

Hudson & Harbor Educators Meeting

January 14, 2021

Attendees

1. Adero Forsythe
2. Agata Poniowski, Billion Oyster Project, aponiatowski@nyharbor.org
3. Alana Gerus, NYSDOH Hudson River Fish Advisory Outreach Project, Alana.Gerus@health.ny.gov
4. Alexandra Kanonik, American Littoral Society NYC chapter Alexandra@littoralsociety.org
5. Amali Knobloch, Hudson River Sloop Clearwater, amali@clearwater.org
6. Amanda Simmonds, NYSDEC/Hudson River Research Reserve/ NEIWPC, amanda.simmonds@dec.ny.gov
7. Amy Parks, North Colonie CSD, amyparks@ncolonie.org
8. Ann Fraioli, BOP
9. Anna Koskol, HRP
10. Annabel Posimato, NYS Parks in the NYC Region
11. Annie Lederberg, BOP
12. Artie Carlucci
13. Audrey Van Genechten
14. Cathy Yuhas, High Tech High School, Hudson County Schools of Technology, cyuhas@hcstonline.org
15. Chris Bowser, NYSDEC, chris.bowser@dec.ny.gov
16. Christina Tobitsch, Brooklyn Bridge Park Conservancy, ctobitsch@bbpc.net
17. Christine Petro, Gowanus Canal Conservancy, christine@gowanuscanalconservancy.org
18. Christopher Girgenti
19. Christopher O'Sullivan
20. Clay Hiles
21. David Chuchuca
22. Deborah Sarria, IS 240K, dsarri@schools.nyc.gov
23. Devin Gorsen, NYS Parks in the NYC Region
24. Doug Van Horn
25. Elisa Caref, CURB, ecaref@sarahlawrence.edu
26. Grace Sanvictores, Hudson Montessori School, gsanvictores@hudsonmontessori.net
27. Haley
28. Hector Prud'homme
29. Hugh Carola, Hackensack Riverkeeper, hugh@hackensackriverkeeper.org
30. Jackie Wu, Randall's Island Park Alliance, Jackie.wu@randallsisland.org
31. Jake Madelone, Waterfront Alliance, jmadelone@waterfrontalliance.org
32. Jenna Otero, NYS Parks in the NYC Region
33. Joyce D
34. K. Garfalo
35. Kate Phipps, Scenic Hudson, khipps@scenichudson.org
36. Kathryn Robling
37. Kckeegan
38. Kirsten Kleinman, AP Environmental Science Nyack High School kkleinman@nyackschools.org
39. Kristin Schreiber, BOP, kschreiber@nyharbor.org
40. Laurel Zaima, Lamont Doherty Earth Observatory, lzaima@ldeo.columbia.edu
41. Liana Gertzler, Clarkstown High School North, lgertzler@ccsd.edu
42. Lisa
43. Louis Kleinman, previously with Waterfront Alliance now with All Home Services. louiskleinman@yahoo.com
44. Luis Gonzalez, City Parks Foundation, lgonzalez@cityparksfoundation.org
45. Margaret Flanagan
46. Margie Turrin, LDEO, mkt@ldeo.columbia.edu
47. Marieke Bender, Battery Park City Authority, Marieke.bender@bpca.ny.gov
48. MaryLynne Malone, malone@highlands.com
49. Maureen Bruins, Paterson Public Schools mbruins@paterson.k12.nj.us
50. Melissa K. Cohen, NYSDEC Fisheries, melissa.cohen@dec.ny.gov
51. Michelle Velho, Hudson Montessori School, sciencemichelle@hudsonmontessori.net
52. Michelle Luebke, Bronx River Alliance, Michelle.luebke@bronxriver.org
53. Mike Cohen, New York Harbor School and Billion Oyster Project, mcohen@nyharbor.org
54. Nicole Laible, Rockland County Soil & Water Conservation District, laiblen@co.rockland.ny.us
55. Olivia Radick (she/her), Hudson River Park, oradick@hrpt.ny.gov
56. Philip Levine
57. Rebecca Houser, HREP, Rebecca.houser@dec.ny.gov
58. Rianna Scanlon, NYSDEC/ NEIWPC, rianna.scanlon@dec.ny.gov
59. Rob Buchanan, BOP
60. Robina Taliaferrow, Billion Oyster Project, rtaliaferrow@nyharbor.org
61. Rosana Da Silva, NY-NJ Harbor & Estuary Program, Rosana@hudsonriver.org
62. Roy Arezzo, Aquaculture CTE Teacher - NY Harbor School in NYC, rarezze@nyharborschool.org
63. Sara Spoden, New York Restoration Project Educator sspoden@nyrp.org
64. Sarah Mount, NYSDEC Hudson River Research Reserve, sarah.mount@dec.ny.gov
65. Shino Tanikawa, NYC Soil & Water Conservation District
66. Skip Hoover, Krieger Elementary School City of Pok
67. Sonia
68. Tanasia Swift, BOP, Tswift@nyharbor.org
69. Theresa Case
70. Tina Walsh, Hudson River Park, twalsh@hrpt.ny.gov
71. Toland Kister, Hudson River Park, tkister@hrpt.ny.gov

Opening Remarks

Tina Walsh welcomed everyone to the meeting, joined by both the Hudson and Harbor Educators as well as teachers. The agenda for the day includes a reflection on the A Day of the Life of the Hudson and Harbor and sharing out of resources/tools by fellow members.

Chris Bowser thanked everyone for continuing to participate in these work group meetings, given all the challenges we have all been facing.

A Day in the Life

Laurel Zaima provided a quick overview of the A Day in the Life of the Hudson and Harbor Program. [Videos are now live](#) of the program where students are the scientists and record their own data.

Rianna Scanlon and Sara Mount shared the [pre/post visit resources](#) sign up – videos, PowerPoint templates, and worksheets for both fish and salinity are available. Resources can be used independently, but could also include a visit from one of the staff.

Rebecca Houser thanked all the partners involved in the A Day in the Life to record the videos but also the teachers who used these resources. Talking the time now to reflect on how the roll out of this virtual program worked, what didn't and the following educators shared their thoughts:

- Kate Phipps, Scenic Hudson – I recorded everything that I was doing, including collecting data. The plan was to create a kit for students to use the videos and then the data that was collected elsewhere OR bring water into the classroom to be able to take samples. Joyce shared that her school has been shut down since November and hoping to still get the students to conduct the samples themselves.
- Grace, Chris, and Michelle, Hudson Montessori School in Jersey City (ES) – We are currently in person and virtual teaching. Created digital journals for those virtual. Those in-class, the students loved the dichotomous key and those virtually used additional resources such as the Ed Puzzle, Flip Grid (open source) to support the younger students, and the use of Bitmoji classroom. All the links provided were very helpful to create synchronous learning materials for students in-classroom and online.
 - Laurel Zaima: I absolutely love the resources that you have created this year! I was wondering if the EdPuzzle is shareable? If yes, do the answers go back to you as the creators of the edpuzzle or is there a way to duplicate the ed puzzle so the answers could go to other teachers whose students are doing it?
 - Grace: Yes, we'd be happy to share. They just need to duplicate and they can customize.
- Amy Parks, North Colonie Learning Enrichment Program (ES) – This would have been our 12th year participating in the program. The online dichotomous key was great, students really loved it. This program is great and my students continue to enjoy participating in it.
 - Chris Bowser: Clearwater's online fish key is a great tool in lots of settings: <http://clearwater.org/fishkey/>
- Maureen Bruins, Paterson Academy for the Gifted and Talented (MS) – Teaching 6-7th grade and has been remote since March. Teaching virtually for 30 minute classes. The shared PowerPoint was very helpful. From 1-3pm I gave my students some Ed Puzzles on the Hudson Estuary and then I got the okay from my principal to participate in the A Day in the Life. I did a show-and-tell with my students – pictures of the tides, etc. My students have never used a dichotomous key so

instead I took pictures of different fish species where everyone posted on the chat which fish it was. I used the data from the lesson plan and the salinity worksheet to get the students to analyze the data. The worksheets were helpful to critically think and assess the data.

- Roy Arezzo, New York Harbor School (HS) – I also am teaching for 30 minutes. Luckily, was able to work with my principal and the 9th grade team to cycle through water quality monitoring with students in the field. It was hard to teach the students how to collect water samples and what everything meant without knowing the students' names, but it worked out. Used BOP videos to integrate career opportunities with students. 22 minutes is cutting it close, so I broke the lessons into two days. I made a google document of the data and then reworded the questions for a 2nd day assessment. It was a great science lesson on observation and inference. I also took past data for students to make observations and inferring the difference of the data collected this year.
- Kirsten Kleinman, Nyack High School (HS) – The park we go down to looks like a Hudson River festival with everyone participating in the Day of the Life. On a typical year we work on all 9 parameters and have students enter data in excel to get to start using it (data sheets, graphs, and T-tests). This is typically students first deep dive into science but makes it much more fun. This year, had some students conduct the field work while the other students virtually were doing some research to bring everything together.

Margie Turin asked the group to respond to the following questions via the chat: How did you do with the time limit of the videos? Recommendations for future day in the life? Or any other thoughts to share?

- Liana Gertzer: Shorter is good just because the students are so swamped with screentime as it is.
- Cathy Yuhas: I haven't used the videos, but I have 25 minute classes.
- Amy Parks: We have 45 minutes, but I broke the Upper Estuary video into 2 days because stopping to allow the students to record the data took time.
- Michelle Luebke: I know our educator was disappointed that her content got cut, but totally understand and don't envy the difficult decisions you had to make! Agree that shorter videos are better, we've been keeping ours ~8 mins or less, but focus on way less content per video
- MaryLynne Malone: At Kowawese we filmed short segments and published on our Orange County Water Authority website and YouTube because of teacher requests and short class periods.
- Michelle (Hudson Montessori Scholl): Shorter videos work better for our younger students
- Deborah Sarria: I showed all three videos, the stopping and starting to make sure the students where correctly taking down the data, slowed us down. Our school has ben fully remote since October. This made it harder since I could not walk to see what they were doing. Also, we stopped to identify the fish. After the first few I wanted to just write down the names, but the students enjoyed trying to identify the fish, we kept starting an starting, which made the process longer.
- Chris Bowser: All of these videos has SO MANY great takes and educators. The worst part of this experience was the heartbreaking need to keep the videos to less than 25 minutes.

- Nicole Laible: Brianna Rosamilia, RC SWCD and Ashley Curtis from OSA/SOAR as well as Kim Burgos from Rockland Youth Bureau were at Nyack this year. We missed the students Kirsten!
- Roy Arezzo: Feedback from some students: It was helpful that the videos kept the location name text on the video during presentations and appreciated seeing the head waters and sources of the Hudson. Also I forgot to say that I altered the data sheet slightly. The location should include the name of the location/reference point and the water body. Margie - I used your part to talk about the Summer Research at Lamont
- Kirsten Kleinman: We also did the post lesson, which was helpful to tie in the concept questions
- Rebecca Houser shared that if there are any resources that can be shared, we would like to be able to share that out on the website. Please let us know. A [survey](#) for teachers was also distributed to provide feedback on how to make next year better.

Resource Sharing

Tina Walsh opened the session for organizations to share materials and encouraged anyone to share their thoughts and resources in the chat.

Alexandra Kanonik shared American Littoral Society's [youth restoration internship program](#) which is a paid 8-summer week program where students get field experience, meet partners, and learn about the estuary. The core of the work is focused on engaging volunteers, and we're looking to do more planting and [cleanups](#) this summer. Open to accepting new interns, please feel free to email alexandra@littoralsociety.org.

Tanasia Swift (Tswift@nyharbor.org) shared that Billion Oyster Project has a DEIJ committee, created almost two years ago. We developed a Safe Space Agreement back in May 2020. What first started as a guide, BOP wanted it to be more of a collaborative to hold each other and others accountable. Tanasia shared a brief portion of the agreement and will share the agreement as a PDF. BOP is interested in creating a coalition which could be related to the subcommittee of this group which is planning to meet on January 27th. A question for the group – are you working on something similar? Is this something we can work together on?

- Shino Tanikawa: This is incredible work!!!! So badly needed. I would love the HEP CAC DEI subcommittee to collaborate!!
- Margie Turrin: love this
- Tina Walsh: Correct - Rosana is going to provide an update about that DEIJ working group after all our colleagues share resources
- Rosana Da Silva: Yes, a subcommittee of this group and the Citizen Advisory Committee will be meeting on January 27th. This agreement would be great to dive into! Thank you for all your work on developing this and your willingness to share.
- Sara Spoden: Love this idea! Would love to help collaborate & find a way to incorporate at NYRP
- Nicole Laible: Thank you Tanasia!
- Rebecca Houser: NYSEOA would love to collaborate with you. We can certainly post this on our EAI committee page, and get some of our affiliates on board. Thank you, I am going to follow up with you.
- Eli Caref: I was thinking the same, Rebecca! Thanks for this great introduction, Tanasia.

Christina Tobitsch shared the efforts that Brooklyn Bridge Park was able to accomplish in 2020 but also some of their challenges in hopes to get some feedback from this group. They created some self-led resources and evening webinars/Facebook live readings. The biggest struggles have been creating a digital following, that although they have frequent visitors to the park, they are not necessarily following the park's digital resources. What do teachers need of from us?

- Christine Petro: The way we get direct teacher feedback is from a smaller subset of partner teachers. We are fortunate these partnerships were multiyear funded pre-Covid. And we provide stipends for teacher participation and feedback - that's key!
- Marieke Bender: Our programs were also abbreviated this season, but we had some luck offering our kids' art and nature programs where we asked people to BYO supplies, or we'd give out a worksheet or activity sheet that families could do together. That addressed the issue of shared materials
- Roy Arezzo: I think what a lot of teachers of HS need is the next level interactive digital lessons. There is a lot out there for younger students or new to marine/aquatic science. Once we all do a good job of explaining estuaries and the cool diversity we need differentiated assignments for older teens and different types of learners so we do not lose the advanced students.
- Margie Turrin: Perhaps a QR code in the Park may be helpful since there are so many more people now using the parks.
- Annie Lederberg: Christina, what's the age range of the intended audience?
 - All ages really, but largely kids aging from 3-12
 - Building on Roy's point, I think one thing that is helpful is to define a specific age range / grade band for each resource you publish, and present that information front-and-center.
- Kirsten Kleinman: I agree, Roy, thank you. Maybe some resources which have the students using Excel and running statistical analysis :)

Eli Caref (ecaref@sarahlawrence.edu) shared that CURB has experienced a lot of the same challenges that Christina is experiencing. Once CURB went virtual, they didn't know what teachers wanted and teachers were already overwhelmed that limited getting quick feedback. Similar to Christine Petro, CURB did provide stipends to some teachers to get some feedback which led to one-on-one calls. This helped to think about curating content for asynchronous learning – from videos, worksheet questions, vocabulary sheets.

- Deborah Sarria: As a middle school teacher I think one of the challenges now is that we do not know what we need. We are trying different models hoping to hit on a version that the students will engage the students. In addition, we need to find ways to integrate additional materials with our required curriculum
- Christine Petro: I second that — so much appreciation for our teachers!

Toland Kister shared that Hudson River Park started a [STEM Activity of the week](#) which are free lessons and activities that could be used as off-screen hands-on activities. Wanted to also make these lessons using commonly used items in the household and we've had some lessons translated in Spanish, soon French and Mandarin. Access to printers seem to be a challenge, trying to identify whether mailing packages or digital worksheets would be easier. Also access to internet has been another challenge.

Olivia Radick shared a new lesson that Hudson River Park is working on. To get students to be part of community conversations and involved in discussion role play activity, the lesson engages students to be part of a mock community board meeting. Looking to make this into a series that would include plastics, CSOs, etc. Would love to get some feedback on how to best implement discussions with larger groups of students. This is building on *Solutions to Pollutions* and understanding the different topics is dependent on the student's background knowledge.

- Roy Arezzo: Toland/Olivia - This looks hot - Harbor can use this for sure. Also I am fishing around for remote internships Thank you for those on this call that already working on it. Rarezzo@nyharborschool.org. I have the funding but need the host sites / work.
 - Michelle Luebke: Roy, reach out to Amber at education@bronxriver.org! We have a brand new internship program that just had first into today.
- Kirsten Kleinman: Agreed. I can definitely use this lesson in APES. Debating like this is part of our curriculum. And I haven't done wastewater yet... And I need a change of pace with my lessons!
- Amy Parks: Are these lessons online by chance...they are great!
- Shino Tanikawa: Jamboard? Students write short arguments on Jamboard stickies.
 - MaryLynne Malone: I love Jamboard and the whiteboard feature on some platforms. Google draw allows for collaboration as well
 - Amy Parks: I have just been learning about Nearpod...wondering if this could be done on that platform? Also Jamboard is a good idea for the planning
 - Sara Spoden: We use Padlet, Nerpod and Kahoot all great resources along with Google Classroom
 - Amy Parks: Yes to Padlet as well
- Roy Arezzo: If River Proj didn't already please share link to this Community Conversations Resource
 - Olivia Radick: Related to our Community Conversations lesson, we don't currently have a summary or resources available online, but they will be up soon as we move toward our spring programming season! Please feel free to reach our to Anna, Toland, or myself for more info on this specific program. (oradick@hrpt.ny.gov / education @hrpt.ny.gov)
- Shino Tanikawa: Have you seen this? <https://www.youtube.com/watch?v=f5cTai-QMA> Blue Man Group at Newtown Creek Wastewater Treatment Facility. Padlet, too, works well
- Cathy Yuhas: I teach about CSOs and I always show the NYCDEP video on green infrastructure to give it some visuals. <https://www.youtube.com/watch?v=zrhw2cMTpJs>
 - Christine Petro: We have teacher resources packaged to teach about CSO and green infrastructure. Feel free to reach out! christine@gowanuscanalconservancy.org

Annie Lederberg shared that Billion Oyster Project is working on data analysis and spreadsheet lessons. These lessons will be coming soon!

Rosana Da Silva shared that the Harbor Estuary Program will have a DEIJ subcommittee of the Harbor Educators Work Group and the Citizen Advisory Committee. The goal is to allow for the subcommittee to have deeper conversations and bring key takeaways to these larger meetings. BOP's agreement is a great opportunity to build on. Hoping to keep the committee small and model DEIJ initiatives in the subcommittee. If anyone interested in the DEIJ subcommittee - please email me at Rosana@hudsonriver.org.

Resources shared via the Chat:

- Hugh Carola: GREAT RESOURCE: Free and open to ALL environmental educators: Alliance for NJ Environmental Education (ANJEE) virtual conference - <http://anjee.org/2021-winter-conference.html> - January 19-30. Check it out & I hope you'll join us!
- Rosana Da Silva: Just a reminder - the [Educational Resource Guide for Parents and Teachers](#) is still up and running as that searchable, sortable collection of sustainability-related, place-based resource tool. Please feel free to share this with other teachers and upload your resources! For those who have uploaded your resources, I will be sending emails later today to just check in to confirm resources are still online and available for teachers/parents to use.
- Roy Arezzo: Random Request: Hoping to find/create an algae course. Anyone has suggestions contact me offline -may be using nearpod There is a free course resource that is comprehensive but too lecture based and not interactive enough for teens. <https://www.coursera.org/learn/algae/home/welcome>
 - Eli Caref: Roy, Melissa and I created a pretty intense Phytoplankton PD a couple years ago that I think could be translated well for high school students. I'd be happy to chat about how that might work though I don't have a virtual lesson made at the moment
 - Toland Kister: Roy, we are also continuing plankton programming at HRP. We are planning on live streaming plankton samples during virtual programs among other activities
 - Annie Lederberg: Eli and Toland, I have an archive on The River Project's Plankton PD from 2017. Let me know if that would be helpful to share
- Deborah Sarria: Thank you for all the work you are doing to support our teaching. Sorry I need to leave since I need to go to a virtual school open house. I will contact to schedule a Post-trip meeting.

Future Meetings

Tina Walsh shared a poll to understand what the needs of the work group is. To engage teachers, something that this group has asked and something we've tried to incorporate when the topic is appropriate, this time (3pm) may work better.

The poll indicated a majority wanting bimonthly, with the next majority wanting quarterly meetings. Overall, late afternoon was preferred by the group.

Tina, Rosana, and Chris will work to get out minutes and the resources shared today along with presentations.