

The Rivertown Naturalist



May 2017 Vol. 45, No. 5

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.

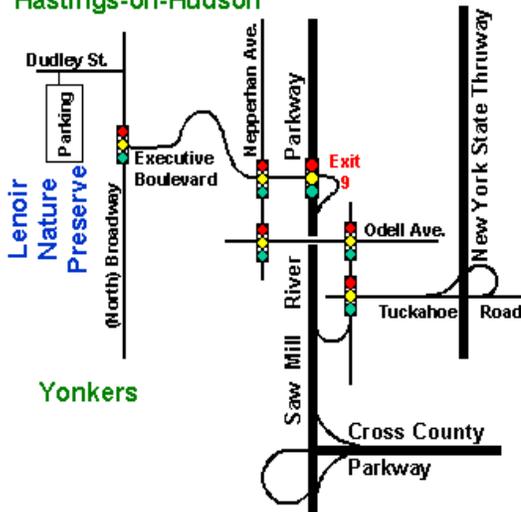
www.hras.org

DIRECTIONS TO LENOIR PRESERVE

Hudson River Audubon Society of Westchester, Inc. holds its meetings at Lenoir, a Westchester County Nature Preserve 19 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



Program: **Birds in Art** Wednesday, May 24nd

Refreshments: 7:00pm, Program 7:30pm

From the earliest days, humans have incorporated images of birds in their decorative works of art - paintings, drawings, sculpture, ceramics, and jewelry. The prestigious Metropolitan Museum of Art has thousands of examples.

Join us as Elana Kaplan, Metropolitan Museum educator, discusses masterpieces from a variety of cultures including Tiffany, Lafarge and Egyptian art works. Also check our website (HRAS.org) for updated information when available.

Member's Night

Wednesday, June 28nd

Refreshments 7:00pm; Program 7:30pm



Our chapter has a large number of members who are excellent bird and nature photographers. At our last meeting of the season, we encourage all members to share their favorite photos of the past years. Please bring no more than 10+ images, accompanied by a five to ten minute presentation. Digital images can be brought on a CD, USB thumb drive or memory card (contact Michael Bochnik for details on acceptable formats).

You will see some spectacular photography as well as images from personal and HRAS nature and birding trips. We will also honor volunteers who selflessly contributed to the success of the chapter during the past.



ScienceWatch – In Search of Real Tomatoes

“Think of the tomato flavor as a symphony with lots of notes. Over the last 50 years, they removed one instrument at a time.” – H. Klee

Wouldn't you like to eat a great tasting tomato? So would I! Over the last 50 years growers have bred tomatoes (*Solanum lycopersicum*) for color and size to make them more appealing. They also selected for disease resistance to allow for long-term storage, and firmness so the fruit can be shipped without getting bruised. Sadly for us they forgot about flavor, ending up with a cardboard-tasting facsimile lacking the bouquet that tomatoes once had. But help is on the way.

Now a paper published in the January 27, 2017 issue of *Science* provides a genetic roadmap to restoring the great tomato flavor that has disappeared. A research team, headed by Harry Klee, a professor of horticultural science at the University of Florida, Gainesville, FL, has spent years figuring out what makes a tomato taste great. They identified the chemicals that make a tomato taste delicious and have also tracked down the specific genes responsible for these flavor components. Now they are using traditional breeding methods to put them back in store-bought tomatoes.

The team collected 398 types of tomatoes, including modern, wild (before human intervention) and heirloom varieties. They sequenced the full genomes of all 398 types and measured the levels of sugars, acids and volatile chemicals that contribute to flavor. Sugars and acids in the right amounts provide a tasty balance of sweet and sour. Volatile chemicals, which are present in barely detectable amounts, are important flavor compounds that not only contribute to taste, but are also responsible for the fruit's aroma.

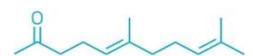
The researchers presented 160 tomato samples to a taste panel comprising 100 people to determine which were most flavorful. Knowing the genetic profile of each sample, they could determine which gene versions (alleles) made tomatoes taste good or bad. Unlike bananas, pineapples or strawberries, tomato flavor is not determined by one dominant substance. Instead, a flavorful tomato is a blend of chemicals, each at just the right level. “There are 30 or more compounds that give us flavor in tomato. [It] is much more complex in that flavor is really a melting pot of lots of different chemicals that together makes you think, this is a tomato,” said Klee.

Sugars like glucose and fructose are important flavor components but the team found that genes that produce higher sugar levels were lost as tomatoes were bred for size. Evidently, the energy generated by photosynthesis and used to make larger fruit is taken away from the energy converted to sugar.

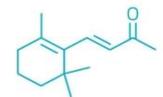
The researchers found 26 genes that produce volatile chemicals with strange names like geranylacetone, β -ionone and 6-methyl-5-hepten-2-one. Detecting these flavor components requires expensive assay techniques like gas chromatography that breeders don't have. As a result modern tomatoes gradually lost these genes because the focus was on color rather than these hard to find substances. The scientists found that 13 of 30 important volatile chemicals were significantly reduced in modern tomatoes.

Now the plan is to re-create tomatoes in which the undesirable alleles are replaced by flavor-yielding ones. The team will use traditional breeding techniques and not genetic engineering because regulations imposed on producing a GMO tomato would make it too expensive. “We are trying to push the flavor calendar back decades to recapture the characteristics that were present in tomatoes in the first half of the 20th century”, said Klee. He predicts it will be fairly easy to raise the levels of volatile chemicals without impacting other important traits like disease resistance because the volatiles only need to be present at low levels. But since sweetness takes away from size, sweeter tomatoes will almost certainly be smaller.

“If we choose our genes wisely, which I think we have, I think we can deliver a product that tastes substantially better in about two years,” Klee says. Add another year for growers to adopt the new variety. So Klee hopes it could get out to the public in three years



Geranylacetone



β -ionone



6-Methyl-5-hepten-2-one

To prevent bruising most tomatoes are shipped green and ripened at their destination. Therefore local growers who can let their tomatoes ripen before bringing them to market will probably change over first. Growers who ship long distances will switch only if consumers demand flavor over size and color and are willing to pay for it. These tomatoes may end up costing a little more, but they should be worth it. “I think [now] we know exactly how to make a much better flavor tomato and it's just a matter of time,” said Klee.

I can't wait!

- Saul Scheinbach

Upcoming Field Trips

Birding and hiking with a group is a wonderful way to share your interests with like-minded people, to learn more about nature, and to discover many new preserves and natural areas.

Our field trips are free and open to all. Non-members/beginners are welcomed.

Bring binoculars and field guides if you have them. Some are available for loan for those who need them. Dress for the weather. For more information call Michael Bochnik at (914) 237-9331, or cell 914-953-7409



at 6 PM

Friday May 5, 2017 Evening at Tibbets Brook Park

355 Midland Ave, Yonkers
Meet at the flag pole in
front of the main building

We will search for early spring migrants such as Solitary and Spotted Sandpipers, Baltimore and Orchard Orioles, Rose-breasted Grosbeak, and Black-and-white Warbler as we stroll around both lakes.

<http://hras.org/wtobird/tibbetts.html>

Saturday May 6, 2017 Cranberry Lake

1609 Old Orchard St, West Harrison
Meet 8 AM at the Cranberry Lake nature center.

We will search a variety of habitats including a four-acre lake, cliffs and scrubland, mixed hardwood forest, vernal pools, and a swamp for spring migrants such as Black-throated Green Warbler and Ovenbird. Local returning birds such as Veery, Wood Thrush, Swamp Sparrow and Scarlet Tanager may be found as well.

<http://hras.org/wtobird/cranberr.html>

Sunday May 14, 2017 *Mother's Day* Warbler Walk

Lenoir Nature Preserve 8 AM
19 Dudley St. Yonkers

Directions: From Saw Mill River Pkwy: Exit at Exit 9, Executive Blvd. Take Executive Blvd. to North Broadway and turn right. Go 1/4 mile and turn left onto Dudley Street. Lenoir's parking lot is on the left.

Meet us for our 26th year of this Audubon tradition. Spring migrants will be searched for; followed by refreshments at the nature center.

<http://www.hras.org/wtobird/lenoir.html>

Saturday- Sunday May 20-21, 2017 Bashakill Marsh

Drive up Saturday afternoon (or Sunday morning) and stay overnight for Whip-poor-wills, American Bittern, Virginia Rail, and Alder Flycatchers

<http://hras.org/wtobird/bashakill.html>

We will be staying at:
DAYS INN WURTSBORO
21 Perron Drive
Rt 17 Wurtsboro, NY 12790
(845) 888-2727

Itinerary

Saturday: 5 PM meet at hotel to first head out to dinner at Danny's Restaurant down the road at 178 Kingston Ave, Wurtsboro, NY. We will do some evening birding after that.

Sunday: 5 AM meet at hotel at before sun up. You are welcome to stay elsewhere or drive up and meet us here

Michael Bochnik cell - 914-953-7409

Bird-a-thon

Join a team and spend all day raising money for the chapter.

Hudson River Audubon's BIRD-A-THON will be held Saturday, May 13th (rain date May 14th) to raise money for the chapter.

You can help by making your pledge today.

A BIRD-A-THON is like a walk-a-thon, bike-a-thon or any other "-thon" in that we ask you to pledge X amount of money per lap, mile, or in our case, per bird species seen, within a 24 hour period. The combined list for the teams should be between 100 to 150 species. Pledges can be a flat amount such as \$25.00, or you can pledge per species such as 25 cents per bird. If we see 120 species, your pledge will come to \$30.00. We will send out reminders after the event on how much you pledged.

Thank you for your generous support!

Remember, even if you're not participating, please pledge to the Birdathon to make our efforts worth it and support Hudson River Audubon.

HRAS BIRDATHON PLEDGE CARD

___ I am happy to pledge \$ _____
per species in support of your birdathon.

___ I prefer to pledge the enclosed gift of \$ _____

___ I will give you an additional \$ _____
If you spot more than ___ species.

Your Name : _____

Address: _____

City _____ State ____ Zip _____

Telephone: _____

Send to: *Hudson River Audubon Society*
PO BOX 616
Yonkers, New York 10703

Make Your Donation Payable to HUDSON RIVER AUDUBON SOCIETY

Successful Feeder Watch Season

Our Feeder Watch program again was a success thanks to the leadership of Carol Lange and the efforts of all our count volunteers. This year we spied a total of 34 species at our feeders including



most of the common species such as cardinals, chickadees, woodpeckers and other backyard birds. There were a few unexpected sights – a Baltimore Oriole in January and 3 Pine Warblers in April.

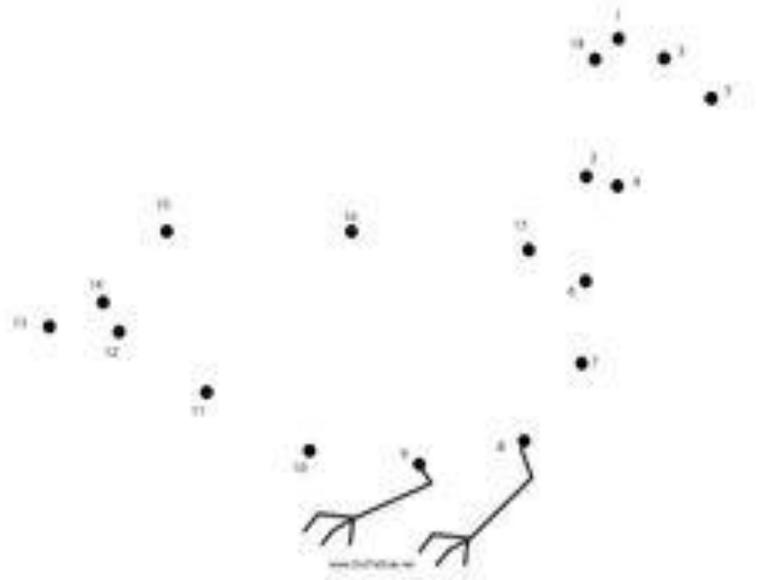
We send all data we collected to Cornell Lab of Ornithology where it was combined with data from thousands of other Feeder Watches around the country. The combined results give professional ornithologists a good picture into current bird populations and patterns and illustrates how thousands of ordinary people (called Citizen Scientists) can combine to provide valuable data

Over 60 people participated in our Feeder Watch program this year. Some joined every count, others only once or twice. Ages varied from youngsters to seniors. All enjoyed the experience.

Join us next year when we will again be watching our feeder to document our birds.

BOARD MEMBERS

President	914-237-9331
Michael Bochnik	BochnikM@cs.com
Vice-President	
Saul Scheinbach	judisaul@aol.com
Treasurer	
Frances Greenberg	greenberg.fran@gmail.com
Secretary	
Jackie Bruskin	jrbruskin@optimum.net
Education	
Sandra Wright	tralac@yahoo.com 718-549-2380
Programs	
Lynn Shaw	Lynnshaw@gmail.com 914-589-3293
Butterfly Garden	914-589-3293
Mary T. Harrington	TCTallon@aol.com
Hospitality/Carpool	914-478-3695
Ruth DeFord Kotecha	rdeford@post.harvard.edu
Newsletter Editor	914-631-0706
Hank Weber	hnweber@aol.com
Lenoir Liaison	914-968-5851
Melissa Sullivan	mqs8@westchestergov.com
Feeder Watch	914-668-5101
Carol Lange	carollange@aol.com
Circulation	
William Van Wart	914-376-2401
Publicity	
Jeanette Johnson	jntt3456@verizon.net
Board Members	
Judi Veder	Dana Fazzino
Jane Metzger	Mark Testa
Cathy Mazella	Kelli Bochnik



Connect the Dots

Join National Audubon Society. Become a Member Today

For only \$20 you can become a member of the National Audubon Society and of our local chapter. Your small contribution supports nature and environmental causes and rewards you with a subscription to the award-winning *Audubon* magazine as well as our chapter newsletters filled with information on local activities, lectures, programs and field trips.

Becoming a member is easy.

Go to our website: www.hras.org Click on the **Membership** link in the upper right corner and follow the instructions. That's it. Or you can also join by mailing a check made out to Hudson River Audubon Society to HRAS, P.O. Box 616, Yonkers NY 10703

Join today!

While you are on our site, look around and see everything that is happening in your area.

