November/December 2012, vol. 40, no. 3
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

Great Gull Island Terns on Their Breeding Colony and on Their Wintering Grounds

Date: Wednesday
November 14, 2012
7:00 p.m. refreshments,
7:30 p.m. program
Presenter: Helen Hays, Chair,
Great Gull Island Committee,
American Museum of Natural History
Location: Lenoir Nature Preserve

The largest concentration of Common Terns in the world and the largest concentration of Roseate Terns in the western hemisphere breed on Great Gull Island. We will view them on their breeding grounds and then follow both species to their wintering grounds in South America.

The American Museum of Natural History owns Great Gull Island. The Department of Ornithology, and specifically, the Great Gull Island Committee, have been monitoring the terns since 1969.

Holiday Luncheon Reminder

Holiday Luncheon at the Polish Center, Saturday, December 8, from 12 p.m. to 4 p.m.: If you are planning to attend this event and have not yet returned your Holiday Party reservation form and payment, please do so as soon as possible. If you have misplaced your form or need further information, please contact Lynn Shaw, Program Chair, or Michael Bochnik, President.

Thank You, Hank!

Hudson River Audubon Society would like to thank Hank Weber, proprietor of the Wild Bird Store on Central Avenue in Scarsdale. He has helped us with his knowledge and advice on seed, bird feeders, and stands. He has also donated or discounted some of our equipment used at the Lenoir Bird feeding area.
Conservation Matters

Birdwatching is a popular activity in western countries where it has helped to integrate research into birds, bird conservation, and socio-economic development.

Recent research published in *Bird Conservation International*, issue date 8/6/2012, analysed the development of birdwatching in mainland China and its role in bird study and conservation using a standard questionnaire and interviews.

Birdwatching in mainland China began only recently in the 1990s. The increased numbers of foreign birdwatchers visiting China promoted birdwatching there. As of 2010, a total of 36 local birdwatching societies had been established, and the number of birdwatchers exceeds 20,000.

The development of birdwatching has been positively correlated with local economic conditions — that is, the number of birdwatchers is much greater in economically developed areas than in relatively undeveloped areas. Birdwatchers have not only contributed to a greater understanding of the population status of birds in China but also promoted bird conservation at the local level.

Although China’s conservation policies are currently formulated and implemented in a top-down manner via government regulation, with little contribution from local individuals, the rapid development of birdwatching reflects an improved understanding of conservation by local communities and growing participation in conservation initiatives by local people and organisations.

It is predicted that with the continued development of China’s economy, birdwatching will further develop and play an increasing role in China’s conservation policies and practices. This is important as China is a country with a high rate of endemism and many globally-threatened species.

You Can Use That for What?

On Wednesday, January 23, 2013, Mary Harrington, Master Gardener and Chair of the Beverly E. Smith Butterfly/Hummingbird Garden, will present a program at Lenoir Nature Center. This event begins at 7:00 p.m.

This program will be a virtual tour of the more commonly seen plants in Westchester. So many of the plants that we call weeds are often quite useful.

Mary will highlight some of the more commonly seen plants, grasses, and shrubs, focusing on their historical, edible, and medicinal uses. Many of these plants serve as hosts to a variety of wildlife as well and become important pollinators and food sources.

Come and learn!! — LYNN SHAW

Creatures of Light: Nature’s Bioluminescence

On Wednesday, March 27, 2013, Bernie Wides, a docent at the American Museum of Natural History will present a HRAS program based on the museum’s exhibit with the above title.

You may want to visit the museum and explore the diversity of organisms that glow and learn how scientists study this amazing natural phenomenon before this very popular exhibit at the American Museum of Natural History closes in January 6, 2013.

— LYNN SHAW

Whatever you might be saving or putting away “temporarily” but would really just rather dispose of safely, I’d like to recommend Earth 911’s iRecycle app. No matter where you are, iRecycle can determine the most appropriate recycling means and information for your “stuff” in closest proximity to you (with your permission, of course). If you’re interested in this free app, you can read about it more at earth911.com or download it directly from the Apple store. — SANDRA WRIGHT
Scientists have long known that migrating birds use earth’s magnetic field to navigate, and since homing pigeons (*Columbia livia*) are renowned for their navigating ability, they have been a favorite subject for studying magnetosensation. But exactly how they sense and process magnetic field information has remained a vexing mystery.

In 2007, scientists discovered iron-rich cells in the skin surrounding the upper beak of homing pigeons and thought they had found the magnetic receptors the birds use ([hras.org/sw/swsept07.html](http://hras.org/sw/swsept07.html)). However, in 2012 it was proven that the “receptors” are really white blood cells that remove old red blood cells and collect the iron from hemoglobin. Adding to the frustration, different investigators found different areas of the central nervous system that appeared to respond to magnetic fields, and no one could provide clear-cut evidence for a region in the brain or spinal cord where magnetic signals were processed.

Now a study in the April 26, 2012 issue of *Scienceexpress* does just that. Le-Quin Wu and J. David Dickman, neuroscientists at Baylor College of Medicine, Houston, TX, have identified nerve cells in the pigeon brainstem that register detailed information on the earth’s magnetic field. Earlier work by these two investigators indicated that the vestibular brainstem region, which receives signals from the inner ear, was the processing center for magnetoreception. So they focused on that part of the central nervous system.

Seven pigeons were kept in the dark with their heads in a fixed position. The pigeons had been genetically manipulated so that a visible marker was produced in each brain cell when it was activated. This allowed the investigators to delineate where in the pigeon’s brain magnetic field information is processed.

Each pigeon was exposed to a strong rotating magnetic field in the intensity range naturally produced by the earth’s magnetic field. As the strength and direction of the field was varied, the scientists found close to 100 nerve cells in the vestibular brainstem responding to changes in the applied magnetic field. While all the cells were activated by the magnetic field, different cells responded with greater intensities as the field was rotated around the birds’ heads.

These results show that different cells in the pigeon brainstem respond as the direction of the magnetic field is changed. According to the authors, “We have shown that single vestibular brainstem neurons encode the direction, intensity, and polarity of an applied magnetic field.” Now that they know the processing neurons are located in the vestibular brainstem, Wu and Dickman say it is likely that the not-yet-found magnetoreceptive cells reside in the pigeon’s inner ear.

Once the information on position is registered in the brainstem the bird has to compare it with a map stored somewhere in its brain ([hras.org/sw/swjan10.htm](http://hras.org/sw/swjan10.htm)). Dickman says the hippocampus, a brain region involved in remembering locations, is a likely candidate.

Pigeons are not so dumb after all.

— SAUL SCHEINBACH

*Saul Scheinbach’s *ScienceWatch* articles from January 1999 to November/December 2012 are available online at www.hras.org*
Riparian Habit and Dragonfly Pond Update

The pond is up and running!
On Thursday, October 11, over 130 people showed up for a ribbon cutting ceremony held in conjunction with our Together Green grant partner Groundwork Hudson Valley. National Park Service and U.S. Fish and Wildlife personnel were present as well as local officials. Several youngsters who worked to build the pond were also there. They spoke about how difficult it was to clear the area of invasive phragmites under a hot sun, and how deeply this accomplishment positively affected them. Folks then dug in to plant Cranberry and Arrowroot viburnum around the pond edge.

The grant from National Audubon provided just over half the funds needed to fully implement the project. Finishing touches like a waterfall, more planting and educational signage remain to be done once Spring appears and we find additional funds. The pond not only enhances the natural beauty of Lenoir, but will serve as a teaching tool for the many children who will visit.

Consider making a special contribution to finish this important project.

Birds Program at Lenoir

See what birds live in our area and learn how to identify them. Learn why some birds are brightly colored, why they sing and what adaptations help them fly. Using our new skills we will also observe and identify birds at the feeders.

If you want to make a bird feeder, please bring an empty juice or milk container.

This free, open-to-all-ages program takes place on Saturday, November 17, 10:00 a.m. at Lenoir Preserve Nature Center.

For more information, contact Walter Chadwick at 914-237-579.

Considering late year donations to your favorite charities and non-profits? Please consider us and make a contribution to the Hudson River Audubon Society. End of year donation envelopes were sent with last month’s newsletter. If you misplaced it, you can still send your donation to us at HRAS, PO Box 616, Yonkers, NY 10703.
Upcoming Field Trips

MICHAEL BOCHNIK

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 welcomed.

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 web site www.hras.org

• SATURDAY, NOVEMBER 17, 2012
  FEEDERWATCH KICKOFF
  9:00 a.m. to 12 p.m. noon at the Lenoir Nature Center.
  Our first FeederWatch of the season will have Michael and Kelli Bochnik hosting. Enjoy the comfort of the nature center as we observe and count the birds at the Lenoir feeders. Refreshments served. Please see our web site for future dates and times including: Sunday, November 18; December 1 and 2; December 27 and 28; and January 12 and 13, 2013.

• SATURDAY, JANUARY 26, 2013
  OWL PROWL
  8:00 a.m. at Pelham Bay Park
  Meet at the Orchard Beach parking lot in Pelham Bay Park in the Bronx as we search the woods for roosting Saw-whet Owls, Long-eared Owls and Great Horned Owls. Other winter birds will be looked for as well. Trip over by noon.

• SUNDAY, DECEMBER 9, 2012
  WINTER WATERFOWL AND EARLY WINTER BIRDS
  Meet at 9 a.m. at Jamaica Bay Wildlife Refuge, Queens. Jamaica Bay hosts dozens of species of waterfowl each winter. At least 20 species should be seen along with other wintering birds and maybe a few surprises. Waterfowl should include Snow Goose, Brant, Northern Pintail, Common Golden-eye, and Northern Shoveler. Other species will include Pied-billed Grebe, Horned Grebe, and American Coot.

If you're looking for a local birding activity that's not only fun and exciting, but helps with valuable winter bird population data, come on out and help on a Christmas Bird Count. They are censuses, near Christmas, of the number of each species of birds seen in a 24-hour period in a particular area or count circle.

Bird counts will be conducted from December 14 to January 5. Our local one, the Bronx-Westchester CBC will be held Sunday, December 23, 2012. The Peekskill CBC and the Greenwich CBC will be held a week early on the 15th and 16th.

There is no particular meeting place for these events. Different groups of volunteers start at various locations throughout southern Westchester and the Bronx and canvas their area for birds. You can also participate by identifying and counting the birds at your feeder on the count day and phoning in the results.

We will tally the results from all the groups at the compilation dinner ($10) at the Lenoir Nature Preserve in north Yonkers.

For more information, see the count's web site at www.hras.org/bwcbc.html, call the Bronx-Westchester Count Compiler, Michael Bochnik at 237-9331, or e-mail him at bochnikm@cs.com.
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.**

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Send check and this application to:
National Audubon Society
P.O. Box 422250
Palm Coast, FL 32142-2250

Please make check payable to National Audubon Society.