

The Livingston Ripley Waterfowl Conservancy

Research • Education • Conservation Action

FALL 2011

NEWSLETTER

LRWC BOARD OF DIRECTORS

George Archibald, PhD
Chairman
Thomas Lovejoy, PhD
President
Sylvia Ripley Addison
Vice President
Rosemary L. Ripley
Treasurer

Juliet Tammenoms Bakker
Guy Baldassarre, PhD
Bruce Beehler, PhD
Theodore Janulis
Julie Ripley Miller
Laura Ridgely
Mary Ridgely
T. Dennis Williams

STAFF

Dr. Susan Sheaffer
Executive Director

Ian Gereg
*Director of Aviculture
and Education*

Lauren Coyle
Environmental Educator

Cate Hogan
Administrator



10 Duck Pond Road
P.O. Box 210
Litchfield, CT 06759
(860) 567-2062
Fax: (860) 567-4369

info@lrwc.net
www.lrwc.net

BIRD BANDING AT LRWC

For the past several years the Livingston Ripley Waterfowl Conservancy (LRWC) has been a site for the capture and banding of wild ducks during the late summer and early fall. Banding at LRWC is done in cooperation with the Connecticut Department of Energy and Environmental Protection's (DEEP) annual banding and research program. Information from birds banded at LRWC is used to inform DEEP biologists about movements and population dynamics of local waterfowl populations. The open ponds, which house our geese and swans, are attractive to many species of wild ducks and geese, making the Conservancy an ideal location to band a sample of Connecticut waterfowl.

Using grain as bait, wild ducks are enticed inside traps where they are collected twice daily. The three main species captured at LRWC are mallards, wood ducks and black ducks. Once in hand, the age, sex and species of each duck is recorded and a metal leg band placed on the bird. Each individually numbered band is entered into the national data base managed by the U.S. Bird Banding Laboratory (BBL). By participating in the state banding program each year, LRWC is helping DEEP biologists collect the information they need to improve conservation management for the state's native waterfowl.

This year LRWC integrated an environmental education program into our duck banding efforts. Environmental science students from Litchfield and Wamogo high schools visited LRWC in the fall to learn more about waterfowl banding. Students got a hands-on introduction on



Litchfield High School students participate in the duck banding program at LRWC.



LRWC Director of Aviculture Ian Gereg retrieves a wild wood duck from a baited trap.

how to identify the various native duck species, and the techniques used to determine the age and sex of each bird. They even got to try their hand at fitting a bird with a leg band. Students thoroughly enjoyed the rare opportunity to work with live birds, while learning about the importance of monitoring programs for conservation and wildlife management.

BIRD BANDING 101

Many of the LRWC research projects involve the marking of individual birds. The two questions we are asked most frequently are “Why do you mark birds?”, and, “Do the markers negatively affect the birds?”. Most people assume that banding is done only to learn about movements. Today’s banding programs are designed for much broader applications. Banded birds provide critical information about survival and harvest rates, annual productivity, longevity rates, dispersal and migration routes, behavior, and even population size. Bird banding has become an essential tool that allows biologists and resource managers to make informed decisions when designing conservation programs for migratory bird populations.

Bird banding in North America is regulated under the Migratory Bird Treaty Act and is managed by the federal Bird Banding Labs (BBL) of the U.S. and Canada. Banders must demonstrate knowledge about how to safely capture and handle birds, and they must possess a federal banding permit. Research projects involving bird banding are also subject to review by an Institutional Animal Health Care Board. The BBL provides banders with standard aluminum leg bands, each one inscribed with a unique identification number and contact information for reporting the recovery of a band. Aluminum bands come in 25 different sizes, suitable for marking all sizes of birds from the smallest hummingbirds to the largest swans.



Ian Gereg puts an aluminum leg band on a wild black duck.

Annual banding programs are essential for the management of waterfowl populations, especially since some populations are subject to harvest. Recoveries of aluminum leg bands, either by hunters, the finding of a



Students from Wamogo High School are all smiles as they learn to handle and band wild ducks at LRWC.

dead bird, or recaptures, provide the baseline information about population vital rates. This knowledge is critical for monitoring the status of a population and providing feedback on the impact of management and harvest strategies.



CT DEEP biologists round-up flightless Canada geese as part of their annual banding program.

There are a number of different ways we can mark a bird, the most common being the standard aluminum leg band. Sometimes we add a second marker, like a plastic colored neck or leg band, or a plastic patagial tag which attaches to the wing. These individually coded markers are highly visible, allowing researchers to encounter individual birds in the wild multiple times by observation. Observations of marked individuals can be used to estimate population size, and they provide information about movements and distributions at a finer scale than the recovery of a leg band alone.

Radio transmitters are another type of marker that is used primarily to study waterfowl movements and survival. Very high frequency (VHF) transmitters emit a signal that can be picked up by a hand-held receiver, with a range of about 1 or 2 miles. VHF telemetry is best suited to small-

scale studies of local populations. A good example is the recent study of black ducks that winter in Connecticut conducted by CT DEEP. DEEP biologists have marked and monitored over 80 black ducks with VHF transmitters during the last three winters. The transmitters were ideal for learning about the specific habitats the ducks used, and their movements relative to disturbance, severe weather and hunting pressure. However, the limited range of the transmitters meant that once the birds left the state, their whereabouts were a mystery.

Waterfowl banding has gone high tech recently with the development of small radio transmitters that emit signals which are monitored by receivers mounted on



A Greenland white-fronted goose with a plastic neck band.

orbiting satellites. Transmitters can be attached to the back of a duck using a backpack harness made of Teflon ribbon, which is soft and comfortable yet very durable. The latest technology pairs a satellite transmitter with a GPS receiver, which records precise locations of a bird (within ± 15 meters), multiple times a day, anywhere in the world. The satellite

transmitter then sends the locations to a satellite. Once received by a satellite, the data are downloaded and emailed directly to the researcher's computer. This means we can monitor the movements of wild waterfowl while we are sitting in the LRWC office!

LRWC has recently partnered with federal, state and international agencies to design and conduct studies of waterfowl using satellite telemetry. We've travelled as far as Greenland to help our international partners learn about the habitats used along migration by the Greenland population of white-fronted geese, a species of concern on their winter range in both Ireland and Scotland. We are also involved in a national effort to design a large scale assessment of North American habitat conservation programs using satellite telemetry on mid-continent mallards. The captive collection of live birds at LRWC has been used to study how mallards handle transmitter backpack harnesses, and to improve harness construction to insure the birds readily adjust to carrying them. On the local level, we've partnered with CT DEEP by providing satellite transmitters for their study of Connecticut black ducks, with plans to deploy additional transmitters on birds this coming winter.

So what about the negative effects of bird markers? No biologist wants to use a technique that would harm an individual bird or be detrimental to the species being

studied. Information collected from marked birds is not useful if the marker negatively impacts the bird and causes it to behave abnormally, become ill or perish. Aluminum leg bands generally weigh less than 1% of a bird's total weight. When properly fitted, the aluminum leg band is easily tolerated by most birds. The BBL currently maintains records of over 64 million birds banded since 1960, and they have received over 4 million encounters of those birds. Countless examinations of these data have demonstrated that migratory birds can carry an aluminum leg band and successfully complete long-distance migrations over multiple years.



Black duck wearing a satellite transmitter.

Extra markers like plastic bands or radio transmitters have a greater risk of impacting a bird. However, researchers continually evaluate the effects of markers on wild birds, and they are constantly modifying and improving them to minimize the risks to birds. Any marker, including an aluminum leg band, can incur potential risk to a bird. However, banding plays a major role in monitoring the status of bird populations, especially species of concern, and provides direct feedback on the results of management actions. The critical need for sound information about the populations we are trying to conserve greatly outweighs the risks.

Wamogo High School student releases a newly banded mallard at the LRWC banding site.



FROM THE DIRECTOR

Dr. Susan Sheaffer, *Executive Director*

When was the last time your child voluntarily spent a day without electronics? Heck, when was the last time YOU spent such a day? Hurricane Irene forced most of Connecticut to be without electricity and cell phone service for several days, reinforcing how dependent we are on electronics during our daily lives. Even I was guilty of wondering what I was going to accomplish at work without my computer, internet and cell phone. The momentary quandary was short lived, considering there is always work to be done outside at LRWC. I always say that the only bad part of my job is I never get a snow day (it's hard to claim that you can't make it to work when you live next door). But when the power goes out? My office is down for the count and, like the rest of the electronically addicted population, the initial realization of what I can't do that day always freaks me out.

I was reading Richard Louv's book entitled *Last Child in the Woods* the other day, which not only addresses the growing trend that our children are disconnected from the natural world, but also makes a strong case for the direct exposure to nature as being essential for a child's physical and emotional development. At the end of the book, the author lists 100 actions we can take to save our kids from their "nature-deficit disorder". I was pleased to see that item #54 challenged conservation organizations to "build a future environmental constituency by supporting programs to get children outside, not only to learn about conservation but to experience the joy of nature". This past year we have done just that, by expanding our education program to increase opportunities for children to get outside and learn about nature.

LRWC was founded under Dillon Ripley's vision that a collection of live birds could foster an interest in nature by people of all ages. Over the years our mission has evolved to integrate research, education and conservation action for the protection of waterfowl and their habitats. However, promoting conservation awareness and environmental stewardship remains at the core of everything we do. LRWC education programs are specifically designed to capture the attention of students and give them the opportunity to discover the fascinating world of waterfowl, with the ultimate goal of instilling a hunger for more knowledge about, and experience with, the natural world around them. Our participation in state banding



Swans experience a unique day of paddling around the usually dry grounds of the aviary during flooding from hurricane Irene.

projects has become a great teaching tool, and there is nothing better at getting someone interested in birds than teaching them how to handle and band a duck.

Programs like our banding experience are often the first exposure to the field of wildlife management for many students, and we hope the experience might inspire some to investigate a future career in one of the many fields of environmental science.

You can support our environmental education efforts by becoming a member, or by making a donation to our education and field research programs. If you are a teacher and want information about getting your class involved, contact Lauren Coyle, our Environmental Educator (860/567-2062; lcoyle@lrwc.net). And if you have children - pull the plug for a day and get them outside!

PUBLICATIONS AND REPORTS OF INTEREST

Malecki, R. A., S. E. Sheaffer, A. Walsh, and D. Stroud. 2011. Harnessing those pesky Anser species. *Goose Bulletin* 12:19-24.

Sheaffer, S. E. 2011. Mallard satellite telemetry pilot project: Final Report. LRWC Report to the Mississippi Flyway Mallard Study Committee. 26pp.

AVIAN HEALTH CARE NEWS

LRWC recently enlisted the expertise of veterinarian Dr. Marc Valitutto to oversee the health care of the waterfowl collection. Dr. Valitutto is a graduate of the University of Pennsylvania's School of Veterinary Medicine. He recently completed a residency program at the Wildlife Conservation Society prior to becoming a consulting veterinarian in the New York/Connecticut region. A fellow waterfowl aficionado, Dr. Valitutto is also interested in pursuing research opportunities related to improved veterinary care of waterfowl in captivity.



Michele Goodman and Sadie

Dr. Valitutto comes to the Conservancy to replace Michele Goodman and the veterinarians at Chippens Hill Veterinary Hospital who have been overseeing the care of ill and injured waterfowl at LRWC for the past several years. Michele was recently accepted into the University of Pennsylvania's School of Veterinary Medicine in Philadelphia. Good luck Michele and thank you for providing your expertise to LRWC! We welcome Dr. Valitutto to the Conservancy and look forward to working with him to continue to provide the best in health care for our birds.



Dr. Marc Valitutto and a komodo dragon (which does not reside at LRWC, but it makes a great photo!).

CLASSROOM CONSTRUCTION UPDATE

Construction of the Conservancy's environmental education classroom was completed this summer thanks to generous contributions from our membership and the Watertown Foundation. The classroom is now ready for stocking with teaching tools and equipment to enhance our wetland and waterfowl conservation programs. Grant writing for an interactive teaching display system called a Smartboard, microscopes and other advanced teaching tools is underway. Once secured, this equipment will allow us to provide additional exciting and memorable education programs and further utilize the wetland habitats at LRWC as teaching resources. We hope to offer on-site classroom programs starting this winter. The classroom construction project owes special credit to LRWC volunteer Peter Litwin who donated his time and skill overseeing and working on the construction. A big thank you is also due to LRWC staff Ian Gereg, Bill Nicholson, Manolis Spanakos and Rich Malecki for all their hard work.



Ian Gereg, Peter Litwin, and Manolis Spanakos work on the rearing barn renovation to create the new classroom.

NATURE DOCUMENTARY FILMED AT LRWC



Left and top: Filmmaker Ann Prum sits in a blind patiently waiting to photograph feeding ducks in the dive tank.

Below: Young smew try Ann Prum's patience as they paddle around on the water surface in the dive tank.



If you visited LRWC this summer, you might have noticed a large white tank next to the rearing barn. Contrary to the rumor that the staff is enjoying a new hot tub, the large white structure is actually a specially constructed tank that provides an underwater view of the diving and feeding behaviors of ducks. Filmmaker Ann Prum of Coneflower Productions began filming at LRWC this spring for a documentary about the different behaviors and adaptations of duck species. You may have seen Ann's recent documentary called *Hummingbirds: Magic in the Air* that aired on the PBS show *Nature*. Ann's new documentary about ducks will also be featured on *Nature*, and Ann will be filming a variety of duck species around the world over 15 months. The LRWC ducks are providing up close footage not only of their underwater skills, but also of their courtship and breeding behaviors that are difficult to capture in the wild.

This is not the Conservancy's first venture into the wildlife documentary field. In 2008, the work of Dr. Patricia Brennan, which involved the study of social behavior and sexual selection in duck species at LRWC, was featured on *Nature* in a two-part documentary called *What Females Want and What Males Will Do*. Stay tuned for more information on LRWC involvement with documentaries and air dates for Ann Prum's film. Now if we can only convince Ann to leave the ~~hot tub~~ dive tank behind when she is done.....

CHANGES TO LRWC PUBLIC ACCESS IN 2012

Beginning in 2012, LRWC will offer guided tours through the aviary for members only. Member tours will be held at 2 pm on the first Sunday of each month, and all Sundays during the months of May, June, September and October. Reservations for member tours may be made Monday through Friday between 9 am and 4 pm. Tour reservations may not be made on Saturdays or Sundays, and cancellations are requested by 5 pm that Saturday. Call 860/567-2062 for reservations. Tour space is limited to 12 people.

Not a member? Public visiting hours at the aviary will be held on the first Sunday of each month from 10 am - 2 pm (except on national holidays), free of charge. During visiting hours, staff will be available to introduce visitors to LRWC and answer questions regarding the facility and our programs. Visitors will have the opportunity to become members, and may take the 2 pm member tour if they join and space is available.

2011 BREEDING SEASON

The 2011 breeding season was a year of highs and lows due to a long, hard winter and a late, wet spring. Many early nesting species were almost a month behind schedule because of snow cover and cold temperatures. Conditions did not improve much after the spring thaw, with rain and saturated soil causing many failed nesting attempts by both duck and goose species. Overly wet conditions promote water retention in incubating eggs, which in turn causes high mortality of developing embryos. Even though we had high rates of egg production for species like emperor geese and common eider, hopes for noteworthy production were dashed this year as female after female abandoned their nests. Species that nested later in the spring fared much better, most notably endangered red-breasted geese, which produced over thirty goslings. Other notable accomplishments included high numbers of young falcated ducks and New Zealand scaup, and the first ashy-headed goose reared at LRWC.



Ashy-headed geese adults (top) and young (bottom)



New Zealand scaup duckling

Our success with ashy-headed geese is encouraging as we are working to revitalize numbers of this species in North American facilities. Overall, we selectively raised young from 32 of the 53 species that produced eggs this year. By the end of the 2011 breeding season, we reared over 200 young birds.



JOIN US!

Description of membership benefits on page 8

LRWC 2012 Membership Form

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ email: _____

I wish to join at the following level:

Individual \$35 ___ Family \$60 ___ Family and Friends \$200 ___ Frequent Flyer \$500 ___

I wish to make an additional contribution to LRWC in the amount of: _____

Total Amount: _____

Make checks payable to: LRWC

Payment Method: Check ___ Credit card ___ Money order ___

Name on card _____ VISA MasterCard AMEX

Card number _____ Exp. _____ Security code (CVV) _____

LRWC Membership — Join Today!

Membership Benefits:

- Quarterly newsletter
- Access to members-only section of the website
- Invitations to special events
- One free tour per year
(Type and size of tour varies by membership.)

**Corporate memberships are available.
For more information, please call the LRWC office.**

**Gift memberships are available at
www.lrwc.net or by phone.**



Individual Membership \$35

One member* tour per year with one guest.

Family Membership \$60

One member* tour per year for a family of two adults, and up to six children under the age of 18.



Family and Friends Membership \$200

One behind-the-scenes tour for up to six people.
Time and date to be mutually arranged.



Frequent Flyer Membership \$500

Experience the seasons with two unique tours at LRWC, one in the spring and one in the fall. Behind-the-scenes tours for up to eight people, with time and date to be mutually arranged.



*Member tours are at 2 pm the first Sunday of each month, and all Sundays in May, June, September and October.



The Livingston Ripley Waterfowl Conservancy