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



From the Director's Desk



It is wondrous how fish and wildlife capture our imaginations. Be it a black bear in Greenwich or swarms of American shad making their annual spring migration past the Hartford waterfront, we remain thrilled and delighted by the spectacle. But what brings the greatest delight is the everyday; the red-tailed hawk perched on a light pole, the surprise of a bull frog leaping across the path during a forest hike, or the doe-eyed presence in a backyard.

Every time I go for a bicycle ride with my daughters in our neighborhood, they make certain we take the detour that leads to a section of young forest where we inevitably see wild rabbits. And, each time we see them, Amanda and Alexa are treated to (or is that subjected to) a lesson in the interactions of native and non-native species, how to tell the difference between New England and eastern cottontails, and why we should be concerned about the plight of our only native rabbit. These lessons have led to both groans of "not again dad" to "can we catch one?"

Our family had a special treat this year in hosting a foreign exchange student from Germany, and in attending regular gatherings with other exchange students from such distant places as Egypt, the Philippines, Tunisia, Austria, Tanzania, and more. This has been a time to share with them the wonders of our natural places. Most remarkable have been our discussions of the differences between our countries and cultures, including our connections to wildlife. We can read in text books how, for most others across the globe, the public has no right to the use and enjoyment of fish and wildlife resources. Rather, these resources are held for the exclusive use of a few. Their reality is an alien and frightening image for us. In all, these discussions have reinforced for our family how lucky we are to live in a place where fish and wildlife are public resources, held in trust by the state.

But, with this treasure held in trust for the public comes substantial responsibilities. Among those responsibilities is to recognize that each of us views wildlife and our relationship with it differently, and we need to respect those differences. For all of our differences, we share one undeniable trait – we care deeply. If we can look beyond our differences and bind together, we can do great things to ensure our continuous enjoyment of, not only the occasional spectacle, but the daily thrill as well.

Rick Jacobson, DEEP Wildlife Division Director

Cover:

The largest of all North American frogs, the bullfrog can reach lengths of eight inches and weights of up to 1.5 pounds. Its familiar call of "jug-o-rum" can be heard day and night at freshwater ponds, lakes, and marshes. It will eat just about anything it can fit in its mouth, including insects, mice, fish, birds, and snakes.

Photo courtesy of Paul J. Fusco

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



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- Wildlife Education at Sessions Woods -

Editor's Note: 2012 marks the 75th anniversary of the Wildlife and Sport Fish Restoration Program (WSFR), one of the most significant and successful partnership approaches to fish and wildlife conservation in U.S. history. The Federal Aid in Wildlife Restoration Act (also known as Pittman-Robertson) was established in 1937. This program provides funds to state wildlife agencies for wildlife conservation and research through a dedicated excise tax on sporting arms and ammunition. The Federal Aid in Sport Fish Restoration Act (also referred to as Dingell-Johnson) was enacted in 1950 and added to the WSFR program. Through this law, funds are provided to the states for fish conservation, and boating and fishing recreational programs through an excise tax on certain fishing equipment and motorboat fuels.

Thanks to the Federal Aid in Wildlife Restoration (Pittman-Robertson) Act of 1937, the DEEP Wildlife Division has been able to undertake a wide array of wildlife conser-

vation and research projects over the past 75 years, as well as finance hunter safety education, purchase land for state wildlife management areas, establish and maintain shooting ranges, and provide wildlife education.

Informing Connecticut residents about wildlife topics and also increasing their understanding of wildlife management have been priorities of the Wildlife Division for the past 25-plus years. Out of that desire to provide information and education came the development of a Conservation Education Center at the Wildlife Division's Sessions Woods Wildlife Management Area (WMA) in Burlington. The facilities, property, and trails at Sessions Woods were made possible through the sportsmen-funded Federal Aid in Wildlife Restoration Program. Connecticut depends on this funding to help manage and conserve the state's wildlife and to make places like Sessions Woods possible.

The future of Connecticut's wildlife depends not only on the management efforts of the Wildlife Division, but also on the support, involvement, and knowledge of all Connecticut citizens.



The habitat at Sessions Woods WMA primarily features deciduous woodlands. However, there are patches of coniferous trees, including white pine, hemlock, and scattered pitch pine. The property also contains wetlands, riparian areas, and some early successional stage habitat.

PHOTO BY PAUL FUSCO

Sessions Woods Is a Special Place

Sessions Woods is much more than just a tract of natural land set aside for wildlife. It is a place that helps educate the public about wildlife habitat and management. Sessions Woods also is different from a state park, which is used mainly for recreation, or a state forest, which concentrates on forest management. The area was first acquired in 1981 when 455 acres were purchased by the State of Connecticut using Federal Aid in Wildlife Restoration funds and matching gift credits (resulting in no cost to state taxpayers). Prior to state acquisition, the property was used as a summer camp by the United Methodist Church. The church had purchased the land from the Sessions family in 1957, with the condition that the land be maintained in its natural state, an important consideration when the church subsequently sold the land to the state for use as a conservation education complex.

A Conservation Education Center, which also serves as a field office for the Wildlife Division, was built in 1991, with additional financial assistance from the Federal Aid in Wildlife Restoration Program. The focus of the center is to present a variety of educational programs, demonstration sites, self-guided hiking trails, and exhibits to provide practical information about wildlife and natural resources management. The goal is to help visitors understand how they can have a positive impact on the future of Connecticut's wildlife and other natural resources.

In July 2004, Sessions Woods grew by another 311 acres when adjacent property was purchased from the New Britain

Water Department. Funds for this acquisition were provided through DEEP's Recreation and Natural Heritage Trust Program. The new addition is primarily forested, with approximately 20% wetlands, including feeder streams to Negro Hill Brook, which flows through the Sessions property.

Sessions Woods is a unique WMA because of the emphasis on education. Its Conservation Education Center and extensive outdoor demonstrations of wildlife and habitat management aim to provide the public



The Sessions Woods Conservation Education Center (above) is located on Route 69 (341 Milford Street) in Burlington. Look for the sign at the driveway entrance.

with examples of practices that may be used on other properties. In addition to the education-related land management, biologists at Sessions Woods have developed long-term land management

SESSIONS WOODS

MANAGEMENT AREA

CONSERVATION EDUCATION CENTER

OF ENVIRONMENTAL PROTECTION

WILDLIFE

strategies to diversify the habitat for wildlife, as well as the wildlife species that live there. A forest management plan, developed in cooperation with the Division of Forestry, integrates the use of forest management practices into the wildlife plans for the property. The plan includes a variety of forest cutting to diversify the forest and wildlife habitats.

Wildlife management also includes the wise use of the wildlife resource. For that reason, permit-required hunting and trapping also occur at Sessions Woods. Hunting occurs by permit only during the fall deer and turkey archery seasons, fall firearms turkey season, spring turkey season, and waterfowl season (waterfowl hunting in fall occurs from a single, handicapped-accessible blind located at the beaver marsh).

What Sessions Woods Has to Offer

Recreation at Sessions Woods emphasizes wildlife education, but also includes wildlife watching, hiking, hunting, and youth group camping. The **Conservation Education Center** features a 3,200-square foot meeting room, with seating for 300 (used for



The large meeting room is used for natural resource training sessions and workshops, such as this Master Wildlife Conservationist class taught by Wildlife Division biologist Peter Picone.

During a trip to Sessions Woods, visitors may have a chance to observe a large variety of plant and wildlife species, such this eastern box turtle, Canada warbler, and pink lady's slipper. Pick up a bird checklist in the Sessions Woods office before heading to the trails.

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meetings, lectures, and professional training); a 4,500-square foot display area with exhibits on wildlife management, conservation, and ecological themes; and offices for Wildlife Division field staff. Many of the exhibits and wildlife mounts in the display area were funded by the nonprofit Friends of Sessions Woods. Educational programs are held throughout the year. See the "Conservation Calen-

dar" on page 23 of this issue, or periodically check the calendar on the DEEP website (www.ct.gov/deep/calendar) to see a listing of programs.

The **trail system** at Sessions Woods includes two major gravel trails and three narrower, woodland paths. The trails are enjoyed by many visitors, school groups, and organizations. Visitors have observed such wildlife species as wild turkey, ruffed grouse, pileated woodpecker, scarlet tanager, broad-winged hawk, white-tailed deer, black bear, and even a moose. Wood frogs and spring peepers can be seen in the vernal pool during the spring breeding season. Canada geese, mallards, wood ducks, great blue herons, and beaver are often seen in the beaver marsh. The trails include:

- Beaver Marsh Trail (2.6-miles) This trail contains demonstrations that show wildlife management practices for large land tracts. Highlights include a 38-acre wetland with a beaver dam, boardwalk, and viewing platform; separate paths to an observation tower and waterfall; and a Backyard Wildlife Demonstration Area with native trees, shrubs, and plants, as well as a man-made wetland.
- Forest Meadow Trail (0.6-miles) This trail contains demonstrations that show wildlife management practices for smaller properties, including backyards.
- Tree I.D. Trail (0.4 miles) This footpath, which is accessed off the Beaver Marsh Trail, meanders through a variety of habitats from a dry, upland site to a moist brookside. It features about 20 native trees and large shrubs. A Tree ID

Guide is available at the Sessions Woods office.

- Crosscut Trail
 (0.4 miles) This
 trail, also accessed from the Beaver Marsh Trail, travels
 through a 14-acre site that was clearcut in 2001 to improve
 the health and productivity of the forest, as well as to
 diversify the wildlife habitat.
- Tunxis Trail This trail is part of the Blue Trail System, which is maintained by the Connecticut Forest & Park Association. More information about the Tunxis Trail can be found at www.ctwoodlands.org.

There is a Youth Camping Area that can be reserved by organized youth groups, such as Boy and Girl Scout troops. Groups are required to obtain a free permit by contacting the Sessions Woods office. The Outdoor Classroom, which is accessible from the Beaver Marsh Trail, has seating for up to 50 people. It was funded by the U.S. Forest Service Forest Stewardship Program.

Friends of Sessions Woods

Sessions Woods is fortunate to have the assistance of an active all-volunteer organization known as the Friends of Sessions Woods (www.FOSW.org). This non-profit organization has been in existence since 1998 and has supported projects and programs to enhance the value of Sessions Woods. The Friends organization sponsors activities such as Connecticut Hunting & Fishing Appreciation Day (this year on September 22), nature walks, speakers, and various hands-on activities throughout the year. It also has raised money and received grants to help purchase educational materials and wildlife mounts for exhibits in the Education Center, as well as publish informational booklets and guides.

More Information

For more information on Sessions Woods, contact the DEEP Wildlife Division at P.O. Box 1550, Burlington, CT 06013 (860-675-8130; deep.ctwildlife@ct.gov), or check the DEEP website at ww.ct.gov/deep/SessionsWoods or the Friends website. The Education Center is open on Mondays through Fridays from 8:30 AM-4:00 PM (except holidays). The Center is also open on most Saturdays during June, July, and August, from 11:00 AM-3:00 PM. The trails and property are open from sunrise to sunset.

The booklet printed by the Friends of Sessions Woods – Sessions Woods A Guide, by Tess Bird – provided some of the information used in this article.

Joint Ventures: Celebrating 25 Years of Bird Habitat Conservation

The Migratory Bird Joint Ventures are L celebrating 25 years of bird habitat conservation in 2012. "Joint venture" is a term that most commonly describes a cooperative business enterprise. However, wildlife conservationists adopted the term in the late 1980s to describe the publicprivate partnerships that would be needed to implement waterfowl conservation across the continent with the signing of the North American Waterfowl Management Plan in 1986. Today, these Migratory Bird Joint Ventures, or "JVs," are collaborative, regional partnerships of government agencies, non-profit organizations, corporations, tribes, academia, and individuals that conserve habitat for priority bird species within specific geographic areas in the United States, Canada, and Mexico. JVs share a vision of a landscape where native birds thrive, and believe that human well-being depends on healthy lands, waters, and wildlife. By bringing together diverse partners, Joint Ventures protect the landscapes that birds -- and people -- rely on for survival.

Partnerships that Work

Over the last 25 years, Migratory Bird

Joint Ventures have become widely-accepted as the model for cooperative conservation. Using state-of-the-art science to ensure that a diversity of habitats is available to sustain migratory bird populations, Joint Venture actions include:

- biological planning, conservation design, and prioritization;
- project development and implementation;
- communications, education, and outreach; and
- funding support for projects and activities.

There are 22 habitat-based Joint Ventures, each addressing the bird habitat conservation issues found within their geographic area. Additionally, three species-based Joint Ventures, all with an international scope, work to further the scientific understanding needed to effectively manage sea ducks, American black ducks, and Arctic geese.

The Atlantic Coast Joint Venture

Connecticut is a member of the Atlantic Coast Joint Venture (ACJV), which is

Conserving Working Forests in the Northeast: Atlantic Coast Joint Venture partners have conserved over a million acres of working forest in northern New England and New York, protecting important habitat for birds and other wildlife while allowing for compatible timber harvesting.

a partnership focused on the conservation of habitat for native birds in the Atlantic Flyway of the United States from Maine south to Puerto Rico. The partnership consists of 17 states and commonwealths, plus key federal and regional conservation agencies and organizations in the Joint Venture area. The ACJV was originally formed in 1988 as a regional partnership focused on the conservation of waterfowl and wetlands under the North

American Waterfowl Management Plan. The ACJV has since broadened its mission to the conservation of habitats for all birds, consistent with major national and continental bird conservation plans.

Atlantic Coast Joint Venture partners recognize the benefits of working together to achieve common goals for bird conservation in the Atlantic Coast region. The ACJV jointly develops sound science to assess the status and needs of bird species; identifies priority geographic areas and habitat conservation actions: and evaluates the impact of conserva-



The DEEP Wildlife Division is a partner in the Black Duck Joint Venture, which aims to restore black duck populations and habitats to their North American Waterfowl Management Plan goal.



The DEEP Wildlife Division has been involved with several projects within the Arctic Goose Joint Venture, most recently a four-year satellite telemetry project on greater snow geese (pictured).

Over the course of their history, Joint Venture partnerships have leveraged every dollar of Congressional appropriations 35:1, helping to conserve 18.5 million acres of critical habitat.

tion through monitoring and research. It works together at regional, state, and local levels to implement priority conservation projects. It also uses a small amount of federal funds to leverage and attract a much larger amount of matching funds in pursuit of these common goals.

Over five million acres of significant habitats have been protected, restored, and enhanced for migratory birds by Joint Venture partners since the inception of the ACJV. The joint venture approach is now allowing the ACJV to address additional challenges, such as impacts due to climate change, and to work collaboratively with other partners on the conservation of habitats for a variety of wildlife and fish species.

CT DEEP's Role As a Partner in the Atlantic Coast Joint Venture

The Migratory Bird Joint Venture system is celebrating its 25th year of existence and, with that, 25 years of fruitful partnerships and numerous success stories. Originally focused solely on waterfowl conservation, the Joint Ventures have now embraced all bird conservation. One of the major partners within the various Joint Ventures are the state agencies, like DEEP, that are responsible for conservation within their state jurisdictions. As a government agency, DEEP participates in the Joint Ventures on many levels.

Representatives from DEEP sit on the Game Bird Technical Committee and the Nongame Bird Technical Committee of the Atlantic Coast Joint Venture (ACJV) and the Management Board of the ACJV. In this capacity, the DEEP plays a critical role in guiding biological planning, conservation design, and implementation of various projects that benefit habitats and birds, not only in Connecticut, but throughout the Atlantic Coast. A representative from DEEP also sits on the Black Duck Joint Venture (BDJV) Technical Committee as the liaison from the Atlantic Flyway Council. The aim of the BDJV is to restore black duck populations and habitats to their North American Waterfowl Management Plan goal. This will be accomplished through the delivery of critical habitat in the areas and times of year that are most important to black ducks. Research conducted in Connecticut to determine where those habitat needs are was funded by the BDJV. The DEEP has also been involved with several projects within the Arctic Goose Joint Venture, most recently a four-year satellite telemetry project on greater snow geese.

Partnerships with the ACJV and BDJV in the past 12 years have garnered several substantive grants for Connecticut that have resulted in over 5,000 acres of critical wetland and upland habitat being either protected in perpetuity or restored within the state. The projects funded by these North American Wetlands Conservation Act grants have brought together over \$13 million dollars for habitat conservation.

Connecticut will remain a strong partner with the habitat and species Joint Ventures. The JV model for conservation has repeatedly demonstrated its usefulness. As scarce conservation resources become scarcer, strong partnerships are the key to achieving our conservation goals.

Min Huang, DEEP Wildlife Division

Walleye Abound in Connecticut Waters

Written by Jerry Leonard, DEEP Inland Fisheries Division

Thile walleye are much better known as gamefish in many mid-western states, walleye fishing has recently come into its own in Connecticut. First initiated in 1993 with the stocking of a few lakes, there are now nine lakes where Connecticut anglers can hook a six to 10-pound walleye! At present, the Inland Fisheries Division stocks six lakes in Connecticut with walleye, and private water companies, towns, or lake associations stock an additional three. The Inland Fisheries Division is interested in expanding walleye to other areas of the state so that more anglers may have an opportunity to catch them close to home. Walleye are highly regarded by anglers and chefs as exceptional table-fare because of their mild taste and tender, flaky fillets.

Although walleye have not been able to reproduce in Connecticut waters, they are

still abundant. Over 715,000 walleye have been stocked since 1993. Every fall, 20,000 to as many as 63,000, four to six-inch fingerlings are stocked. Purchased from a private hatchery in Minnesota, the fish are trucked to Connecticut and all locations are stocked in a single day.

Walleye are voracious predators that prey on smaller fish. Their many sharp teeth and large, gaping mouth make them well adapted to this role. In many cases, the increased predation by walleye on smaller, more prolific species may help the overall health of a water body. Species such as yellow perch and white perch sometimes become over-abundant, resulting in slower than normal growth rates. This phenomenon is known as "stunting." In other words, there is not enough food available for the large numbers of small fish. As a result, these fish grow slowly, and remain small and undesirable to anglers. Stocking an effective predator, such as walleye, which preys on the overabundant smaller fish, can often improve fishing for all species. The Inland Fisheries Division has documented better growth and larger size panfish in several lakes where walleye have been stocked, namely Gardner Lake (Bozrah, Montville, and Salem), Batterson Park Pond (Farmington and New Britain), and Squantz Pond (New Fairfield).

Some of the better walleye fishing spots can be found in lakes that have small herring known as landlocked alewives. These fish are abundant in Squantz Pond, Beach Pond (Voluntown and Exeter, Rhode Island), Saugatuck Reservoir (Easton, Redding, and Weston) and Lake Saltonstall (Branford and East Haven). The latter two reservoirs are owned by water compa-



Walleye can grow to lengths of 30 inches and weigh as much as 15 pounds in Connecticut waters. This specimen was sampled by the Inland Fisheries Division in Saugatuck Reservoir earlier this spring.

nies that allow fishing through a paid fishing permit system. These private companies purchase their walleye from the same supplier as the DEEP. In lakes that have alewives, stocked walleye grow quickly, often reaching the legal size limit of 18 inches in their third year. Walleye grow well in several other lakes that do not support alewives. Batterson Park Pond, Gardner Lake, and Lake Mashapaug (Union) produce good numbers of walleye for anglers; the fish just require an additional year of growth to get up to size. While growth is somewhat slower in Coventry Lake (Coventry), this location has also begun to produce some legal-size fish. Lake Zoar (Oxford, Monroe, Newton, and Southbury) was stocked for the first time in 2011 and the Inland Fisheries Division anticipates that this lake will produce some large walleye in the coming years.

Walleye have large eyes with a pearly or glassy appearance (hence their name) and they are very sensitive to bright light. For the novice, catching walleye can be a challenge as these fish feed primarily at night. Walleye fishing is best in low light, caused by cloudy conditions or murky waters churned up by wind. But, that doesn't mean anglers can't hook onto one of these monsters during the day. Angler surveys conducted at walleye lakes have recorded large fish being caught and observed during all hours of the day.

Walleye can be caught with a variety of techniques. Some anglers like to still fish with a live minnow, while others will troll for them with spinners or cast for them using lures. Which ever method you choose, try to learn the key hiding spots for walleye in the lake you want to fish. Walleye will hang out in

areas were they can hide from their prey, such as a distinct weed line in the lake or a quick change in the lake depth or bottom. For more daring anglers, winter is a favorite time to target and catch walleye. Night-time icefishing for walleye is a growing activity among Connecticut hardcore icefishing anglers. The best time to catch walleye when icefishing is approximately one hour before sunset until an hour after sunrise.

If you are up for learning some new fishing techniques, other than those used for trout or bass, then give walleye fishing a try. The satisfaction of catching something different and the additional reward of a potentially great "fish fry" should provide plenty of incentive to try something new!



One look into the mouth of a walleye and you can clearly see that they are well adapted as efficient predators.

Richard Clifton Wins 2013 CT Duck Stamp Art Contest

A panel of judges recently selected the winning artwork for the inaugural Connecticut Duck Stamp Art Contest. Of the 19 paintings submitted by artists from Connecticut and across the country, wildlife artist Richard Clifton's depiction of three wood ducks received the highest score from the judges. The paintings were judged in five general categories: originality, artistic composition, anatomical correctness, general rendering, and suitability for reproduction.

The winning artwork will be featured on the 2013 Connecticut Duck Stamp. Mr. Clifton is a prior winner of the Federal Duck Stamp art contest, one of the most coveted and prestigious art contests in the world. A pair of canvasbacks painted by Guy Cittenden was voted a very close second and third place was given to a painting of a pair of redheads by Wes Dewey. All three paintings are currently on display at the Wildlife Division's Sessions Woods Conservation Education Center in Burlington. The Education Center is open to the public on Mondays through Fridays, from 8:30 AM-4:00 PM (341 Milford St., 860-675-8130).

The Connecticut Migratory Bird Conservation (Duck) Stamp Program was initiated in the early 1990s when concerned sportsmen worked with the DEEP to develop legislation that would generate revenue for wetland conservation. Modeled after the federal Duck Stamp Program, Connecticut's program requires the purchase of a state Duck Stamp, along with a hunting license, to hunt waterfowl in the state. Funds generated from the sale of Duck Stamps can only be used for the development, management, preservation, conservation, acquisition, purchase, and maintenance of waterfowl habitat and wetlands, as well as the purchase and acquisition of recreational rights or interests relating to migratory birds.

The Duck Stamp Program is a great example of how conservation works — concerned citizens paying into a program that was formed to protect and enhance vital habitat. Over 3,000 acres of critical wetlands have been protected using Duck Stamp funds. These wetlands benefit not only waterfowl, but also a multitude of other wildlife species, like herons, egrets, fish, and amphibians. The Duck Stamp Program has generated over \$1.2 million dollars for the enhancement of wetland and associated upland habitats in our state, as well as garnered additional monies for Connecticut through matching grants from federal conservation initiatives. By combining Duck Stamp funds with these additional monies, over \$4 million dollars have been available to complete wildlife conservation projects. Thus, Connecticut has received a 4:1 return on Duck Stamp monies.

Hunters are not the only ones who purchase Connecticut Duck Stamps. Anyone who wishes to support wetland conservation and restoration in our state is encouraged to do so. 2012 stamps can be purchased for \$13 each wherever hunting and fishing licenses are sold: participating town clerks, participating retail agents, DEEP License and Revenue (79 Elm Street in Hartford), and through the online Sportsmen's Licensing System (www.ct.gov/deep/sportsmenlicensing). Upon request, stamps can be sent through the mail. The 2013 Duck Stamp will go on sale in the fall of 2012. To learn more about the Connecticut Duck Stamp and the inaugural Art Contest, go to www.ct.gov/deep/ctduckstamp.



Wood ducks painted by Richard Clifton.



Canvasbacks painted by Guy Cittenden.



Redheads painted by Wes Dewey.

A Call to Duty:

Beach Monitoring During Shorebird Nesting Season

Written by Nicole Azze, Master Wildlife Conservationist; photos by Paul Fusco, DEEP Wildlife Division



Master Wildlife Conservationist Nicole Azze conducts an early season breeding shorebird survey at one of Connecticut's plover and tern nesting beaches.

The mission: to protect Connecticut's L breeding populations of the state- and federally-threatened piping plover and the state-threatened least tern. My role as a volunteer: data collection and public education. Piping plover/least tern monitors walk the length of their chosen beach (nesting beaches are located all along the coast), observing and recording the numbers, behaviors, and locations of not only plovers and terns but of all species in the area, including the one with the biggest impact on Connecticut's beaches humans. Informing the beach-using public about the presence of and threats to nesting birds is an important part of monitoring. For this task, beach monitors are armed with information pamphlets (in English and Spanish) on piping plovers and least terns.

A beach monitor's other tools include binoculars; a data sheet for recording observations; a U.S. Fish and Wildlife Service (USFWS) issued hat, t-shirt, and volunteer identification card (obtained at the annual March training session for volunteers); and sunscreen. Because piping

plovers and least terms are protected species, it is illegal to harass, harm, capture, or collect the birds or their eggs. These violations are called "take," and volunteers immediately report the details of any such incidents to a USFWS law enforcement officer. A camera can be a useful tool

in documenting "take" for prosecution efforts.

When plovers begin to arrive at Connecticut beaches in late March, monitors document their courtship and breeding behavior and, in April, try to locate their nests. This may sound easy, but it isn't! Nests consist of a slight depression in the sand, and the small eggs (three or four) are sand-colored.

Adult plovers are sandy and gray in color with black bands on the forehead and neck and are nearly impossible to distinguish from the debris and shells of the upper beach. Often, only when a plover moves or "pipes" (its distinctive whistle call) does it give its location away. With a little patience, watching the adults' movements can reveal a nest's location. Once a nest has been located and the bird finishes laying its eggs, exclosure fencing is put up around the nest to protect it from predators. Because plovers mainly run along the beach (rather than fly) during the nesting season, their movements are not impeded by the fencing.

The eggs of the earliest nests hatch in mid-May, and the chicks are running around the beach within hours of hatching. Plover parents do not feed their chicks. Instead, the newly-hatched fuzzballs can be seen running down to the waterline on their stilt-like legs, feeding on inverte-



The state and federally threatened piping plover is protected by laws to prevent the population from becoming extirpated. Piping plovers are continually threatened by human-related activities and over-development of coastal habitat.



Piping plovers and least terns (above) lay their eggs in the sand at some Connecticut beaches. Nesting areas are fenced off to protect the vulnerable nests and young chicks, affording the birds a chance to raise their young successfully.

brates in the sand. If a spring storm surge or other event destroys their first nesting attempt, a pair may try again, as late as early July. Plovers have to contend with increasing foot-traffic and disturbance as people head to the beach during the summer months.

Least terns arrive on the beaches and nest later than plovers (in May), so they do not get the same head start on the busy beach season. You will know when least terns are nesting (or trying to nest) in an area when they aggressively dive-bomb your head as you walk by!

Both piping plovers and least terns nest above the high tide line, which is why sections of the upper beach are fenced off with string during the spring and summer months. Staying clear of these areas will not only prevent unintentional destruction of nests but will also reduce the amount of disturbance to the birds. Plovers are willing to share their beach, but if you get too close, they will "escort" you away from their nest or chicks, sometimes even performing a broken wing display to lure you away. The more often the birds are disturbed, the more they are forced to neglect their eggs and young. Adults may even abandon a nest if the disturbance is frequent or severe enough. Although many people like to let their dogs run on the beach, an unleashed dog can destroy a nest or squash a chick without even knowing it. Vehicles on the beach present a similar threat. For pedestrians and sunbathers, walking close to the water's edge and setting up your lounging spot a good distance

away from any fenced areas will give the birds the space they need.

Garbage on the beach or in nearby developments can attract predatory species that threaten shorebird nesting success. While piping plover eggs are somewhat protected by the exclosures erected around their nests, small predators like rats or strong diggers like raccoons can overcome this obstacle when determined enough. Chicks do not stay within the fencing once they have hatched and thus are susceptible to predation from gulls, cats, and other

animals. Because least terns are fliers, protective exclosures cannot be used for their nests, making tern eggs especially vulnerable to predators, as well as to foot and vehicle traffic.

In late June and July, chicks that have survived begin to fledge. Chicks from second nesting attempts (when the first nest is destroyed) may not fledge until August. Volunteer monitors watch closely to document this stage of development, as a fledged chick is a successful chick for the purposes of population monitoring. As the young plovers mature, the adults begin to lose their breeding plumage (the black band on the neck and forehead), and it becomes more difficult to distinguish between the adults and young. By mid-September, most of the plovers and terns have left the state, beginning their migration south, and the volunteers' monitoring season comes to a close.

These shorebirds face significant challenges as they try to maintain a foothold on Connecticut's beaches. Through the efforts of USFWS and DEEP staff, the involvement of organizations such as Connecticut Audubon, the participation of dedicated volunteers, and the cooperation of the public, we can at least give them a fighting chance. If you are interested in volunteering as a piping plover/least tern beach monitor or to help erect fencing in the spring, contact ctwaterbirds@gmail.com for more information.



The protection and monitoring of piping plover and least tern nesting areas involves cooperative efforts among state and federal agencies, local conservation organizations, and a dedicated team of volunteers. (I to r) Scott Kruitbosch, Conservation Technician for Connecticut Audubon Society; DEEP EnCon Police Officer John Chickos; Sean Graesser, Audubon Alliance for Coastal Waterbirds Technician; and Brian Blais, DEEP Wildlife Division Resource Assistant discuss shorebird protection efforts at Milford Point.

Intrepid Woodland Raptor - The Red-shouldered Hawk

Article and photography by Paul Fusco, DEEP Wildlife Division

High over a maple swamp, a pair of slender, crow-sized hawks can be seen and heard as they fly in ever widening circles on outstretched wings and openly fanned tails. They don't seem to move a muscle as they gain altitude, calling loudly as they soar above what is their breeding territory. For

many years, this pair of red-shouldered hawks has returned to breed in the same place where there is a plentiful food supply necessary for raising young. The birds' attachment to this breeding territory is strong and they will defend it with vigor. The female will lay three or four eggs that will hatch in about 28

days, and chicks will fledge at the age of five to six weeks.

Buteos, or soaring hawks, make up the largest subfamily of the Accipitridae, which includes kites, eagles, ospreys, and hawks. Red-shouldered hawks are buteos, as are three other species that can normally be found in Connecticut: the red-tailed, broad-winged and rough-legged hawks (winter only). Broad wings and short, broad tails give buteos the ability to soar by maximizing air currents with minimal use of energy. Buteos are frequently seen riding the wind high in the sky.

Comparatively, red-shouldered hawks have a slightly longer tail and wings than other buteos. Rufous shoulder patches give them their common name. The breast and belly are barred in rufous; the heaviest barring is on the chest. Some individuals are less heavily marked than others.

The narrow white bands on both the topside and underside of the boldly marked tail are good field marks. In flight, the hawks show a pale patch, or "window," at the base of the primaries when seen from below. Immature birds are brownish and streaked below, but show the same structural proportions as adults.

Distribution

Red-shouldered hawks are widely distributed throughout eastern and southern parts of the United States. Their range extends from southern Canada to northern Mexico and from the East Coast to the Great Plains. A disjunct population is located on the west coast from northern Mexico to Oregon. The heart of their range is the southeastern U.S. Throughout most of their range, red-shouldereds are residents, but most northern birds, especially immatures, will migrate further south for the winter.

They are birds of wet woodlands and swamps. Bottomland deciduous forests, beaver swamps, marshy woodlands, and river valleys are their domain. Redshouldered hawks are less common than broad-winged hawks in heavily forested areas and less common than red-tailed hawks in open country habitat. They will use upland habitats and mixed deciduous/



coniferous habitat if it is close to water. Forests with a heavy canopy and an open understory are ideal, allowing the birds to fly and hunt with ease. The hawks normally nest in mature trees that are within wet forests or near wetlands. In Connecticut, they frequently nest and hunt in suburban areas where development is mixed into woodlands, making red-shouldereds a familiar sight in some locations.

Behavior

Red-shouldered hawks are highly vocal, especially during spring and early summer. Their wildly loud calls of "kee-you, kee-you" are distinctive. Calls are often expertly mimicked by blue jays, although the jays are not usually as loud.

Frequently seen sitting inconspicuously at the edge of a forest opening or at the side of a pond, red-shouldered hawks will hunt from a perch that is lower and less in the open than those used by their close relative, the red-tailed hawk. When prey is spotted, the hawk will quickly drop down to catch it. The red-shouldered hawk's generalist diet includes such morsels as small mammals, frogs, snakes, and, on occasion, small birds and insects.

In flight, red-shouldereds can often be seen soaring with wings and tails spread in typical buteo style. They sometimes flap their wings quickly and then glide as an accipiter would do, which may lead to misidentification.

Conservation

The red-shouldered hawk is widespread in Connecticut, but its distribution is patchy. It was formerly listed as a state species of special concern, but was removed from Connecticut's Threatened and Endangered Species List with the 2004 revision because the population is stable or increasing.



Red-shouldered hawks primarily prey on frogs, snakes, and small mammals. This one has a young woodchuck.

Historically, the population had been affected by bounties that were placed on birds of prey, wanton shooting, habitat destruction (forest clearing and wetland filling), and likely the widespread use of organochlorine-formulated pesticides. More recently, habitat loss has become the main threat as forests and wetlands continue to be destroyed or degraded for development.

Despite these threats, red-shouldered hawks have fared well in our state. In some areas they have adapted to suburban neighborhoods. While population numbers seem to be stable or growing in Connecticut, there are concerns about declining numbers in the majority of the hawk's range.

Snap Shot: Hop River State Park Trail

Written by Alan Levere, DEEP State Parks Division

Connecticut once enjoyed a great railroad building era from the 1840s to the turn of the 20th century. The Hop River State Park Trail, located in the towns of Andover, Bolton, Columbia, Coventry, Manchester and Vernon, now follows one of these historic railway lines. The trail follows the Hartford, Providence, and Fishkill line from Hartford to Willimantic via Manchester, which was originally completed in 1849. By 1855, the railroad line was the longest east-west line in the state. The line had become the Eastern Division of the New York and New Haven Railroad by 1884, and a ticket would get you from Hartford to Willimantic in 65 minutes.

As the railroad became abandoned over the years, weedy growth took over from lack of use. The steel from abandoned railroads came into demand during the war era, so the rails were eventually removed for their scrap value. Fortunately for today's trail users, the rail beds are much more difficult to erase from the landscape than the rails and ties, and conservation efforts throughout the years have yielded the many rail-trail systems we have today.

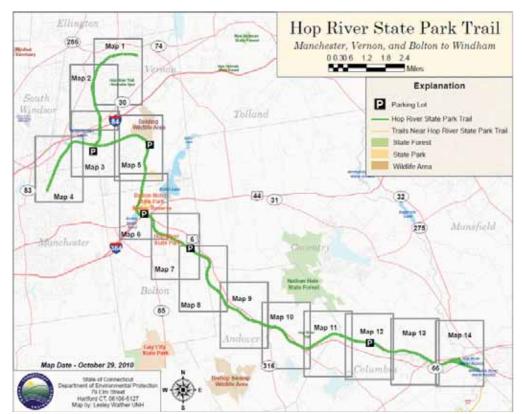
The 20-plus miles of the Hop River Trail, like many trails of this length, pass through or abut many preserved open areas, providing a relatively easy way to view wildlife. This is especially true for the western sections of the trail where development has put more pressure on the land and preservation efforts have maintained precious open space. Thus, in Vernon, the trail abuts the Belding Wildlife Management Area for 1.5 miles, and then passes through Valley Falls Park and



A scenic stretch through a rock cut along the Hop River State Park Trail.

both Bolton Notch and Hop River State Parks in Bolton, as well as a portion of municipal open space for an additional 1.5 miles. East of these towns, in Andover and Columbia, the trail is more remote, passing through woodlands, along the edges of fields, and crossing and abutting the Hop River. In Andover, a covered bridge was recently added, providing a seamless trip from Vernon to Columbia. Add to these attributes the workmanship of the stone cuts, low land "fills," and remaining

stone work of water crossings, a quiet, scenic, and historic outing on the Hop River State Park Trail is hard to beat.





A post along the Hop River State Park Trail displays the appropriate uses of the area.

Get the Facts on Jellyfish

Written by Jacque Benway and Penny Howell, DEEP Marine Fisheries

Jellies are not fish. They do not have a backbone, brain, or heart and are 95% water. Their gelatinous body is typically umbrella or bell-shaped, festooned with ribbon shaped tentacles that are used to capture prey. It is those nearly invisible tentacles that swimmers must watch out for, because most, but not all, contain millions of microscopic stinging cells called nematocysts. Jellies cannot really swim even though they can contract their 'bell' to move vertically through the water column. Their movements are almost completely controlled by the wind and tide.

The whims of ocean currents, temperature, and storm events determine whether our swimming beaches will have thousands of jelly aggregations or none each year. Jellies have a multi-stage life cycle – they reproduce in the fall and the immature 'polyps' wait on the ocean floor during winter and early spring. As the water warms, these polyps slowly bud or break off, growing into the recognizable adult jelly or medusa stage. The adults

grow through spring and summer, feeding on plankton, crabs, and fish. Come fall, they reproduce and die. Each year starts with a new population.

Even though jellies are, at best, a nuisance to us, they are the favored food of sea turtles, sunfish, and other marine fish that feed at the surface. This is one reason why plastic bags and Mylar balloons floating in the water pose such a danger to turtles and fish – the animals mistake these items for their favorite jelly food and then die of starvation when the plastic blocks their digestive tract.

Long Island Sound Jellies

Long Island Sound is home to four common jelly species, which are different in appearance and disposition. The largest and most common is the lion's mane (*Cyanea capillata*). Lion's mane jellies can be recognized by their orange-brown color, which turns deeper red or purple as the jellies grow in size. Their long and numerous tentacles are reddish-brown to yellow,

and their sting can be quite painful. On the other hand, the translucent or white moon jelly (*Aurelia aurita*) is much smaller and commonly seen earlier in the season. Moon jellies have a few short tentacles and only a mild sting.

The comb jelly (*Mnemiopsis leidyiis*) is completely clear, with eight comb-like rows of small 'hairs' lining their barrelshaped bodies. They are not true jellies, do not have tentacles, and do not sting. Instead of stinging, comb jellies use sticky secretions to capture their prey. These jellies are luminescent, generating small sparkling lights in the waves at night.

In brackish harbors and river mouths, you might stumble across sea nettles (*Chrysaora quinquecirrha*), which are relatively rare. In higher salinity, they have red/maroon stripes on the tentacles and bell, often with small white dots on the top of the bell. However, in lower salinity waters they are all white in color. Be careful, their sting can be severe.

What to Do About Stings

A jelly sting occurs when the stinging cells in the tentacle come in contact with your skin and release a toxic substance. These toxins stun the jelly's prey and cause a burning sensation in people. The bell is harmless, but tentacles can still sting even when separated from the bell in the water or when the jelly is washed up on shore. In rare cases, jelly stings have been known to cause mild to severe allergic reactions.

To minimize the sting, carefully remove tentacles adhered to the skin without rubbing or crushing them. Applying vinegar or a paste of meat tenderizer are common methods of reducing the stinging sensation. If swelling and pain from serious stings persist, seek medical attention promptly.

A sting from a Portuguese man-of-war (*Physalia physalis*) – a southern species very rare in Long Island Sound – can be much more serious than that of the jellies typically found in our waters. Its translucent blue body floats visibly on the surface, but extremely long and numerous tentacles hide beneath the waves. Best beware of this southern menace in hopes that our sea turtles and sunfish will enjoy a good meal.



Moon jellies as viewed through a live exhibit at the Mystic Aquarium in Mystic. Moon jellies are actually translucent and white.

PHOTO BY CHERYL MILLER/MYSTIC AQUARIUM

DEEP Acquires 449-acre Property in Vernon as the New Tankerhoosen Wildlife Management Area

The DEEP recently acquired a 449-acre parcel of land that preserves an ecologically intact and environmentally sensitive watershed in Vernon, and expands the range of protected lands in the area. The property, now known as Tankerhoosen Wildlife Management Area (WMA), was purchased by the DEEP from Tancanhoosen, LLC, at a purchase price of \$2,965,000. Tancanhoosen, LLC, is comprised of 18 members of the extended Mason family, originally from Vernon. The Mason Family owned the land for more than a century.

The Tankerhoosen WMA is located adjacent and upstream of the 282-acre Belding WMA that was donated to the State of Connecticut by Max Belding in 1981. The new Tankerhoosen

WMA ensures protection of much of the watershed and the entire riparian zone for over 2.5 miles of the Tankerhoosen River downstream of Walker Reservoir and is an important acquisition for Connecticut's goal to restore and protect wildlife.

This acquisition is one of the largest and most significant open space preservations in Connecticut history, funded, in its entirety, by the state's Recreation and Natural Heritage Trust Program. It doubles the size of the Wild Trout Management Area and adds to the total protected corridor in the area, which includes Belding WMA and also Valley Falls Park in Vernon, Bolton Notch State Park, and Northern Connecticut Land Trust property.

The WMA supports high densities of catchable size brown and brook trout in the Tankerhoosen River and many species of birds, invertebrates, and reptiles in need of protection, as well as a large

Learn more about CT's Comprehensive Wildlife Conservation Strategy at www.ct.gov/deep/wildlife.



(I to r) Daniel Esty, Commissioner, CT DEEP; Mr. and Mrs. Max Belding; Susan and Tom Mason; and Representative Claire Janowski, Vernon, at the ceremony announcing the DEEP's purchase of the new 449-acre Tankerhoosen Wildlife Management Area.

number of species and habitats considered of Greatest Conservation Need. Purchase of the property as open space will address many of the Priority Conservation Actions set forth in Connecticut's Comprehensive Wildlife Conservation Strategy. Important species that will now be protected include the eastern box turtle, cerulean warbler, and brook trout. A section of the property that was a former gravel pit will now provide protection for the brown thrasher, field sparrow, and prairie warbler. This site will also provide habitat for rare invertebrates.

Environmental Importance

- The Tankerhoosen River supports the most plentiful wild trout population in central Connecticut. Wild trout are environmentally sensitive indicator species that require cool water temperatures, high water quality, functioning wetlands, and intact riparian areas.
- The river also supports a population of eastern pearlshell mussel, which is declining statewide, and is listed as a species of special concern in Connecticut.
- The WMA contains unique habitats and species whose populations are

declining due to loss of habitat. This is an important acquisition for restoring and protecting native species.

Recreational and Educational Importance

- Provides living classroom/laboratory for students within the greater Hartford area.
- Provides passive recreation for bird watchers, photographers, hikers, and others who enjoy being outdoors.
- Sustains an important catch and release wild trout fishery.

CT's Open Space Program

Connecticut's open space includes land purchased by the State and land purchased by municipalities and conservation organizations, often with state financial assistance. These purchases are helping Connecticut meet its open space goal of protecting 21% of Connecticut's land – or 673,210 acres – by 2023. Through state and local open space purchases, Connecticut is now 73% (493,452 acres) toward achieving this goal. The two programs designed to help achieve this open space goal are the Recreational and Natural Heritage Trust Program and the Open Space and Watershed Grant Program.

Woodchuck

Marmota monax

Background

Before the early settlers arrived in this country, most of Connecticut's landscape was forested. Woodchucks lived in the scattered forest openings. As land was cleared for farms and houses, this highly adaptable animal also found suitable habitat in associated fields and along forest edges. This new habitat provided a more reliable source of food. The woodchuck is now more abundant in Connecticut than it was during Colonial times.

Range

The woodchuck's range extends from eastern Alaska, through much of Canada, into the eastern United States south to northern Georgia. Woodchucks are common throughout Connecticut.

Description

Woodchucks, also called groundhogs, are Connecticut's largest member of the squirrel family. These stocky, medium-sized mammals are built for digging, with short, strong legs and long, curved claws on the front feet. Their fur ranges from light to dark brown, with lighter guard hairs, giving them a frosted appearance, and their feet are dark brown to black. Woodchucks have a short, bushy, almost flattened tail. Their small, rounded ears can close over the ear openings to keep out debris while the animals are underground. Males and females are similar in appearance, although males are slightly larger than females.

Habitat and Diet

Open woodlands and woodland edges, rolling farmland, pastures, meadows, brushy areas, fields, suburban yards/gardens, and grassy highway rights-of-way and utility corridors all provide habitat for woodchucks. These animals also are well-adapted to living in human-dominated landscapes, such as residential areas with mixed woodland cover.

Woodchucks feed on succulent plants, such as clover, alfalfa, dandelion, herbs, grasses, and garden crops. They also eat tree leaves, buds, bark, twigs, fruits, and newly-planted flowers.

Life History

Usually woodchucks breed in their second year, but a small percentage may breed as a yearling. The breeding season starts when they emerge from hibernation in early March. Male woodchucks emerge from hibernation first, in early spring, and begin to search for females. One male will mate with several females. Some males will remain in the same den with the female through the 28- to 32-day gestation period. As birth of the young approaches in April or May, the male will leave the den. One litter is produced annually, usually containing 2 to 6 blind, naked, and helpless young. Young woodchucks are weaned and begin foraging outside the den at 5 to 6 weeks of age, and are ready to seek their own dens shortly after.

Interesting Facts

Classified as rodents, woodchucks are related to mice, squirrels, porcupines, and beavers.

Woodchucks emit a shrill whistle when alarmed, followed by a chattering "tchuck, tchuck" sound. They do not get their name from "chucking" wood, but rather from a corruption of the Algonquin word "wuchak."

Excellent diggers, woodchucks dig both simple and complex



burrow systems, whose depth and length depend on the type of soil. Most burrows are 25 to 30 feet long and from 2 to 5 feet deep, with at least 2 entrances, although sometimes more. The main entrance is often the most conspicuous, with a large mound of freshly dug dirt nearby. The other less visible entrances are used for escape purposes. A nesting chamber for sleeping and raising young is found at the end of the main tunnel; a separate toilet chamber helps keep the burrow clean. Woodchucks may have 2 burrows: a winter den, in a wooded area, that is deep enough to keep them from freezing, and also a summer den, in open flat or gently rolling areas.

During the warmer months, woodchucks are commonly seen in early morning or late afternoon. They might sleep in the sun during midday hours on rocks or logs near the safety of the burrow entrance. Even while feeding, they usually will not venture more than a few hundred yards away from the burrow entrance. Woodchucks rely on their keen hearing and sense of smell to give them enough time to escape to their dens when danger is near. Their sense of location and navigation is aided by following scent markings made with secretions from a gland located in their mouth, which is left on the surface of saplings, trees, and rocks in their surroundings, especially along trails from feeding areas to burrows.

Woodchucks can be fierce fighters when cornered by potential predators, which include dogs, coyotes, foxes, bears, bobcats, mink, weasels, hawks, and owls.

Although woodchucks are primarily terrestrial, they can climb trees up to 15 feet or more to escape an enemy and to even feed

on the berries and leaves of some trees, such as red mulberry and hackberry. They also take to the water and are good swimmers.

The abandoned burrows of woodchucks are used for den sites or escape cover by a variety of wildlife, including skunks, raccoons, foxes, rabbits, opossums, weasels, and snakes.

The woodchuck is one of the few mammals classified as a true hibernator. During 4 to 5 months in winter, the heart, respiration, and overall metabolism rates of true hibernators are greatly reduced and the animals are nourished from their fat reserves. Toward the end of summer, as cooler weather begins, woodchucks increase their feeding activity to put on a thick layer of fat, which is essential for a long hibernation. By the end of October, most woodchucks have begun their winter sleep, curled up in nests of dried grass and leaves located in burrows well below the frost line. The burrow entrance is sealed off with dirt. Woodchucks arise slowly from hibernation during March.

Management of Problems

Damage and problems caused by woodchucks can usually be classified into three categories:

- 1. Feeding damage to home gardens and various agricultural crops like beans, peppers, squash, and greens.
- 2. The frequenting of lawns and establishment of dens under decks and sheds, and associated burrowing damages to landscape plantings and lawns. Similarly, burrowing damages to farm pastures/fields, posing a safety threat to large livestock and horses, and damage to farm equipment.
- 3. Damage to fruit and ornamental trees, and occasionally to decks and home siding, caused by woodchucks gnawing for scent marking or clawing to wear down the winter growth of their teeth and sharpen their claws.

An effective method of controlling woodchucks, and other wildlife, in a garden situation is to erect a fence. A sturdy fence at least 3 feet high will keep most medium-sized animals out. However, woodchucks may try to burrow under the fence. It is recommended that the fence extend underground another 1.5 to 2 feet. Woodchucks also have been known to climb over fences,

in which case a 1-foot extension that is bent outward at a 90-degree angle should be added to the top of the fence, or the fence be "loosely" constructed to bend outward when an animal attempts to climb up. Placement of an electric hot shot wire 4 to 6 inches above the ground and/or at the top of the fence will further prevent woodchucks from climbing up and over the fence.

Woodchucks can be excluded from burrowing under sheds and porches by placing galvanized wire mesh along the openings and burying it at least 1.5 to 2 feet underground.

There are commercial taste or odor repellents that may provide some level of plant protection from feeding damages and also reduce scent marking on trees, decks, or siding. Some of the active ingredients in these repellents include capsicin and predator urine. There also are products designed to frighten wildlife away from gardens or small backyards that use a motion-activated noise alarm or spray water. A radio playing constantly for a few days also may cause a woodchuck to leave its burrow under a shed

or deck.

The use of cage trapping is the most effective method of controlling woodchucks that are causing property damage or posing a serious problem. A properly-sized, single door trap (32"x10"x12" or slightly larger), set near the burrow with barricades on either side so as to funnel the woodchuck into the unbaited trap, works well. The cage trap can also be baited with apples, melon, or fresh greens and set along travel paths; however, some woodchucks can be wary of entering a baited trap. Using woodchuck "scented" dirt taken from the burrow mound to "prime" the trap also may be helpful.

When trapping any wildlife, it is of utmost importance to adhere to state trapping laws, which require that all traps be checked once a day and any animals caught be promptly dispatched or released. Traps set for woodchucks should be closed at night to prevent catching non-target skunks and raccoons, and then reset at dawn. The practice of relocating woodchucks to state lands is highly discouraged as it is biologically harmful and could result in the spread of disease, as well as pose further problems. Preferred options include humanely euthanizing trapped woodchucks, or releasing them on-site after excluding them from under sheds and porches with galvanized wire mesh. Persons needing assistance in controlling problem woodchucks can hire a Licensed Nuisance Wildlife Control Operator (NWCO) to remove problem small animals and perform exclusion work. More information about nuisance wildlife control and a list of licensed NWCOs can be found on the DEEP Web site (www. ct.gov/deep/wildlife; click on "Nuisance/Distressed Wildlife").

Woodchucks may be controlled in agricultural settings through hunting. All hunting of woodchucks must be done in accordance with state hunting laws and by knowledgeable persons following all state firearms discharge laws. Woodchucks can be hunted most of the year with no daily or seasonal limits. Check the current Connecticut Hunting and Trapping Guide for season dates and requirements at www.ct.gov/deep/hunting.



Woodchucks can be excluded from burrowing under sheds and porches by placing galvanized wire mesh along the openings and burying it at least 1.5 to 2 feet underground.

Spring Breeding Waterfowl Survey for 2012

Written by Min Huang, DEEP Wildlife Division

Tildlife Division staff completed the annual breeding waterfowl surveys in April. The survey has been conducted since 1989 in the states from Virginia north to New Hampshire. It provides part of the data that drives the Eastern Mallard Adaptive Harvest Management models and the Black Duck Adaptive Harvest Management models. Outputs from these models determine season lengths and bag limits of duck hunting seasons in the Atlantic Flyway. In addition to providing an estimate of the breeding population, the survey

provides managers with an index to both habitat condition and waterfowl production. It also is used to estimate resident Canada goose population levels.

Spring habitat conditions in 2012 were mixed for breeding waterfowl in Connecticut. An early spring brought warmer than normal temperatures to the state, but with that, also a paucity of rainfall. Many smaller wetlands were dry during the survey period and larger wetland complexes were noticeably drier than normal. This situation led to some early nesting, but also a general lack of available wetland habitat for nesting waterfowl.

A drake index (drakes/pairs+drakes) is calculated annually for each species to determine if survey timing was appropriate. A high drake index indicates good survey timing. It shows that the nesting of local ducks has begun and most migrants have moved north to their breeding grounds. Conversely, a low index shows the survey was conducted too early and paired migrants may still be present. An index between 0.50 and 0.75 is indicative of a well-timed survey. This year, the



Survey indices for Canada geese show a significant population decrease from last year's survey and the fiveyear average.

survey was conducted a week early due to the early spring and dry conditions.

Mallards are the most abundant waterfowl species in the state. However, the mallard estimate for 2012 was the lowest in over 15 years, at 12,175 pairs. This is a 41% decrease from 2011 and a 44 % decrease from the five-year average. The mallard drake index was 0.59, indicating a properly timed survey for this species. For reasons not yet known, the overall mallard population across the northeastern U.S. has been declining steadily over the past decade, while the mallard population in Connecticut has been stable over this same time frame. Whether this year's survey results are merely an anomaly due to a variable spring or indicative of an ominous trend will be determined in the coming years.

The Canada goose estimate for this year was 8,810 pairs, an 11% decrease from the previous year and a 15% decrease from the five-year average. Connecticut's liberal resident Canada goose hunting seasons continue to have an impact on goose populations, particularly in those areas where hunters have ac-

cess to the birds. Increasing activism by homeowners and municipalities to thwart nesting geese has also played a role in reducing resident goose numbers. Connecticut has seen a steady 10-year decline in the resident goose population.

The wood duck estimate for 2012 was 12,280 pairs. This is a 23% increase from 2011 and a 27% increase from the five-year average. Increasing beaver activity at wetlands and an active nest box program have led to increases in Connecticut's wood duck population. The wood duck drake index was 0.52.

Similar to 2011, black ducks were not observed in any inland plots this year. The breeding black duck estimate in Connecticut for 2012 was 177 pairs. This represents a 123% decrease from 2011 and a 38% decrease from the five-year average. The breeding black duck population has been declining in Connecticut and throughout the U.S. for the past 30 years, although in the past decade the continental decline has stopped. Connecticut shows large fluctuations in breeding black duck estimates. The black duck drake index for this year was 0.37.

FROM THE FIELD





www.facebook.com/ CTFishandWildlife

Wanted: Color Banded **Kestrel Sightings!**

researcher from eastern Connecticut, initiated a project this spring that uses colored leg bands to identify birds nesting or hatched in Connecticut. The color bands may be observed on either the right leg only or on both legs. If you see a kestrel with color bands on its legs, please send an email to Tom at sayers.tom@gmail.com. Include the date and time of your observation, the location (closest road junction or GPS coordinates), the color scheme of the bands, as well as your contact information. Observations of these raptors are an important part of this study to determine where the birds travel, as well as to identify which birds return to Connecticut next spring to breed.

Laura Saucier, DEEP Wildlife Division



American kestrel

PHOTO BY PAUL FUSCO

Tom Sayers, an American kestrel

USFWS Interactive **Endangered Species Website**

The U.S. Fish and Wildlife Service has launched a new, web-based interactive map with information about endangered species successes in every state: stories of species making strides towards recovery, audio interviews and podcasts with USFWS biologists about on-the-ground endangered species conservation, and videos that highlight USFWS partners. The interactive map can be found online at www.fws.gov/endangered and also has links for the Endangered Species Program's weekly e-newsletter and ways to connect via social media.

The USFWS is actively engaged with conservation partners and the public in the search for improved and innovative ways to conserve and recover imperiled species.



PHOTO BY PAUL FUSCO

Nesting Bald Eagle and Peregrine Falcon Update

In the spring and summer of 2012, the Wildlife Division, assisted by many dedicated volunteers, monitored the nesting activities of bald eagles and peregrine falcons throughout the state. Twenty-five adult pairs of the state-threatened bald eagle were confirmed. Four pairs exhibited territorial behavior and five nests failed, while the remaining 16 pairs produced a total of 30 chicks. Four of the nests had three chicks – the most three-chick nests since monitoring began in 1992. Banding efforts were limited to four nests where six chicks were banded.

Fifteen adult pairs of the state-threatened peregrine falcon were present in the state this year. Sixteen chicks were confirmed to have fledged from seven adult pairs. The status of seven other nests remains uncertain, while the well-known Hartford Travelers Tower falcons have been temporarily displaced due to maintenance being done on the tower. It is not known whether this pair nested elsewhere this year. Wildlife Division biologists banded five peregrine chicks at one site this year.

Kate Moran, DEEP Wildlife Division

Connecticut Bald Eagle Nesting Pairs for 2012

	Zata Zagie Hesting Land Joi 2012		
County	Nesting Activity	# of Chicks	
Fairfield	1 active nest	1	
Hartford	4 active nests, 1 territorial pair, 3 failed nests	7	
Litchfield	4 active nests	8	
Middlesex	2 active nests, 1 territorial pair	4	
New Haven	3 active nests, 1 territorial pair	5	
New London	2 active nests, 2 failed nests	5	
Tolland	1 territorial pair	n/a	
Windham	None	n/a	

Don't wait until the last minute! Sign up for a Conservation Education/Firearms Safety course today. Check the DEEP website (<u>www.ct.gov/deep/hunting</u>) for class times and locations or call the Franklin Wildlife (860-642-7239) or Sessions Woods (860-675-8130) offices.

Bird Checklist for Naugatuck State Forest

Naugatuck State Forest has been recognized as an Important Bird Area by Audubon Connecticut because of the diversity of quality habitats for nesting, migrating, and wintering birds. Of particular importance are the shrubland, young forest, and other early successional habitats that have been created and maintained through active management, such as timber harvests, prescribed burns, and mowing. Many of these managed areas benefit birds of high conservation value, such as whippoor-will, blue-winged warbler, and indigo bunting.

A new *Bird Checklist for*Naugatuck State Forest was recently compiled by Sophie Zyla, a graduate student, in consultation with Buzz

Devine of Audubon Connecticut,
Shannon Kearney-McGee of the DEEP Wildlife Division, and Jerry Milne, the DEEP forester who manages

Naugatuck State Forest. The checklist can be found on the "Forestry – Forest Management on State Lands" webpage on the DEEP website (www.ct.gov/deep/forestry).

Wildlife Division Staff Notes

The Wetlands Habitat and Mosquito Management (WHAMM) Program recently welcomed two new Maintainers to the Housatonic River Phragmites Project. Stephen Chowaniec and Adam Hendrick, both long-time seasonal employees with the WHAMM Program, are familiar with the specialized equipment used to restore and enhance wetland and marsh habitat. They also have experience in diagnosing problems in the field, as well as performing maintenance on the equipment.



Indigo buntings can be found in some of the early successional habitats at Naugatuck State Forest during the spring and summer breeding season.

Second Place in Nationals Once Again for CT Junior Duck Stamp Artist

Avon High school Senior Matthew Messina submitted an original painting of a wood duck in Connecticut's Junior Duck Stamp Competition. His painting won best-of-show in Connecticut and went on to compete in the Federal Junior Duck Stamp Competition. Matthew's painting earned a respectable second place for the second year in a row. Last year, Matthew's painting of a drake lesser scaup also earned second place.

As a student of local wildlife artist Kathy Goff, Matthew has been studying drawing, painting, and sculpting animals and birds at the Farmington Valley Arts Center in Avon.

Matthew recently completed the 11th Master Wildlife Conservationist training series sponsored by the Wildlife Division. He plans to attend the College of the Atlantic in Maine where he will study ecology, wildlife conservation, and the arts. We are sure we will be seeing more beautiful artwork from Matthew in the future.

Now in its 20th year, the Junior Duck Stamp Competition is the culmination of a year-long Junior Duck Stamp conservation program used by educators across the nation to connect youth with nature and inspire budding wildlife artists. To learn more about the Junior Duck Stamp Program, visit the U.S. Fish and Wildlife Service website at www.fws.gov/juniorduck.

Sept. 22: Connecticut Hunting & Fishing Appreciation Day

September 22, 2012, is Connecticut Hunting & Fishing Appreciation Day at Sessions Woods Wildlife Management Area in Burlington. This FREE event, which is sponsored by the Friends of Sessions Woods and the DEEP Bureau of Natural Resources, celebrates the contributions of hunters and anglers to the conservation of Connecticut's natural resources. Fun activities for all ages are planned, along with educational programs and workshops about hunting and fishing. Anyone interested in fish and wildlife, not just hunting and fishing, is encouraged to attend this fun and informative event. Best of all, it is free to attend!

So, mark your calendar. Come practice your shooting and casting skills. Talk to DEEP biologists about wildlife and fisheries. Learn some



tips about getting that big buck or hooking that monster bass. Be sure to bring the kids and grandkids. Older children will be able to test their skills on the rifle and archery ranges. Younger children will be able to enjoy playing games, learning about wildlife, and making crafts. Food will be available for sale. But, if you want, bring your own lunch to enjoy. Activities will begin at 10:00 AM and continue throughout the day until 4:00 PM.

A list of specific activities and presentations, as well as a schedule for the day, will be posted on the DEEP Web site at www.ct.gov/deep/HuntFishDay and the CT Fish and Wildlife Facebook page (www.facebook.com/CTFishandWildlife) as the date approaches. You may also contact the Sessions Woods office at 860-675-8130 (Mon.-Fri., 8:30 AM-4:30 PM) for more information. The Sessions Woods Wildlife Management Area is located at 341 Milford Street (Route 69), in Burlington.

Emerald Ash Borer Detection Traps Deployed Statewide

As part of a cooperative effort between the DEEP, the Connecticut Agricultural Experiment Station (CAES), and the University of Connecticut Cooperative Extension System, 590 detection traps have been set out across the state to monitor for the presence of the non-native, invasive emerald ash borer (EAB) in Connecticut. Because of the recent findings of this destructive insect along the western edge of Dutchess County, New York – about 25 miles from the Connecticut border – this year's detection trap effort will be expanded to all counties, including Windham and New London.

Monitoring of the traps is being led by the University of Connecticut Extension System, in cooperation with CAES, DEEP Forestry and State Parks personnel, the Department of Transportation (DOT), and U.S. Department of Agriculture. Additionally, many landowners, wood product businesses, and municipalities have agreed to host a detection trap again this summer on their properties.

Connecticut residents are reminded that the greatest geographic dispersal of EAB has been documented through the movement of firewood. DEEP urges summer campers and vacationers to leave their firewood at home, buy firewood locally, and to not bring firewood back to Connecticut from out-of-state travels. Campers are now prohibited from bringing out-of-state firewood to Connecticut State Park and Forest campgrounds. For those who use wood to heat their homes, obtain firewood from only a few miles away or at least in the same county. Not moving firewood and early detection of EAB are of paramount importance in the effort to prevent or slow the further spread of this beetle.

The continued early detection effort builds upon last year's cooperative monitoring, which fortunately found no EAB in Connecticut. Considering Connecticut has more than 22 million ash trees, the insect's presence here could have a devastating effect on the beauty of our forests, state and local parks and neighborhoods, as well as the state's wood product industries. EABs feed strictly on ash trees. The larvae feed just beneath the bark on the inside of the trees, while the adults feed on the leaves.

Report EAB Infestations

The small, green emerald ash borer belongs to a large family of beetles known as the buprestids, or metallic wood boring beetles. The description is apt, as many of the buprestids appear as if their wing covers are made of polished metal. Adults have green, iridescent wing covers and measures approximately one-half inch in length. To see a photo of the EAB and also learn more about the beetle, go to the DEEP website at www.ct.gov/deep/eab.

DEEP is asking residents to report possible EAB infestations to CAES or the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (APHIS-PPQ). Early detection, although difficult, is the best defense against further infestation. Residents suspecting the presence of EAB should report their findings to CAES at 203-974-8474 or CAES.StateEntomologist@ct.gov (digital photos of suspect insects and damage on the trees are helpful). Residents can also report sightings to APHIS-PPQ via their website at www.beetledetectives.com.



Large, purple EAB traps have been placed in targeted locations, similar to sites where EAB was initially detected in other states, such as private and public campgrounds, DOT rest stops, plant nurseries, and wood product businesses. The traps use a chemical attractant to lure any EAB present in the area, but they do not bring EAB into an area that is not already infested. The surface of the trap is coated with a sticky material, which causes the beetles to adhere to it. The traps are non-toxic to humans. Birds and other wildlife will not become entangled in them.

21st Annual Connecticut Envirothon Competition

The 21st annual Connecticut Envirothon competition took place on May 24 at Winding Trails Recreation Area in Farmington. Forty teams registered for the event representing 27 high schools. Teams, which were comprised of five high school students, took exams in five environmental subjects: wildlife, forestry, soils, aquatics, and a current issue (coastal marshes and estuaries). The team with the highest cumulative scores on all tests was awarded first place.

Teams arrived early in the morning at Winding Trails and the competition started promptly at 8:00 AM. They walked to five testing stations scattered throughout the property, taking written and practical tests at four of the stations and giving an oral presentation at the "current issue" station.

Finishing in first place this year was the team from Housatonic Valley Agriscience. The Litchfield High School team finished second, while Housatonic Valley Regional High School placed third. All of the Envirothon teams worked hard to prepare for this competition. Congratulations are extended to the winning teams!

For more information on the Connecticut Envirothon, go to www.ctenvirothon.org.

Peter Picone, DEEP Wildlife Division



Connecticut's 2012 Envirothon. From left to right is David Moran (Teacher/ Advisor) Matt Matsudaira, Jordan Long, Emma Okell, Becket Harney, Brian Saccardi, and Chris Sullivan (CT Envirothon Chairperson).

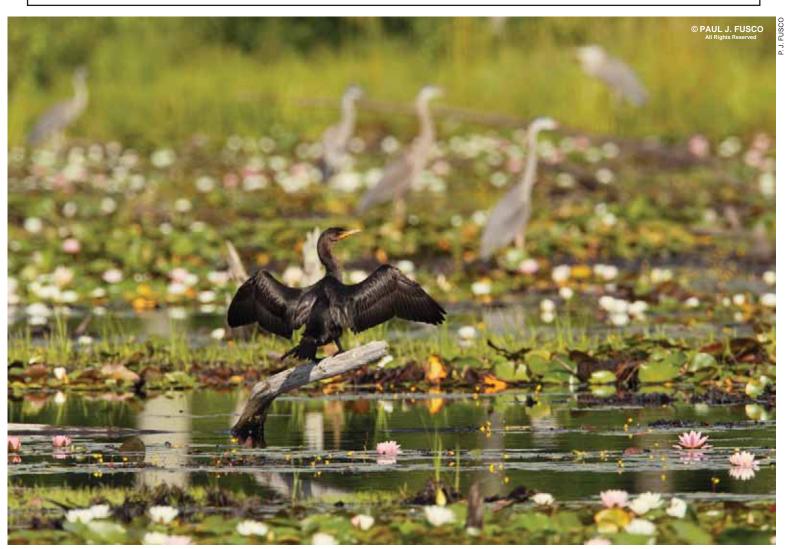
Conservation Calendar

CONSCIVATION	i Gaichdal			
May-AugustRespect fenced and posted shorebird and waterbird nesticats off shoreline beaches to avoid disturbing nesting bird Sound. Refrain from visiting these areas during the nesting	ls. Herons and egrets are nesting on offshore islands in Long Is			
Dispose of fishing line in covered trash containers or spec line is a hazard for wildlife. A list of recycling receptacle lo	cifically marked recycling receptacles. Improperly discarded fish cations is available at www.ct.gov/deen/WhatDolDoWith.	ning		
uly 28 Golden Eagle Research presentation by Todd Katzner fr		enter.		
	er, Route 4, Sharon. The festival features two days of various nate animal presentations, musical performances, vendors, food, a sion will be charged. For more information, contact the Audubor	and		
SeptemberReport use of bluebird nest boxes by sending in a Bluebir by calling 860-675-8130.	d Nest Box Survey Card to the Wildlife Division. Cards are avail	lable		
Sept. 22National Hunting and Fishing Day and Connecticut Huntin	ng & Fishing Appreciation Day			
Programs at the Sessions Woods Conservation Education	n Center			
Programs are a cooperative venture between the Wildlife Division and the Frie MonFri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must Noods is located at 341 Milford St. (Route 69) in Burlington.				
Aug. 16Plants and their Wildlife Value, starting at 10:00 AM. Joi	length, this walk will traverse mild terrain. Please wear appropr			
Sept. 22Connecticut Hunting & Fishing Appreciation Day, from page 21 for more information.		s. See		
Hunting Season Dates				
Sept. 1-29Early Squirrel Season				
Sept. 15-Nov. 13 First portion of the deer and turkey bowhunting season or Only Areas).	v. 13 First portion of the deer and turkey bowhunting season on state land (season extends until Dec. 31 on State Land Bowhunting Only Areas).			
Sept. 15-Dec. 31 Deer and turkey bowhunting season on private land (priva deer until January 31, 2013).	Dec. 31 Deer and turkey bowhunting season on private land (private land bowhunters in deer management zones 11 & 12 may hunt deer until January 31, 2013).			
Consult the 2012 Connecticut Hunting and Trapping Guide and 2012 Connect guides can be found at DEEP facilities, town halls, bait and tackle shops, and Web site (www.ct.gov/deep/fishing). Go to www.ct.gov/deep/fishing).	outdoor equipment stores. The guides also are available on the t.gov/deep/sportsmenlicensing to purchase Connecticut hunting	e DEEP g,		
"Connecticut Wildlife" Can Now Be Ordered O	nline			
Thinking about ordering a subscription to <i>Connecticut Wildlife</i> for a friend a credit card through the DEEP Store (www.ct.gov/deep/store). While you are selection of books and other environmental items that are available through the	nd or family member? The magazine can now be ordered online e visiting the DEEP Store Web page, take some to explore the the store.			
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Connecticut Department of Energy and Environmental Protection Bureau of Natural Resources / Wildlife Division Sessions Woods Wildlife Management Area P.O. Box 1550 Burlington, CT 06013-1550



A summer scene at the beaver marsh at the DEEP Wildlife Division's Sessions Woods Wildlife Management Area in Burlington.