

## **CUNY & HUDSON RIVER PARK TRUST 2023 SCIENCE & RESEARCH PARTNERSHIP**

CUNY and Hudson River Park Trust look to expand the successful Science & Research Partnership which provides CUNY faculty and students research, service learning and job training opportunities in the Park. The Trust and CUNY have a long-standing successful institutional relationship, formalized by the Science & Research Partnership in 2022, to further shared institutional goals.

The Trust and CUNY undertook a successful effort to engage faculty and students to perform direct research in the Park. Outreach was conducted both virtually and in-person, including three online informational sessions. CUNY faculty research that took place in Hudson River Park in 2022 includes a study of oyster toadfish acoustics by Kelsey Hom of Brooklyn College and monitoring pharmaceutical levels in river water by Dr. Teeshavi Acosta of John Jay College of Criminal Justice.

In addition, the Trust trained and hosted four CUNY students that conducted research in the Park. These CUNY students supported a wide range of Trust research projects including environmental DNA, water quality testing, fish ecology sampling, microplastics analysis, tide pool monitoring and more. Beyond direct research, two of these CUNY students served as near-peer mentors for ten high school students over the course of 6 weeks, helping build science communication skills and valuable applied research experience.

Looking ahead to 2023, to help further this partnership, the Trust has hired a full time Science Coordinator to facilitate opportunities for CUNY student and faculty research in Hudson River Park. The Trust also hopes to continue hosting and participating in informational sessions that attract both CUNY researchers and prospective interns to the Park, as outreach is a key element of our ongoing collaboration. Below is a proposal for an expanded 2023 partnership.

### **2023 Partnership Proposal = \$35,000 CUNY Investment**

#### **STEM Job Corps: \$20,000**

In the coming year, the Trust will increase the number of paid seasonal internship opportunities for CUNY students interested in STEM careers. During these internships, CUNY students work alongside the Trust's River Project team during the academic year or summer to receive meaningful professional development experiences in the environmental field.

#### **Proposed scale for 2023:**

- 3 CUNY students during the summer
- 2 CUNY students during Fall 2023 semester
- 2 CUNY students during Spring 2024 semester

#### **Visiting Scholar Program: \$15,000**

This year, the Trust proposes launching a Visiting Scholar Program with CUNY, which aims to provide direct funding for research by one or more CUNY students or faculty members in the Park. Projects will be supported by Trust staff with research priorities informed by the Estuarine Sanctuary Management Plan. Example areas of research could include data analysis, river modeling, wetland monitoring and education program evaluation.

CUNY and the Trust will work together to create an outreach and selection process to solicit applications for this funded research opportunity.

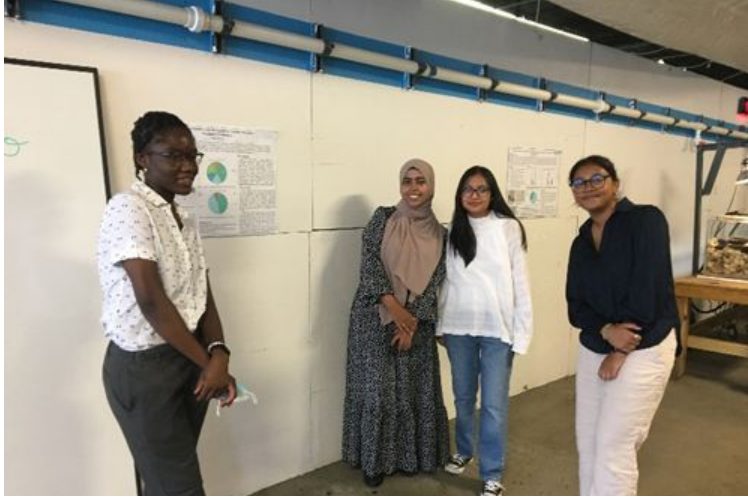
# 2022 HIGHLIGHT: INTERNSHIP TO CAREER PATHWAYS



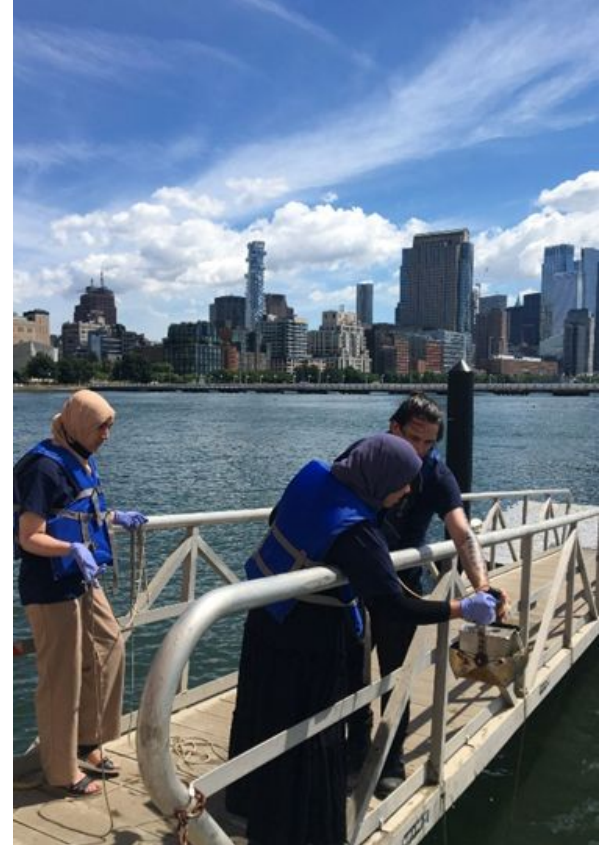
CUNY graduate Gabrielle Belaya first interned at Hudson River Park as a mentor for the Science Leadership Program in 2021, where she mentored a team of high school interns conducting research. Following her success in that program, Gabrielle then joined the Park in an expanded role as a Field Science Assistant in 2022. She conducted a wide range of Trust research projects: she led the Park's weekly pathogen testing for the Community Water Quality Testing program and the extraction & processing of fish eDNA samples from partner sites upriver. Gabby also played a key role in the Park's oyster monitoring program & volunteer events, and our ongoing fish ecology survey, teaching the public about the biodiversity of the river during Wetlab Look-Ins.



## 2022 HIGHLIGHT: MENTORSHIP BUILDING SCIENCE SKILLS



Ayesha Sarfraz and Syeda Mehjabin were CUNY interns in Hudson River Park's 2022 Science Leadership Program (SLP). SLP is a paid research internship rooted in a near-peer mentorship model as a strategy for community building and skill development. Ayesha and Syeda were mentors to 10 high school interns over the course of six weeks and guided student research focused on microplastics in seagull boluses. During the program, Ayesha and Syeda mentored the high school students as they conducted authentic scientific research and built science communication skills. Each intern's experience in the program culminated in creating their own scientific poster which was then presented to a group of their peers in Hudson River Park's Wetlab aquarium.





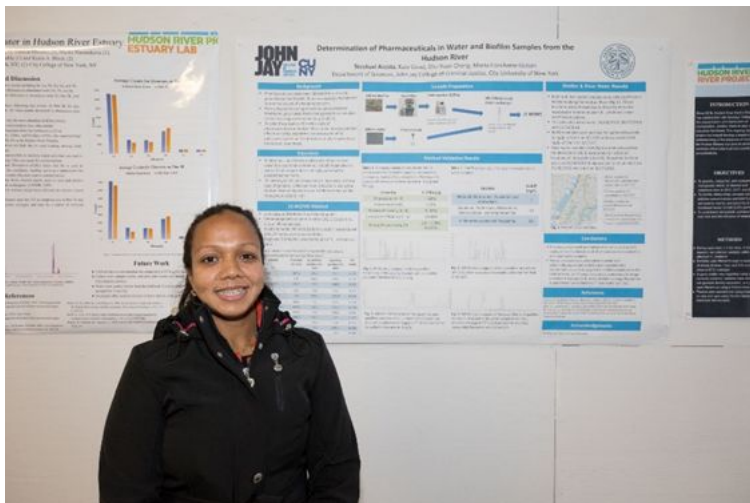
# 2022 HIGHLIGHT: CUNY RESEARCH IN HRPK



CUNY visiting researchers, Kelsey Hom and Tom Quigley of Brooklyn College's Forlano Lab studied oyster toadfish acoustics in the Hudson River this past year. Their research aims to categorize anthropogenic noises in the Hudson River and monitor the effect of noise on local toadfish populations using hydrophones (underwater microphones) to record sounds near toadfish breeding sites. Kelsey also brought her research to a wider Park audience as a guest presenter during Ask a Scientist, a Hudson River Park program which aims to share informative and engaging talks from local STEM experts.



# 2022 HIGHLIGHT: CUNY RESEARCH IN HRPK



Dr. Teeshavi Acosta of John Jay College of Criminal Justice has been monitoring pharmaceutical levels in river water since 2021 in conjunction with the Park. She analyzes water samples collected by Park staff and other pathogen sampling program volunteers to test for a suite of pharmaceutical chemicals and drugs of abuse to study the sources of this unexpected type of pollution. Teeshavi has shared preliminary findings with the greater community at the Park's Release of the Fishes event in 2021 and at the 2022 Community Water Quality Testing Program end-of-year celebration.



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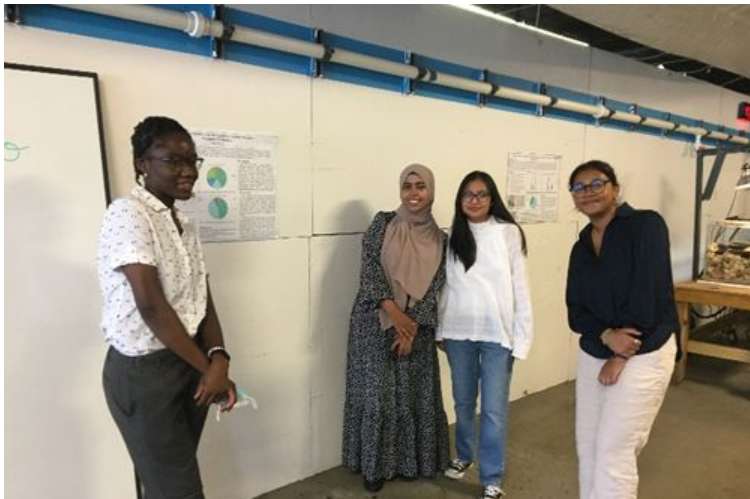


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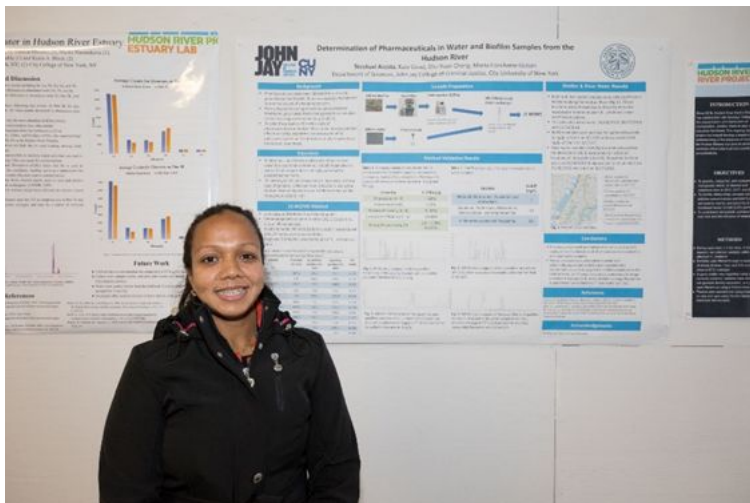


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