WCS Career Lattice Interim Report: April 2020-October 2020

WCS Education is committed to inspiring a diverse and inclusive movement of conservation advocates and STEM professionals. Our work with youth is a centerpiece of this mission. Each year, over 1,400 youth ages 14 to 24 years old participate in enrichment, volunteer, internship, and employment opportunities across our five parks. The majority of these opportunities are at the Bronx Zoo, making WCS the largest employer of young adults in the Bronx. The WCS Career Lattice is our integrated careers pathway program through which youth from historically marginalized communities gain expanded entry points to opportunities at our parks and equal access to a suite of professional services and supports.

Acknowledgements
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Introduction

WCS is committed to inspiring a diverse and inclusive movement of conservation advocates and STEM professionals. Our work with youth is a centerpiece of this mission. The WCS Career Lattice is an integrated career pathway program through which young people growing up in historically marginalized New York City communities gain expanded access to opportunities at our parks and to a suite of professional services and supports. Throughout the globe, WCS mentors and partners closely with students from many diverse communities, taking into account local contexts and values, which in turn serves to strengthen conservation outcomes. The WCS Career Lattice applies this model in our own backyard of New York City, helping to further our goal of diversifying conservation science everywhere.

This year, we have already reached 1,100 youth ages 14 to 24 years old who participated in enrichment, volunteer, internship, and employment opportunities across our five parks.

The Career Lattice employs a three-pronged approach:

1. **Connect** and recruit young people in local, historically marginalized communities through outreach and partnerships;

2. **Develop** young people through workshops, support services, programming, work experiences, and skill-building while at WCS;

3. **Advance** young people in their professional journeys through leadership training and tiered professional opportunities.

In this section:

- Our Approach
- Who are WCS Youth?
Who are WCS Youth?

In spring and summer 2020, the Career Lattice engaged over 1,100 youth in volunteer positions, internships, and part-time employment across our five parks.

More than three-quarters of WCS Education interns and volunteers were 14 to 17 years old. These opportunities are an entry point in the Career Lattice. As in previous years, more than one-third of volunteers and interns worked with WCS in a previous season and returned to continue their engagement.

Eighty-eight percent of WCS Education interns and volunteers lived in New York City, a percentage that has been consistent for three years. Youth lived across the four boroughs where our parks are located. There were clusters of youth living in the ZIP codes surrounding Queens Zoo and Prospect Park Zoo, however, unlike 2019, there were no clusters around the Bronx Zoo and the New York Aquarium. This broader distribution suggests that moving programs online enabled involvement by youth who lived farther from the parks. This may also suggest that the digital divide in historically disenfranchised communities may have limited youths’ ability to participate in fully virtual programs.

Volunteers & Interns

Many youth enter the Career Lattice through Education Department volunteer and internship programs. The Discovery Guide program is our largest volunteer program, providing youth with training and experience in teaching, leadership, and public engagement. The program served 416 youth volunteers.

WCS also supports a range of internships, with youth engaging in stipended or credit-earning training across zoo and aquarium departments. In spring and summer 2020, WCS Education supported 146 interns. Departments outside of Education also host interns and next year we plan to compile a full inventory of WCS internships, including those facilitated by animal, administrative, and other departments.
Volunteers & interns represented 80% of New York City ZIP codes.

Languages WCS Education interns & volunteers spoke at home, with size corresponding to frequency.

70% of youth identified as people of color.

42% spoke a language other than English at home, and collectively spoke a total of 29 languages.

At the conclusion of the program:

98% reported they planned to attend college

21% would be first generation college students

About two-thirds of the WCS Education volunteers and interns used female pronouns, 30% used male pronouns, and 2% used other pronouns. Of the youth who were 18 and older, 24% identified as LGBTQIA+.
Many WCS youth work in our zoos and aquarium on a part-time basis during the peak visitation season from March to November. Following more than four months of closure in response to the COVID-19 pandemic, the parks reopened to visitors on July 20th and WCS hired and trained 706 front-line employees, more than two-thirds of whom were youth. WCS employed an additional 50 youth in part-time year-round positions, for a total of 558 youth in part-time positions. Reflecting the relative size of the parks, nearly three-quarters of these youth employees were based at the Bronx Zoo, followed by 14% at the New York Aquarium, and 13% across the three City Zoos.

Fifty-eight percent of part-time employees identified as female, compared to 52% of New York City residents.

Nearly 75% of WCS part-time employees identified as Hispanic or Black/Not Hispanic

When WCS parks reopened to visitors on July 20th, we hired and trained 706 front-line employees, more than two-thirds of whom were youth.
Our part-time employees range from ages 16 to 24. More than 40% are aged 17 to 19, a period when many are charting pivotal steps from high school into colleges and careers.

Access to high-quality volunteer, internship, and part-time jobs leads to higher-paying careers. There is a significant income disparity between those who can afford to participate in volunteer and stipend-earning internships and those who cannot, a situation that we see play out in our own Career Lattice opportunities. Specifically, only one-third of our volunteers and interns lived in a ZIP code where the median household income was below or near the New York City poverty threshold, while nearly 60% of youth employees lived in one of these low-income ZIP codes. We recognize this disparity and are adapting our recruitment and support system to close this gap.
Response to COVID-19

In mid-March 2020, WCS made the difficult, but necessary decision to close all of our parks because of the COVID-19 pandemic. This closure resulted in the cancellation of thousands of field trips and education programs, as well as the furlough of all youth hired in part-time positions prior to closing. With only essential staff permitted on-site, the fate of the 500 youth volunteers and interns who spend their spring and summer educating the park visitors about wildlife and conservation was unknown. Additionally, with the cuts to the Summer Youth Employment Program (SYEP), WCS lost the funding to employ 250 youth. The impact on our youth was severe – not just at WCS, but throughout our community.

It quickly became apparent that COVID-19 disproportionately affected historically marginalized communities and people of color who make up the majority of our youth employees, interns, and volunteers. In New York City, infection rates for people of color were 51% higher and hospitalization and fatality rates were more than double those of White residents. In a city where race and ethnicity often intersects with socioeconomic status, there were also visible economic implications. In high poverty neighborhoods, infection rates were 50% higher and hospitalization and fatality rates were more than double than in affluent neighborhoods. Moreover, unemployment rates throughout these communities rose from 5% to about 25% and overall youth unemployment increased from 7% to 35%.

WCS recognized the challenges our youth were facing and developed a four-part response that involved:

| Health & Social-Emotional Support |
| Modified WCS-Youth Communication Strategy |
| Virtual Programming |
| Part-Time Employment Support |

In this section:
- Health & Social-Emotional Support
- Modified WCS-Youth Communication Strategy
- Virtual Programming
- Part-Time Employment Support
Health & Social-Emotional Support

WCS provided all Career Lattice youth with access to free counseling services through our Corporate Counseling Associates program, as well as up-to-date resources related to COVID-19. All WCS Education youth volunteers and interns had opportunities to connect as a group for much-needed community engagement and social-emotional support, including weekly video chats and office hours.

“Being a Digital Discovery Guide gave me structure in a time when there was nothing to do. I became immersed in the program and it gave me something to look forward to in my day rather than just the same day of nothingness that seems so prevalent right now. I was given a place to learn, laugh, and have fun during a time when it didn’t seem possible, so for that I am grateful.”

—DIGITAL DISCOVERY GUIDE PROGRAM PARTICIPANT

Modified WCS-Youth Communication Strategy

WCS Education maintains its relationship with youth who have volunteered, interned, or worked for WCS via a monthly digital newsletter that is emailed to over 3,000 recipients. This newsletter highlights local events for youth, as well as employment opportunities at WCS and like-minded organizations in New York City. During the pandemic, this newsletter shifted focus to connect youth with information on what was happening at the parks during closure, share online events and activities for continued learning and engagement, and provide resources related to physical and mental health. See past issues here.

Here are some of the newsletter topics we have highlighted since April:

- The WCS Virtual Zoo featuring live animal cams at our parks
- Online WCS activities, including games and interviews with scientists
- Resources to manage stress and protect mental health during COVID-19
- Internship opportunities
- Virtual ways to celebrate Earth Day, Pride month, and World Oceans Day
- Reinforcement of WCS’s commitment to fighting racism and advancing social justice
Virtual Programming

In April, we realized that in-person programs for youth would not be possible for the spring and summer. We spoke with parents, teachers, and WCS Career Lattice participants and they shared their concerns about in-person programs, as many lived in communities significantly impacted by COVID-19. They also reiterated that youth needed WCS’s services and access to career training more than ever before. In response to these conversations, we pivoted all of our volunteer, internship, and skills training programs to virtual platforms, ensuring that we prioritized safety, while continuing to provide enriching opportunities for our youth.

“I feel fulfilled. I’m really happy that I had an opportunity to make the most out of my quarantine and do something good with the newfound time I had.”

- DISCOVERY GUIDE PROGRAM PARTICIPANT

Throughout our rollout of virtual programming and new training, our goals for the WCS Career Lattice have remained the same: we connect youth from historically marginalized communities, develop young people while at WCS, and advance them in their professional journeys.
Part-Time Employment Support

When our parks closed, WCS furloughed the majority of part-time employees in front-line positions, including 96 youth from our South Bronx-based partner high schools who had been hired prior to closing. We invited youth to attend a Zoom call where WCS Education staff answered questions about the park closures, their employment status, qualifications for unemployment benefits, and more. Approximately 70 youth joined this call.

In planning for reopening, WCS Education worked with Human Resources and hiring managers to modify recruitment protocols and training sessions, which allowed us to quickly mobilize our workforce upon reopening. We reached out to youth from our partner schools who were hired prior to closure to bring them back into those positions. We supported them as they completed new virtual training modules, such as Respect in the Workplace training, as well as in-person training in COVID-19 safety protocols and how to create a positive guest experience in the new visitor environment.
WCS Job, Internship, & Volunteering Expo (J.I.V.E)

Every year, WCS kicks off the recruitment season with JIVE at the Bronx Zoo. In early February, more than 700 young people joined us for this day-long career fair. They spoke one-on-one with 20 hiring managers, received personalized support navigating the complex WCS application, and attended a series of career panels and workshops. Topics included professional skill-building such as “How to Write a Resume” as well as panels and Q&A’s with STEM professionals across WCS. Over 450 JIVE attendees applied to positions at WCS, resulting in youth joining us in 73 paid positions and 45 internships & volunteer positions. These numbers would have certainly been ever higher if not for the COVID-19 pandemic.

Amy was a Discovery Guide volunteer in 2017 and returned as a part-time employee Quest Leader in the summer of 2019. In July 2020, Amy was hired as a Mobile Crew member and provided engaging educational experiences for zoo visitors while also answering guest questions and reinforcing social distancing requirements. Amy is currently a sophomore at Cornell University where she is pursuing a pre-vet major.
High School Partnerships

We have particularly strong partnerships with 10 high schools in the South Bronx through the HERE to HERE network. In these schools we conduct targeted recruitment for volunteer, internship, and employment opportunities each year. This includes meeting with hundreds of youth in person and supporting them during the application process through onboarding. Through these efforts, we spoke directly with over 1,800 students about the WCS application process and received over 700 applications for youth opportunities.

Prior to closure in March, we hired 96 youth from these partner schools into part-time positions; all were furloughed when we closed. When we reopened in July, we reached out to these youth and 28 returned for the remainder of the season. Additionally, one youth participated in a summer internship with WCS Education and six participated in the summer Discovery Guide volunteer program for a total of 35 partner school youth who worked with us in summer 2020.
This year, 27 youth from WCS were accepted into this program. These young people received a stipend for their efforts in the Digital Discovery Guide program. WCS is one of the largest SYEP worksites in the city. Unfortunately, due to COVID-19, SYEP was significantly cut and modified into a modest online internship program, Youth Employment Summer (YES). WCS applied to participate in YES and supported more than 200 of our youth as they applied for the program in under five days.

Selena Bermeo  
Queens, NY (11368)

Selena was a CUNY Service Corps student at the Queens Zoo during the 2018-2019 academic year. In 2019, she was hired as a Conservation Camp Counselor and then Adjunct Instructor. In November 2019, Selena was hired as a full-time Conservation Educator at the Queens Zoo where she teaches conservation-science based programming.
Arielle Etienne  
Brooklyn, NY (11236)

Arielle began volunteering as a Discovery Guide Leader at the Prospect Park Zoo in 2017. In 2018 she became a Discovery Guide Leader. In 2019, she joined the Youth Ocean Advocates based at the New York Aquarium. In summer 2020, Arielle was hired as an Admissions Associate at the New York Aquarium.

"The program gave me a sense of purpose when I otherwise felt chaotic."

- DISCOVERY GUIDE

"Listening to women talk about thriving and enjoying their positions as STEM professionals reinforced the fact that I want to become a Marine Biologist, and reassured me that the time and work that’s necessary to get there is worth it."

- CAREER WEBINAR ATTENDEE

"I feel proud to help WCS, excited to know someone out there is learning because of something I helped make, confident because I successfully collaborated with my peers, and happy because I learned a lot and had fun."

- DISCOVERY GUIDE
Youth learn and develop throughout their time at WCS. In the variety of volunteer, intern, and part-time employment opportunities, our staff are committed to ensuring that youth have the skills necessary to succeed. From in-depth on-boarding sessions to continuous on-the-job training and mentoring, our young people become strong contributors to the organization and fulfill their own personal and professional development goals. WCS offers a suite of opportunities specifically designed to introduce youth to the skills and experiences necessary to turn their first interaction with WCS into a future career.

**Opportunities**

Youth learn and develop throughout their time at WCS. In the variety of volunteer, intern, and part-time employment opportunities, our staff are committed to ensuring that youth have the skills necessary to succeed. From in-depth on-boarding sessions to continuous on-the-job training and mentoring, our young people become strong contributors to the organization and fulfill their own personal and professional development goals. WCS offers a suite of opportunities specifically designed to introduce youth to the skills and experiences necessary to turn their first interaction with WCS into a future career.

**VOLUNTEERS**  
WCS engaged 416 volunteers between April-October 2020

### Discovery Guides

This science communication volunteer program focuses on training youth in science and animal content, conservation solutions, communication strategies, public speaking, and conflict resolution. Youth apply this knowledge by creating and implementing interactive activities with our visitors (typically in our parks or online in 2020). The result is over 400 youth facilitating over 600,000 interactions with visitors each year.

Digital Discovery Guides show off examples of crafts and collaborate in the game design platform Scratch.

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EDUCATION INTERNS

WCS engaged 146 interns between April-October 2020

Counselors-in-Training (CIT)

Young people interested in careers in education and working with children pursue CIT internships throughout the city. As one of the largest summer camp providers for New York City Cultural Institutions, WCS supports CITs as they facilitate active learning and engagement for thousands of summer campers.

CUNY Cultural Corps & Service Corps

Each year WCS hosts CUNY interns to support a variety of learning and engagement programs in our parks. From managing youth communication to supporting public events and field trips, the Cultural and Service Corps interns learn a variety of education techniques to make conservation relevant to our local communities.

Discovery Guide Leaders

After completing a season as a Discovery Guide volunteer, interested youth can apply for this elevated internship experience where they mentor Discovery Guide volunteers, contribute to the creation of visitor engagement experiences, and learn leadership skills, such as project management and public speaking.
Project TRUE (Teens Researching Urban Ecology)

OF THE MORE THAN 250 ALUMNI, ALL HAVE CONTINUED TO COLLEGE, WITH OVER 84% PURSUING A STEM MAJOR.

As described on page 26, this summer research mentoring program engages high school youth in authentic urban ecology research in New York City’s parks and green spaces. Mentored by a team of college students and faculty from Fordham University and educators from WCS, youth select a research topic, conduct fieldwork, analyze and interpret their data, and present it to the public. The program just completed its seventh year.

Youth Employee Advisory Council (YEAC)

EACH YEAR WCS IMPLEMENTS OVER 40 IDEAS GENERATED FROM THE COUNCIL.

This select group of front-line youth employees at the Bronx Zoo provides ideas and feedback to improve the visitor experience, employee satisfaction, and diversity, equity, and inclusion. YEAC members receive training on the business aspects of operating a zoo and how to identify problems and develop feasible solutions. Their ideas are presented to managers for review and feedback and approved ideas are implemented.

Youth Ocean Advocates (YOA)

This group of youth is committed to increasing public awareness about local ocean conservation. Based out of the New York Aquarium, YOA members meet with teams from WCS Seascape, Government Affairs, and Education to learn about science and policy issues related to local marine conservation. Their goal is to increase engagement of local community members and government officials around WCS conservation campaigns, such as the plastic straw ban.
As the largest employer of youth in the Bronx, youth make up the majority of WCS’s part-time temporary employees. Part-time employees in a variety of visitor-facing roles gain on-the-job experience in customer service, teamwork, and communication, as well as ongoing skill-building and support from the Career Lattice.

**PART-TIME EMPLOYEES**

We hired 558 part-time employees between April-October 2020

Distribution of 558 youth part-time employees across WCS departments

Youth staff members showing off their “Mask Up” uniform shirts which help foster a safe visitor experience.
Building Career Skills and Pathways

In addition to gaining experience as a volunteer, intern, or part-time employee, WCS youth have opportunities for focused skills-training and career exploration through the Career Lattice. This year, we adapted our skill-building workshops and career talks into a live webinar series. This migration to virtual programming increased our reach by more than 330% compared to the previous year. See full schedule.

Career Webinars

More than 1,300 youth tuned in for 11 live career webinars. The virtual career talks featured 11 STEM professionals who represented a variety of disciplines, jobs, backgrounds, and career stages. We featured conservation biologists who study animals in the field, veterinarians who take care of animals in our zoos and aquarium, an administrator who ensures that WCS operations run smoothly, and an exhibit designer who creates immersive experiences for visitors. Each webinar was one hour long and included at least 20 minutes for youth to ask questions.

Not only did the virtual webinar series increase our reach to youth attendees, but we were also able to feature speakers located all over the world – even spanning 3 continents.

Between 2019 and 2020, youth participation in workshops and webinars increased by 330%, demonstrating the increased reach of a virtual program.
WEBINAR SPEAKER SPOTLIGHT

Natalia Rossi
WCS Country Manager - Cuba

Natalia spoke to youth about her career trajectory and current projects which aim to protect Cuba’s immense biodiversity.

“There was never a time where science was more important, more needed, and more urgent.” - Natalia Rossi

This year our migration to virtual programming increased our reach, with more youth attending live sessions than in previous years and additional youth viewing the recordings that we distributed through our youth network. In an exit survey, WCS Education volunteers and interns reported learning about a variety of careers featured in the career talks, with many planning to go into one of these careers themselves. This year, a large number of youth noted that they want to be Biologists, exceeding the number who wanted to be Zookeepers or Veterinarians, which have been the most common responses in previous years.
Skill Building Workshops

Almost 1,000 youth tuned in for 16 live virtual skill-building workshops. These 90-minute interactive sessions covered eight topics from the timeless – communication, collaboration, and resume development – to the contemporary – financial literacy, social media do’s & don’ts, and online interviewing. Staff ensured the sessions were interactive through live trivia, chats, movement, and a variety of presentation media. WCS Education staff facilitated two of the same workshops for each topic and shared recordings.

WORKSHOP SPOTLIGHT

Financial Literacy

"I greatly appreciate all of the workshops and webinars. They gave us a chance to learn vital things for our futures. I wish schools focused more on careers and financial literacy."

-SKILL-BUILDING WORKSHOP ATTENDEE

Financial literacy workshop attendees learn how to write a check

“"I think the most valuable thing that I learned from the webinars is that you must always try and take any opportunity you can get...and despite what background that you come from or what you have, you can always accomplish your goals if you keep moving forward.”

-CAREER WEBINAR ATTENDEE

11 Career Webinars

16 Skill-Building Workshops

2300+ Attendees
Advance

Our youth are overwhelmingly interested in continuing their careers at WCS, and we provide support as they advance and diversify their positions. We increase awareness of early career job openings at WCS and other local STEM organizations by advertising these positions in our monthly youth newsletter. We also provide individualized case management to hundreds of youth each year, highlighting new opportunities to engage with WCS and reaching out to hiring managers to provide references.

From March 2018 through March 2020, more than 230 youth advanced or diversified their positions within WCS.

The rate of advancement was lower in 2020 than in previous years because the COVID-19 pandemic reduced the number of part-time positions, however, our volunteer and internship programs continued to provide opportunities for youth to engage with WCS in new ways.

Since March 2020, 66 youth have diversified their roles within WCS, including 34 Discovery Guides who were promoted to Discovery Guide Leaders.

2020 YOUTH SPOTLIGHT

Darnell Hester  Bronx, NY (10475)

Darnell was a Conservation Camp Counselor at the Bronx Zoo in the summer of 2017 and 2018. After working as a Museum Interpreter and Animal Care staffer at the Brooklyn Children Museum, Darnell returned to the Bronx Zoo in the summer of 2020 in the role of Mobile Crew member in the Education Department to provide engaging educational content to zoo visitors while also answering guest questions and reinforcing social distancing requirements. Darnell is a recent graduate of Canisius College with a degree in Animal Behavior, Ecology, and Conservation.
Advancing Best Practices in Youth Development

This year we developed and disseminated two resources for youth development providers seeking to better connect, develop, and advance the youth that they serve.

**Elevating Youth Voices in Cultural Institutions**

This guide focuses on how cultural institutions such as zoos, botanic gardens, and museums can systematically elicit meaningful feedback from youth employees, while simultaneously contributing to their professional growth. Based on our experience with our Youth Employee Advisory Council (YEAC), this resource creates a pathway for cultural institutions to develop and implement a similar program in their institutions.

**Mentor Training Curriculum**

Our curriculum compiled what we learned in the years of training Project TRUE undergraduates to be mentors to high school students. Divided into five modules, each focuses on a key component of mentoring, such as communication and youth development. These modules included several easy-to-implement activities, linked resources and templates, and suggestions for how to facilitate the activity online.

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**Recommended Timeline**

Here is a suggested timetable and order of activities. If you are not simultaneously training mentors who are developing a science research project, you do not include the elements in green.

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<th>Pre-Mentoring Sessions</th>
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<tr>
<td>Getting to Mentor Each Other (15 min)</td>
<td>Designing Your Study (50 min)</td>
<td>Designing Project for Mentees (30 min)</td>
<td>Data and Figures 1 (45 min)</td>
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NEW VOICES IN SCIENCE RESEARCH: Project TRUE

Project TRUE (Teens Research Urban Ecology) is a summer research mentoring program designed to activate New York City’s green spaces and engage new voices in ecology research and conservation.

Each summer the program supports **20 Bronx-based high school juniors** from backgrounds underrepresented in STEM as they design and conduct team-based ecology research projects under the mentorship of five undergraduates. The undergraduates -- all of whom are part of Fordham University’s CSTEP program -- are mentored by graduate students, informal educators, and biology faculty.

Each year, WCS staff spend one month training undergraduate youth to be mentors and supporting them in the development of their urban ecology research projects. High school students select the research projects that they want to pursue and develop their own research questions nested within the broader topic. This summer, we moved the program online, conducting undergraduate training on Zoom, and shifted high school student engagement to group activities on Zoom and Discord (a social gaming platform which has become a popular tool for community building in remote learning). As in previous years, undergraduates were high school students’ primary mentors, independently leading small group sessions with their teams of three to five students.

100% of students attend college

84% of students pursue a STEM major

"Common core and school in general doesn’t give us, the students, a proper depiction of what being a scientist really is about....Project TRUE is the perfect archway. Not only are we conducting our own projects and have to do actual research to find our answers, but we are being mentored and supervised by scientists who are in the field at the current moment."

**Manny Cortes, 2020 Project TRUE Participant**
To ensure equitable participation in research activities, youth designed projects that used ecological data sets that were publicly accessible online or data that could be collected through online surveys distributed through WCS networks. Incorporating social science data into research projects was new for Project TRUE and increased youths’ personal investment in their projects by providing an opportunity to collect and analyze original data. Projects addressed a range of topics, but this year had a strong human focus, with studies addressing people’s perceptions of nature & connections to their local parks.

The summer culminated with the development of posters describing their projects and findings. All Project TRUE youth participated in an online presentation as part of the Science Research Mentoring Consortium’s 2nd Annual Summer Symposium, during which they shared their findings with family, friends, and members of the public.

Research project topics:

- The Ramifications of a Declining Bronx Coastline
- Improving the Bronx River Watershed
- Covid-19 in the Context of Air Pollution and Greenspace in the Bronx
- Paw-some! Association Between Pet Ownership and Nature Connectedness
- Parks and Bronxation: Study of Observed Biodiversity and Perceptions of Nature in Major Bronx Parks
2020 PROGRAM SPOTLIGHT

ENGAGING THE PUBLIC IN CONSERVATION: Discovery Guide Program

The Discovery Guide program is a volunteer opportunity and internship opportunity for youth aged 14 to 22. Traditionally, Discovery Guide volunteers and Discovery Guide Leader interns are stationed at interactive stations where they engage zoo and aquarium visitors in games and activities about conservation.

When our parks closed in March, we moved our weekly meetings online and more than 175 youth continued to receive engaging training in biology content and public speaking. We also incorporated social-emotional topics and the option to schedule one-on-one sessions with staff to help youth cope with the stress of the many pandemic-related changes in their lives.

After pilot testing the spring program and speaking with youth and their parents, we developed the summer Discovery Guide program to be dynamic, multidisciplinary, and inclusive of youth voice. Over eight weeks, 251 Discovery Guides and 56 Discovery Guide Leaders joined us online (through applications such as Zoom and Discord) for community-building, learning, conservation activities, and fun.

The central part of the program was a collaborative project to create a series of Virtual Quests. Modeled off the in-person Quest program in which zoo and aquarium visitors stop at a series of interactive stations, the Virtual Quest program is hosted on a website and contains more than 350 unique products including videos, games, comics, activities, original songs, and more.

"Creating projects that we brainstormed in meetings was a great model that school could utilize... We also had so many forms of learning, through video, through doing research and reading sites, through listening to experiences of people in the field... that variety was something missing that I am so glad the program managed to create in a remote environment."

Nafsa Raisa
2020 Discovery Guide Leader

WCS Education

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Every two weeks, Discovery Guides completed a new set of original Virtual Quest content, which we added to the website and shared on Instagram and TikTok. Discovery Guides not only created an impressive collection of digital science communication tools, but also honed real world skills such as teamwork, project management, collaboration, and communication -- all in a virtual space.

Discovery Guide alumni have the opportunity to return to the program in an elevated role, as a Discovery Guide Leader. Discovery Guide Leaders are peer mentors and facilitators, assisting with training, serving as a liaison between Discovery Guides and WCS Education staff, and helping new volunteers get acclimated to the program. This summer, our 56 Discovery Guide Leaders took on the additional responsibility of advising and guiding small groups of Discovery Guides as they developed their Virtual Quest projects. They shared their knowledge of science communication and experience with guest interactions to help their groups develop engaging and effective digital content. Their intermediary role in the program was critical to the success of the summer program.

285 participants in summer 2020

89% of participants agreed or strongly agreed that the program prepared them to communicate about conservation with the public online

Meet Marina the NYC Zoo Scout, Willow the Red Panda, and Discovery Guides Tsetan and James! Click the images to see these original characters in action in various Virtual Quests.
The Youth Employee Advisory Council (YEAC) program engages front-line youth employees from the Bronx Zoo Business Services, Education, and Animal Departments in structured idea generation and career development. YEAC uses front-line youth employees’ unique perspectives to improve WCS operations, while simultaneously contributing to youth skill and career development, and fostering lasting and productive relationships between WCS and its youth employees.

During the zoo’s busy season from April through October, WCS Education staff leads YEAC members in weekly idea generation activities that provide a structured outlet to talk through everyday job challenges and identify possible solutions. These ideas, which aim to improve the visitor and employee experience and WCS business, capitalize on front-line staff’s unique perspectives gained through regular interactions with visitors. YEAC ideas are channeled to leadership who review them and develop strategies for implementation.

30% of participants have diversified their role within WCS.
Ideas
Over the last three years, more than 90 youth employees have participated in the program and generated hundreds of ideas, including 75 that have been moved through to implementation. YEAC ideas -- which have ranged from incorporating a zoo tour into part-time staff training to adding background music to the gift shop -- have the potential to create permanent changes at WCS by increasing efficiencies, reducing costs and generating revenue, and improving visitor and employee satisfaction.

Skill Building & Advancement
In addition to the job experience YEAC members gain as WCS employees, YEAC supports members’ professional development through monthly sessions designed to cultivate career-related skills, such as interviewing and working in teams. These sessions, held during the low-season (November to March), also provide information about career paths at WCS and one-to-one coaching to help youth capitalize on opportunities for advancement and diversification within the organization. Approximately **30% of participants have diversified their roles** within WCS, making an upward or lateral move within the organization.

YEAC was on pause over the summer while our parks were closed and most part-time youth employees were furloughed. Now that our parks have reopened, we have resumed recruitment and aim to engage 30 youth in a slightly modified program this fall. Members are participating in a combination of virtual and in-person idea generation meetings, during which they are tackling similar issues as before the pandemic, as well as new challenges that come along with measures to maintain social distancing and create a positive visitor experience during COVID-19.

**Cody Cheung**
2020 YEAC Member
BZ Admissions Associate & Children's Zoo Associate

"Being a part of YEAC has not only given me the opportunity to meet people from other departments but it has also allowed me to get my foot in the door and open a new career path."
We conducted an exit survey of WCS Education volunteers and interns to understand their program experience and career plans. In the future, we hope to work with Human Resources to conduct a similar survey with part-time employees.

### Overall Experience

WCS Education volunteers and interns reported that they had a positive experience in their program, with **68% rating their experience as excellent or superior**. This overall experience rating decreased slightly from 80% in 2019, likely because many 2020 youth had been looking forward to an in-person experience. Indeed, in open-ended comments, many recognized the value of their virtual experience, but expressed excitement about in-person engagement in the future.

### Knowledge Gains

Youth reported that their program taught them about animals, environmental science, animal care, and WCS’s conservation work. As in previous years, they were especially likely to report that they learned about WCS’s work, which they knew little about when they entered the program.

### Conservation Communication Skills

This year, the WCS Education volunteer and internship programs focused on strategies for communicating about science online, with youth creating innovative content for websites and social media. Youth felt that the programs prepared them to communicate about conservation with the public online and almost all felt that working in teams to create this content increased their confidence in their communication skills.

89% agreed that the program prepared them to communicate about conservation with the public.

“It feels empowering to inspire the public to reach out and support wildlife conservation. Especially since most of the targeted audiences were kids, I think it’s important that they learn the consequences of detrimental human actions from a young age.”

- DISCOVERY GUIDE
Peer Connections

WCS Education programs aim to foster connections between like-minded youth. This year, not only were peers able to meet each other, but programs were able to overcome one of the potential challenges of online engagement and make the participants feel like they were part of a community that included youth at their park, as well as youth affiliated with the other WCS parks.

"It’s so rare and amazing finding a group that I can be comfortable, vocal, and genuine with in such a short amount of time.”
—DISCOVERY GUIDE

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<th>Percent of youth who agreed:</th>
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<tr>
<td>86%</td>
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<td>75%</td>
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<td>47%</td>
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- met people with similar interests
- felt connected to WCS youth at their park
- felt connected to ALL WCS youth including at other parks*

*this percentage is likely higher than it would be for an in-person program, which provides few opportunities for cross-park collaboration.

Connection to WCS

WCS Education aims to create an environment in which all youth can thrive. Exit survey results indicated that the programs achieved this goal, with youth feeling welcomed, appreciated, and wanting to work for WCS in the future.

Youth reporting agree or strongly agree:

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<th>Percent of youth who agreed:</th>
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<tr>
<td>96%</td>
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<td>90%</td>
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<tr>
<td>83%</td>
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- felt welcomed at WCS
- felt appreciated at WCS
- want to work for WCS in the future

“The summer Digital Discovery Guide experience allowed me to still be involved with science even during a pandemic....Although the pandemic has stunted many students’ engagement with learning and being in a social environment, the Discovery Guide experience allowed me to still contribute to my community from home.”

—DISCOVERY GUIDE

Virtual animal meet & greet
WCS prides itself on providing strong, in-person support to youth at our parks. Although our programs went virtual due to COVID-19, our parks and aquarium are reopening in phases and our youth are central to our reopening efforts. The silver lining in this devastating pandemic is that our youth have taken advantage of the opportunity to learn, work, and teach digitally and have gained new skills by doing so. They have persevered through trying times and have remained enthusiastic about their careers and protecting wildlife and wild places. With our diverse youth suffering disproportionately from this pandemic, WCS Education staff adapted, collaborated, and delivered captivating experiences for our youth, who will be able to look back and say they were able to gain experience, insight and knowledge from WCS during a pandemic when many cultural institutions ceased operations, some permanently.

For the time being, WCS Education will continue to operate its programs virtually while also supporting the hundreds of youth working in our parks. Adapting to operations restrictions due to COVID-19, WCS Education was able to respond to the needs of our local communities, and fulfilled the needs presented by youth of enrichment and support. When our parks and aquarium finally do begin to operate at full capacity and in-person programming is allowed to resume, we will return with new tools, ideas and enthusiasm to continue to engage, develop, and advance our youth in STEM careers and beyond.

The silver lining in this devastating pandemic is that our youth have taken advantage of the opportunity to learn, work, and teach digitally and have gained new skills by doing so.
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The mission of the WCS Education Department is to inspire a diverse, inclusive movement of conservation advocates. We do this by sparking connections with animals and nature, enhancing scientific literacy through hands-on investigation, and engaging constituents in stewardship and action to conserve wildlife and wild places. WCS Education is headquartered at the Bronx Zoo, and has teams that operate out of each of our four zoos and aquarium in New York City.