



HURRICANE ON THE HUDSON

Peter W. Post and Dale Dancis

On August 27, 2011, the night before Hurricane Irene passed over Manhattan, Dale read e-mail posts on the Internet that discussed the best possible accessible locations for hurricane birding. Some people were predicting difficulties in getting to Long Island beaches, while others were not sure that any roads would be passable. In New York City, large areas were being evacuated and the New York City transit system was completely shut down for the duration of the storm. What was a birder supposed to do?

It rained all night and was still rainy and foggy early the following morning. Hoping to find a hurricane waif or two, Peter birded Central Park's lawns and water bodies early that morning. Finding nothing and getting soaking wet, he came home, changed into dry clothes and decided to try his luck on the Hudson River. He arrived at the river about 11:00 am about the time the center of the storm passed over Manhattan.

Meanwhile, Dale glanced out her window overlooking the Hudson River. She had read an earlier report that a Wilson's Storm-Petrel had been seen flying over the Hudson River before the storm, and as Central Park was officially closed, she grabbed her binoculars and headed toward the river. It was still lightly drizzling, but the entrance to Riverside Park was open and people were jogging, walking and looking at the stormy Hudson. Dale

proceeded to the 79th Street Boat Basin and studied the river. She couldn't believe what she was seeing. A small black bird was flying low over the water and after careful study she concluded it was a Wilson's Storm-Petrel. It was 10:30 am. Excited, she quickly headed towards a better viewing spot – the pier at 70th Street.

[Pier I is a recreation pier built in 2001 over an old abandoned Penn Central Railroad Pier. Although the pier is 795 feet in length, because it was built at a 55 degree angle to the shoreline, it juts out 651 feet (0.12 miles) into the river. From the end of the pier it is only 0.63 miles to the nearest point on the New Jersey shore.]

A strong wind was blowing and there was still spray from the rain but visibility was getting better as the fog was lifting. As Dale walked out to the tip of the pier she spotted a flock of six Common Terns. As her luck and fortune continued to hold, she bumped into Peter Post, a fellow birder, who independently saw another flock of 14 Common Terns heading south. Then the fun really started.

We started scanning the river for other birds. Unlike Dale, Peter brought his cell phone. Between 11:38 and 11:54 he received three phone calls from Jacob Drucker, who was observing the river from 115th Street. He had seen two Sooty Terns, two Leach's Storm-Petrels, and seven Wilson's Storm-

Petrels. Birds that were apparently headed our way. Except for the flock of Common Terns Peter hadn't seen anything exciting on the river up until this point and was getting frustrated. Then at 12:21 pm, Peter spotted a Sooty Tern! Dale was disappointed that she didn't get a satisfactory look for what would have been a life bird. But since hope springs eternal for birders she hoped there would be more terns and quickly got caught up in the spirit of hurricane birding. Peter called Lloyd Spitalnik who posted our exciting finds to the Metro Birding Briefs list.

Having seen the post, Ardith Bondi arrived at the pier about 1:00 pm. She shared other Internet posts by intrepid birders who were able to get to water and who were posting rare and unusual birds that had been blown in from the ocean by the hurricane. Groups of birders were observing from the East River. Other birders were posting from Westchester, Long Island, Cape May, and further afield. We read the posts with awe and

wonder.

The weather changed and started brightening. The wind died a bit and a Peregrine Falcon flew over with a small bird in his talons. We also spotted an Osprey, nine Eastern Kingbirds, a couple of Tree Swallows, and two flocks of small unidentified shorebirds.

Anya Auerbach and Matthew Rymkiewicz also having seen Internet posts arrived a short time later hoping to see their life Sooty Terns. At 1:57 pm, Peter spotted a flock of terns flying down river. As they came closer we realized we were watching two adult Sooty Terns and what Peter suspected was a young Bridled Tern. We were thrilled. Dale finally got her life Sooty Tern as did Anya and Matthew. Peter was hesitant to positively identify the Bridled, since his only previous field experience with this species had been with adults. It was raining when he left home, so he hadn't brought his camera, and neither had Ardith, but luckily Anya had brought hers and was taking photos.



At home, Peter enlarged Anya's photos in Photoshop. They clearly show two adult Sooty Terns and an immature Bridled Tern. Much to his surprise, the second frame taken just a split second after the first, shows one of the adult Sooty Terns replaced by a second Bridled Tern that none of us had seen in the field!

earlier from 115th Street. So we were on the lookout for this species. Having had extensive experience with Leach's Storm-Petrels while crossing the North Atlantic and on pelagic trips, Peter had just finished explaining the identifying features of this species to Dale and Ardith, when Ardith spotted a brownish storm petrel with an erratic flight and long



Another Wilson's Storm-Petrel appeared at 2:01 pm and was also photographed by Anya. Unfortunately, Anya and Matthew had



to leave shortly thereafter. We knew Jacob Drucker had seen Leach's Storm-Petrels

angular wings held high above its body. A Leach's!

Shortly afterward Ardith spotted what she believed to be a large dark swift. In the light of other large dark swifts seen elsewhere during Hurricane Irene this was an intriguing observation. But, since neither Peter nor Dale could get on it, and Ardith's observation was fleeting, we all felt it should best be left unidentified, and we only mention it in passing as the one that got away.

Then Peter shouted, "Look at this large white bird. It could be a Royal Tern!" It banked several times, as it passed, showing a large, red-orange bill, black eye patch, a diagonal black bar on the upper wings, black

in the primaries, and extremely long, thin white tail streamers. In disbelief, Peter yelled out, "White-tailed Tropicbird!" We couldn't believe our good fortune. A White-tailed Tropicbird over the Hudson River in New York County, a species that in Eastern North America normally occurs only offshore in the Gulf Stream. At 2:28 pm, while the bird was in still in sight, Ardith posted this observation to New York State Birds. What undoubtedly was the same bird was seen and even photographed by Sam Stuart from 23rd Street about six minutes later. He also posted this observation to New York State Birds.

We took a break at 4:15 pm to get some food and warm up. From the time we returned at 5:30 pm, until sunset, we added a Royal Tern, our only other new species of the day.

Thanks to cell phones, texting, posting and digital cameras, it turned into an amazing day of birding.

All the storm-driven birds we saw were flying south, back out to sea, into a strong headwind. Interestingly, all the storm-driven birds seen by Paul Buckley, who observed from Riverdale in the Bronx between 6:45 am and 11:00 am were heading north upriver. It appears that the birds immediately started heading back south towards the open ocean just after the center of the hurricane passed.

What was also interesting was the fact that observers at different points along the River saw a different mix of birds. Clearly a lot of birds got by us. Birds seen by others included Black and Least Terns, more Storm-Petrels, Sandwich Terns, more Royal Terns; and an Arctic Tern, Audubon's Shearwater and Cory's Shearwater seen by Paul Buckley from the Bronx.

Surprisingly, the number of Herring, Great Black-backed, Ring-billed and Laughing Gulls appeared to be normal for that time of year, seemingly unaffected by the storm.

[The photos in this article are by Anya Auerbach. Sam Stuart's pictures of the White-tailed Tropicbird can be seen on the Internet at: www.flickr.com/photos/pasurfbird/6089954997/]



FRACKING

Ann Lazarus

In this brief report I will discuss some of the important issues concerning hydrofracturing (fracking) for methane gas in New York State. The issue targets slick-water high-volume fracking.

Hydrofracturing is a technology that involves the injection of millions of gallons of water, chemicals and sand (often resin-coated) into wells under high pressure to prop open small pockets of methane gas trapped in deep shale deposits. The Marcellus natural gas deposits are about 8,500 feet beneath the surface. This drilling process involves both vertical and horizontal wells. Vertical wells require 50,000 to 80,000 gallons of water per frack. Horizontal wells require 1,500,000 to 7,000,000 gallons of water per frack. Horizontal wells are constructed at the base of vertical wells and can extend beyond two miles in length. The amount of water used per frack is dependent upon the geological features. Truck trips are required day and night to transport water and chemicals to the wells. Once the methane gas is released, it is directed to underground "on site" pipes and connected to the well through a feeder pipe. It is then transported to the appropriate distributor through specific pipes. Most of these networks of pipes are underground. In some cases the gas is directed to above ground pipes, liquefied locally and transported to a distribution point.

An individual well can have a productive life span of about five to thirty years. A well pad can accommodate up to eight wells. The chemicals involved in hydrofracturing are of

major concern. We do not know all of the 250 to 500 chemicals used in the fracking process. The recent September 2011 Supplemental Generic Environmental Impact Statement allows the public to know some of the chemicals, but not their formulation or proportions. Some of the chemicals include: benzene, formaldehyde, toluene, xylene, ethylbenzene, ethylene glycol, dazomet, acetic anhydride, and glutaraldehyde.

Radioactive tracers are sometimes used. The fracking process can cause mobilization of chemicals found in the Marcellus geological structure. They include hydrogen sulfide, pyrites, uranium, radon (a uranium byproduct), mercury, arsenic, cadmium, molybdenum, nickel, cobalt, vanadium, zinc and more.

About thirty percent of the “produced water” with the mixture of the injected chemicals and Marcellus chemicals flows back to the surface. The toxic brine is then stored in collection pools. Many of these toxins are volatile and become air-borne pollutants. No one really knows what to do with the “produced water” stored in these collection pools. In the west the gas companies use technologies to vaporize the toxic “produced water”. In Arkansas the gas companies re-injected the brine into re-injection wells suspected of causing local earthquakes. Arkansas no longer re-injects the water.

In New York State water treatment and sewage treatment plants cannot handle the toxic “produced water”. One suggestion is to remove the solids, including the radioactive uranium and use these solids as a de-icer for roads. Hopefully, this non-solution will never happen. Another suggestion is to ship the “produced water” to Ohio for reinjection.

About 75% of the toxic fluid remains underground. The fractures from the drilling and the naturally-occurring fractures in the Marcellus can act as a conduit for the “produced water”. Eventually this toxic fluid could reach the underground water aquifers and contaminate our drinking water. New information has just emerged. Chris Mooney in his article “The Truth about Fracking” In the November 2011 issue of *Scientific Amer-*

ican, states about 75% of the “produced water” surfaces and 15,000 to 60,000 gallons of chemicals are mixed with the water. We were told the opposite about water surfacing.

The gas companies are exempt from key provisions of the Superfund, Clean Water, Clean Drinking Water and Clean Air acts.

Tens of thousands of wells are planned for the Marcellus. These wells need water. The Delaware River Basin Commission prematurely released regulations for water withdrawal and drilling before the EPA concluded its Cumulative Environmental Impact Study. The comment period is over for the Delaware River Basin Commission. Attorney General Schneiderman’s lawsuit involves the premature permitting process.

The recent SGEIS released by the DEC allows drilling 4,000 feet from the New York City watershed. This set back is inadequate, and permits are easily obtained to drill horizontally from the base of these wells into the watershed. The regulations allow wells to be drilled 1,000 feet from the infrastructure, which includes our aging water tunnels. It also allows drilling setbacks of 500 feet from local water wells.

The regulations ban direct drilling in state forests, but in many of these forests there are privately-owned parcels of land. Drilling can take place on private property within state forests. Horizontal wells can extend into the state forests. There is also the issue of infrastructure, such as roads, trucks and pipes. Former DEP Commissioner of New York City, Al Appleton suggests a ten-mile set back for the NYC watershed.

The DEC does not consider the waste from the drilling process as “hazardous waste”, and, therefore, does not have to treat it as such. It considers it in the category of “medical waste”.

The SGEIS does not address public-health problems. It claims these problems have been addressed. This claim is disputed. Assemblyman Sweeny at the October 6, 2011 hearing of the Assembly Committee on Hydrofracturing was concerned about endocrine disruptors, among many issues of

toxicity. The casings on gas wells have a history of rupturing and releasing methane and other chemicals into the ground. These casings have inherent weaknesses. The gas industry says this issue has been addressed. Others disagree.

Woodlands, meadows, wetlands and other areas of habitat are destroyed to build wells and roads. Local water bodies are drained of much of their water. This destruction of habitat negatively impacts wildlife, including birds. Think of Hurricane Irene and flood plains. What if toxic chemicals spilled from a collection pool into nesting areas!

We have until December 12, 2011 to send our comments to the DEC in reference to the recent SGEIS. Comments must be related to the SGEIS and not refer to any other state where drilling has occurred. Comments must be from an individual and not from an organization. If ten comments refer to an organization, then the ten comments are considered one comment from that organization.

For guidance: www.unitedforaction.org or www.damascuscitizens.org. The address is: Attention: dSGEIS Comments, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233. Also, comments must be posted in the mail, not e-mailed. Please post no later than January 11, 2012. You can write as many letters as you want.

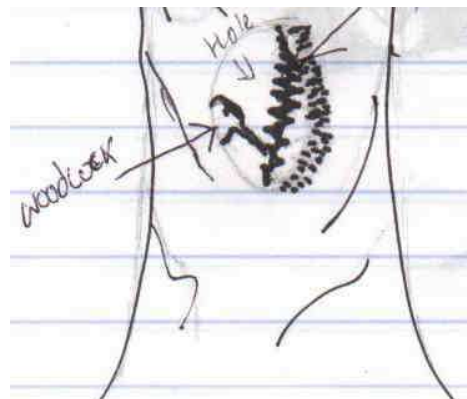
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## A WOODCOCK OBSERVED TO TAKE SHELTER IN A TREE HOLE.

Matt Cormons

My wife Grace and I live on Virginia's Eastern Shore. Last year we got a local fifteen year old, R.J. Drummond, interested in birding – to the point that he calls many evenings a week to report the new birds he has seen (with us and on his own he has seen over one hundred species at last count). One evening in early January 2011 R.J. called to report a new bird he saw on the property adjacent to his backyard and what we thought was an unusual observation worthy of reporting. Following is his account of what he saw, including his drawing:

January 5, 2011: About one hour before dark I went outside to do a little bird-watching. I walked to the edge of the woods near my house and I stopped when I saw movement in the grass by a tree. When I looked I saw a plump bird that was orange-brown in color fly into a deep hole in the tree about three feet high. I sat on the ground and watched the hole for about ten minutes. I saw the bird's head sticking out. It had a very long bill. I drew what I saw.





I wish we had a photo of the bird in the tree hole, but I believe R.J., trust his ability to observe, and saw the woodcock in the same area a few days later when I stopped at R.J.'s house to see the tree in question. He and I approached the tree for a close look into the opening, but a clump of spiny multiflora roses (the fern-like structure in his drawing) blocked us from getting closer than a few feet. I suggested that he move around to the left of the roses to get around them and closer to the tree. As he did an American Woodcock took flight (affirmed by the characteristic whistling of its wings), landing about 100 feet from us. I pursued the bird from one side and R.J. from another side so he might be able to get a better look at it. The woodcock flew up again and this time R.J. saw it well enough to exclaim at its long bill. He also assured me that two other woodcocks took flight at the

same time. On January 10 R.J. reported seeing two woodcock in the same area near his house, but neither sought shelter in the tree hole.

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MARTHA GRUTCHFIELD

Irene Warshauer

Long time Linnaean member Martha Grutchfield, passed away on August 12, 2010, at 79. She was an avid Central Park birder with marvelous ears for bird song. She was in the park many times a week, in addition to going on walks with Starr Saphir and Steve Quinn. She also went on some birding trips in South America. Martha was a warm, generous person and a good friend to many of the birders, her colleagues at the library and elsewhere as well as her many overseas correspondents. Martha frequently attended Linnaean meetings and enjoyed the pre-meeting dinners, as well. She studied music at Earlham College and library science at Columbia. Both of these skills were used in her career as music cataloger at City College, an archivist at the American Music Center and later at the New York Public Library. She is survived by her loving husband, Walter, two children and a grandson in whom she delighted.

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## ANNOUNCEMENTS

### PROGRAM CHANGE

Joseph DiCostanzo's discussion of recent developments in ornithology scheduled as an early program (6-7 pm) on February 14, 2012 has been postponed. Instead, Julia Pilowsky and Lea Pollock, two undergraduates who have been working in Dustin Rubenstein's laboratory at Columbia University, assisting him in his long-term study of Superb Starlings in Kenya, will present their findings about this species of cooperative breeders, which has one of the most complex social structures in the avian world. Ms. Pilowsky has studied female song and how it relates to male song, Ms. Pollack has studied female dispersal patterns, and both have made discoveries that are intriguing in themselves and suggestive of possible patterns in many other species of cooperative breeders, avian and non-avian as well.

### FIELD TRIP CHANGES

Friday, May 11, 2012: Riverside Park Drip Sit, 10 am to 6 pm. Leader: Geoffrey Nulle (information only – 212-864-4703). No registration. Meet at drip inside park, just south of 120<sup>th</sup> Street tennis courts. Arrive anytime, leave anytime. Some chairs provided.

Saturday, August 25, 2012: Jamaica Bay Roving Butterfly Trip. Leader: Rick Cech. Registrar: Lenore Swenson (212-533-9567). Registration opens Monday, August 13, 2012. Ride: \$15.00. (Rain date: August 26, 2012.)

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