

September/October 2007

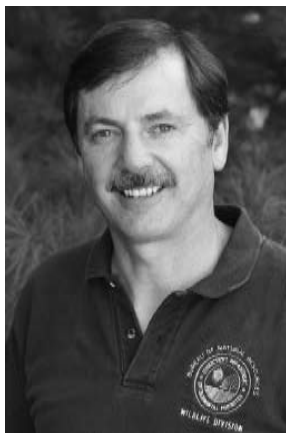
Connecticut Wildlife

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

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From the Director



Back in the 1970s, my academic career in wildlife management was nearly derailed by computers. Newly required courses in computer programming were challenging. A course in computer logic was virtually incomprehensible. Not at all reassuring was a chapter in the latest edition of the "Wildlife Techniques" manual declaring that computer technology would be an essential tool for future wildlife professionals. The chapter featured a photograph of a smiling scientist with a crew cut, white lab coat, and thick, black-rimmed glasses standing in front of a massive computer. This man's robotic smile was not reassuring to me and his photograph fueled many a nightmare.

As it turned out, I was able to survive these academic hurdles due primarily to the assistance of fellow students and sympathetic professors. One professor gave me a passing grade only after I pledged not to enter a profession, such as bridge design, where my computer deficiencies would put the public at risk. Eventually, I learned enough to develop and use statistical programs to analyze large amounts of data collected during my Master's Degree research and throughout my professional career. However, the sterile process of number crunching seemed far removed from the more appealing study of field ecology.

More recently, computer applications have been developed that better merge the field science with practical applications. In particular, Geographic Information Systems (GIS) combine mapping technology with vast data storage capabilities that allow users to visualize and query all types of geographically-based information. While expertise is required to create the maps and manage the data, the basic GIS products are relatively easy to use. What this means is that, increasingly, municipal officials, land planners, and the general public will be able to access tremendous amounts of information about the wildlife, soils, vegetation, and other characteristics of a particular site. As more data are collected and fed into the GIS, the more complete the "biomap" profile becomes.

Computers will never replace field scientists. If we are to manage our wildlife, we need taxonomic experts who can survey and identify species and assess the status of populations and their habitats. For this, I tip my cap to the Audubons, Muries, Leopolds, and other legendary naturalists. Given the obvious value of GIS in land planning and conservation biology, I suppose I must also tip my cap to that anonymous scientist in the white lab coat. But from time to time, I still have those nightmares.

Dale W. May

Cover:

The Monarch butterfly is perhaps the best known of Connecticut's 117 butterfly species. To learn more about butterfly species in the state, read the article on page 12.

Photo courtesy of Paul J. Fusco

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Gina McCarthy..... Commissioner
 Edward C. Parker..... Chief, Bureau of Natural Resources

Wildlife Division

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

Dale May Director
 Greg Chasko Assistant Director
 Mark Clavette Recreation Management
 Laurie Fortin Wildlife Technician
 Elaine Hinsch Program Specialist
 Brenda Marquez Secretary
 Shana Scribner Office Assistant
 Chris Vann Technical Assistance Biologist
 Kenneth Metzler..... Natural History Survey
 Dawn McKay Natural History Survey
 Nancy Murray Natural History Survey
 Karen Zyko Natural History Survey

Eastern District Area Headquarters
 209 Hebron Road, Marlborough, CT 06447 (860-295-9523)

Robin Blum Habitat Management Program Technician
 Ann Kilpatrick Eastern District Biologist
 Carrie Pomfrey Habitat Management Program Technician
 Paul Rothbart District Supervising Biologist
 Jane Seymour Belding WMA Steward
 Judy Wilson Private Lands Habitat Biologist

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

Charles Bruckerhoff EP Safety Representative
 Paul Capotosto Wetlands Restoration Biologist
 Michael Gregonis Deer/Turkey Program Biologist
 Min Huang Migratory Bird Program Biologist
 Howard Kilpatrick Deer/Turkey Program Biologist
 Kelly Kubik Migratory Bird Program Technician
 Andy LaBonte Deer Program Technician
 Heather Overturf Office Assistant
 Winnie Reid Secretary
 Julie Victoria Wildlife Diversity Program Biologist
 Roger Wolfe Mosquito Management Coordinator

Sessions Woods W.M.A.
 P.O. Box 1550, Burlington, CT 06013 (860-675-8130)

Trish Cernik Secretary
 Jenny Dickson Wildlife Diversity Program Biologist
 Peter Good Supervising Wildlife Biologist
 Jason Hawley Furbearer Program Technician
 Shannon Kearney-McGee Wildlife Diversity Program Technician
 Christina Kocer Wildlife Diversity Program Technician
 Geoffrey Krukar Wildlife Diversity Program Technician
 Dave Kubas CE/FS Program Coordinator
 Peter Picone Western District Biologist
 Kate Moran Wildlife Diversity Program Technician
 Paul Rego Furbearer Program Biologist
 James Koert Riley Field Assistant/Maintainer
 Laura Rogers-Castro Education/Outreach Program
 Laura Saucier Wildlife Diversity Program Technician
 Jim Warner Field Assistant

Connecticut Wildlife

Kathy Herz Editor
 Paul Fusco Media Designer/Photographer

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

Steven Rosa Mosquito Control Specialist
 Daniel Shaw Mosquito Control Specialist



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



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Study of Atlantic Brant Winter Carrying Capacity.

Written by Min T. Huang, Migratory Gamebird Program

Atlantic brant are small sea geese that nest in the eastern Arctic and winter exclusively in the Atlantic Flyway from Massachusetts to North Carolina. In a typical year, between 2,000-5,000 brant spend the winter in Connecticut. Brant populations fluctuate quite a bit, largely driven by breeding success and wintering ground condition. During winter, brant feed almost exclusively on submerged aquatic vegetation (SAV), principally eelgrass. A widespread eelgrass die-off along the Atlantic coast in 1976 caused the Atlantic brant population to crash to less than 50,000. The reliance of wintering brant on two to three principal food items, concern over the long-term viability of their key staging area (Hudson Bay), and continued SAV losses along the Atlantic coast have led to a number of critical research projects in the past few years.

As SAV resources along the Atlantic coast have diminished, brant have shifted their feeding patterns, to some extent. Throughout the Atlantic Flyway, brant have been spending more time feeding on lawns, similar to Canada geese. This has led, in some instances, to nuisance problems, and it also raises the question of how the diet shift affects not only brant behavior, but their overall condition.

In November 2006, Connecticut and five other states initiated a research project to look at the carrying capacity of winter habitat for brant. The determination of carrying capacity is paramount towards guiding future conservation efforts, not only for brant, but also for other species reliant upon healthy SAV beds. The main objectives of this study are to:

- Determine the amount of time brant dedicate to different behavioral activities so an hourly energy expenditure can be estimated. In addition, researchers want to

know how the percentage of time spent in those behaviors varies with habitat type, weather, disturbance, and time of year.

- Determine the feeding rate and foods ingested in different habitat types and at different times of year. This will help researchers determine how much ingestion of the plants is required for metabolic function of different behavioral states.
- Collect the contents of the upper gastrointestinal tracts of brant throughout the wintering grounds to determine which plants are selected by brant and how these vary with habitat type and time of year.
- Collect brant foods to determine the caloric availability in a variety of habitat types throughout winter.

In Connecticut, two distinct study areas were delineated for this work. Weekly time budget surveys were then conducted in each of the study areas. Vegetation samples were collected monthly of what brant were observed feeding on (eelgrass, sea lettuce, spartina, and lawn grass). Brant also were collected from hunters during the hunt-

Throughout the Atlantic Flyway, brant have been spending more time feeding on lawns, similar to Canada geese. This has led, in some instances, to nuisance problems, and it also raises the question of how the diet shift affects not only brant behavior, but their overall condition.

ing season for examination of gastrointestinal tracts. In conjunction with avian influenza testing, researchers conducted brant collections outside of the hunting season.

Plans are underway for the work to be conducted during fall and winter. Ultimately, this collaborative project will greatly enhance understanding of how brant and other species relate, not only to the habitat along the Atlantic coast, but also how managers can positively influence the condition of that habitat.



Atlantic brant have been the subject of several critical research projects in the past few years. DEP Wildlife Division biologists are currently studying the feeding habits and diet of Atlantic brant that spend the winter in the state.

Fall Hunting Seasons at a Glance

Wild Turkey Season

Hunters should expect to observe an abundance of wild turkeys during the 2007 fall turkey seasons because of favorable spring weather conditions. Much of Connecticut encountered dry and warm conditions during the nesting (May) and hatching (June) periods. These conditions may have increased nesting success and poult survival.

Fall firearms turkey hunters have many opportunities to harvest a bird. Individuals can obtain both a private land permit (2 either-sex tags) and a state land permit (1 either-sex tag). The 2007 fall firearms season runs from October 6 through October 31.

The fall archery season runs concurrent with the regular archery deer season, starting September 15 through November 13 and December 19 through December 31. Hunters can harvest two birds of either-sex from state or private lands. Many archers that hunt principally for deer also purchase a fall archery turkey permit to take advantage of a chance encounter with a wild turkey while sitting in their deer stand.

During the fall seasons, turkey hunters should concentrate their hunting efforts on oak ridges, cut cornfields, and forest openings. Each of these areas contains food resources that turkeys use



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P. J. FUSCO

Many archers that hunt principally for deer also purchase a fall archery turkey permit to take advantage of a chance encounter with a wild turkey while sitting in their deer stand.

during fall. Hunters should scout several locations, prior to the season, to find scratchings, feathers, and droppings to determine whether turkeys are present.

If hunters purchase all available firearms and archery permits, they will be allowed to harvest up to five birds. Although fall turkey hunting is challeng-

ing, the effort can be very rewarding.

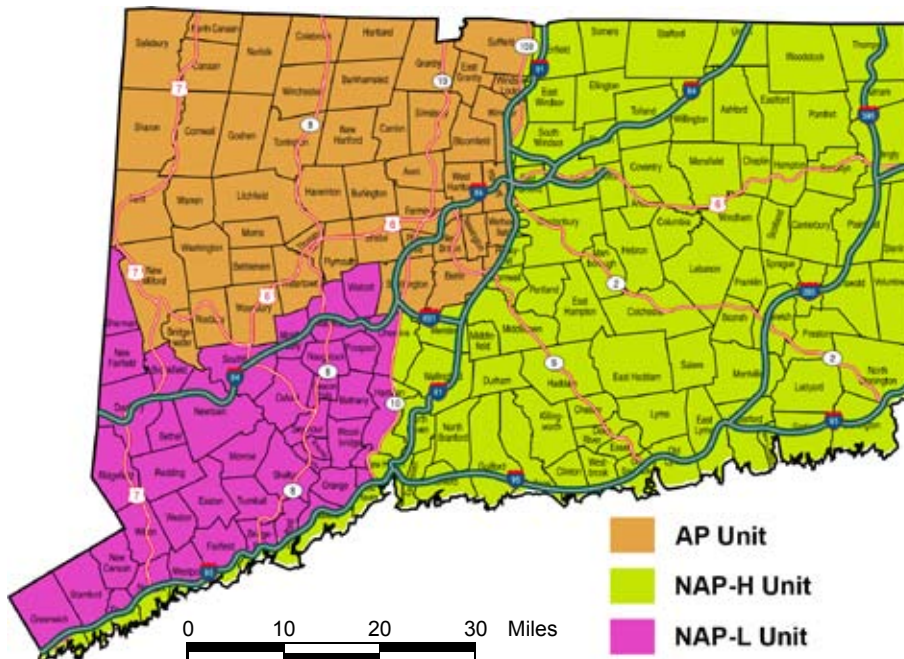
White-tailed Deer Season

Connecticut's deer population remains healthy and harvest rates are expected to be high during the 2007 hunting season. The abundance of acorns and weather conditions during the hunting season will influence hunter success. Opening days are September 15 for archery, November 14 for shotgun/rifle, and December 5 for muzzleloader.

During the 2007 season, hunters who harvest an antlerless deer on private land and have permission to hunt on private land in deer management zones 11 and 12 will be eligible to obtain a free replacement antlerless tag (see the 2007 Connecticut Hunting and Trapping Guide). Replacement tags will be available for use during the shotgun/rifle, archery, and muzzleloader hunting seasons. The replacement tag program has resulted in an increased harvest of female deer in southwestern Connecticut and in many shoreline towns.

The Earn-A-Buck Program will remain in effect in management zones 11 and 12. It provides incentives for hunters to harvest additional antlerless deer. Any hunter who harvests and checks in three antlerless deer during the same season (archery, shotgun, muzzleloader) will be

Connecticut Migrant Goose Zones



eligible to earn an extra bonus buck tag (either-sex) to use during the same hunting season.

Hunters are reminded that bowhunting is permitted on state land during the shotgun/rifle hunting season only in designated deer bowhunting areas and on private land in zones 11 and 12. Bowhunters also can hunt deer during January 2008 on private land in zones 11 and 12. These liberalizations, combined with the ability to use bait during the deer hunting seasons in zones 11 and 12, have contributed to increased deer harvest rates in these areas. The annual 2006 deer summary booklet is expected to be posted on the DEP website (www.ct.gov/dep) in the near future.

Migratory Gamebird Seasons

Ducks, Mergansers, and Coots:

Black duck populations continue to be stable, so a one black duck bag limit will be allowed during the early season in both the north and south zones. However, concern over decreasing productivity of black ducks may warrant future changes. The daily bag limit of sea ducks is five, and the daily bag limit for long-tailed (oldsquaw) ducks remains at four. Declining numbers of wintering sea ducks and increased hunting pressure on these long-lived species warrants more conservative regulations. A bag limit increase for canvasbacks from one to two birds is new for 2007-2008. Scaup bag limits remain at two. However, continued concern over the long-term decline of scaup and the uncertainty over what role harvest plays in regulating scaup populations may warrant reductions in harvest opportunity for the 2008-2009 season.

Regular and Late Canada Goose Seasons: The North Atlantic Population (NAP) hunt zone for Canada geese continues to be split into two zones—the NAP L-Unit, and the NAP H-Unit—based on differences in the proportion of resident to migrant geese between the two areas. These zones were created to exert more harvest pressure on resident geese in areas (primarily southwestern Connecticut) where there have been persistent nuisance problems. A slight change in these zone boundaries has been made for 2007-2008. The change involves the northern portion of New Haven County. The new boundary of the NAP-L unit is that portion of Fairfield County north of Interstate 95; that portion of New Haven County starting at the I-95 bridge on the Housatonic River;

north of Interstate 95; west of Route 10 to the intersection of Interstate 691; west along Interstate 691 to Interstate 84; west and south on Interstate 84 to the Naugatuck River; north on the Naugatuck River to the Litchfield County line, then extending west along the Litchfield County line to the intersection of the Litchfield and Fairfield County lines. The seasons for these two units are identical to last year: a 70-day season with a three-bird daily bag limit in the NAP-L unit and a 60-day season with a two-bird daily bag limit in the NAP-H unit.

The Atlantic Population (AP) of Canada geese continues to recover. Breeding pair estimates for 2007 were 196,000. This is a large increase from last year. However, breeding conditions were very poor, and a near bust in production is expected. Thus, there is no change in the AP Unit. The season will be 45 days, with a three-bird bag limit.

Descriptions of the hunting zones for Canada geese are in the 2007-2008 Migratory Bird Hunting Guide, which is available at most town clerk and DEP offices, as well as on the DEP's website (www.ct.gov/dep).

Sportsmen also will have the opportunity to harvest resident Canada geese during the early September season and the special late season (in the south zone only; January 15-February 15, 2008). No special permits are required for either special goose season.

Hunters are reminded to report waterfowl bands. Band returns provide vital information for the continued management of the waterfowl resource. New to 2007-2008, bands can be reported on the Internet at www.reportband.gov. Those who report bands on the web are providing quicker information on the band origin and they will be able to print their certificate from home.

Woodcock, Snipe, and Rail: There are no changes in the woodcock, snipe, and rail seasons for this year. Woodcock production throughout the Northeast was poor this year due to the prolonged snow and ice storms in spring, and heavy

Details on all hunting seasons can be found in the 2007 Connecticut Hunting and Trapping Guide and the 2007-2008 Migratory Bird Hunting Guide, which are available on the DEP's website (www.ct.gov/dep) and at DEP offices and local town halls.



The Earn-A-Buck Program provides incentives for hunters in deer management zones 11 and 12 to harvest additional antlerless deer.

rainfall during the peak of nesting (April into May). Overall, woodcock numbers have been stable the past 10 years.

Pheasant Season

The opening day for pheasant hunting will be on Saturday, October 20. The DEP will purchase 15,857 adult pheasants for the fall season. While this is a decrease in 1,296 birds from last year's purchase, there will still be a ratio of roughly three birds per hunter (there were slightly more than 6,000 pheasant hunters in 2006). In addition to the adult pheasants purchased, another 930 eight-week-old birds were provided to the Norwich Fish and Game and Sprague Rod and Gun Clubs for eventual release on permit-required hunting areas. Sportsmen's clubs that provide public hunting access to permit-required hunting areas also will continue to stock state-purchased and club-purchased birds on several areas throughout the state.

This fall, pheasant hunters will have

continued on next page

Hunting Seasons

continued from previous page

nearly 43 hunting areas to choose from. These areas will be outlined on the DEP website (www.ct.gov/dep) prior to the beginning of the season. The website will also provide information on the approximate number of birds going to each area, along with a number of new maps specifically designed for pheasant hunters.

As in years past, the Wildlife Division is striving to provide for successful hunting opportunities at many quality areas; therefore, several lower public use areas will not be stocked. This year, Nye Holman State Forest, Shenipsit State Forest, Tanney Hill (Nehantic State Forest), and Natchaug State Forest will not be stocked. To improve the quality of the hunt, almost all of the other sites will receive birds three days per week and birds will be concentrated to opening week, the first three weeks of the season, and Thanksgiving Day. No birds will be stocked this year during the week of November 12 when the firearms season opens for deer hunting.

To provide opportunities for weekend, family, and youth hunters, DEP staff and volunteers will release pheasants on some Friday evenings and Saturdays. To increase access to higher quality sites, hunters will no longer be required to receive daily permits to access Babcock Pond Wildlife Management Area (WMA), Bear Hill WMA, Goshen WMA, Higganum Meadows WMA, or Nathan Hale State Forest. The DEP will continue to provide youth hunters with special access to East Windsor/Enfield, Hebron, NU-Maromas, NU-Skiff

Opportunities for Junior Hunters

Regulations adopted in 2002 established designated days for youth hunting in Connecticut. On these days, licensed junior hunters may hunt when accompanied by a licensed adult hunter 18 years of age or older. The adult mentor may not carry a firearm. These training days provide junior hunters with an opportunity to learn safe and effective hunting practices from experienced hunters.

Waterfowl - Saturday, October 6, and Monday, October 8, 2007

Participants must be 15 years of age or younger and possess a valid small game junior hunting license and a HIP permit. Adult mentors must possess a valid hunting license; however, they are not allowed to carry a firearm. Ducks, geese, mergansers, and coots may be hunted. Bag limits and shooting hours are the same as for the regular duck and goose hunting seasons.

Pheasant - Saturday, October 13, 2007

Private Lands Only: Licensed junior hunters must have valid pheasant harvest tags. Harvest tags must be used except when hunting on lands of a registered private hunting club with a pheasant tagging exemption.

Deer - Saturday, November 10, 2007

Private Land: Licensed junior hunters must have a valid private land shotgun/rifle deer permit and written consent from landowner. Adult mentors must have a valid private land deer permit and written consent from the landowner. Harvested deer must be brought to a deer check station.

State Land: Licensed junior hunters must have a state land shotgun deer permit for the specific area being hunted (lottery or no-lottery). Adult mentors must have a valid deer permit of any type. Harvested deer must be brought to a deer check station.

Junior Hunter Season Access Permits

Junior Hunter Season Access Permits are available for the Babcock Pond, Bear Hill, East Windsor/Enfield, Goshen, Hebron, Higganum Meadows, Nathan Hale, NU-Maromas, NU-Skiff Mountain, Quinnipiac River State Park, Stanley Works, and Woodstock Permit-Required Hunting Areas. These permits allow licensed junior hunters and their accompanying adult licensed hunter to hunt small game on the designated Permit-Required Hunting Area without having to obtain the normal daily permits required of other hunters on these areas.

Mountain, Quinnipiac River State Park, Stanley Works, and Woodstock.

For more details about the upcoming pheasant season, visit the DEP website. Pheasant tags cost \$14 for a series of 10

tags. Please visit your local town hall to buy your stamp and support the pheasant program!

New Hunting Area Available in Southbury

The Aldo Leopold Wildlife Management Area, in Southbury, will be open in the fall of 2007 for archery deer and firearms turkey/small game/waterfowl hunting. Currently it is closed to firearms deer hunting. The area consists of two parcels totalling 554 acres. One parcel is located on the east side of Purchase Brook Road and the other is located south of West Flat Hill Road. There is very limited off-road parking. It is highly recommended that hunters scout the area prior to hunting. The property consists of mostly mixed hardwood forest and about 29 acres of cornfields. One side of the property borders Lake Lillinonah. A powerline right-of-way also bisects one of the parcels.

Buy a Connecticut Duck Stamp and Help Conserve Wetlands and Wildlife!

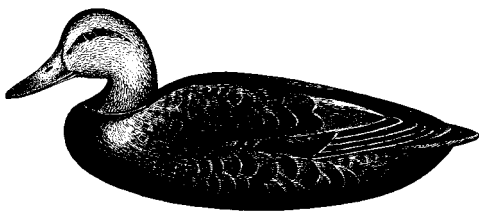
You don't have to be a waterfowl hunter to buy a Duck Stamp. Anyone can purchase and collect stamps. A stamp costs \$10 and it features a different waterfowl species each year. Stamps can be bought at local town halls or at the DEP's Licensing and Revenue office at 79 Elm Street in Hartford. Since 1993, Duck Stamp funds have been used to restore or enhance over 1,700 acres of wetlands and to purchase a 75-acre addition to Wangunk Meadows Wildlife Management Area in Portland.

2007 CT Duck Stamp Image Donated by Local Artist

Keith Mueller, a native New Englander and resident of Killingworth, Connecticut, has provided artistic images for three Connecticut Duck Stamps. His most recent contribution is for the 2007 stamp, which features a sketch of a black duck decoy carved by Connecticut notable Shang Wheeler in the 1930s. Keith has graciously donated the artwork for this stamp. Keith's artwork was also featured on the 1996 and 1999 Connecticut Duck Stamps. The 1996 stamp featured "Old Squaw At Green's Ledge Light," while the 1999 stamp depicted Canada geese and bufflehead against the backdrop of the Mystic Seaport.

Connecticut's Migratory Bird Conservation Stamp (Duck Stamp) Program began in 1993 when hunters were required to purchase a \$5.00 stamp to hunt waterfowl. The sale of these stamps (and collector art prints from 1993 through 2003) has generated over \$1 million. Nearly \$400,000 was raised during the first year of the program alone. However, as expected, print and stamp sales declined over time and the print program was discontinued in 2003. From 2003-2006, the Wildlife Division's resident photographer and artist, Paul Fusco, provided the artwork for the Duck Stamp.

In 2005, with the support of most waterfowl hunters, the decision was made to increase the price of the Duck Stamp to \$10. The intent of the price increase was to continue and expand this very successful wetlands conservation program and



Keith Mueller's sketch of a Charles E. (Shang) Wheeler black duck decoy continues the tradition of talented Connecticut decoy carvers. Mr. Wheeler was a renowned decoy carver who lived in Stratford and carved many prize-winning decoys. He was an avid outdoorsman and a legislator for many years in Connecticut. He was instrumental in helping the state acquire a large marsh at the mouth of the Housatonic River, now known as the Charles E. Wheeler Wildlife Management Area in Milford.

Meet the 2007 Duck Stamp Artist: Keith Mueller

Keith Mueller was originally educated as an engineer/draftsman. However, his carving and painting skills are self-taught. He has been painting and carving for over 30 years and has been sharing his knowledge as an instructor for the past 20 years.

Unlike most artists of his caliber, Keith holds prestigious titles in both the art and carving worlds. He attained the distinguished title of International Woodcarving Champion at the North American Decoy Carving Championship held by the International Woodcarvers Association. He is also a New England Grand Masters Champion, as well as a twice-honored "Living Legends" Master folk artist in decoy carving sponsored by the State of Connecticut Endowment for the Arts. He is a five time guest artist at the annual New England Woodcarving and Wildlife Art Exposition and a much sought after judge in both professional and world classes in major competitions and shows across the country.

Keith has been awarded the celebrated title of World Champion Carver five times and is one of only two carvers worldwide to win three divisions at World Level Competition in the prestigious Ward World Championships at Ocean City, Maryland. He is also the first and only Carver/Artist to win all three of the hunting decoy divisions at the Ward World Championships.

Keith has won over 250 Best in Show awards in competition at major events across the country and his work has been exhibited at the internationally-acclaimed Leigh Yawkey Woodson Art Museum "Birds in Art" exhibit. His carvings and sculptures are on permanent display and exhibit at the world-renowned Ward Museum of Wildfowl Art in Salisbury, Maryland. A complete set of his carving and decoys are also on permanent display at the Mystic Marinelife Aquarium in Mystic, Connecticut.

In addition to being the first state artist to paint the Connecticut Duck Stamp, he is also the first Connecticut artist to win the Rhode Island Duck Stamp print (1999-2007) contest. His paintings and carvings are in private collections all over the world.

Keith has always been a believer in supporting his community through conservation groups and wildlife organizations. His educational seminars and displays, as well as his donations of carvings and artwork, are well known throughout New England. He also donates his time and has served as a member of the Board of Directors of such organizations as the Ward Foundation, Valley Shore Waterfowlers, Connecticut Waterfowl Association, and Connecticut Waterfowl Trust.



possibly expand recreational opportunities for waterfowl hunters.

With the price increase, stamp revenues increased from approximately \$30,000 to \$60,000 a year. About 6,000 stamps are purchased by waterfowl hunters and a few hundred are sold to collectors. However, anyone concerned about waterfowl and wetland habitat conservation can purchase a Duck Stamp. By law, funds generated from the sale of Connecticut 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. Funds also may be used for the design, production, promotion, and procurement of artwork related to the Duck Stamp Program.

It is hoped that with Keith's reputation as a distinguished artist and carver, more collectors and waterfowl enthusiasts will be encouraged to purchase a 2007 Connecticut Duck Stamp this year.

The DEP Wildlife Division greatly appreciates the contributions Keith has made on behalf of the state's waterfowl resource. You can do your part as well by purchasing a 2007 stamp, whether or not you hunt waterfowl. Stamps can be purchased for \$10 at town clerks' offices.

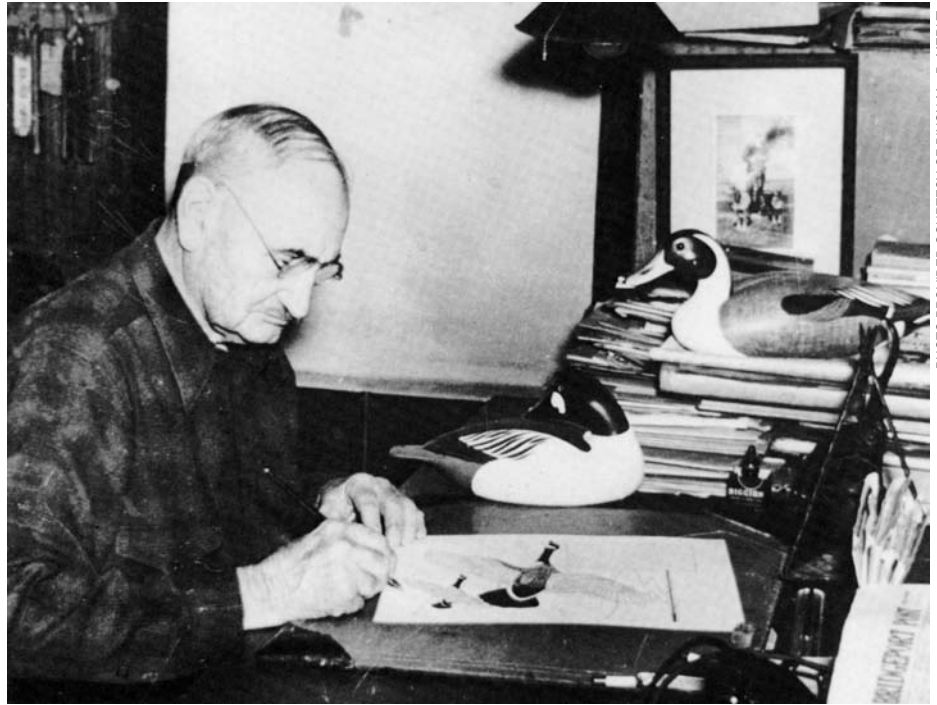
Connecticut Notable: Decoy Carver Shang Wheeler

The 2007 Connecticut Migratory Bird Conservation Stamp was illustrated by Connecticut artist, Keith Mueller, who chose to highlight a black duck decoy originally carved by Charles E. (Shang) Wheeler (1872-1949). Those who have an interest in decoy carving probably have heard of or know about Shang Wheeler, a gifted amateur carver and dedicated outdoorsman who lived in Stratford, Connecticut, at the mouth of the Housatonic River. He began carving at an early age and carved his first decoy when he was eight years old.

Wheeler hunted waterfowl using decoys made by Albert Davids Laing (1811-1886) for many years and was strongly influenced by his work, as well as that of Laing's neighbor, Benjamin Holmes (1843-1912). Laing's style of carving was peculiar to Stratford, with hollow, two-piece bodies, protruding chests, and varied head positions. Wheeler carried the Stratford style into the twentieth century, creating both working birds (including some with solid cork bodies and inset wooden tails) and fancier show birds intended solely for exhibition. A mallard drake carved by Wheeler won the grand championship at the first American decoy show in 1923 in Long Island, New York. Shang Wheeler's hand carved decoys are considered by many to rank among the finest ever produced.

Wheeler also worked as manager of the Connecticut Oyster Farms in nearby Milford from 1912-46. He became involved in Connecticut politics and served, at one time, as a state senator. He was known for his support of conservation, and because of his efforts, a state wildlife management area (WMA) in Milford was named for him. The Charles

E. Wheeler WMA (750 acres) includes intertidal shoals that, in combination with the brackish marshes, are a significant wildlife concentration area, providing habitat and foraging areas for waterbirds, shorebirds, raptors, and waterfowl. The WMA also is an important waterfowl hunting area.



Shang, seen here circa 1942, often sat at his bench carving or drawing while others came to visit and talk.

PHOTO PROVIDED COURTESY OF DIXON MACD. MERKT

LIP Funds Target Tidal Marsh Restoration Project

The DEP Wildlife Division initiated a Landowner Incentive Program (LIP) project in the North Cove and South Cove tidal marshes of Old Saybrook in July. The Old Saybrook Land Trust was awarded \$120,000 by the Wildlife Division to work in partnership to restore the tidal marshes by treating approximately 113 acres that have been overtaken by the non-native, invasive reed known as phragmites. Large areas of native vegetation have been replaced by a phragmites monoculture in these vast marsh complexes.

This LIP project is the largest funded to date in Connecticut. With the Old Saybrook Land Trust acting as LIP project steward and liaison, up to 200 individual private landowners in North Cove and South Cove have given permis-

sion for phragmites to be controlled on their property. Control efforts involve a repeated cycle of spraying and mulching treatments so that native tidal wetland vegetation and the species at-risk that this critical habitat supports may flourish.

The Landowner Incentive Program provides 75% of the funding for this project, which will be used to cover the cost of a state-approved contractor to treat the phragmites with an approved herbicide. The required 25% match is being provided by the outreach work conducted by the Old Saybrook Land Trust to secure landowner permission. The original funds for the LIP project came from a competitive grant awarded to the DEP Wildlife Division from the U.S. Fish and Wildlife Service.

These marshes provide critical habitat for state-listed species at-risk, like pygmy weed, salt marsh bulrush, and king rail, which are rare in Connecticut. They also provide important habitat for waterfowl, wading birds, mammals, reptiles, amphibians, and invertebrates, as well as fish, which are an important food source for shorebirds. In addition, the marshes of Old Saybrook are particularly significant because they lie in the Connecticut River tidelands area, recognized "as one of the last great places" by The Nature Conservancy.

For more information about the DEP's Landowner Incentive Program, visit the DEP website at www.ct.gov/dep or contact LIP Coordinator, Judy Wilson, at 860-295-9523.

Birding by the Light of the Moon

Written by Shannon Kearney-McGee, Wildlife Diversity Program

Field technicians from the Wildlife Division's Wildlife Diversity Program conducted a pilot investigation to determine appropriate methods for assessing whip-poor-will density and habitat preference in selected sites this past summer. The whip-poor-will, which is listed as a species of special concern on Connecticut's Threatened and Endangered Species List, has been declining regionwide.

During the full moon period in the end of May 2007, a team of six Wildlife Division technicians, armed with two way radios, topographic maps, and GPS units, headed into known whip-poor-will nesting areas after sunset. The goal was to determine how many whip-poor-wills occupied selected plots, and where these whip-poor-wills were located. The technicians, standing at benchmark points spaced by approximately 500 meters, attempted to locate calling whip-poor-wills and communicate with neighboring observers in order to triangulate individual birds. The locations of calling birds will be overlaid onto forest stand maps to determine habitat preferences. Knowledge of preferred habitat will increase the Wildlife Division's ability to manage for whip-poor-wills in the future.

This technique was a pilot investigation conducted in cooperation with other states in the Northeast region through the Northeastern Coordinated Bird Monitoring Partnership-Night Bird working group. Technicians are working to refine this technique for more broad use next breeding season.



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P. J. FUSCO

The whip-poor-will, which is listed as a species of special concern on Connecticut's Threatened and Endangered Species List, has been declining regionwide.

The full moon in May, June, and July was also the time for volunteers and Wildlife Division staff to conduct the third year of Summer Night Bird Surveys. In past years, these surveys focused primarily on whip-poor-wills. However, this year, the surveys were expanded to include other summer night birds, such as the northern saw-whet owl, and frogs.

Twenty-six roadside survey routes were covered this past summer. Whip-poor-wills were observed at 12 survey points spread among six survey routes. Only two northern saw-whet owls were detected. Other species that were observed during the surveys included coyote, gray tree frog, spring peeper, green

frog, American toad, American woodcock, veery, and wood thrush. These survey routes will augment the Wildlife Division's knowledge of whip-poor-will and northern saw-whet owl distribution across Connecticut, as well as contribute to long-term regional monitoring of night birds among the Northeastern states, stretching from Maine to Virginia.

Anyone who observed a whip-poor-will or northern saw-whet owl this past summer season should contact Wildlife Division technician Shannon Kearney-McGee with the date and location of the sighting (shannon.kearney@po.state.ct.us or 860-675-8130).

The Whip-poor-will in Connecticut

Historically, the whip-poor-will was considered a common breeder in most of Connecticut (with the exception of Fairfield County). Due to a perceived population decline, the whip-poor-will is currently listed as a species of special concern on Connecticut's Threatened and Endangered Species List and as a species of regional conservation concern by the Northeast Endangered Species and Wildlife Diversity Technical Committee. Accurate information on the whip-poor-will population has been scarce because these birds are poorly covered by existing surveys. DEP Wildlife Division staff and volunteers conducted a survey over the summer that targets whip-poor-wills, as well as other summer night birds. The information provided by this survey will hopefully fill the gaps in population data.

Bird of Intrigue - The Eastern Towhee

Article and photography by Paul Fusco, Wildlife Outreach Program

One of the more interesting songbirds in Connecticut is the Eastern towhee. It is a bird that is strikingly marked, highly vocal, and extremely active, yet goes largely unnoticed. Even with its boldly patterned plumage, the Eastern towhee hides very well from view. When avoiding threats, it will scurry and flit through dense thickets, rather than take flight. It will usually remain close to the ground. Generally sticking to heavy cover, the towhee is a secretive bird that many casual wildlife watchers have seldom seen.

Field Marks

Towhees are members of the finch family. Like all finches, they have conical bills used for cracking seeds. Their body size is between that of a robin and a sparrow. Because of similarity in size, coloration, and habitat, Eastern towhees are sometimes mistaken for robins or sparrows.

The plumage of a male towhee is boldly patterned with a black hood and back, white underside, and rusty flanks. At first glance, the rusty flanks and dark back may give the appearance of a strange-looking robin. Females are marked like the male, but with brown replacing the males' black coloration. Being mostly brown, female towhees are sometimes mistaken for large sparrows.

Both sexes have white wing patches



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A secretive bird of heavy underbrush, the eastern towhee can at times be elusive.

and large white spots on the outer tail tips. Their tails are long and rounded, which is a key field mark separating towhees from robins and sparrows. The wings are rather short, and as such, towhees are not strong distance fliers, but they are good at maneuvering through the dense brush they call home.

Eastern towhees have stunningly brilliant red eyes, which seem to glow in bright sunlight. Their scientific name, *Pipilo erythrophthalmus*, loosely translates to "chirping bird with red eye."

Voice

Being a shy bird, the Eastern towhee is more frequently heard than seen. The most familiar song phrase of "drink-your-teeee" is normally sung from an elevated perch by males on their breeding territory. Their song may be loud and vigorous. It's at this time, while singing, that a towhee is most visible.

Other vocalizations may be highly variable and often include the calls of "che-

WINK," and "toe-WHEE." These calls, along with a "zreeee" call, may be given as birds communicate back and forth as a way of keeping track of each other while they feed in dense brush. Not only may a bird surveyor have a hard time spotting a towhee, it seems that towhees may have a hard time spotting each other.

Behavior

Besides their vocalizations, towhees are often heard as they feed in the leaf litter in thick brush. They have a habit of kicking and scratching at the leaf litter, which makes a tremendous amount of noise, and may lead a passerby to think there must be something much bigger than a little bird in the brush. Interestingly, towhees do this by hopping backwards and scratching with both feet to uncover food.

Not only are towhees ground feeders, but they also nest on or close to the ground. Rarely will they build a nest more than four feet off the ground. They normally place their nest under heavy cover.

Eastern towhee nests are frequently victimized by brown-headed cowbirds. Some towhees are able to recognize



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A female towhee's plumage is brown on the back with soft tones, as opposed to the black head and back of the male.

the larger cowbird eggs and have been known to push them out of the nest.

Distribution

Overall, the Eastern towhee's range covers the eastern half of the United States, from extreme southern Canada, south. A fairly common bird in Connecticut, the Eastern towhee is found statewide as a breeder. In fall, most of Connecticut's towhees migrate south to spend the winter in the mid- to southern United States.

In winter, a few hardy towhees may remain in southern Connecticut, especially along the coast. Over the last 20 or so years, with milder winters and the growing popularity of backyard bird feeding, increasing numbers of towhees have been spending their winters in our state. It is still a treat for Connecticut bird feeding enthusiasts to have towhees in their yard during winter.

Habitat and Conservation

Second growth forests, wood edges, clearcuts, thickets, dense brush, power line right-of-ways, and dense undergrowth in open woodlands are the habitats of the Eastern towhee. These are all early successional stage habitats, most of which have been declining in Connecticut and the Northeast region for decades as the woodlands have matured.

While the towhee's preferred habitat has been maturing and reverting to forest, making it unsuitable to the species, its habitat also has been under heavy development pressure. Development not only may destroy towhee habitat, it also presents other consequences for the bird. Because towhees are more of a rural species than a backyard species, as suburban development pushes into rural areas, towhee populations have been coming into contact with larger numbers of free-roaming cats. Being closely associated with ground feeding and nesting, towhees are at high risk from predation by cats. Predation by free-roaming cats can decimate local bird populations.

As if loss of habitat, development, free-roaming cats, and cowbirds aren't enough for the towhee population to combat, there is another impact from white-tailed deer. Studies have shown that high deer populations can significantly affect forest understory by overgrazing, and that towhee abundance may be impacted by the loss of woody understory vegetation.

Even though the Eastern towhee is

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Still considered fairly common, the Eastern towhee has been declining at a faster rate than any other eastern bird. The decline is primarily due to the loss of early successional stage habitat.

considered to be a forest generalist and an adaptable species, the population has been steadily declining in Connecticut at an estimated two percent per year since the mid-1960s (based on breeding bird survey and Christmas Bird Count data from the National Audubon Society and the U.S. Geological Survey). Two

percent per year may not sound like much, but over the span of 40 years it has resulted in a long-term decline of an estimated 92% in the towhee population. While it's still considered fairly common, the Eastern towhee has been declining at a faster rate than any other eastern bird.

Connecticut's "Flying Flowers"

Written by Laura Rogers-Castro, Wildlife Outreach Unit

Now that the new *Connecticut Butterfly Atlas* has been completed, many *Connecticut Wildlife* readers might be eager to learn more about the butterfly fauna distributed throughout our diverse state. Butterfly watching is a very popular activity for people who enjoy the outdoors and are attracted to these beautiful "flying flowers" of the insect world. Connecticut's butterfly enthusiasts are especially lucky because there are many interesting sites, including several wildlife management areas, within a short drive that are perfect for viewing butterflies.

Scientists recognize 30,000 species of butterflies in the world, according to the *Connecticut Butterfly Atlas*. The current checklist for butterflies in Connecticut includes 117 different species, although some of these have not been seen in the state for a while. Forty-two on the checklist are "skippers." Skippers are small to medium-sized insects, generally differentiated from butterflies by their "hook-tipped" antennae. For the beginner butterfly watcher, most skippers are difficult to identify and appear to all look like orange and brown moths. However, there are some skippers that are quite beautiful!

In addition to the skippers, there are other families, or groups, of butterflies in Connecticut. The swallowtails (Family Papilionidae) are the most recognizable because of the long "tails" on the edge of their hind wings. These tails often allow

the butterfly to escape from the hungry beak of a bird with just a slight

loss of the "tail." An example from the swallowtail family is the eastern tiger swallowtail, a large yellow and black butterfly, commonly spotted on mountain laurel in June or on day lilies in the garden during summer. There are six swallowtail species in Connecticut.

Another common butterfly in Connecticut is the cabbage white butterfly, an introduced species of the Family Pieridae. This



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The great spangled fritillary can be seen throughout Connecticut visiting meadows, grasslands, and butterfly gardens.



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The Peck's skipper is one of Connecticut's most common skippers.



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The red admiral is a migrating butterfly usually seen in Connecticut beginning in late spring.



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These two mating butterflies are helping to ensure future generations.

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butterfly's larva, the imported cabbage worm, can be a pest on cabbage, broccoli, and other cruciferous plants. The additional seven species of Pierids in Connecticut are native to the United States and include many of the orange-tipped and white- and sulfur-colored butterflies.

Some of Connecticut's smallest butterflies are in the Lycaenidae family. There are 27 Lycaenids referenced on the checklist in the *Connecticut Butterfly Atlas*. These include the beautiful blue-colored butterflies, the spring and summer azures.

The hairstreaks also are members of the Lycaenidae family. Hairstreaks can be difficult to spot, but look on the leaves of a milkweed plant for a small butterfly moving its wings back and forth and maybe you will have found a banded or striped hairstreak. The delicate extensions of the hind wings resemble antennae; these coupled with two fake eyespots make it difficult to tell whether the view is the front or back of the butterfly! The carnivorous caterpillar of the harvester butterfly is also a member of this group of butterflies. Harvester caterpillars feed on aphids.

An endangered butterfly, the northern metalmark, is the only member from the family Riodinidae in Connecticut. This dark brown and orange butterfly has wings lined (or "marked") above with silver, giving it a "metallic-like" appearance.

Thirty-three species of butterflies from the diverse Nymphalidae family are found on the checklist for Connecticut. The great spangled fritillary, a large orange, dark brown, and black-marked butterfly, can be seen throughout the state visiting meadows, grasslands, and home gardens. Fritillaries are great indicators of early successional stage habitats and are often target species for certain butterfly survey work. Several different fritillary species are residents of Connecticut.

The Nymphalid group also includes emperors, admirals, ladies, and even a question mark and two commas, recognized by the silvery "punctuation marks" on the underside of their wings! Other Nymphalids with great names include checkerspots, tortoiseshells, wood satyr, and northern pearly eye. The best known in this group is the monarch butterfly, which makes spectacular migrations to central Mexico.

After learning the identification of some butterflies, grab a field guide and visit one of several vast wildlife management areas located in Connecticut. These parcels of land set aside for conservation purposes and purchased with the assistance of sportsmen-generated funds, offer great opportunities for seeing many butterflies in one outing. Often, members of the Connecticut Butterfly Association lead walks to view butterflies at these sites. One of the best places to see butterflies frequenting early successional stage habitat is the Goshen Wildlife Management Area (WMA). With a large acreage of grasslands and old field habitats, there is the opportunity to view Acadian hairstreaks and bronze coppers, two butterflies that are less commonly seen. Meadow and silver-bordered fritillaries can be seen at the Flaherty Field Trial Area in East Windsor. Several skippers, including the mulberry wing and Dion, can be found at Robbins Swamp State WMA in Canaan. Wapowog WMA in



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This pepper and salt skipper was seen when the author stopped to tie her shoe. It is not common anywhere in Connecticut.

East Hampton and Haddam is another good location for various skippers and butterflies.

Many thanks to editors Jane O'Donnell, Larry Gall, and Dave Wagner and the many members of the Connecticut Butterfly Association and Connecticut Entomological Society for the coordinated effort in producing the *Connecticut Butterfly Atlas*. The DEP funded the printing cost and several staff members also participated in the project. To purchase a copy of the Atlas, visit the DEP Store at 79 Elm Street, Hartford (Mon.-Thurs., from 9:00 AM-1:00 PM and 1:30-3:30 PM; 860-424-355) or order online at www.ct.gov/dep. The cost of the Atlas is \$19.95.



American lady butterflies are widespread in Connecticut. This butterfly can be seen from late April to November.

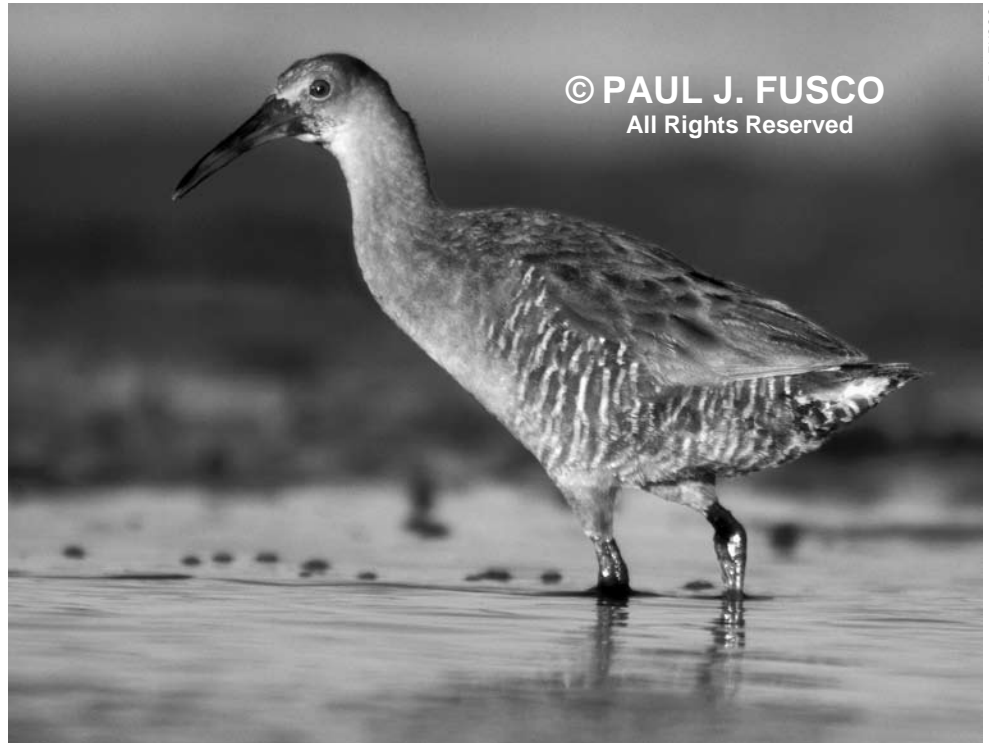
Getting HIP -- The Harvest Information Program

Written by Min T. Huang, Migratory Gamebird Program

Wildlife biologists face many challenges in the management of migratory bird populations. One of these challenges involves the issue of partial observability. Partial observability refers to the fact that there is never the ability to fully observe all of the birds, at any time, during their life cycle. For example, biologists will never be able to count all of the breeding ducks in Connecticut. Similarly, they will never acquire the ability to enumerate every migratory bird that is harvested in the state. Thus, numerous statistical methods have been developed to provide biologists with the best inference to the true number, based upon a sample of the population in question. These methods invariably involve taking a representative sample from the population in question, extrapolating the results from this sample to the entire population, and developing a measure of error associated with the estimate. The problem of partial observability is not unique to migratory birds, but due to the continental range of many migratory species, it poses some unique nuances to migratory bird managers that don't exist with other wildlife species.

With harvested species, estimates of both the total harvest and the sex and age structure of that harvest are some of the important pieces of information needed for responsible management. Traditionally, waterfowl harvest was estimated through a mail questionnaire survey conducted by the U. S. Fish and Wildlife Service (USFWS). This survey was conducted from 1952 to 2001. The survey used all the purchasers of federal Duck Stamps as its sampling frame and drew a random sample from this pool each year. The mail survey provided estimates of the total waterfowl harvest. Species, age, and sex estimates were then derived through the Parts Collection Survey (PCS). In the PCS, randomly selected hunters are requested to turn in a wing from each duck they harvest during the season and a tail fan from each goose. A similar PCS is conducted for woodcock hunters. All of the wings are then identified to species, age, and sex. The PCS has been conducted since 1961.

The problem with the mail questionnaire, however, was that some harvested migratory species, such as rails and



The Harvest Information Program provides harvest estimates for rails (like this clapper rail) and doves, along with waterfowl.

doves, were not included in the estimates because a federal Duck Stamp is not required to hunt these species. To address those species not being covered by the mail survey, the Harvest Information Program (HIP) was developed and fully implemented across the United States in 1998.

Unlike the mail survey, HIP puts the burden of developing the sample frame for the harvest estimates on the states. To compile the annual sampling frame, each state uses their licensing systems or some other method to identify and collect the name and address of every migratory bird hunter in the state. In Connecticut, every migratory bird hunter is required to purchase a HIP permit. This permit, at a cost of \$2, establishes whether a hunter hunted in the previous year and provides a general idea of how many birds he/she harvested. These data are then sent to the USFWS. This process, which occurs in each state, results in the total sample frame from which the actual harvest estimates are derived.

Once the USFWS has received the names of migratory bird hunters from the states, a stratified sample from each

pool of hunters in each state is taken. The sample is stratified by whether hunters hunted in the previous year and approximately how many birds they harvested. It is from this detailed survey that the actual estimates of harvest and days spent hunting are derived. The survey consists of a hunting log diary that each participant is asked to keep. This detailed record of hunting activity provides the data from which the total harvest estimates are extrapolated.

These HIP harvest estimates have error estimates that vary by state, depending upon the size of the sample. The confidence of harvest estimates is much greater on the flyway level. Species composition, age, and sex are then derived from the total estimated harvest.

The issue of partial observability and the uncertainty associated with having to estimate various population parameters pose potentially serious problems for managers. Statistically robust surveys, however, can reduce some of that uncertainty. HIP is one such survey that allows waterfowl managers to estimate, with some accuracy and precision, harvest levels of various hunted species.

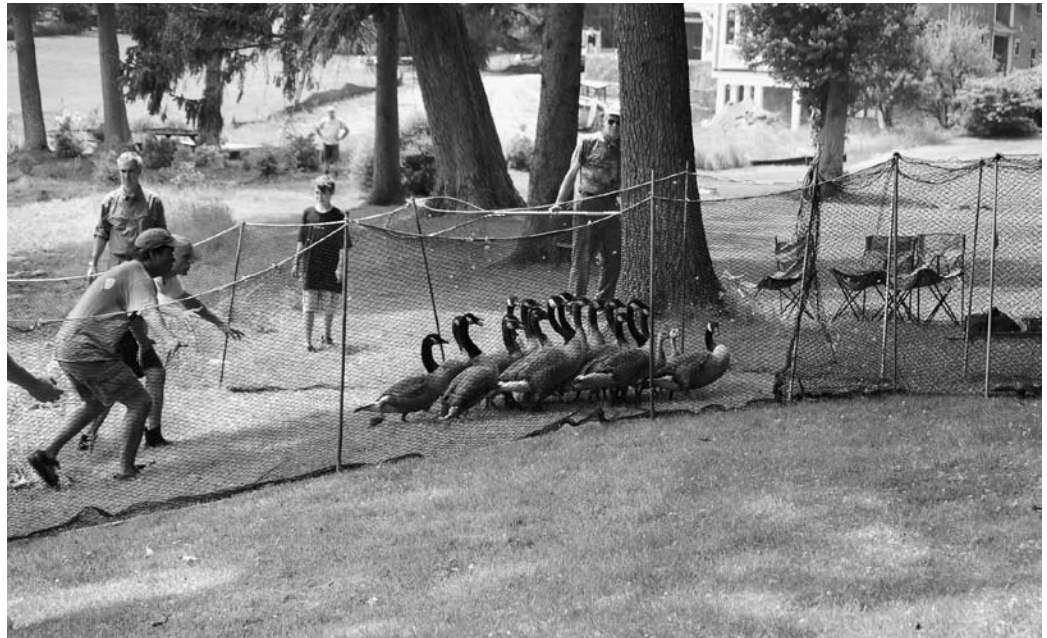
Resident Goose Banding Project Continues in 2007

Written by Kelly Kubik, Migratory Gamebird Program

Between 1920-1940, the State Board of Fisheries and Game, along with the White Memorial Foundation, maintained a waterfowl feeding program in Litchfield aimed at bolstering Connecticut's dwindling wood duck population. A small flock of Canada geese took advantage of this program and, after it was discontinued in the early 1940s, these birds dispersed throughout northwestern Connecticut. In 1960, the state established a breeding population of Canada geese at Charter Marsh Wildlife Management Area in Tolland. During this time, geese also were captured at Brigantine National Wildlife Refuge in New Jersey and transplanted throughout eastern Connecticut. The current population of resident Canada geese in Connecticut is a mix of numerous subspecies. In the last 50 years, land use changes in Connecticut have created ideal goose habitat throughout the state. These changes have led to an increased resident Canada goose population. With this population growth has come an increase in nuisance complaints.

Each year, the DEP Wildlife Division bands resident Canada geese during their annual molt. Waterfowl are unique in the bird world because, unlike other birds, waterfowl simultaneously shed their primary feathers and become temporarily flightless. In the case of geese, this flightless period lasts approximately four weeks. Biologists take advantage of this flightless period and drive the geese across land or water, corralling them into a portable net. The geese are then aged, sexed, and fitted with leg bands. The age and sex of each goose is determined from physical and plumage characteristics. Each leg band carries a unique numerical combination that is assigned to that particular goose for its life.

Wildlife Division staff, along with numerous volunteers, captured 1,308 non-marked and 294 previously marked resident Canada geese during late June 2007. Geese were banded at 37 different sites throughout the state and capture size at each location ranged from eight to 151 geese. All banding data were submitted to the U.S. Geological Survey Bird Banding Laboratory (BBL). The information obtained from this banding effort is used for various reasons, including



Wildlife Division biologist Min Huang (left) and technician Kelly Kubik coral Canada geese into a net at Lake Waramaug in Kent.

assessment of the distribution of harvest, productivity, population size, and survival rates. Band recoveries also help to identify important breeding, staging, and wintering areas, along with migration routes and corridors. The majority of this year's recaptures originated from Connecticut, but some of the recaptured geese had been banded out of state. These birds are known as molt migrants. A molt migration is the late spring movement of Canada geese from breeding locations to other areas where they undergo their annual molt. Birds that undergo molt migrations are primarily nonbreeding subadults or unsuccessful breeding adults.

Production and average age of goslings at some banding locations was low. This is indicative of the numerous nesting failures that occurred this year due to heavy rains during the breeding season (April).

A number of important tools are available for managing Connecticut's resident goose population. One such tool is regulated hunting. Connecticut has two hunting seasons specifically geared



Wildlife Division technician Kelly Kubik uses a kayak to move geese closer to the shore so they can be corralled into a net.

toward increasing the harvest of resident Canada geese. These seasons are designed to reduce the resident goose population while having a minimal impact on migrant geese. The resident seasons also provide increased hunting opportunities. In areas where hunters are provided access to geese, the resident goose population is declining.

Anyone who encounters a marked bird is urged to report it to the BBL at 1-800-327-BAND (2263) or on the web at www.pwrc.usgs.gov/bbl/default.htm. Those interested in volunteering for goose banding in 2008 can contact Wildlife Division technician Kelly Kubik at kelly.kubik@po.state.ct.us.



Killer of Connecticut Bald Eagle Sentenced

An article in the May/June 2007 issue of *Connecticut Wildlife* detailed how a private trout hatchery owner/operator in Massachusetts was convicted in connection with the killing of hundreds of federally protected bird species, including ospreys, great blue herons, and a young bald eagle originally born in Hartford County, Connecticut. In July, a judge sentenced Michael Zak to six months community confinement in a federal halfway house and five years probation. Zak also was ordered to pay \$65,000 to the North American Wetland Restoration Fund. As part of his probation, Zak is prohibited from possessing or having contact with firearms or any other weapon that could be used to kill birds. A second defendant, Zak's son-in-law and a hatchery worker, Timothy Lloyd, was given two years of probation and a \$1,500 fine. Zak was found guilty of violating the Golden and Bald Eagle Protection Act for shooting the bald eagle at his fish hatchery in 2005. Both defendants pled guilty separately to shooting approximately 200 fish-eating birds, including great blue herons, at the same fish hatchery.

During the sentencing, the judge said "it baffles me why you did not put netting over the tanks." This technique is typically used by most hatcheries to protect fish from fish-eating birds. The judge also stated that the bird killings were "dramatic" and could have been easily avoided. He said that he had received many letters urging him to give Zak the maximum penalty.

As part of his defense, Zak's attorney argued that Zak did not impact the local heron population and that there were plenty of herons around. However, a large great blue heron rookery not far from the hatchery was being studied and, in 2003, the rookery failed. At that time, biologists, who were unaware of Zak's activities, could not understand why the rookery had failed. When Zak had an opportunity to speak in court, he did admit to shooting the bald eagle, but claimed it was an accident. He also did not apologize or say that he was wrong to kill hundreds of protected birds.

CE/FS Program Welcomes a New Staff Member

The Wildlife Division welcomes Dr. Charles Bruckerhoff, an EP Safety Representative, to the Conservation Education/Firearms Safety (CE/FS) Program. Charles joins Coordinator David Kubas, who works out of the Division's Sessions Woods office. Filling this position has been a Division priority as the CE/FS Program begins work on a new five-year plan to guide the future of the program. Following a nationwide recruitment effort and examination process, Charles was selected from a group of qualified candidates.

Charles has been involved as a certified CE/FS instructor for more than 10 years. He comes to the program with an extensive professional teaching background, superior administrative skills, and communications ability. Charles holds a Ph.D. in curriculum and instruction and has taught at the high school level and as a college professor for many years. He has extensive experience in education evaluation and curriculum development and has maintained a private consulting business in the field. He has interacted widely with school administrators, teachers, and students in many different capacities. An accomplished writer, Charles has authored numerous technical reports and professional publications. His most recent book, *Pistols 101*, was written from his experience as a National Rifle Association certified pistol instructor.

A native Missourian with a true passion for the hunting heritage and the field of wildlife conservation, Charles has hunted, fished, and trapped since his childhood. Many sportsmen in the eastern portion of the state may know Charles through his association with the Fin, Fur and Feather Club in Chaplin where he has held a number of offices and was the club's newsletter editor. Charles is a passionate bowhunter, but enjoys all types of hunting including turkey, waterfowl, and small game.



Step Up to the Plate for Wildlife...

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

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

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

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

Still Looking for Weasels

The DEP Wildlife Division has been conducting a statewide survey of short-tailed and long-tailed weasels since the spring of 2007. This project is investigating appropriate field handling techniques, as well as the distribution, and habitat associations of both weasel species in Connecticut. As part of this project, Division biologists are asking for the public's help by reporting observations of weasels (either alive or road-killed). Observations can be reported to Wildlife Division technician Christina Kocer at 860-675-8130 (Monday through Friday, 8:30 AM-4:30 PM) or email christina.kocer@po.state.ct.us.

Look for updates on this interesting project in a future issue of *Connecticut Wildlife*.

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See order form on the back page.

Bafflin Nature Sanctuary “Shallow Water Wetland Habitat” Enhancement Project

Written by Paul Capotosto, Wetland Habitat and Mosquito Management Program

The DEP Wildlife Division’s Wetlands Habitat and Mosquito Management (WHAMM) Program initiated a new wetland habitat enhancement project in July 2007 at the Connecticut Audubon Society’s Bafflin Nature Sanctuary in Pomfret. The project involves the enhancement of a drained grassland field into a shallow water wetland. The sanctuary, which encompasses over 700 acres, is a combination of four former dairy farms that were acquired by the Connecticut Audubon Society as the farms went out of operation in the 1980s and 1990s. With close to 200 bird species documented at the sanctuary, it is managed for grassland and early successional bird habitat and is recognized as

an Important Bird Area (IBA).

The site planned for enhancement had been ditched and drained and used for agriculture in the past. A half-acre shallow water wetland will be created using the WHAMM Program’s low ground pressure equipment. The shallow water habitat will be about one half-acre in size and will have two pool areas. One pool will be semi-permanent and shallow, while the other pool will be deeper to hold more permanent water. A small, water control structure will be placed in a low dike to control pool elevations. The water levels will be regulated depending on the season and the timing of bird migrations. Connecticut Audubon anticipates that this new habitat will be used

by migrating shorebirds, herons, rails, and waterfowl. Connecticut Audubon plans to monitor the site and use it as a complement to their Northeast Corner environmental education programs which are offered to all ages year round.

The U.S. Department of Agriculture Natural Resources Conservation Service planned, designed, and provided primary funding for the project under their Wildlife Habitat Incentive Program. Other partners involved in the project included the U.S. Fish and Wildlife Service Partners for Wildlife Program, the Connecticut Audubon Society, and the DEP WHAMM Program.



R. WOLFE

The WHAMM Program’s low ground pressure excavator is being used to construct a shallow water wetland. The water control structure in the foreground will be installed to control the water level.

15 Young Bald Eagles Fledge in 2007

This past nesting season, 15 pairs of bald eagles attempted to nest in Connecticut. Ten of those nests were successful, producing a total of 15 chicks. Four pairs lost their eggs or chicks during the nesting season. The remaining pair never laid eggs but was territorial. In 2006, nine bald eagle pairs set up territories and six pairs produced a total of 12 young. All of the nests were monitored by several

dedicated volunteers and Wildlife Division staff throughout the nesting and fledging seasons. Division biologists attempt to annually visit all eagle nests to place identifying leg bands on the young eagles before they fledge.

The U.S. Fish and Wildlife Service recently announced that the bald eagle will be removed from the federal endangered species list (see the July/August

2007 issue of *Connecticut Wildlife*). However, in Connecticut, the bald eagle is still listed as state endangered because recovery has been much slower than in the rest of the nation. Fortunately, as each nesting season goes by, the number of nesting pairs and young produced continues to climb.

New Project Focuses on Wood Turtles

The Wildlife Diversity Program recently completed the first year of a two-year study on wood turtles in Fairfield County. Wood turtle populations are declining throughout their range and are listed as species of special concern in Connecticut. The main factor causing the decline in wood turtles is habitat loss due to development, especially in Fairfield County. Wildlife Division staff conducted visual surveys for wood turtles from March 2007 through June 2007 in various rivers and streams throughout Fairfield County. Five individual wood turtles were located. Biological data were collected from each of the five turtles. In addition, their carapaces (top shell) were notched for identification purposes. Wood turtle surveys are slated to continue during the 2008 field season. Stay tuned to *Connecticut Wildlife* for future updates on this project.



Website Brings Vast Aquatic Life into View

What does the underwater life that lies beneath the waves of Long Island Sound look like? A website created by the University of Connecticut (UConn) and the Connecticut DEP brings the diverse variety of fish, coral, sponges, shellfish, starfish, and other life from the depths of Long Island Sound into full view on your computer screen. This array of marine life can be viewed in still photos and videos at www.lisrc.uconn.edu/lis_uwtour.

Nestled in the sand and rocks below the surface are red beard sponges, soft pink coral, and the bright scarlet blood star, or starfish, as it is popularly known. The colorful display also includes the American lobster, clamshells, and bay scallops.

The site was developed by Dr. Peter Auster and Ralph Lewis, both faculty members at UConn's Department of Marine Sciences, with a \$25,000 grant from DEP's Long Island Sound Fund. The project is a collaboration between the Department, the University's National Undersea Research Center (NURC), and the Long Island Sound Resource Center, a partnership of UConn and the DEP.

The underwater photos were taken during research and exploratory dives in Long Island Sound by UConn researchers and collaborators during the past 30 years. The most recent expedition to three deep-water areas that are rarely visited by humans was conducted on board UConn's *RV Connecticut*. During the expedition, UConn scientists collected

images using a remotely operated vehicle with state-of-the-art video equipment. Professor Auster says the website reflects the variety of species that call Long Island Sound "home" – 1,200 invertebrates and 170 species of fish, along with marine mammals, sea birds, and sea turtles.

In addition to providing an underwater tour, the site describes the habitats in the Sound, its history and geology, and how its environment is affected by human activity.

The Long Island Sound Fund derives its revenue through the sale of Preserve the Sound license plates, through proceeds from the Preserve the Sound Affinity credit card, and by private donations.

Wildlife Calendar Reminders

- Nov. 3..... **College for a Day, from 9:00 AM to 4:00 PM, at the Connecticut Audubon Society (CAS) Center at Glastonbury.**
In celebration of CAS's 25th anniversary, the following guest lecturers will speak: 1) Dr. Jelle Z. deBoer, recently retired chairman of Earth Science at Wesleyan University, will give highlights from his new book, *Stories in Stone*, which discusses the role natural resources and geologic phenomena have played in Connecticut's history; 2) Milan Bull, Director of Science and Conservation for CAS, will provide an update on Connecticut's State of the Birds; 3) Dr. Joan Morrison, an Associate Professor of Conservation and Biology at Trinity College, will discuss red-tailed hawks that breed in the city parks; and 4) Dr. Nick Bellantoni, State Archaeologist at the CT Museum of Natural History, will report on how new archaeological techniques and forensics are being used in police investigations and in tracing former slave Venture Smith's DNA back to his ancestral home in Africa. Continental breakfast and lunch provided. 5 CEU's for teachers. \$50 CAS members, \$60 non-members. Please preregister for this event by calling CAS at (860) 633-8402.
- Nov. 9..... Connecticut Forest and Park Association presents, **Forces of Nature: A Staged Dramatic Reading in Three Acts**, by Stephen Most, at the Bushnell Center for the Performing Arts (See below to learn more).

Hunting Season Dates

- Sept. 15 Opening day for deer and turkey bowhunting season.
- Oct. 6 & 8 Junior Waterfowl Hunter Training Day (see page 6 for more details).
- Oct. 6 Opening day for fall firearms turkey season.
- Oct. 13 Junior Pheasant Hunter Training Day (see page 6 for more details).
- Oct. 20 Opening day for small game hunting season.
- Nov. 10..... Junior Deer Hunter Training Day (see page 6 for more details).
- Nov. 14..... Opening day for deer shotgun/rifle season.
- Nov. 24..... Opening day for deer shotgun season on state land (B season) and state land no-lottery season.
- Dec. 5-18 Opening day for deer muzzleloader season.
- See the 2007 Connecticut Hunting and Trapping Guide for specific season dates and details. The 2007-2008 Migratory Bird Hunting Guide contains information on duck, goose, woodcock, rail, and snipe seasons. Both guides are available at Wildlife Division offices, town halls, and on the DEP's website (www.ct.gov/dep). The 2008 Connecticut Hunting and Trapping Guide will be available by mid-December.

CFPA Presents Forces of Nature: A Staged Dramatic Reading in Three Acts

Throughout history there have been moments of elevated vision and accomplishment when the convergence of great men, bold ideas, and high purpose has resulted in action of historic dimensions. Such was the case during the first decade of the 20th century when John Muir, Theodore Roosevelt, and Connecticut's own Gifford Pinchot grappled, to effect, with the disposition of the vast American wilderness, setting in motion an impassioned debate that continues unabated today.

On November 9, 2007, at the Bushnell Center for the Performing Arts, Pinchot, Muir, and Roosevelt will play out this story of conflict and high drama in a staged dramatic reading of a play by Stephen Most, commissioned by the Connecticut Forest and Park Association (CFPA).

CFPA invites you to be a witness as these visionary men square off on how to best manage America's forests. Find out what happened at the White House in the dark of a night that changed the face of the American landscape.

A gala reception prior to the performance, with food and drink provided by Max Restaurants, will benefit the creation of a hands-on standards-based education program that will be designed to meet the Guidelines for Excellence as established by the North American Association of Environmental Education.

For information about tickets and invitations, call or email the Connecticut Forest and Park Association at (860) 346-2372 or info@ctwoodlands.org.

This project has been made possible, in part, by the generous support of the Connecticut Humanities Council and by Astrid and Fred Hanzalek.

Connecticut Wildlife

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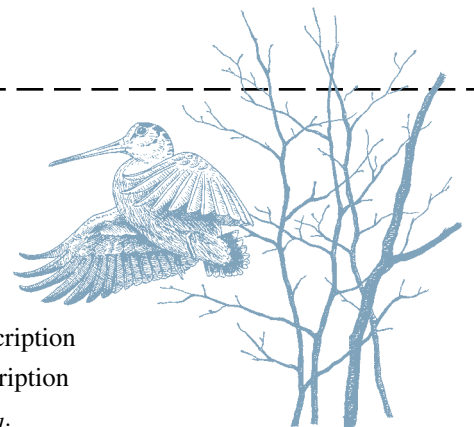
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A tidal marsh restoration project in North Cove and South Cove of Old Saybrook will enhance critical habitat for a variety of plant and animal species, including the black duck. Learn more about this Landowner Incentive Program project from the article on page 8.

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