

# THE RIVERTOWN NATURALIST

Newsletter of the Hudson River Audubon Society of Westchester



January / February 2011, vol. 38, no. 4

Hudson River Audubon Society of Westchester, Inc. is a non-profit chapter of the National Audubon Society serving the communities of Ardsley, Dobbs Ferry, Hastings-on-Hudson, Irvington and Yonkers.

Our mission is to foster protection and appreciation of birds, other wildlife and habitats, and to be an advocate for a cleaner, healthier environment.

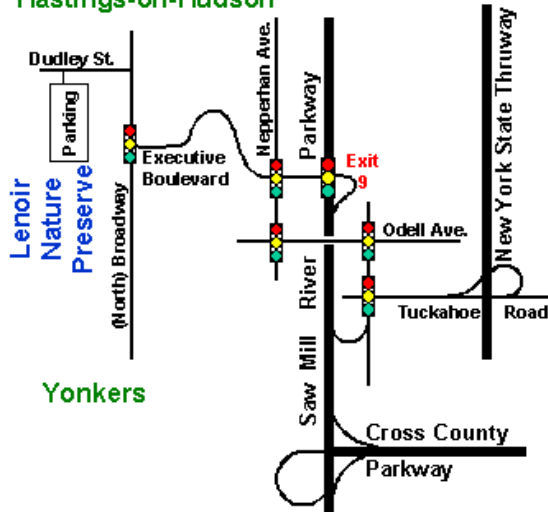
[www.hras.org](http://www.hras.org)

## DIRECTIONS TO LENOIR PRESERVE

Hudson River Audubon Society of Westchester, Inc. holds its meetings at Lenoir, a Westchester County Nature Preserve, on Dudley Street in Yonkers, New York (914) 968-5851.

By car: Take Saw Mill River Parkway to Exit 9, Executive Blvd. Take Executive Blvd. to its end at North Broadway and turn right. Go ¼ mile on North Broadway and turn left onto Dudley Street. Parking lot is on the left.

### Hastings-on-Hudson



Wednesday, January 12, 2011  
7:00 pm Lenoir Nature Preserve

## Northern Saw-whets: the Little Known Owl

By Gertrude Battaly and Drew Panko.

Refreshments 7:00 – 7:30

Meeting and Program 7:30 PM

Join us for a free presentation on Northern Saw-whet Owls. The smallest owl found in the northeast, standing just 7 inches tall and is common winter visitors to southern New York. For six years, Trudy and Drew have been trying to learn all they can about these owls. Where do they come from? How long do they stay? Will they come back next year? Do they ever stay to breed? Join us on January 12th for some answers and more questions about these wonderful creatures! Trudy and Drew will also share some interesting encounters they have had with saw-whets



Saturday, February 5, 2011  
10 am Lenoir Nature Preserve

## Wildlife of the Hudson Valley

Join our Educator, Walter Chadwick for a great family program. Join us for a slide presentation of the animals that call the Hudson Valley home. After the show we will search the preserve for wildlife. Come and join in the fun.



Join Us For a Special Movie & Popcorn Night at Lenoir

Wednesday, February 23, 2011 at 7:00PM  
**Hummingbirds: Magic in the Air**

Hummingbirds take extraordinary to a whole new level. They are among the smallest warm-blooded creatures on the planet, but they are also among the fastest. These tiny marvels dazzle and delight bird watchers all over the world, and this film reveals their stunning abilities as they have never been seen before. Academy Award winner F. Murray Abraham narrates this PBS film.

In case of inclement weather, please call Michael Bochnik: 914-237-9331.

## ScienceWatch – Darwin’s Big Idea



**“I have called this principle, by which each slight variation, if useful, is preserved, by the term of Natural Selection.” - C. Darwin, 1859**

My 100<sup>th</sup> article written under the *ScienceWatch* banner discusses evolution by natural selection—Darwin’s big idea.

The idea seems simple enough. Over time species will evolve. Some will die out while new ones will arise. The changes are due to an ongoing process whereby traits favoring survival are preserved and unfavorable ones are weeded out. Darwin called the process *Natural Selection*, coining the term in his earth-shattering book, *The Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life*, published in 1859.

Darwin’s theory of evolution by natural selection became famous among scientists because it explained the overwhelming diversity of the living world in a simple, elegant way. It remains central to everything we know about biology today. Without it biology is merely a collection of disconnected facts, a set of descriptions.

It also became infamous overnight because it flew in the face of established religious beliefs on how living beings were created. Unfortunately, many still refuse to accept it. Barely 40% of Americans in a recent poll think evolution by natural selection is correct. By contrast, upwards of 70%-80% of western Europeans agree with the theory. One argument espoused by deniers is that “it’s just a theory”. However, in science a theory is not a hunch, but an explanation backed by abundant observation and where gaps in knowledge are not seen as grounds for doubt, but points for future understanding.

Darwin’s theory is even more universal than Newton’s theory of gravity. When we throw up a ball it always comes down. However, gravity does not work at subatomic levels. When we look at life we see evolution; all the diversity of life is descended from a common ancestor, through a process of mutation and natural selection over 3.8 billion years. But unlike gravity, there are no exceptions to natural selection, even at the molecular level.

When Darwin published his big idea genetics was completely unknown. But nothing we have learned since then contradicts him. Natural selection explains everything we are learning about life today. For example, food crops genetically engineered to produce toxins that kill insect pests can result in insects resistant to the toxin. This is because natural selection will favor those few individuals that are resistant and they will increase, eventually making the genetically-engineered plant useless. To combat this, farmers plant some non-engineered, non-toxic plants alongside the modified ones, so that the sensitive trait remains in the insect population. Similarly, natural selection explains results from all other branches of modern biology.

Darwin had no idea what natural selection was acting on. Now molecular biology tells us that traits are controlled by genes, stretches of DNA. Mutations are changes in DNA and they are the raw material for evolution by natural selection. Mutations occur by chance, but natural selection acts in a relentless, directed fashion, constantly favoring traits (genes) that work and eliminating those that don’t.

A new branch of biology, known as *Evo-Devo*, short for Evolutionary Developmental Biology, shows us that Darwin is at the cutting edge of biology even today. Using the tools of molecular biology *Evo-Devo* answers the important question of how an egg gives rise to a complete organism. It combines the approaches of two groups of scientists— evolutionary biologists, who study how organisms have evolved to form new species, and developmental biologists, who investigate the way genes control the development of organisms. Their findings show that vastly different organisms share the same genetic blueprint.

For example, in the 1980’s scientists isolated the genes (only 8) that control the development of the lowly fruit fly from egg to adult. These genes work by making proteins that bind to DNA and turn on other genes. The same “master genes” control development in other organisms including us. They lay out the basic body plan by setting up the head-tail, back-front, and left-right organization, directing where structures will go as an embryo develops. This means that the development of complex body parts like limbs, eyes and hearts, long thought to have evolved in different ways in different organisms, is controlled by the same genes. *Evo-Devo* supports Darwin’s assertion—the tree of life he drew in *The Origin of Species*—that all life is connected.

Darwin’s finches continue to help fine tune his theory. Darwin assumed that the accumulation of changes needed to form a new species would take many—perhaps millions—of years. However in 1972 a new theory called *Punctuated Equilibrium* said changes could occur much more rapidly. Now we know speciation can happen in just a few generations. Darwin found 13 species of finches when he visited the Galápagos, but recently the formation of a new hybrid species was observed. In just four generations the hybrids began breeding exclusively among themselves—the hallmark of a new species— and they have been doing so for the past eight years (see –*Darwin’s Finches: Thirteen Species and Counting*, *ScienceWatch*, March 2010 or at [www.HRAS.org](http://www.HRAS.org)).

Darwin would be pleased to know that his 19<sup>th</sup> century big idea is explaining 21<sup>st</sup> century facts. As the famous geneticist Theodosius Dobzhansky said, “Nothing in biology makes sense, except in the light of evolution”. That will be true into the 22<sup>nd</sup> century and beyond.

**Coming in March:** March 23rd Program: Treasures of the Sea, presented by Mickey Cohen

## **9TH ANNUAL "SEASONS AT LENOIR" PHOTOGRAPHY/ART EXHIBIT**

Now is the time to decide on works you would like to submit for the March 2011 exhibit. As always, artwork in any media and photography are welcome. Potential exhibitors should keep in mind that works must be inspired by the Lenoir Preserve. There are so many possible subjects -- Lenoir's abundant wildlife, gardens, trees, structures, volunteers, staff and visitors involved in activities or just enjoying the serenity -- to name a few, There will be a "Kids Corner" for the creations of children involved in our education programs.

To have your works included, or if you have any questions, please call Lynn Shaw at 718-549-2380 or e-mail her at [Lynnshaw@gmail.com](mailto:Lynnshaw@gmail.com). before **February 20th**.

**Dates to Remember:** Please make note of these dates. There is no February newsletter, so there will be no further reminders.

Saturday, Feb.26 9:30 to 12:00 Works to Lenoir (must be ready for hanging)

Saturday, March 5 11:00 AM Opening Reception

Saturday, April 2 Pick up Works

The gallery will be open to visitors on Tuesdays through Saturdays from 10:00 to 4:00.

## **FeederWatch**

Please join us at the following FeederWatch sessions at Lenoir. We will be sitting inside, looking out and counting the birds at our feeders. These sessions are also fun social events, usually with refreshments!

For the actual times, please contact Carol Lange at 668-5101 or [CarolLange@aol.com](mailto:CarolLange@aol.com). We hope to see you there.

Sat., Jan. 15 -- Sandra Wright

Sun., Jan. 16 -- Paul Oehrlein

Sat., Jan. 29 -- Fran Greenberg

Sun., Jan. 30 -- Mary Harrington

Sat., Feb. 12 -- Kelli and Michael Bochnik

Sun., Feb. 13 -- Jackie Bruskin

Sat., Feb. 26 -- Sandra Wright

Sun., Feb. 27 -- Lynn Shaw

Sat., Mar. 12 -- Paul Oehrlein

Sun., Mar. 13 -- Judi Veder and Saul Scheinbach



Outdoor activities such as birding and hiking with a group are a wonderful way to share your interests with like-minded people to learn more about nature, and to enjoy many preserves and natural areas. Hudson River Audubon Society field trips are free. Non-members/ newcomers are welcome

Bring binoculars and field guides if you have them. Some are available for loan for those who need them. Dress appropriately for the weather. For more information call Michael Bochnik at (914) 237-9331.

Directions for most trips can be found on our website at [www.hras.org](http://www.hras.org).

Sunday, January 30, 2011

**Thompson Pond and Stissing Mountain**

We will look for winter birds in northern Dutchess County and possibly see a Golden Eagle or two. Meet at Thompson Pond at 9 AM Directions:

Take the Taconic Parkway to the exit for Route 199.

Go east on Route 199 to Route 82;

Follow Route 82 south to Pine Plains.

Turn right onto Lake Road, and follow 1.6 miles to the parking area and preserve entrance on left.

Saturday February 5, 2011

**Seventh Annual Hudson River EagleFest** <http://www.teatown.org/eaglefest.htm>

This event is centered at Croton Point Park. Meet our eagle spotters at the south end of the Croton Train Station 9AM-3PM. Take Route 9 or 9A to Croton-on-Hudson. Exit at Croton Point Avenue and turn left.

Sunday April 3, 2011

**Edith G Read Preserve**

Meet at 8 AM in the Playland Parking lot next to Playland Lake

Saturday May 7, 2011

**Celery Farm, Allendale, New Jersey**

Meet at Celery Farm at 8 AM

Sunday May 8, 2011

**Mothers Day Warbler Walk**

8 AM Lenoir Nature Preserve

Saturday May 14, 2011

**HRAS Bird-A-Thon**

Sunday May 15, 2011

**Doodletown Road, Rockland County**

Meet at the trailhead at 8AM, Bring lunch, drinks.

Sunday June 5, 2011

**Wallkill NWR and the Black Dirt Region of Orange County**

Meet at Liberty Marsh on Oil City Road at 8 AM

# AUDUBON: 2010 IN REVIEW

*Brown Pelicans, seen preening on oil booms protecting marshland, instantly became a symbol of the tragedy.*

*Climate change impacts the Snowy Owl's habitat and prey.*

*The Arctic Ocean's shallow and highly productive sea floor allows bottom-dwelling prey to flourish, creating a buffet for walrus.*

*Restoring the Great Lakes and Long Island Sound, home to the endangered Piping Plover, are among our highest priorities.*

*Caribou, along with hundreds of species of birds and other wildlife, depends on an unspoiled Arctic Refuge.*

## **Audubon Responds to the BP Oil Spill**

Audubon was the first national group to respond with volunteers on the ground. Our response to the oil spill disaster focused on volunteer work, gathering bird data, informing the public on our view from the field, and coordinating with federal agencies. Read more about the emergency response and our ongoing work in the region.

## **Climate Change: Disappointing with a Side of Good News**

The Senate failed to pass comprehensive climate change legislation, but, with help from your many letters, we were able to fend off repeated attempts to weaken the Clean Air Act. Read more.

## **Protecting the Arctic Ocean from Careless Drilling**

Earlier this year, we celebrated when imminent offshore drilling was delayed in this sensitive ecosystem. With the moratorium in the Arctic Ocean lifted, Shell Oil is now poised to start drilling next summer. Read more.

## **Audubon Conservation Priorities Come Down to the Wire**

The Senate is still considering some of Audubon's legislative priorities as the clock ticks down towards the end of the year. Read more.

## **A Look Ahead at a Hostile Environment for the Environment**

In 2011, we will have to fight once again to protect the Arctic Refuge and other critically important habitats across our country, and to ensure that climate change pollution can be reduced for the health of our children, our families, and our planet. Read more.

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**Join the Hudson River Audubon Society of Westchester!**

Every membership supports Audubon's vital efforts to protect birds, other wildlife and natural habitats. Membership includes a subscription to Audubon magazine and affiliation with National Audubon. As a member, you will also receive our chapter newsletter, *The Rivertown Naturalist*, and an open invitation to all our guest lectures, field trips and events.

**SIGN ME UP AS A NEW MEMBER.  
ONE YEAR FOR \$20**

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

STATE: \_\_\_\_\_ Zip: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

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**National Audubon Society**

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