are some of the many species of wildlife present on the area.

In Connecticut, as in other states in the Northeast, forests are becoming increasingly mature, which means that populations of animals that need young forests – such as ruffed grouse, woodcock, Eastern towhee, brown thrasher, and New England cottontail – have trended downward for several decades.

PHOTO BY P. J. FUSCO

Improving Habitat for Woodcock

In 2009, workers used logging machines and a tracked skid-steer with a cutting head to clear and regenerate young trees on a 13-acre parcel of forest. In addition, non-native invasive plants, such as multiflora rose, barberry, and honeysuckle, were treated with herbicides within existing old fields, shrublands, and an orchard.

Although mature trees were removed, managers left behind apple trees and native shrubs, such as gray-stemmed and red-osier dogwood, arrowwood viburnum, and spicebush. A forested buffer remains next to wetlands and Lead Mine Brook, a high-quality trout stream that winds through the area. As the 13 acres re-grow, managers will spot-use herbicides to hold back invasive shrubs in favor of natives. Every 15 to 20 years, mature trees will be harvested again to keep the tract in a young-forest stage.

Expanding the Project

Habitat work has expanded eastward from the initial 13-acre core area, where 15 acres of mature hardwoods were commercially logged in fall 2010. The resulting 28-acre patch will provide habitat for New England cottontails, which have historically been found at Roraback WMA. Young-forest tracts that are 25 acres and larger are more suitable for these native rabbits.

Existing hayfields at Roraback WMA already offer singing grounds and roosting habitat for the American woodcock. Young hardwoods and raspberry shrubs are growing back densely in a 10-year-old, 2.6-acre patch cut on the far southern portion of the project area, providing feeding and nesting cover.

A self-guided trail through the managed area also has been developed. Informational signs explain how young-forest habitat benefits wildlife. In addition, there are plans to hold annual landowner workshops at the demonstration area (see article on page 20). For more information, including directions to an access road leading to the habitat area, contact Paul Rothbart, supervisor of the Wildlife Division's Habitat Management Program, at 860-295-9523, or send E-mail to paul.rothbart@ct.gov.

A special thank you goes out to the Wildlife Management Institute, Connecticut's Beardsley Zoo, and Connecticut Woodcock Council which provided cooperative funds to complete the initial habitat enhancements.

Paul Rothbart is the supervisor of the Wildlife Division's Habitat Management Program

Landowners Learn About Young-forest Species at Workshop

Written by Judy Wilson and Lisa Wahle

Thirty four landowners attended the DEP Wildlife Division's workshop entitled "The New England Cottontail Initiative: Working to Benefit the Cottontail, Woodcock, and Other Young-forest Species" on October 3, 2010, at the Sessions Woods Wildlife Management Area (WMA) in Burlington. These landowners were invited because they hold significant parcels of potential New England cottontail habitat near habitat restoration projects on state lands. The Wildlife Division is currently conducting habitat management activities at four locations in northwestern Connecticut. The locations include Roraback WMA in Harwinton, Goshen WMA in Goshen, Housatonic WMA in Kent, and Camp Columbia State Forest in Morris. The one-day workshop served as the starting point for the private lands outreach component of the New England Cottontail Initiative. More workshops are planned for the near future.

P. COMINS, AUDUBON CONNECTICUT

Wildlife Division Supervising Biologist Paul Rothbart gives an overview of the Roraback WMA Young Forest Demonstration Trail to private landowners attending the New England Cottontail Workshop.

The Division has documented active populations of New England cottontails at all of the management areas where work is being done, except at Roraback WMA where there is one historic record. Current research shows that New England cottontails have limited dispersal capabilities and can only be expected to colonize new habitat up to about one kilometer away. Given this and the fact that the rabbits require large areas of habitat, the Division "targeted" landowners who owned 10 or more acres and were within one mile of the project sites. All land trusts, sportsman's clubs, conservation organizations, and town conservation commissions in the focus area also were targeted.

Learning About Cottontails

Paul Rothbart, Supervisor of the Division's Habitat Management Program, kicked off the workshop with an overview of Connecticut's role in the "Range-wide New England Cottontail Initiative," a program made possible by a U.S. Fish and Wildlife Service grant to several New England states in 2010. The New England cottontail is a candidate species for protection under the federal Endangered Species Act, and is being considered for full protection. During his introduction, Paul highlighted the goals of the initiative: 1) to create and restore approximately 190 acres of habitat on four state management areas in northwestern Connecticut; 2) to conduct pre- and post-monitoring of these habitat projects for vegetative and wildlife species response; and 3) to initiate outreach to private landowners.

Howard Kilpatrick, Supervisor of the Division's Deer, Turkey, and Small Game Programs, provided results from over 10 years of research on the status and distribution of New England cottontails in Connecticut. Two species of cottontails are found in the state, the native New England cottontail and the introduced Eastern cottontail. The New England cottontail requires large areas of dense cover provided by overgrown abandoned farmland; shrub swamps and brushy areas near beaver flowages; dense thickets and overgrown tangles of brush and briar; coastal shrublands; and young regenerating forests. The more abundant eastern cottontail can survive in smaller patches of fragmented early successional habitat, such as the overgrown edges of lawns and small agricultural areas, more typical of conditions found in much of Connecticut today.

Historically, the native rabbit ranged throughout New England and west to the Hudson River in New York. Its current range has been reduced by 80%. The decline of the New England cottontail is attributed to the disappearance of large, quality habitat areas and an increase in predators associated with humans, including foxes, coyotes, dogs, and cats. While not physically dominant over the New England cottontail, Eastern cottontails are able to exploit a wider variety of habitat types, produce more young, and are better at detecting and evading predators. To date, New England cottontails have been documented in 41 Connecticut towns. Although New England cottontails have a restricted distribution in Connecticut and they are considered uncommon, the state contains a globally significant proportion of the world's population.

Learning About Early Successional Species

Workshop attendees also heard from Min Huang, Leader of the Division's Migratory Bird Program, about the American woodcock, another species dependent on young-forest habitats and also in decline throughout Connecticut and most of its range.

Patrick Comins, Director of Bird Conservation for Audubon Connecticut, provided a historical perspective on early successional habitats across the landscape and the natural processes that created and maintained them. He explained how most natural processes have been interrupted or suppressed, and that active management is necessary to maintain these habitats and the biodiversity associated with them. The many species of mammals, birds, reptiles, amphibians, and insects that require these habitats for survival were highlighted during the presentation. Chris Fields, Important Bird Areas (IBA) Program Coordinator for Audubon Connecticut, talked about "Smart Management for Early Successional Birds."

Opportunities for Landowners

Judy Wilson, a Wildlife Division biologist with the Private Lands Program, provided an overview of the various grant programs available to landowners who want to become involved in managing for New England cottontails and other wildlife species dependent on young-forest habitats, such as woodcock, blue-winged warbler, eastern box turtle, eastern hognose, and bronze copper butterfly. The Division's Landowner Incentive Program, which provides technical advice and financial support to projects that benefit species at risk, will be holding an open application period in the near future. Landowners will be able to apply for assistance with projects that benefit species at risk in priority wetland or early successional habitats. More information about this program is available on the DEP Web site (www.ct.gov/dep/wildlife), or by contacting Judy or Wildlife Technician Robin Blum at 860-295-9523.

J. WILSON, PRIVATE LANDS HABITAT PROGRAM

Andrew Bosse, a private consulting forester, demonstrates a customized herbicide sprayer mounted on an all terrain vehicle (ATV) and discusses its application for various treatments.

Experiences of Conservation Organizations

Jason Marshall, President of both the Northwest Connecticut Sportsman's Council and Northwest Connecticut Sportsman's Club, spoke about the club's experience with several private land grant programs. The club used the U.S. Fish and Wildlife Service's Partners Program to carry out a regeneration cut to create a young seedling/sapling forest for woodcock, ruffed grouse, chestnut-sided warblers, and blue-winged warblers. A Natural Resources Conservation Service Wildlife Habitat Incentive Program grant also was used to carry out other wildlife habitat improvements.

Andy Weik, Regional Biologist for the Ruffed Grouse Society, gave an overview of the Society's mission to promote and maintain conditions suitable for ruffed grouse and other young-forest dependent species. He also described how the Society can assist private forest owners and professional land managers with habitat management. More information on the Ruffed Grouse Society can be found on its Web site (www.ruffedgrousesociety.org).

Dale May, retired Wildlife Division Director spoke on behalf of the Connecticut Woodcock Council, an organization dedicated to conserving woodcock and other early successional wildlife. He provided personal insight into why people should care about the stewardship of the woodcock and discussed the types of activities the Council undertakes to further its mission. More information on the Council and early successional habitats is available at www.timberdoodle.org.

Habitat Management in Action

Workshop participants also had the opportunity to visit Roraback WMA to view a completed early successional habitat project that was designed specifically to benefit New England cottontails, woodcock, and other species of greatest conservation need (see page 19 to learn more about the project). Participants were shown various pieces of habitat management equipment and how they are used. Andrew Bosse, a private consulting forester, demonstrated a customized herbicide sprayer mounted on an all terrain vehicle (ATV) and discussed its application for various treatments. Lower Berkshire Land Development demonstrated a tree shear used to harvest and move large trees, and TR Landworks, LLC, showed a large excavator fitted with a specialized cutting head (Denis Cimaf mower) used to cut and mulch trees.

While at Roraback WMA, participants also walked a recently completed Young-Forest Habitat Demonstration Area Trail that highlighted work being done for New England cottontail, woodcock, and other young-forest dependent species. This is the first demonstration trail in Connecticut to be created under the Atlantic Coast Woodcock Initiative (see www.timberdoodle.org/Atlantic-Coast to learn more about this initiative). The trail highlighted a variety of important wildlife habitat features and management techniques, including a vernal pool, stone walls, managed thickets, drumming logs, aspens, a riparian zone, an orchard, herbaceous fields, and snags. Technician Jane Seymour and Biologist Peter Picone, from the Wildlife Division, led the walks, providing interpretation at all trail stops. Larry Rousseau, DEP Private Lands Forester, discussed how the Connecticut Forest Practices Act applies to landowners undertaking forestry projects and the role certified forest practitioners have in those projects.

Workshop attendees received a copy of the publication "*Managing Grasslands, Shrublands and Young Forests for Wildlife: A Guide for the Northeast*," along with a number of other handouts. This group represents the first of hopefully many interested landowners whose land may be critical to the conservation of New England cottontails. The landowners who attended the workshop will be contacted regarding potential habitat work on their property as additional resources become available.

Judy Wilson is a biologist with the Wildlife Division's Private Lands Habitat Program. Lisa Wahle is a seasonal resource assistant for the Wildlife Division's Habitat Management Program.

FROM THE FIELD

Water Control Structure Replacement Project

The Wildlife Division manages water levels at over 100 inland impoundments statewide. These sites provide habitat for wood ducks, black ducks, great blue herons, kingfishers, otters, amphibians, reptiles, and numerous other species. Due to ongoing beaver activities at many of these sites, the water control structures and associated emergency spillways often are plugged with debris, making it impossible to manipulate or maintain desirable water levels. This situation often results in degraded wildlife habitat and also may create a safety issue if the dam/dikes are inundated and become unstable.

With funding obtained through the Natural Resources Conservation Service's Wildlife Habitat Incentives Program, the Wildlife Division has been able to move forward with enhancements at three inland impoundment sites: 1) Bartlett Brook Wildlife Management Area (WMA) in Lebanon; 2) Franklin Swamp WMA in Franklin; and 3) Oxbow Marsh in Cockaponset State Forest, in Haddam.

The project involves the replacement of deteriorating water control structures at these locations with newly designed structures. These structures will be placed in the middle of the dikes with the culvert inlet pipe extending at least 10 feet out in front. This new structure makes it difficult for beavers to hear where the water flow is occurring, thus deterring them from blocking the pipes with debris and thereby eliminating or at least minimizing nuisance related issues.

(Top) DEP Wetlands Habitat and Mosquito Management Program staff installing an in-line design water control structure at Bartlett Brook WMA in Lebanon. (Bottom) This device allows the Wildlife Division to manage water levels at suitable depths for wetland dependent species. It also minimizes water flow impacts by nuisance beaver.

PHOTOS BY A. KILPATRICK, HABITAT MANAGEMENT PROGRAM

The installation of these structures will allow the adequate management of water levels in the impoundments, resulting in the proper mosaic of shallow water (1-3 feet deep) intermixed with wetland plants. This project will create 17 acres of high quality habitat at these sites.

Work on this project was conducted by staff from the DEP's Wetland Habitat and Mosquito Management Program.

Paul Rothbart, Habitat Management Program

Staff Notes

Inland Fisheries Division Technician, Justin Wiggins, who is involved with the Connecticut Aquatic Resources Education (CARE) Program, was recently elected to the Board of Directors of the Aquatic Resources Education Association (AREA) at the national meeting in Omaha, Nebraska, in October 2010. Although Justin comes from a fisheries management background, he has specialized in aquatic resources education for the last five years. Justin will serve a two-year term as the Northeast regional representative on the AREA Board.

Posters to Help You Discover Connecticut's Wildlife

Bats of the Eastern United States is a 24" x 36" full-color poster that features 19 different species of bats, including ones found in Connecticut ($5).

Connecticut's Bald Eagles - Home Again is a full-color, glossy 11" x 14" print celebrating the first eagle chicks born in Connecticut since the 1950s ($6).

Winter Picnics Are for the Birds is a watercolor of birds commonly seen at backyard bird feeders ($5).

Connecticut's Wildlife - Worth the Watching is a full-color 24" x 30" reproduction of a watercolor featuring 71 wildlife species hiding in and around a wetland habitat ($6).

Proceeds from the sale of these posters go to the Nonharvested Wildlife Fund to help finance projects that benefit songbirds, bats, invertebrates, raptors, and other nongame wildlife. Take part in the conservation and management of Connecticut's nongame wildlife by ordering a poster today.

Please send a check or money order (payable to CT DEP Nonharvested Wildlife Fund) to: Discover Connecticut's Wildlife, Sessions Woods WMA, P.O. Box 1550, Burlington, CT 06013. Be sure to include your shipping information and indicate which poster(s) you would like and if the poster(s) will be sent as a gift.

Attention Sportsmen: Say Thank You to Private Landowners with a Gift of Connecticut Wildlife!

A gift subscription to *Connecticut Wildlife* magazine is the perfect way to extend your appreciation to private landowners for allowing you to hunt or fish on their property. It's a gift that gives year round! Fill out the coupon on the next page to order a subscription. We'll take care of the rest, including sending a card to notify the recipient of your gift.

Conservation Calendar

Dec. 26-Mar. 16 ..... **Observe bald eagles at the Shepaug Bald Eagle Viewing Area in Southbury**. Observation times are Wednesdays, Saturdays, and Sundays between 9:00 AM and 1:00 PM. Although admission is free-of-charge, advance reservations are required. To make reservations for individuals, families, and groups, call toll-free at 1-800-368-8954 between 9:00 AM and 3:00 PM on Tuesdays through Fridays.

Jan. 29 ..... **Family Ice Fishing Derby** at Coventry Patriots Park Lodge in Coventry, from 8:00 AM to 11:00 AM. Please pre-register by calling 860-424-3474. If you have never participated in ice fishing, you should take a Family Ice Fishing Class from the Connecticut Aquatic Resources Education (CARE) Program before attending the Derby. Visit the DEP Web site at www.ct.gov/dep/calendar to obtain a schedule of classes and more information about the ice fishing derby.

Feb. 26 ..... **Seal Search Walk**, starting at 11:00 AM at the Meigs Point Nature Center, Hammonasset Beach State Park in Madison. Come stroll the beautiful trails of Hammonasset and see if you can spot the seals offshore! A guided walk for all skill levels. Bring binoculars and dress for the weather. No dogs please! This free walk is sponsored by the Meigs Point Nature Center and Friends of Hammonasset. Registration is not required. For more information, call 203-245-8743; E-mail rangerruss@hammonasset.org; or visit www.hammonasset.org.

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.

Feb. 23 ..... **Children's Program: An Introduction to Birds**, starting at 9:30 AM. Natural Resource Educator Laura Rogers-Castro will introduce children to birds through a short slide show presentation and a visit to the bird feeding station at Sessions Woods. Children also will discover what the Wildlife Division is doing to conserve birds in Connecticut. Participants should meet in the exhibit area of the Conservation Education Center.

Feb. 27 ..... **Winter Tracking**, starting at 9:00 AM. Wildlife Division Supervising Biologist Peter Good will lead participants on a search to find and identify the animal tracks seen at Sessions Woods. Peter will provide an introduction to wildlife tracks and signs on this hike to the beaver marsh. Participants should wear winter boots suitable for walking off trail in snow and be prepared for a two to three-mile excursion. This program will be cancelled if there is no snow.

March 20 ..... **Medicinal Mushrooms**, from 9:30 -11:30 AM. Join the Connecticut Valley Mycological Society during their annual meeting at Sessions Woods for a presentation on medicinal mushrooms. Author Gary Marley from Maine will be the speaker for the event. Refreshments will be served at 9:30 AM, followed by the speaker at 10:00 AM.

April ..... **The Friends of Sessions Woods Annual Meeting** will be held in April at a date and time to be announced. Stay tuned to *Connecticut Wildlife* or call the Sessions Woods office (860-675-8130) to find out when the meeting will be held and who will be the featured speaker.

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 (www.ct.gov/dep/calendar) for a complete listing of programs offered at the center.

Feb. 15 ..... **Whip-poor-wills**, starting at 7:30 PM. Wildlife Division Technician Shannon Kearney-McGee will give a slide presentation on whip-poor-wills and discuss their unique characteristics, conservation status, and the monitoring and research efforts that are being conducted by the Division. A donation of $4.00/adult and $2/student or child is requested. Registration is requested but not required.

Hunting Season Dates

Jan. 1-31 ..... Deer and turkey bowhunting season on private land in zones 11 & 12 (Fairfield County and shoreline towns).

Jan. 17-Feb. 11 ..... Special late Canada goose season in the south zone only

Connecticut Wildlife

PERIODICALS
POSTAGE PAID AT
BURLINGTON, CT,
AND ADDITIONAL
OFFICES

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

P. J. FUSCO

A sanderling feeds along the Connecticut shoreline sporting a new leg band that will help biologists monitor shorebird populations.