# The Livingston Ripley Waterfowl Conservancy

Research • Education • Conservation Action

#### Autumn 2008

# NEWSLETTER

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### LRWC COORDINATES MALLARD SATELLITE TELEMETRY STUDY

The Livingston Ripley Waterfowl Conservancy (LRWC) has initiated its first major research project by becoming part of a large collaborative effort to track mallard gram transmitters on their backs by wearing a Teflon ribbon backpack harness. The transmitters are solar powered and programmed to record a precise GPS location



Biologists capture mallard ducks in Saskatchewan.

ducks in the mid-continent region of North America using radio transmitters equipped with GPS (Global Positioning System) instrumentation. This is the same technology used in our cars and boats - only small enough to fit on the back of a duck! The objective is to evaluate the annual movements of mallards and how they use the various wetland habitats provided by state, federal, provincial, and non-government organizations. This information will be used to guide management initiatives for the restoration and conservation of critical wetland habitats for many waterfowl species throughout North America. Partners involved include all the mid -continent state wildlife agencies and their waterfowl biologists, Ducks Unlimited, the U.S. Fish and Wildlife Service, the Canadian Wildlife Service, and the Science Support Team for a large international project collectively known as the North American Waterfowl Management Plan. The mallard ducks carry the small, 22

four times a day. Every three days, the data are downloaded to an orbiting satellite. Satellite technology has revolutionized how we study movements and distributions of ducks, because we can now monitor them anywhere in the world.

The LRWC is the coordinating agency for the first phase of this study, which is designed to evaluate the data quality from the sample of satellite transmitters put on mallards

in 2008. We will use this information, in collaboration with our partners, to design a larger study to provide detailed information



Hen mallard with satellite transmitter.

about the daily movements of mallards. Although satellite transmitters have been used to track migrations of many species of ducks and geese, this project will be the first largescale study using satellite transmitters with GPS technology to collect precise information on how ducks use different habitats.

Visit our new website at www.lrwc.net and don't forget our new email address: info@lrwc.net

## **FROM THE DIRECTOR**

Fall brings with it cooler nights, changing colors, and the spectacular sights of ducks and geese winging their way south to warmer climates for the winter. Just as the waterfowl are preparing for the changing weather to come, here at the LRWC we are also gearing up for some big changes. Not only will our website undergo complete renovation, but we also plan to expand our field research efforts on both national and international fronts. I am most excited about our proposed research initiatives, and their potential to help the LRWC become a leader in waterfowl research and education.

Speaking of changes, I am honored to introduce myself as the new Director of Research and Conservation for the LRWC. Armed with a B.S. and M.S. degree from the University of Michigan and a Ph.D. from Oregon State

University, I have worked for the past 20 years at Cornell University specializing in waterfowl biology and management. I have been fortunate to receive extensive training in statistical methods for analyzing the information generated from birds carrying all types of markers, including leg bands, neck collars and radio transmitters. It has been an interesting career allowing me to work with such species as Canada geese, tundra swans, mallard ducks, and northern pintail ducks along with federal, state, and private organizations and individuals from across

much of the U.S. and Canada. In joining the LRWC team, I am committed to developing a mutli-dimensional program in which national and international field research, along with a premier captive breeding facility, will integrate to produce and maintain a significant contribution to the management and conservation of waterfowl and their habitats throughout the world.

I am a firm believer that, if we are to develop meaningful changes and new directions in our program, we must first appreciate and understand past events. The history of the LRWC is deeply rooted in S. Dillon Ripley's dedication to the conservation of rare, threatened and endangered species. Dr. Ripley was an avid aviculturist, credited with being the first person to breed successfully many threatened and endangered species in captivity, including red-breasted geese, emperor geese, nene geese, and Laysan teal. His efforts breeding endangered nene geese, a goose endemic to Hawaii, made a significant contribution to the restoration efforts for these birds in the 1950s. Hunting and egg collection were significant factors contributing to the historic decline of this species. However, once stricter game laws were enacted, captive breeding and release efforts were highly successful in restoring their numbers.

Captive breeding and release can play an integral part

in management efforts for endangered species. However, the focus of management efforts have evolved and changed



dramatically over the years, primarily relative to largescale changes seen in habitats and the global environment. Many of these changes have occurred in our own backyard. Since the 1600s, we have lost over 50% of our wetland habitats in the U.S. Canada, which contains critical nesting habitat for 60% of the waterfowl species that winter in the U.S., has also experienced similar losses of wetland habitat. Changing environments are not limited to North America; however, and factors like habitat loss, urban development, pollution, and

> global warming have altered many landscapes, resulting in detrimental declines in many waterfowl populations throughout the world. Efforts to increase threatened or endangered populations can no longer solely rely on captive breeding and reintroduction. In many cases, the critical habitat needed to sustain these birds no longer exists.

The mission of the LRWC is to conserve waterfowl and their habitats through research, conservation action, and education. Although we are dedicated to maintaining

Dillon Ripley's commitment to the conservation of threatened and endangered species, we recognize the importance of a strong focus on the restoration and conservation of wetland habitats worldwide. Over the coming year we will enhance our commitment to waterfowl by initiating a series of field projects that will not only answer critical research questions for specific species, but also help promote awareness for the importance of wetland conservation worldwide. Education is the key to the successful implementation of the findings from research, and we will strive to enhance our existing educational programs and provide additional opportunities for graduate studies as we expand our research program.

I encourage you to check out the research initiatives section of our new website, which is scheduled to debut in early December. Visit our website periodically to view ongoing and exciting developments in our program, and to learn how you can support our research initiatives and educational programs to ensure the skies are filled with migrating waterfowl for future generations.

Dr. Susan Sheaffer Director of Research and Conservation



# SEA DUCKS, SEA DUCKS, SEA DUCKS!

The LRWC is planning the construction of a new aviary designed to meet the specific needs of sea ducks. Most sea ducks breed in the Arctic, and spend most of the year in marine environments. Although the fifteen species of sea ducks represent one third of all North American waterfowl species, basic life history information is lacking for many

species and their biology is poorly understood. The remoteness of their habitat means that little is known about breeding, molting, and wintering habitat affiliations. However, the information we do have indicates that most populations are in trouble. Several populations have undergone long term declines in numbers, yet the causes for these declines are unknown.

There are several factors thought to impact current population trends of sea ducks. Arctic

breeding grounds are under constant threat from oil and natural gas development, and many traditional wintering areas have become urbanized and industrialized. Annual production of many sea duck species is negatively impacted by thriving predator populations, and the coasts of the United States, where many sea ducks winter, are impacted by indirect factors such as bioaccumulations of chemical



contaminants. A concerted effort to understand how these factors interact is essential to the conservation of sea duck populations. Sea ducks are notoriously difficult to maintain in captivity,

with strict habitat and water quality requirements. The LRWC is one of the few facilities in North America that has

### **ADMINISTRATIVE UPDATE**

We are pleased to extend a warm welcome to Maximilian Tieman who recently joined the staff as the LRWC Administrator. In addition to keeping the office running smoothly, Max has taken on the role of webmaster and is currently renovating the LRWC website. Our new website is scheduled to debut in December at our new address: **www.lrwc.net**. Visit our website to view LRWC newsletters, renew your membership, contribute to LRWC programs, and more. The website will provide easy access to recent developments in LRWC research initiatives and successfully propagated sea ducks; however, our current facilities limit us to small numbers of a few species. The construction of a sea duck aviary will allow us to increase the size and diversity of our sea duck collection, which in turn will greatly enhance educational opportunities for visitors and students.



The sea duck aviary will also provide an optimal site for critical research efforts. Because of the difficulty in monitoring and collecting essential data from wild sea ducks, a captive environment which promotes the natural behavior of these rare birds will provide opportunities for research on behavior, physiology, ecology, and other aspects of sea duck life history. The LRWC is in the planning stage to develop research initiatives for several

The LRWC recently received a \$3,000 grant from the Watertown Foundation in Connecticut that will cover the cost of materials to build the aviary. The LRWC is seeking contributions to cover the \$10,000 needed for construction of the aviary wetland and water control structure, plus \$15,000 to acquire birds for educational and research needs. To find out how you can support LRWC sea duck initiatives, contact <u>ssheaffer@lrwc.net</u>, or check out our website in December at lrwc.net.

species of sea ducks.

educational programs so you can readily view the results of your donations. Check out the weekly Avian Update to learn about current happenings with the captive waterfowl collection. Not a computer person? Contact us at LRWC, P.O Box 210, Litchfield, CT 06759, or call 1-860-567-2062 and ask Max about printed information available on LRWC programs. If you're lucky, he might also give you a movie recommendation. An avid movie aficionado, rumor has it that Max has seen more movies than the inventory at Blockbuster!

# **LRWC APPOINTS HONORARY RESEARCH SCIENTISTS**

LRWC recently appointed two distinguished waterfowl biologists as Research Scientists to provide direction and guidance in development of our research program, collaborate with LRWC staff, and provide technical advice on specific research projects. Research Scientists also support and promote the mission of the LRWC as our representatives at professional meetings. The LRWC is honored to announce the appointment of Dr. Guy Baldassarre and Dr. Richard Malecki as our first Research Scientists.

Dr. Guy Baldassarre is a Distinguished Teaching

Llanos and marsh birds and waterfowl in New York. Guy has served on the LRWC Board of Directors since 2006, and we look forward to his increased role as a Research Scientist with the LRWC.

Dr. Richard Malecki has recently retired from 30 years of service with the U.S. Department of Interior as the Assistant Leader in Wildlife with the New York Cooperative Fish and Wildlife Research Unit located at Cornell University. He received his B.S. from Cornell University, and his M.S. and Ph.D. from the University of Missouri. Rich is a leading authority in the use of satellite

technology to monitor

waterfowl species, in

in the development of

surveys for waterfowl

and the use of mark-

population assessment.

Rich is experienced in

habitat for waterfowl

wetland plant ecology,

and biological control

methods for invasive

plant species.

methodologies for

evaluating and

managing wetland

and marsh birds,

breeding ground

recapture

addition to his expertise

Professor in the wildlife science program at the State University of New York, College of **Environmental Science** and Forestry in Syracuse. He teaches courses in waterfowl ecology and management, wetland ecology, and wetland wildlife ecology and management. He received his B.S. at the University of Maine, M.S. from the University of



Dr. Guy Baldassarre & Dr. Richard Malecki.

Wisconsin-Stevens Point, and Ph.D. (1982) from Texas Tech University.

Guy recently received the 2008 Wetland Conservation Achievement Award from Ducks Unlimited for his impressive career achievements. This prestigious award recognizes individuals who have made outstanding contributions to the restoration and conservation of North America's wetlands and waterfowl. Guy is a past Editor-in-Chief of The Journal of Wildlife Management, author of Waterfowl Ecology and Management, and editor of Conservation Biology of Flamingos, a special publication of the Waterbirds Society. Guy has worked extensively on waterfowl and waterbird issues in the United States, Mexico, Canada, and Venezuela. as new members of the LRWC team! Currently, he is working with waterbirds in the Venezuelan

Rich was the 2007 recipient of the Ducks Unlimited Wetland Conservation Achievement Award for his outstanding contributions to waterfowl and wetland research. Not only does Rich have an extensive history of collaboration with state and federal waterfowl and wetland habitat management programs throughout North America, but he also has conducted research in Greenland, western Europe, and eastern Russia. By the way, the Cornell connection shared between Rich and our new Research Director, Sue Sheaffer, is no coincidence. Rich and Sue were not only colleagues at Cornell, but they are also husband and wife. The LRWC is excited to have both

### LRWC JOINS CT BIOLOGISTS FOR BLACK DUCK RESEARCH

No other species represents waterfowl in the Atlantic flyway better than the American black duck. Historically the most abundant fresh-water duck in eastern North America, the black duck population has declined steadily

priority species in the state of Connecticut. In 2007, the Connecticut Department of Environmental Protection began a three-year study to evaluate winter habitat use and food availability for black ducks. The current study includes

since the 1950s, reaching an all-time low in the 1980s. Several factors may be contributing to the decline of the black duck, including changes in breeding and wintering habitats, hybridization and competition with mallard ducks, environmental contaminants, over-harvest, and poor productivity. One aspect of the black duck annual cycle that is poorly understood is how winter body condition affects



American black ducks

vegetation and invertebrate sampling, and the evaluation of local movements by monitoring birds outfitted with vhf radio transmitters. The LRWC has partnered with the CT DEP and is seeking funding to provide solar powered, GPS satellite transmitters for black ducks. The use of GPS satellite technology would greatly enhance the ongoing study in Connecticut

their survival and subsequent reproduction. Winter body condition is highly dependent on the amount of available food resources. Information, on how and when black ducks use different habitats to obtain these food resources, is needed to guide wetland management and restoration efforts.

by providing precise locations of black ducks throughout their daily activities, and by providing information on movements and distributions of these birds outside the state.

To find out how you can support research initiatives for black ducks, contact <u>ssheaffer@lrwc.net</u> or check out our website in December at www.lrwc.net.

American black ducks have been identified as a

### **LRWC AVICULTURIST WINS 2008 BREEDING AWARD**

Congratulations to LRWC Aviculturist, lan Gerea, for receiving a Master Breeder's Award at the American Pheasant and Waterfowl Society's annual convention held in Rhode Island in early October. The Master Breeder's Award is presented to those facilities and aviculturists who have displayed a noteworthy ability to propagate waterfowl in captivity. The Conservancy and Mr. Gereg received the award for their contributions to the successful breeding of wild goose species in captivity, including endangered and threatened species such as the red-

breasted, nene, emperor and lesser white-fronted agose. This award is a wonderful tribute to lan's skill and tireless dedication towards maintaining the LRWC's reputation as one of the premier captive breeding facilities for waterfowl in North America. This award also recognizes the Conservancy's heritage and conservation efforts for rare waterfowl through captive breeding, as reflected in S. Dillon Ripley's skilled legacy of successful propagation for many endangered species.



### 2008 BREEDING SEASON HIGHLIGHTS

This year's breeding season at LRWC was exciting and highly productive. Beginning with over a dozen nene geese

hatched in early January, the late winter and early spring brought additional excitement with the Conservancy's first ever magpie goose egg. While infertile, the egg was a step in the right direction towards the successful propagation of this Australian oddity. Additional early spring egg production included a hooded merganser egg laid on February 5<sup>th</sup>, nearly a month earlier than usual! The



including trumpeter swans reared for release as part of the mid-western trumpeter swan restoration project.

Another exciting event was the hatching and rearing of over 30 endangered red-breasted geese, a species noted for their difficulty in captive breeding. Success with many other uncommon species, including emperor geese, Baikal teal and coscoroba swans rounded out the busy summer. Breeding continued into the fall and included the first successful propagation of

6 the Australian wood duck at LRWC with a clutch hatchedin late September.

# spring and summer continued to be very productive, with 36 species producing eggs, and over 250 young birds reared,

### **DUCK DAY 2008 RESULTS**

LRWC's third annual Duck Day was attended by over 500 people, despite rain and threats of severe weather. Special events included the ever popular Brian Bradley's Sky Hunters in Flight raptor program and Jim Napolitano's Nappy's Puppet Show. This year we added a live demonstration of canine retrieving ability, conducted by Larry Hindman, the state waterfowl biologist for the Maryland Department of Natural Resources. In addition, over a dozen wildlife and conservation organizations, artists, carvers, and photographers educated and entertained Duck Day visitors.



And they're off! Rubber ducks race down Butternut Brook.

Participating organizations included Ducks Unlimited, the Connecticut Waterfowlers Association, Yale University's Peabody Museum, Trout Unlimited, and the Connecticut Department of Environmental Protection.

The Conservancy's rearing barn and aviaries were open to attendees interested in learning about our captive waterfowl collection and breeding program. New for Duck Day 2008 was a rubber duck race in which numbered rubber ducks raced down a section of Butternut Brook for a chance to win such prizes as a kayak, binoculars, fly fishing pole, and Duck Day t-shirts.

We would like to thank our dedicated

volunteers for their indispensable assistance running another successful Duck Day, and our exhibitors for their time and effort in making the event fun and educational for all.

Children enjoying the puppet show.



Larry Hindman and Teal demonstrate canine retrieving skills.



- Conserving waterfowl and their habitats through research, conservation action, and education.

# **LRWC OUTREACH EDUCATION**

In keeping with our commitment to promote research and conservation actions for waterfowl and wetland habitats, LRWC educational programs attracted many new participants in both on-site and off-site education programs. Duck Day continued to be our largest on-site program, followed by a growing number of group tours and school field trips. Public guided tours in the spring and fall also continued to draw visitors. In total, nearly 1,000 people visited the Conservancy in 2008.

Off-site education programs underwent significant expansion this year. Our most popular program, Incubator in



Students observing and sketching birds.

a Classroom, was continued in the three schools that participated in 2007, and introduced to two new schools in 2008. Our Duck Nesting Box program drew steady numbers of dedicated students who monitored and maintained the 40 duck boxes erected throughout the Litchfield area. Our new General Bird Education program, aimed at educating elementary school children about bird life and conservation, was well received at summer camps and after school programs.

As interest in LRWC education programs continues to grow, the Conservancy is developing new means of increasing conservation awareness and attracting new participants. This summer, with the help of volunteer Lesley McGuffie, the first human-imprinted waterfowl were reared for use in classroom education programs. This first bird, a male North American wood duck, 'Woody', has shown fantastic promise as a classroom ambassador, contentedly perching on a hand or shoulder while building a lasting connection between students and wildlife. A second bird, an Australian wood duck, is being hand-reared. We are planning to raise at least four additional humanimprinted birds, representing different species from around the world, to provide future programs with living and breathing examples of biodiversity, and promote the need to conserve wetland habitats locally, nationally, and worldwide.

### **VOLUNTEER PROFILE**

Clint Herdman and daughters Holly and Vicky are familiar weekend faces at the Conservancy. For nearly two years the trio has volunteered their Sundays to serve a variety of roles, from bird caretakers and carpenters to landscapers and tour guides. Clint's lifelong interests in waterfowl, wildlife and conservation are clearly not lost on his two daughters, both of whom enjoy spending time outdoors at LRWC. Clint is a carpenter by trade and a talented wildlife artist. Vicky, 12, and Holly, 17, are both attending school in Beacon Falls, Connecticut. Many thanks to Clint, Holly, and Vicky for their dedication to the Conservancy!



Vicky, Clint and Holly Herdman.



#### **LRWC MERCHANDISE**

Looking for a great way to introduce your children or grandchildren to waterfowl? LRWC Duck Day t-shirts make great gifts, and we have youth sizes in small and medium available for \$7.00. This year our featured species is the endangered redbreasted goose. Native to Siberia, red-breasted geese are the smallest and rarest of the European geese.

We also have beautiful LRWC silk ties, note cards and more. To order, call 1-860-567-2062, or visit www.lrwc.net.

#### We would like to thank all of our donors and volunteers for their generous support during 2008.

#### TOURS

Guided tours are offered on Sundays at 2:00 P.M. during the months of May, June, September and October. Admission is \$10.00 per person and children under the age of 10 are free. Tour pre-registration is required. Group tours can be arranged on request by calling the Conservancy at (860) 567-1691. We look forward to welcoming you!

#### DIRECTIONS

From Litchfield Center, take Rte 202 west towards Bantam. Travel 0.8 miles to the traffic light (just past Stop & Shop on left) and turn right on Milton Road. Take third left onto Duck Pond Road, a small dirt road. Proceed 0.5 miles, crossing a small bridge, to the Conservancy driveway on the right marked with a wooden sign for LRWC.





Livingston Ripley Waterfowl Conservancy P.O. Box 210 Litchfield, CT 06759 Non-Profit Organization US Postage PAID Hartford, CT Permit No.1754

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To become a member of the Conservancy, please fill out the following form, cut along dotted line and send with your check or money order to the address at the left.

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