HUDSON RIVER ALMANAC for 2014 DAY IN THE LIFE OF THE HUDSON RIVER

Compiled by Steve Stanne, Hudson River Estuary Program Education Coordinator New York State Department of Environmental Conservation

<<<< OVERVIEW >>>>

This special Hudson River Almanac offers a snapshot of the twelfth annual **Day in the Life of the Hudson River**, during which students sampled the Hudson from its non-tidal reaches and tributaries above Troy to the Lower Bay of New York Harbor. A parade of storms, starting on the scheduled Day in the Life date of October 16, caused numerous postponements. As a result, the event became Days in the Life as field trips were re-scheduled. Overall, at more than 60 sites some 3,000 participants learned about their piece of the river and - by sharing data online - put it in the context of the entire system. The entries in this journal came from students, classroom teachers, environmental educators, and "runners" who visited multiple sites to document activities and pick up samples for later testing.

<><< A DAY IN THE LIFE HIGHLIGHT >>>>>

10/24 - Riverfront Green, Peekskill, RM 43: In a <u>video filmed during the field trip</u> and posted on the Lakeland School District's website, a student summed up one of the most important aspects of Day in the Life: "It's a lot different learning about something, like, first person, like when you're doing it yourself than when you're doing it in a classroom setting, because you're only getting examples in a classroom setting whereas you're getting real experience out here."

 Michael Billy & Walter Panas High School AP environmental science students



<><< NATURAL HISTORY NOTES >>>>



10/15 & 10/16 - Headwaters of the Hudson River, Newcomb, Adirondack Mountains: "What a couple of days... 481 miles, 35 hours in the life of the Hudson from Mt. Adams (that's 3,540 feet above sea level) in the heart of the Hudson's headwaters to Germantown and sunset over Roundtop in the Catskills. There are tons of happy and grateful teachers, students, and volunteers out there!"

- Doug Reed, Hudson Basin River Watch

10/16 - Hudson Shores Park, Watervliet, RM 152: While we were nervous based on the weather report, we decided to brave the elements, and boy are we glad we did! This was the best year yet. Despite overcast skies and high tide much of the time, the students had a successful day.

Our tide stick was 8' long, but by 10:30 the water levels were well over that. Students problem-solved and figured out if they added the length of their arm that got wet to the 8' length of the stick, they could come fairly close to what the actual depth was.

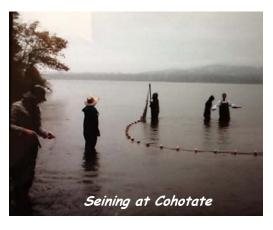
They collected and recorded data on currents, air and water temps, dissolved oxygen, pH, and turbidity. They were able to analyze a few small core samples that the teachers had gotten in the morning, knowing that the tide would make it difficult for the students to do on their own.

Students were able to get out in the water with the waders and try seining. In past years we had not caught anything, so while we wanted the students to try it, we were fairly confident that they would

not catch anything. (We had caught NOTHING in the minnow traps we had set the evening before - I guess the fish did not like the flavor of cat food we bought.) To our and the students' delight, the first group pulled out nine fish, which they were able to identify as spottail shiners. The second group caught two more later.

The highlight of our day, however, was a surprise visit from four professional "fishers" from the DEC! They took their boat downriver by the Poesten Kill where they sent an electric current into the water to stun fish which they then brought back to show the students. We got to see herring, catfish, smallmouth bass, and even an eel, to name a few. These guys were amazing and really took the time to talk to the kids about what they do, and answer all their questions. The kids were also able to see how they measure and record data on the fish they catch.

- Amy Parks, Stacey Shepard, & 5th grade students from North Colonie Central School District's Learning Enrichment Program



- 10/21 Cohotate Preserve, Athens, RM 115: We postponed our sampling from 10/16 to avoid the storm, but the weather may have actually been worse today! We sampled in the rain and pulled in white perch, banded killifish, tessellated darter, pumpkinseed sunfish, herring, and a white sucker! The surprise reading was the pH, taken in shallow surface water in the pouring rain. It registered 6.7 more acidic than our usual reading. Perhaps the pouring rain dropped the pH? Air and water were both a moderate 58 degrees F.
 - Liz LoGiudice of Greene County Cooperative Extension; Fran Martino of River Haggie Outdoors; Tony Loughran & Coxsackie-Athens High School students; Susan Boyle & Cairo-Durham High School students

10/20 - Kingston Point Park, Kingston, RM 92: Participants were startled to life by the *Ocean Crescent* heading south at 11:43 AM. The wave from its passage sent water 30 feet up the beach; kids' shoes and coats got soaked! There was a scramble to save waders, shoes, and instructional gear...and to think the vessel was light (unloaded) - imagine if it had been carrying a load of cargo!

Julie & Steve Noble of the Forsyth Nature Center; Rebecca Houser of the Estuary Program;
 Pam Ruzzo & George Washington Elementary School 4th graders; Martha Cheo & 4H Club Epic Explorers

10/29 - Long Dock, Beacon, RM 61: Seventh graders from Haldane Middle School were on the beach for their make-up Day in the Life program. Seaward bound young-of-the-year fish comprised most of the catch: 19 alewives, 10 blueback herring, and 8 striped bass. Also netted were 6 banded killifish, 5 white perch, and 10 spottail shiners.

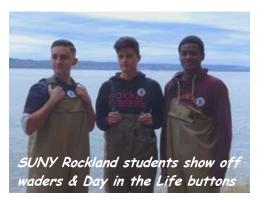
 Tom Lake & Rebecca Houser of the Estuary Program; Anthony Coneski & Kate Brill of Scenic Hudson; Leah Horn & Haldane Middle School 7th graders



10/23 - Kowawese, New Windsor, RM 59: A number of groups re-scheduled their Day in the Life trips one week later; to their consternation, the weather was - if anything - even worse, as a nor'easter was moving up the coast. The surf at Kowawese was rough, so we seined in the old barge slip, a sheltered and very different habitat from the sandy shallows off the beach. The bottom was mucky, there was some submerged aquatic vegetation, and leaves and logs were piled up near shore. There were plenty of fish there: many young-of-the-year channel catfish, red-breasted and pumpkinseed sunfish,

spottail and golden shiners (just one of the latter), striped bass, white perch, and – the big hit – an American eel. On the land side, one student found that paragon of insect camouflage – a walking stick.

- Steve Stanne of the Estuary Program; Jennifer Merriam & SUNY Orange County Community College biology students



10/29 - Hook Mountain State Park, Nyack, RM 31: Late afternoon students from the environmental science class began unpacking an array of sampling equipment from the back of the van. They would compare kits and sampling methods for assessing nitrates, D.O., and turbidity. Grabbing a few sticks off the ground, we rigged up a seine net and pulled in Atlantic silversides, striped bass and lots of very small, nickel-sized moon jellies that dotted the net like sea glass.

 Nancy Arias & SUNY Rockland Community College environmental science students

10/21 - Piermont Pier, Piermont, RM 25W: It was hard to get students to rotate stations - each one seemed to have something really cool holding their attention. The plankton station featured a neat microscope that worked with an iphone; students snapped photos and filmed. The seining station had the expected Atlantic silversides, striped bass, bay anchovy, herring, and mummichog...and then in came a rough silverside with its scalloped-edged scales. The coring station looked back at the history of the area through the samples of sediment. Several more stations kept the students moving and thinking.

- Margie Turrin & Lamont-Doherty Earth Observatory scientists; Tom Mullane & Pearl River High School students; Patti Kilkelly & Tappan Zee High School students

10/23 - Mathiessen Park, Irvington, RM25E: To the beach or bust! The Irvington middle and high schoolers carried through with Day in the Life in the rain and wind of a nor'easter. The waves smashing onto the beach were so high that the teachers were hesitant to go seining. Rough as it was, with the help of high school marine science students (who were leading the teaching stations), we did catch a few fish: striped bass, Atlantic silversides, and bay anchovies. The water was very turbid - only about 5 centimeters of visibility in the turbidity tube - muddier than it had been just two days ago in Piermont, directly across the

river, where students measured 27 to 40 centimeters of visibility. Data from the Piermont HRECOS station suggests a possible reason - stronger winds today stirred up the water in this shallow part of the river.

Steve Stanne of the Estuary Program; Philip Levine & Irvington Middle School 6th graders; Joanna Morabito & Irvington High School marine science students



Piermont Pier, NY (hydro) Turbidity (NTU) () (verified through: 2014-01-01)

Piermont Pier, NY (met) Wind Speed (knots) (verified through: 2014-01-01)

223

29

168.75

114.5

60.25

6 18/21 6:00 12:00 18:00 18:00 18:00 18:00 18:00 18:00 (ET)



10/29 - Alpine Boat Basin, NJ Palisades Interstate Park, RM 18.5: The day was overcast but the students were in high spirits as they measured and tested the water, the air, and all their surroundings. Each had a turn to work with a partner to run the seine net through the water. They netted Atlantic silversides, bay anchovies, striped bass, white perch, and a beautiful pipefish 8-9 inches in length.

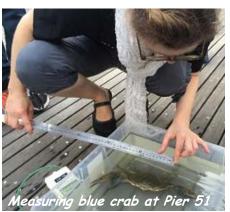
Collin Keegan & Sean of NJ Palisades Interstate Park; Lisa Wolfelsperger & Alpine Elementary School 6th graders

10/30 - Inwood Hill Park, Harlem River, Manhattan: Alysse Raquel and I had time for a quick hike around Inwood Hill Park's blue trail...GORGEOUS!!...before Olivia Ramirez and her six students met us at 3:50 PM. Several Urban Park Rangers stuck around long enough to give a very nice intro. Once we got into the actual sampling, neither the kids nor Alysse wanted to leave, but I finally had to call off the field trip around 6:00 PM! No surprise on the fish counts: lot of mummichogs, a few stripers and Atlantic silversides, and some adorably tiny blue crabs.

 Chris Bowser & Alysse Raquel of the Estuary Program; Olivia Ramirez & Marble Hill School for International Studies students

10/30 - Pier 1, Riverside Park South, Manhattan, RM 5: We met the Speyer Legacy School group around 10:15 AM at Pier I, just south of West 79th Street. They had a very well organized setup with multiple grades. We did manage to go for a seine, even at mid-tide, at the tiny "beach" at the corner of the concrete bulkhead just south of the old gantries. We caught about 100 Atlantic silversides and one young-of-the-year striped bass, even though the floatable trash there was absolutely disgusting!

 Chris Bowser & Alysse Raquel of the Estuary Program; Kimberly Schwab & Speyer Legacy School students



10/21 - Pier 51, Hudson River Park, Manhattan, RM 3.2: About 120 students went to the pier; 64 were sampling and the rest observing. When we started at about 12:15 the current was ebbing, but while we were there it changed from ebb to flood. The water turned out to be a lot cleaner than it looked. It was full of life like crabs and seaweed, and there was barely any trash in the river, the shore, and the ground! The surroundings here were beautiful and clean. There wasn't any garbage lying around the park and in the river and there were several trash cans around the park to help keep it clean for other people to enjoy. There were at least 10 students fishing for at least an hour straight, which was a lot of effort for only two blue crabs! The salinity measured 27 parts per thousand.

ish ID at

Susan Price & New York City Lab High School; Sam Adels & Megan Davidson, New York
 University's Wallerstein Collaborative

10/16 - Brighton Beach, Brooklyn, Lower Bay of New York Harbor: Poly Prep Country Day School persevered, coming down to the water in spite of the stormy forecast. At this most seaward of our Day in the Life sites, the surf was rough. Seining was difficult; the students had had no success with a small net by the time I arrived, so I made a pass with a larger one. For my trouble, I took a wave of cold salt water over and into my chest waders, and when the net hit the beach, it contained only a single small young-of-the-year fish. However, it was one I had never caught before - a species of jack called a permit (*Trachinotus falcatus*) - making the soaking worthwhile.

- Steve Stanne of the Estuary Program; Olivia Tandon & Poly Prep Country Day School students





<<<< ABOUT A DAY IN THE LIFE OF THE HUDSON RIVER >>>>>

"A Day in the Life of the Hudson River" is organized by DEC's Hudson River Estuary Program, with assistance from the Lamont-Doherty Earth Observatory of Columbia University. The event is held in conjunction with National Estuaries Day, which celebrates these remarkably productive and valuable ecosystems. Many environmental education centers along the river join in the effort, partnering with classroom teachers to help students better understand their local piece of the Hudson and then share their experiences and data to gain wider perspective on the entire ecosystem. For more information about "A Day in the Life," visit http://www.ldeo.columbia.edu/edu/k12/snapshotday.

<<<< HUDSON RIVER MILES >>>>

The Hudson is measured north from Hudson River Mile 0 at the Battery at the southern tip of Manhattan. The George Washington Bridge is at HRM 12, the Tappan Zee 28, Bear Mountain 47, Beacon-Newburgh 62, Mid-Hudson 75, Kingston-Rhinecliff 95, Rip Van Winkle 114, and the Federal Dam at Troy, the head of tidewater, at 153.

<<<<< TO CONTRIBUTE YOUR OBSERVATIONS OR TO SUBSCRIBE >>>>

The regular Hudson River Almanac is compiled and edited by Tom Lake and emailed weekly by Steve Stanne of DEC's Hudson River Estuary Program. Share your observations by e-mailing them to $\frac{\text{trlake7@aol.com}}{\text{com}}$.

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<<<< USEFUL LINKS >>>>

For year- round, real-time information on weather and water conditions from monitoring stations along the Hudson and its tributaries, visit the Hudson River Environmental Conditions Observing System website at www.hrecos.org

Information about the Hudson River Estuary Program is available on DEC's website at http://www.dec.ny.gov/lands/4920.html