Randall's Island

WETLANDS STEWARDSHIP PROGRAM
2011 REPORT

Since 1992, the Randall's Island Sports Foundation (RISF) has been working to ensure that local children go outside and play at Randall's Island Park. In particular, Randall's Island's nine acres of recently restored wetlands – just adjacent to under-resourced and densely populated New York City neighborhoods – offer a unique opportunity for urban children to explore and learn from the natural world. Because of their location in one of the world's great cities, the salt marshes and freshwater wetlands attract local, national and even international attention, and have inspired offers of partnership and volunteer support. At the same time, for local public school children, these wetlands are a short walk across a footbridge or bus ride from the tall buildings and asphalt of Harlem and the Bronx.

To take advantage of this unique opportunity for local volunteerism and environmental education, RISF developed the Randall's Island Wetlands Stewardship Program. The Program is guided by an on-site Natural Areas Manager with expertise in wetlands maintenance, volunteer supervision, outreach and education, who manages a three-person seasonal crew alongside a small budget for supplies and equipment and for annual refurbishment of the wetland plantings. In 2011, through the Wetlands Stewardship Program, RISF significantly increased volunteerism and visits by school groups; refurbished the salt marsh plantings; dedicated and equipped a classroom in Icahn Stadium; implemented a new oyster gardening program; expanded our outreach to educational and advocacy groups and events; initiated scoping sessions and baseline studies for a new living shoreline at the Park; and participated in citywide waterfront planning efforts toward continued improvements and programs.

The Wetlands Stewardship Program has been catalytic in sustaining the wetlands and bringing new environmental stewards to the Island. Support for the 2011 program helped RISF protect past investments in the sites, conduct vital programming, and plan responsibly for the future.

RANDALL'S ISLAND SPORTS FOUNDATION

The Randall's Island Sports Foundation (RISF) was founded in 1992 to act as steward of Randall's Island Park, in public-private partnership with the New York City Department of Parks & Recreation. The Foundation, in conjunction with City leadership and the local community, works to realize the Island's unique potential by developing sports and recreational facilities, restoring its natural environment, and reclaiming and maintaining parkland.

RISF also works to fund, implement and expand youth programs to make the most of its increasingly remarkable facilities, including Icahn Stadium for track & field, a golf center, a tennis center, more than 60 playing fields, an Island-wide bicycle and pedestrian pathway system, and acres of restored tidal salt marsh and freshwater wetlands. Working in partnership with dozens of local public schools and community-based organizations, RISF brings thousands of children to the Park each year for a range of free sports and environmental education activities, including the Wetlands Stewardship Program.

RANDALL'S ISLAND SALT MARSH AND FRESHWATER WETLANDS

The 2011 Wetlands Stewardship Program enabled RISF to take advantage of the exciting new resources at the $5 million, eight-acre Little Hell Gate Inlet salt marsh and freshwater wetlands, as well as a half-acre site in the Bronx Kill, all of which reopened following restoration in 2008.

The Inlet – once part of a channel bisecting the Island – was restored as a fully functional salt marsh. RISF removed 30,000 cubic yards of rubble, rebar and fill; regraded with clean sand; and planted salt marsh grasses *Spartina alterniflora* to create over three acres of low marsh and *Spartina patens* and *Panicum virgatum* to establish an acre of high marsh/transition habitat. The marsh grasses are now removing sediment and soaking up heavy metals and petroleum byproducts from the water column, which in turn improves water quality and reduces nonpoint source pollution and nitrogen inputs into the East River and Long Island Sound. Salt marsh grasses also sequester carbon from the atmosphere, removing CO_2 from the air and placing it in storage in marsh soils, helping to reduce greenhouse gases.

The restored salt marsh provides an integral habitat for a wide array of resident and migratory wildlife, and thus offers a remarkable resource for environmental education and

appreciation, accessible via a boardwalk. Shore birds, song birds, and predatory birds, crustaceans, mollusks, and juvenile and adult fish now forage, nest, and seek refuge in the reconstructed salt marsh. Particularly dramatic visitors include great and snowy egrets, great blue herons, double-crested cormorants, and yellow-crowned and black-crowned night herons that come to the Randall's Island in search of food. Common fall and winter marsh visitors include Carolina chickadees, buffleheads, Eastern phoebes, belted kingfishers, and song sparrows. To guide visitors in finding these species, and as part of the Wetlands Stewardship Program, new interpretive signage was installed at the boardwalk in spring 2011, thanks to funding from the Hudson River Improvement Fund.

To restore the adjacent freshwater wetland, RISF removed fill and construction debris and replaced invasive stands of mugwort (*Artemisia vulgaris*) and common reed (*Phragmites australis*) with native herbaceous, shrub, and tree species, such as willow, dogwood, switchgrass and aster. The majority of the water received by the wetland is stormwater runoff, collected from storm drains around the soccer fields just south of the wetland site and flowing into the site from a single pipe. The water then travels with gravity through several compartments within the emergent wetland. Previously, this stormwater runoff would have collected in the storm drains and emptied directly into the Harlem and East Rivers. The restored freshwater wetlands now serve to absorb and filter nonpoint source pollution before runoff reaches the rivers.

As a natural pollution filtration system, this freshwater site has enormous potential for hosting educational programs. It also provides an excellent resource for observing resident species, especially via a pathway that winds along its central peninsula to a small pond at the site's northern end.

The freshwater wetland provides critical breeding areas for butterflies and several species of dragonflies and damselflies, such as the spotted skimmer and meadow hawk, which require slow-moving water to complete their breeding cycle. It offers breeding and migratory habitat for birds such as red-winged blackbirds, American robins, Northern mockingbird, marsh wrens, common yellow throats, palm warblers, swamp sparrows, and green herons.

The Bronx Kill once comprised hundreds of acres of salt marsh. To restore the current 1-acre site, crews excavated thousands of cubic yards of fill material down to inertial elevations in order to initiate salt marsh hydrology. Clean soil was placed at marsh grade and native saltwater cordgrass and saltmeadow hay were planted in the low and high marsh sections of the new wetland. The upland habitat was planted with groundsel tree, seaside goldenrod, switchgrass, elderberry, and smooth aster.

The Bronx Kill salt marsh now provides a natural buffer to boat wakes and storm surges entering the Kill from the East River, which helps to prevent shoreline erosion. In addition, the salt marsh grasses naturally filter non-point source pollution from the Bronx Kill and adjacent East River, improving water quality. The wetland is a vibrant habitat, attracting resident and migratory animals. During spring and summer, the mudflat and marsh grasses host feeding and resting herons and egrets; these birds nest on South Brother Island, just north of the Park. During spring and fall, migratory songbirds and butterflies feed among the upland plants.

At all the wetland sites, the native plant species require special consideration in these early years, as they work to survive and contribute to the complex ecosystem now taking hold. Native species must be helped to thrive in competition with hardy invasive and non-native plants. Special attention must be paid to clearing intruders until the native plants gain sufficient foothold to edge out their competitors, and the new trees grow and shade out unwelcome guests. In time, the wetlands will be – and indeed have been designed to be – largely self-sustaining, supporting native species and requiring minimal maintenance. But the sites will need patience and care, over many years, to reach that point.

Through the 2011 Wetlands Stewardship Program, Randall's Island Park's wetlands have been fostered by an experienced Natural Areas Manager and a small crew. The Manager has brought outstanding academic credentials and wetlands expertise to the task, and has developed and works from comprehensive long-term maintenance and monitoring plans. She and her crew have enabled RISF to care wisely for this resource; to reach out to a wide range of volunteers and partners to assist in our effort; and to bring hundreds of local children to benefit from environmental programs at the Island's wetlands.

MAINTENANCE AND MONITORING

In 2011, the Natural Areas Manager and her crew spent thousands of hours weeding, pruning, fence building, installing erosion control biologs, watering, mulching, planting, and reseeding the wetlands and adjacent buffer area on Randall's Island. They also worked to maintain and restore the waterfront pathways along the wetlands sites and to conduct biological monitoring at the various wetlands sites. Under their supervision, this work was supported by the considerable efforts of hundreds of volunteers (please see **OUTREACH**, below).

In the salt marsh, the crew spent much of their time controlling the spread and seed dispersal of mugwort, common reed, sweet white clover, Japanese knotweed and morning glory. They monitored the low marsh sections of the salt marsh, which in 2010 suffered from goose herbivory. After applying for and receiving a new NYS DEC permit for refurbishment of tidal wetlands, these areas were replanted with 9000 plugs of saltwater cordgrass and saltmeadow hay and covered with protective fencing to protect them from the geese during winter 2011. Erosion control at this site is another onging concern, due to stormwater runoff from the adjacent RFK Bridge at the upland border of the salt marsh. The crew has installed biologs at this location to stop runoff, and continues to monitor the site, to place new sand in the eroded channels as needed, and to replant impacted species.

In the freshwater wetland, maintenance required ongoing and laborious removal of mugwort, Japanese knotweed, morning glory, and black locust in the upland area and common reed, purple loosestrife, and eastern cottonwood in the emergent wetland. Patches of Japanese knotweed and purple loosestrife were cut back and the roots dug out in spring and summer. Morning glory plants, found throughout the site, were quickly removed, as their tendrils strangle the native shrubs and trees. The common reed is a major problem throughout the emergent wetland, and the crew spent the early warm months cutting back the tall reed to preclude production of a flowering head in August.

In upland areas of both the salt marsh and freshwater wetland sites, the crew used weed wrenches and saws to remove cottonwood seedlings and black locust trees, which spread via seed. These tree species can be very weedy; if left to seed and spread, they will shade out native plant species, alter the soil chemistry to promote weeds, and eventually turn the sites into a black locust and eastern cottonwood forest. 2011 was a particularly challenging year in terms of controlling tree invasion of the wetland sites.

The half-acre Bronx Kill salt marsh at the Park's northeastern corner required less invasive species management; the major concern at this site was erosion and stormwater runoff. The crew continued to work to maintain a strong upland buffer habitat to control sheet runoff from adjacent baseball fields and roadways. This required weeding, digging trenches, adding sand, and installing biologs between the buffer and the roadway as well as at the base or "toe" of the upland slope. Due to severe weather and resulting erosion, sand, plantings, and biologs were required in stressed areas to prevent further runoff, and denuded areas required replanting. Finally, the Natural Areas Manager and Crew implemented a test planting of 100 plugs of saltwater cordgrass to determine viability, toward possible future plantings to prevent erosion. The plugs survived and flourished; as a result, RISF plans next to bring in groups of volunteers to restore that section of eroded marsh and protect it through cordgrass planting.

In 2011, RISF also developed a new wading bird monitoring program in partnership with NYC Audubon, to collect data beneficial to future wetlands management and planning. The Natural Areas Crew partnered with NYC Audubon on their annual Harbor Heron Surveys. As surveyors, the crew monitored 10 sites across the island twice a month from May through October for wading birds, recording the species of bird and their feeding habits. The data collected is now being used by Audubon and other City agencies to determine where these ecologically important birds feed and rest.

The Natural Areas crew also began monitoring the wetlands and surrounding waterways for fish. In August and September of 2011, fish were monitored twice a month at five separate locations in the Little Hell Gate Inlet and Bronx Kill salt marshes. Five traps were also placed twice a month at the proposed Living Shoreline project area, where RISF plans a restored natural edge and waterfront amenities (see LONG-TERM STEWARDSHIP, below); fish usage data will continue to provide useful information to project planners and designers.

In 2012, we aim to partner with a local academic or research institution in order to conduct additional scientific research at the wetlands. This partnership could enable undergraduate and/or graduate students to conduct scientific research at our restored sites. The wetlands at Randall's Island provide an excellent opportunity for scientists to answer questions about the success of restoration work in urban environments. Our relationship with the New York Academy of Sciences (NYAS) is one possible route for this partnership.

Through the Wetlands Stewardship program, all such island-wide wetland site treatments and monitoring data are recorded in an established database and used to monitor success and failure of current and future treatments (see Wetlands Monitoring Plan, attached). The results are shared with other New York City Parks and within RISF's community of partners and contacts.

OUTREACH

In 2011, partnerships with volunteer groups provided crucial supplement to the work of the Natural Areas Crew. Through the Wetlands Stewardship program, RISF has built a strong coalition of local supporters of all ages, and this past year both ongoing and new friends worked alongside the crew to sustain the complex and specific care of the tidal salt marsh and freshwater wetlands sites. In the meantime, these groups – both youth and adult – come to better understand and appreciate the environmental roles these ecosystems play in filtering nonpoint source pollution and providing habitats for the many native species they harbor. This strong support network has been made possible through the Wetlands Stewardship program, and is helping to ensure responsive and efficient long-term care of the site. We have already brought exponential benefits to areas throughout the Park, and we expect to build upon these efforts considerably going forward.

Volunteers

In 2011, the Natural Areas Manager worked alongside staff and partners to bring hundreds of volunteers to the site to assist in maintenance. Many community groups, advocacy groups, schools and corporate teams are interested in caring for the wetlands, and, through the Wetlands Stewardship Program, RISF is able to take advantage of this enormous resource.

Wetlands weeding and cleanup requires knowledge of a variety of wide-ranging plant species and specific directions on an ongoing basis throughout the day, and volunteer efforts at such sites will always require a tight ratio of volunteers to experienced supervisors. In 2010, the Wetlands Stewardship Program brought 226 volunteers to the sites, representing a range of friends and supporters, from corporate volunteers to local school groups learning from the site as they gave back to their local environment. RISF continued to build on these strong relationships in 2011, and significantly increased involvement to 388 volunteers, who participated in planting, watering new plants, weeding, pathway restoration, and debris removal projects on behalf of the sites.

Volunteers came from a wide variety of youth and adult groups, including Baruch College High School, Colgate Palmolive, Ernst & Young, the High School for Environmental

Studies, Inwood School, Lycee Francais de New York, Neu Shul, NYischool, PS 182, Renaissance Charter High School for Innovation, Spiritus Christi Senior High, United By Blue, YAI Interns and Zogsports. RISF has also established a long-term partnership with New York Cares, toward continued volunteer stewardship of the Island. (See attached.)

These volunteers contributed significantly to RISF's stewardship of the wetlands. They helped to maintain the freshwater wetland pathway, ensuring access for local school groups, by weeding within and along the pathway, installing filter fabric, and laying fresh woodchips. They lent a hand in the extensive weeding required to keep the freshwater wetland's upland and scrub areas free of mugwort, an especially harmful invasive plant. Volunteers were helpful in installing shrubs in the upland section of the salt marsh site. Maintenance also required planting of herbaceous plugs and grasses, including goldenrods, swamp milkweed, switchgrass, asters, eastern purplecone flower, and white snakeroot. To refurbish the salt marsh, RISF counted on volunteers to plant approximately half of the 9000 new saltwater cordgrass plugs, and to install hundreds of feet of fencing to protect these from winter goose herbivory.

New efforts for 2011 included increased volunteer clean-up and garbage removal along the island's five miles of shoreline, an effort that especially attracted stewardship by New York City high school groups. In April, the Natural Areas crew teamed up with United By Blue to host a shoreline clean-up, working with 37 students from the High School for Environmental Studies; together, they removed 379lbs of trash and debris from our shoreline and wetlands. This partnership was so successful that RISF has already arranged another event for spring 2012. In May, 23 Baruch College High School freshman spent a day of volunteerism at the wetlands, which included removal of ten large bags of trash from the shoreline. In addition to these two spring shoreline clean-up events, in September RISF partnered with the American Littoral Society to participate in International Coastal Clean-up Day 2011. The Natural Areas Crew and 40 students and teachers from the Lycée Français de New York worked to collect 192lbs of trash and debris from the wetlands and shoreline of Randall's Island Park. RISF will continue to partner with the ALS each year during their annual NYS Clean-Up event.

In 2011, the Manager and Crew provided for these volunteer groups a clear point of contact, informed liaison, and sufficient supervision. Under their guidance, volunteer days were set up with the right number and type of new plants, appropriate site conditions, and attention to detail, fostering long-term partnerships with caring groups and individuals. The volunteer activities served to care for the Randall's Island wetlands sites, while also introducing participants to the complex Island ecosystem, in mutually beneficial park stewardship.

With the help of the Natural Areas Manager, RISF has also linked with a number of Parks and advocacy groups with which we will continue to work in partnership. The scientists at NRG, who played a key role in the design and construction of both the salt marsh and the freshwater area, will continue to assist in reaching out to and facilitating ongoing volunteer stewardship. Other groups with which RISF worked closely in 2011 included the New York Academy of Sciences, the Metropolitan Waterfront Alliance, NYC Audubon, the Bronx River Alliance, Sustainable South Bronx, Rocking the Boat, NY/NJ Baykeeper, Parks Green Apple Corps, East River Crew, and the Hudson River Foundation. RISF also serves on the MWA Education Task Force, as part of the City's generation of the 2020 Comprehensive Waterfront Plan.

Wetland Tours

Wetland tours continue to gain visibility, and as word spreads, RISF is hosting an increasingly wide range of visitors. In 2011, a major goal was to increase our tours of the wetlands for academic and public groups; we hosted wetlands tours for groups including the NYC Economic Development Corporation; the Columbia University Department of Ecology, Evolution, & Environmental Biology; Fordham University graduate students; Validus Preparatory Academy; and NYC Audubon (see attached). A total of 233 people have toured the wetlands this in 2011, compared to 139 people in 2010. In 2012, we hope to host over 300 people for wetland tours.

As evidence of the widespread appeal of the Randall's Island wetlands, in August the Natural Areas Manager hosted wilderness explorer John Davis at our sites. John was on Wildland Network's TrekEast,

which is ultimately planned as one man's human powered journey from Florida to the Gaspe Peninsula in Canada, as an effort to bring awareness to a continental corridor for wildlife called the Eastern Wildway. He is tracing and reporting the importance of connectivity between natural habitat, or "Protection through Connection." Already 5000-plus miles into the journey, John came to New York City for media appearances, to meet with partners, and to view the large wetlands restoration at Randall's Island. On tour we were joined by Marit Larson and David Barker from the NYC Parks Department.

Exhibitions, Conferences, and Workshops

The Natural Areas Manager and Crew attended and hosted a range of events in 2011, publicizing the wetlands sites and the new Wetlands Stewardship Program by participating in outreach opportunities across the city. RISF was once again asked to table at the Metropolitan Waterfront Association (MWA) City of Water Day event, held on Governor's Island and ancillary sites. Other activities included tabling at the annual NYC Soil & Water Conservation District's NYC Outdoors! Environmental Education Expo 2011 at NYU's Wallerstein Collaborative Center for Urban Environmental Education and the MWA's annual Waterfront Conference. The Natural Areas Manager attended and presented RISF's data at the Harbor Herons and Waterbird NY/NJ Working Group Meeting. RISF also participated in a range of teacher outreach events through RISF's partnerships with the New York Academy of Sciences and the NYC Department of Youth and Community Development, including The After-School Corporation (TASC)-Finding the Resources You Need Fair and Science Programs, where the Natural Areas Manager was asked to sit on a Panel titled "Science is Everywhere: Workshop at Finding Science Resources." RISF participated in events and presentations within and on behalf of the NYC Parks Department, and tabled at the Grand Opening of a new Upper East Side store by invitation from Patagonia, one of the Program's supporters.

EDUCATION

Most importantly in terms of ongoing stewardship – of the Park and of the earth as a whole – in 2011 the Natural Areas Manager continued to function as RISF's point of contact with schools and groups coming to visit the wetlands, and the year was extraordinarily successful. As always, as part of RISF's ongoing mission, particular effort was made to reach out to schools located in the surrounding neighborhoods of Harlem and the South Bronx. In 2010, the first operating year of the Wetlands Stewardship Program, 42 field trips brought nearly 1000 students to the wetlands, coming from schools and summer groups in Manhattan and the Bronx. In 2011, we increased this number by more than 150%, reaching over 1500 children through 57 field trips from 24 different schools, camps, and after-school programs; we predict serving at least 2000 students in 2012. The program's demographics continue to expand as well. In 2011, we reached a variety of public and charter schools in our surrounding East Harlem, Harlem, and South Bronx communities, and we also attracted schools from Brooklyn and Queens. In addition, while in 2010 we served two middle school classes and one high school class, in 2011 we enrolled 12 middle school classes and two classes at the high school level. This was a growth both in numbers and in scope, expanding our reach and challenging the crew, through more advanced students, in productive ways. (See School Groups list, attached.)

RISF's Wetlands Stewardship activities booklets, made possible through the Wetlands Stewardship Program, serve as key outreach and educational materials and as useful tools both inside and outside the classroom. Based on the experience of the Natural Areas Manager and crew, in 2011 these booklets were updated with new photos and some new activities (see attached). The booklets encourage hands-on exploration and provide thorough information, and teachers have been grateful and enthusiastic in response. About half the schools have also asked for an in-class wetlands introduction lesson prior to their field trips, and to date RISF has been able to respond to all such requests; in fact, we aim in coming years to foster and encourage these visits and to bring them to an even higher percentage of participating schools. During these 45-minute lessons, the Natural Areas Manager or qualified crew member uses visuals, games, and the booklets to educate students about wetlands and their benefits to the environment, and to let them know what to expect during their visit to the park. Later, students will use their booklets as nature journals, recording their observations of plants and animals.

Over the course of 2011, the Natural Areas Manager and RISF staff worked together to fine-tune on-site activities and to develop a set of recommendations and requirements for participating schools. First of all, it became clear that classes which took advantage of the in-class introductory lesson benefited far

more from the subsequent site visit; both teachers and children were familiar with the educational materials, knew what to expect, and were prepared to move right into a hands-on experience. While RISF will never turn away schools that cannot allocate two sessions in this way, we do highly recommend taking advantage of the Wetlands Stewardship Program's ability to provide the preview; we are proud and grateful that we can offer such a unique service to New York City schoolchildren. Also, based on experience, RISF determined that a single field trip did not allow sufficient time for a school group to visit both the salt marsh and the freshwater wetlands. Ideally, therefore, schools are invited to register for three consecutive sessions: an in-class session, followed by a visit to the salt marsh, and finally a return to the Island to compare and contrast the freshwater wetland site. (See attached Program Description.)

A very exciting development in spring 2011 – and an indication of RISF's commitment to our environmental programs – was the dedication of an ideal new Wetlands Stewardship classroom space

within Icahn Stadium. Previously, classes had met in the weight room, a capacious but multiuse room depended upon by a wide range of RISF programs and events. All materials (posters, samples, chairs, tables, etc) were installed and removed each day, making organization of these materials a daily challenge. In addition, students used adjacent public locker room bathrooms, requiring teacher supervision. In contrast, the new classroom space was set up specifically as a Wetlands Stewardship classroom. The Natural Areas Manager and crew now store supplies in a large closet, display educational posters and student artwork on the walls, organize specimens on shelves, and arrange chairs and desks around the room as needed. Small, colorful square rugs were purchased for use with the younger groups, for whom desks seem less appropriate. Two individual restrooms within the space serve the students. This newly designated classroom space establishes a fun, safe, familiar and educational environment for all participants in RISF's Wetlands Stewardship Program.

Following the classroom meeting, the students visit the salt marsh. They learn how the island was once two separate islands containing creeks and wetlands and how these areas, beginning in the 1930s, were filled in by construction debris and rubble, essentially destroying this integral habitat and its ecosystem functions. Next, they begin to understand salt marsh structure and function, and how the restored site contains salt water that enters from the Harlem River, flooding it twice daily at high tide. In this way, they are introduced to concepts such as tidal patterns, habitat zones, and species usage of the site. Since students are told that they will be ecologists for the day, investigating and making observations of the wetlands, they are reminded by the Natural Areas

Manager to use their senses (hearing, sight, smell, touch) at a series of points to identify different species. Every student is given an activity booklet, a pair of binoculars, and a hand lens for use while on the field trip.

With this background, students begin a series of exciting, hands-on investigations. They observe and note the wetlands plants, and – with instruction and guidance from the Manager and crew – use dip nets, seine nets, and throw nets to collect fish, crabs, shrimp, and aquatic insects from the water's edge in the tidal creek. With binoculars, the students discover and identify a wide range of birds found in and around the salt marsh such as egrets, cormorants, geese, ducks, chickadees, belted kingfishers, and herons. Using magnifying hand lenses and aquariums, they can closely observe small creatures like spiders, worms, fiddler crabs, fish, and snails. Students are encouraged to search the salt marsh for evidence of wildlife and look for tracks in the sand or mud, shells, feathers, nests, or scat.

In the freshwater wetland, students are first taught about how the site receives stormwater runoff from adjacent ballfields and how this water flows through the site. The Manager and crew describe the importance of the emergent freshwater plants, as they stabilize the soil and remove the pollutants from the water, improving water quality. Students are shown various native and invasive plants in the freshwater wetland; they learn the difference between the two, and come to understand the importance of native plants and the harmful impact of invasive plants.

Once again, students are encouraged to search the site for sightings and evidence of wildlife. In the long upland grasses, they discover common garden snails, northern brown snakes, spur-throated grasshoppers, and praying mantis. Using aerial nets, students catch, examine and sketch butterflies and dragonflies. Through binoculars, they locate and observe American robins, red-winged blackbirds, mockingbirds, and sparrows. At the pond, a drop net will retrieve small aquatic insects, and a sharp eye will reveal a muskrat lodge, duck nests and even duck families.

Such hands-on activities allow direct interaction with diverse wetlands wildlife and plants – an experience for which there is no classroom substitute, in terms of developing interest in and respect for the natural environment. During all of this wetland investigation, students are asked questions about the animals and plants they find, to encourage them to make observations and hypothesize. After they return to the classroom, they summarize what they found at the site, incorporate drawings with labels, and finally report what they saw and experienced. In the meantime, these young visitors learn what it means to be a wetlands steward, and how they can help care for the natural areas of NYC and beyond.

In order to better track and tailor the Program, in 2011 we began asking teachers to complete surveys after their visits. Some select classes were also given student surveys. (See attached samples of Teacher and Student Surveys.) This has allowed RISF and the Natural Areas Crew to gain a better understanding

of how students benefitted from the program, how teachers were able to integrate topics and experiences into their lessons and coursework, and how we could improve our program overall. The student surveys allowed us to learn what the children enjoyed or disliked about the program, and to track what they learned about wetlands and the environment.

Responses to the 2011 Teacher Surveys were extremely positive, citing as key benefits of the program the hands-on nature of the activities, the quality of the staff, and the ability to tailor activities to suit each age and curriculum. Kazue Takenaga, who teaches the 5th grade at Manhattan's PS 87, found the Wetlands Stewardship Program to be "one of the strongest environmental education programs I have encountered," and her comments summarize much of our feedback: "The students benefit from hands on activities and a knowledgeable staff. They have gained a truly wonderful experience!" Amy Trojanowski, a 6th grade teacher at the Renaissance School of the Arts, found that a key benefit of the visit was that students "got to see plants and animals that were entirely new and interesting," and found that their interest and enthusiasm led naturally to a new concern for the environment: "It really helped seeing the garbage as well, they could see and relate to the importance of keeping the environment clean." Kimberly Tan and Anna Wood, 4th grade teachers at the Harlem Success Academy, were specific in their praise for the program's strengths: "As teachers, we so very much appreciated your clearly planned activities, incredible breadth of knowledge, and well regulated guidelines and expectations from our students. We hope to continue with future collaborations with Harlem Success! Thank you so much for creating such a wonderful program."

Of particular note was the degree to which teachers from a wide range of classrooms and ages were able to integrate the visits within a current curriculum or course of study. Among some of the Program's younger participants were 1st graders from Central Park East II, whose teacher, Vanessa Miller, noted: "Our class is currently studying invertebrates, and the RI program complimented our class curriculum beautifully. … [M]y students love animals, so they really enjoyed seeing the actual animals that live in this habitat. The closing activity of unknown objects was also a big hit, and the students have been able to identify those objects in books that we have in the classroom since our trip." Amanda Maroulis, who teaches slightly older students from the 2nd grade at PS 184, noted that she "was able to integrate examining and classifying techniques when examining seeds for a science activity. [Students] were able to use their 5 senses as mentioned on the trip." At the older end of the spectrum, Jenn Mikolajek's 8th grade students at IS 318 were also able to integrate the experience within their current unit of study: "They enjoyed the animals and using the tools including the binoculars, magnifying glasses, and test kites. They just finished their ecology unit so this was very appropriate and a great hands on experience for them!" Amy Trojanowski, 6th grade teacher at

the Renaissance School of the Arts, noted that the Wetlands Stewardship Program offered "an excellent way to study one ecosystem in detail. We have talked about biotic/abiotic factors, ideas about conservation biology and plant/animals in various habitats."

Students were clearly enthusiastic, retaining notably specific memories as well as an understanding of broader environmental issues. Elayna, a 4th grader at PS 87, "loved pulling the trap out of the water and seeing what was inside," and also "loved looking at all the plants and animals." Isabella, in 2nd grade at PS 184, tells us that her "favorite part was when we got to see the fiddler crabs because it was so amazing when we learned that the bigger claw meant it was a boy and when it has the smaller claw it was a girl." One 4th grader from PS 49 – who didn't leave a name on the form – cherished a particularly lucky sighting: "My favorite animal in the wetland is the egret because it was so tall it had a long neck and legs." Especially gratifying were the answers to the question: *Why are wetlands important?* "Wetlands are important," said Anna, a 4th grader at PS 87, "because they are the home to a lot of animals and plants." Tiffany, in 2nd grade at PS 184, noted: "They make water clean." Constantine, also in the 2nd grade at PS 184, learned that "[w]etlands are important because they prevent floods." To take care of wetlands, a group of 5th graders from PS 87 suggested that we "not pollute them with garbage or oil," "forbid dumping pollution," and "be good environmental stewards by not littering, by not cutting down the trees, but caring for the animals and plants." At the wetlands, we should avoid "walking in places we should not walk" and we should not "take away things" but aim for "keeping things that are from nature in nature." Toward the future, we can "donate money, recycle, and use green products"; further, "we can ask the government to make laws for protection. People need to know about wetlands."

Striking also was the specificity and range of the details which struck the students as they observed the wetlands; it is a stimulating environment. For example, when asked their favorite part of the trip, the 5th graders from PS 87 – who had all visited the same place, at the same time – provided remarkably vivid and diverse responses. Jake liked "finding the artifacts like bones, and leftovers from animals, and the shells"; Zoe enjoyed "throwing the mud snails into the water and watching them crawl around"; Joey found the mummichogs "cool because the fish were swimming in the corners and pushing each other." Sarah said that her favorite part of the trip "was when the mud worms were taken out and we looked at them and poked them." Ethan liked using bait to

get mudsnails “to see how they moved,” and theorized that “they might be accustomed to raw chicken leg”; although Liliana “didn’t like to touch the mud snails because it was kind of discusting” [sic], she liked the mocking birds “because it’s funny how they mock other birds.” When asked what they liked least, most students noted that it was a cold day (the visit was in October), but others had specific observations about the flora and fauna. Abby did not like “watching the snails come out of their shells,” and Zoe was disappointed that she “didn’t catch any crabs with the raw chicken bone”; Nathan’s least favorite part of the trip was “that we didn’t get to go fishing because I wanted to do that.” Jason was understandably unhappy that he “picked up bird poop but didn’t realize it was poop.” Of the wetland plants and animals, Jaya’s favorite was the mummichog, “because there are so many of them in only a small pool”; Amara favored the crabs “because they can fight.” Nathan chose the night heron because of “the way it stands on the edge of the water waiting for a fish”; William also liked the night heron, because of “how it camouflaged.” Ashley said, “My favorite plant was the cranberries that birds eat because I like berries and it was smooth and soft, and the color was pretty.” Simon admired salt marsh cordgrass “because when you stroke the plant, dried salt gets on your finger.”

RISF will continue to develop the Wetlands Stewardship Program based on these lively and positive responses from a diverse range of participants, and will build upon new connections and partnerships in order to grow and expand what we can offer. One goal for our growth in 2011 was to explore partnership with NY/NJ Baykeeper toward starting an Oyster Gardening Program and becoming part of a harbor-wide effort to restore oysters to our New York/New Jersey Harbor Estuary. We were able to obtain a cage of 500 oysters from Baykeeper, which we placed off the ferry dock in July 2011. These oysters have allowed us to begin to develop the hoped-for expansion of our educational programs, and for the first time in summer and fall 2011 we began bringing a few school groups for visits. By spring of 2012, we expect to have the Oyster Gardening Program fully in place as an option alongside wetlands exploration – thus offering an even greater range of observations and sensations to our participants. Similarly, the Natural Areas Manager’s relationships with local groups such as the Bronx River Alliance and Rocking the Boat will assist in developing increased programming such as canoeing, providing students with greater access to the water and the remarkable experiences it can offer young New Yorkers.

LONG-TERM STEWARDSHIP

With the restoration of the Randall's Island Wetlands, RISF has transformed Randall's Island Park. But this is only the first step. "Stewardship" is not a single act of support; it suggests an ongoing relationship with a place and a mission. In partnership with the NYC Parks Department, RISF continues to work toward restoration and improvement of additional natural areas, efforts which will lead to an even more remarkable educational resource for New Yorkers.

In coming years, with the help of the Natural Areas Manager, RISF will work toward improving the Wetlands Entryway, an area central to the Island which provides the pedestrian connection between the two wetlands sites. This should be visible and welcoming, but currently comprises millings, asphalt and debris. RISF secured funds from the Hudson River Improvement Fund of the Hudson River Foundation for interpretive signage at this site; the signs were installed in spring 2011, educating visitors and establishing the area as a focal point within the Park. These signs were designed to follow the style of interpretive signage along the Inlet's boardwalk, also installed in spring 2011.

In spring 2012, RISF and Parks will lead community planning workshops for design and construction of a new Randall's Island Living Shoreline and adjacent recreational area, north of the Inlet. Just across from East Harlem, a section of the Island's seawall is so badly deteriorated that RISF was awarded an Environmental Protection Fund (EPF) grant to remove much of the stone wall along this 800 LF section, and to re-grade the shoreline to a natural edge, creating marine habitat and improved access to the water's edge. This section will be part of a 2.2-acre Living Shoreline Recreational Area comprising elements such as salt marsh areas, sand beach, picnic areas, small craft launches, and fishing access.

These projects have been conceived to grow and develop through responsive, long-term partnerships with local stewards of all ages. RISF's vibrant website (www.randallsisland.org) supports this focus, by spreading the word and allowing downloading of materials like the activities booklet by those with an interest in the Park and its ecosystems. We hope participating school groups will soon be able to record findings on the site, based upon questions in the booklets. RISF's bimonthly email newsletters to more than 10,000 friends and supporters keep the Park's neighbors informed, thank those who contributed, and cultivate new stewards. Further, in 2011 a Learning Garden constructed at the Park in partnership with the Mayor's Fund and GrowNYC began offering "farm to table" programming in tandem with both sports and environmental programs offered by RISF.

Through the Randall's Island Wetlands Stewardship Program, RISF has built a coalition of friends and fans as diverse as the city that surrounds the Island. We thank you for your support.

Randall's Island





Wetlands Stewardship Program

The Randall's Island Wetlands Stewardship Program teaches children about wetland ecology and enables children to experience nature through hands-on learning. During the field trip, students will have the chance to explore a restored salt marsh or freshwater wetland on Randall's Island. Students will gain a greater respect for the environment and a greater understanding of what it means to be an environmental steward.

Program Description

The Randall's Island Wetlands Stewardship Program consists of a Pre-Visit and a Field Trip.

Pre-Visit

During the pre-visit, the Natural Areas Manager and Natural Areas Crew will visit your classroom prior to the field trip to provide a short (45-60 minute) introductory lesson to your students. During the classroom session students will be shown a PowerPoint presentation that will provide them with an introduction to wetlands (answering questions like: What is a wetland? What are different types of wetlands? Why are wetlands important?). The classroom session will also introduce students to their Wetlands Stewardship Activities Booklets (grades 3-6). During this session students will complete activities in the booklets that will help them practice their scientific observational skills and learn the new vocabulary associated with wetland ecology.*

**We highly recommend the pre-visit lesson because it provides students with enough background so that they are prepared for their field trips. Please notify the Natural Areas Manager if you are unable to take part in the pre-visit portion of our program.*

Field Trip

The Randall's Island Wetlands Stewardship Program consists of three field trips:

1. Salt Marsh
2. Freshwater Wetlands
3. In-depth Wetlands Exploration*

** This visit will be a more focused visit on a specific topic chosen by the teacher. Potential topics include trees, soil, flowers, or insects.*

Teachers are encouraged to can take part in one, two, or all three field trips. However, all participants must begin with the salt marsh field trip before they can complete the other trips.

All field trip sessions last for approximately 90 minutes. All field trips will begin and end at a classroom located in Icahn Stadium. Students will be taught in the classroom and guided on the field trip by the Natural Areas Manager and/or a member of her crew. Students in grades 3-6 will be able to use their Wetlands Stewardship Activities Booklets in the field as nature journals, recording the various plants and animals they see along the way. Younger students in grades K-2 conduct observational and inferential learning while in the field and complete writing and drawing activities back in the classroom. As part of the hands-on learning experience, students will use binoculars, magnifying glasses, fish nets, and traps to find animals in the wetlands. Students will have the chance to get up close and personal with fish, crabs, snails, insects, and plants!

Cancellations

Field trips are held rain or shine unless there is inclement weather. In the event of severe weather, outdoors portions of the field trip will be cancelled and the entire program will be replaced with indoor activities. If this is not preferred, the teacher may choose to reschedule the field trip if there are dates available. Please call the Natural Areas Manager on the morning of the day of the trip to confirm whether the outdoor portion of the field trip is still scheduled. If you are unable to attend your scheduled field trip you must notify the Manager as soon as possible.

Scheduling

For further information on the program or to schedule a visit to the wetlands, please contact:
Victoria Ruzicka, Natural Areas Manager
Phone: 212-860-1899 ext. 309
Email: victoria.ruzicka@parks.nyc.gov

When scheduling your visit, please provide the following information:

1. Name of the teacher responsible for the group with their phone number (preferably cell phone number) and email address;
2. School/Program name, address, and phone number;
3. Grade level for your group;
4. Number of students in your group;
5. Dates you would like to schedule for the Pre-Visit and Field Trip;
6. Preferred arrival and departure times;
7. Names of other teachers/assistants that will be attending the field trip;
8. Any special educational or physical needs of students in your group;
9. Whether your students will be eating lunch on the Island.

Once you have scheduled your trip you will receive a copy of the Wetlands Stewardship Activities Booklet, Randall's Island Liability & Photo Release Form, Directions to Randall's Island, and Program Description & Welcome Letters for Parents & Teachers.

Post-Visit

After you finish the field trip we will ask you and your students to complete questionnaires regarding the program. We particularly welcome constructive criticism from teachers.

Thank you and we look forward to seeing you at the Randall's Island Wetlands!
Want to learn more about the Randall's Island Wetlands? Visit www.randallsisland.org

Randall's Island Wetlands Stewardship Program 2011

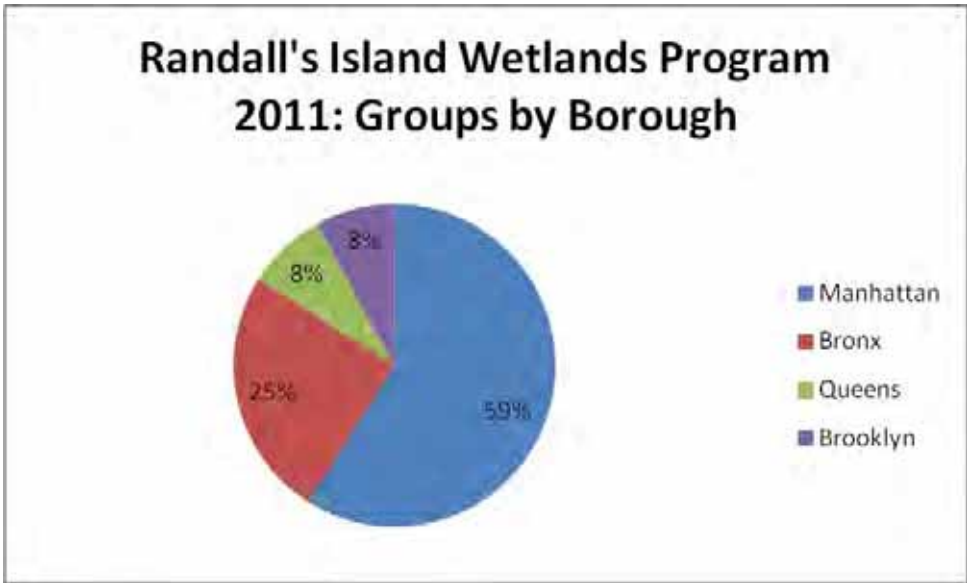
The 2011 Randall's Island Wetlands Stewardship Program ran from April-November 2011, with 73 scheduled field trips to the Randall's Island wetlands, of which 57 were successfully completed, comprising 24 groups and 1583 student participants.

Randall's Island Wetlands Stewardship Program-Field Trips					
Date	**School**	**Borough**	**Main Contact**	**Grade**	**# of Students**
4/11/2011	PS171	Mn	Ife Hutchinson	7	*
4/12/2011	PS171	Mn	Ife Hutchinson	7	*
4/15/2011	Hyde Leadership Charter School	Bx	Merrick Tchnavia	9	25
4/19/2011	IMANI House	Bk	Hager Youseff	K-4	56
4/27/2011	PS/IS 171 Patrick Henry	Mn	Maria Rodriguez	8	*
4/28/2011	PS/IS 171 Patrick Henry	Mn	Maria Rodriguez	8	*
4/29/2011	Hunts Point Recreation Center	Bx	Tuwanda Ruffin	K-6	14
4/29/2011	Hyde Leadership Charter School	Bx	Merrick Tchnavia	9	*
4/29/2011	PS/IS 171 Patrick Henry	Mn	Maria Rodriguez	8	*
5/2/2011	Academy of Environmental Science	Mn	Robert Gans	10,11	12
5/4/2011	Central Park East 2	Mn	Vanessa L. Miller	1	20
5/6/2011	PS112	Mn	Nieve Gonzalez	K	21
5/10/2011	PS184	Qns	Allison Fallier	2	25
5/11/2011	PS184	Qns	Michelle Fitlin	2	22
5/12/2011	PS184	Qns	Allison Fallier	2	26
5/13/2011	PS112	Mn	Susan Morelli	1	34
5/17/2011	Hyde Leadership Charter School	Bx	Merrick Tchnavia	8	*
5/18/2011	Hyde Leadership Charter School	Bx	Merrick Tchnavia	8	*
5/19/2011	Hyde Leadership Charter School	Bx	Merrick Tchnavia	8	*
5/20/2011	Renaissance School of the Arts	Mn	Amy Trojanowski	6	16
5/20/2011	P.S.49x / The Willis Avenue School	Bx	Eve Spann	4	26
5/23/2011	IS318	Bk	Tina Brazil	8	25
5/24/2011	IS318	Bk	Tina Brazil	8	29
5/25/2011	IS318	Bk	Tina Brazil	6	16
5/26/2011	PS 87-William Sherman School	Mn	Theresa Furman	2	25

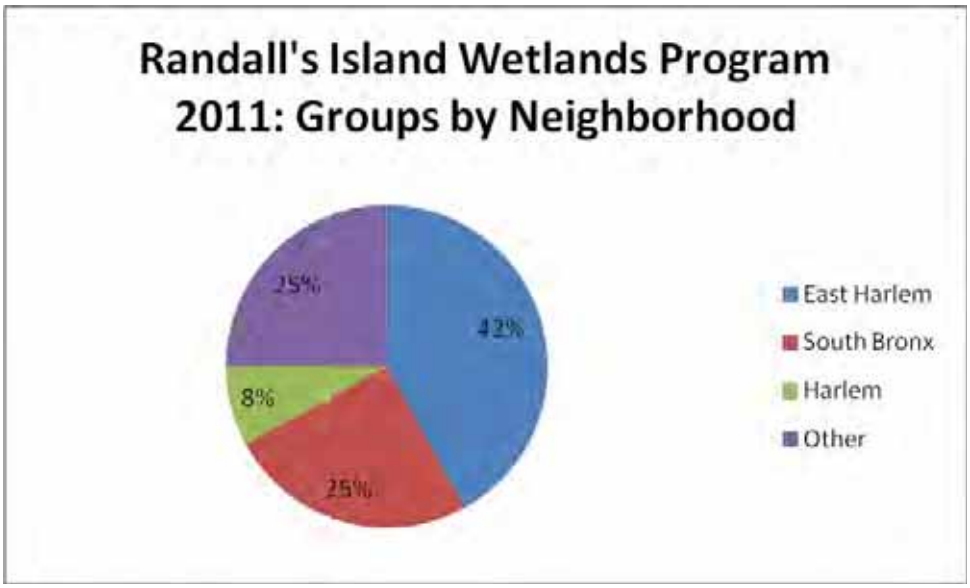
5/27/2011	PS/IS 50	Mn	Ms. Feliz	7	20
6/1/2011	Bronx School of Excellence	Bx	Ms. Lenard	5	26
6/2/2011	Bronx School of Excellence	Bx	Ms. Lenard	5	26
6/6/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	8	42
6/16/2011	PS 18	Bx		3	24
7/6/2011	Harlem Success Academy 1	Mn	Melanie Rosenberger	2	22
7/6/2011	Harlem Success Academy 1	Mn	Melanie Rosenberger	2	22
7/7/2011	Harlem Success Academy 1	Mn	Melanie Rosenberger	3	25
7/7/2011	Harlem Success Academy 1	Mn	Melanie Rosenberger	3	26
7/12/2011	Harlem Success Academy 1	Mn	Melanie Rosenberger	4	25
7/12/2011	RIK	Mn	Lou Schlanger	1	17
7/12/2011	RIK	Mn	Lou Schlanger	3	15
7/19/2011	Brooklyn Afterschool Program	Bk	Isaac Deberry		*
7/21/2011	YMCA McBurney & NYU Go Green!	Mn	Maggie Karlin		*
7/26/2011	NYC Mission	Mn	Dwayne Brown		*
7/27/2011	RIK-Casita Maria	Mn	Lou Schlanger	4	19
7/27/2011	RIK-Casita Maria	Mn	Lou Schlanger	2	16
7/28/2011	RIK-The Children's Aid Society: East Harlem Center	Mn	Lou Schlanger	K	12
7/28/2011	RIK-The Children's Aid Society: East Harlem Center	Mn	Lou Schlanger	K	14
8/4/2011	RIK-Countee Cullen Community Center Day Camp	Mn	Lou Schlanger	5	15
8/4/2011	RIK-Countee Cullen Community Center Day Camp	Mn	Lou Schlanger	4	15
10/5/2011	PS 102	Mn	Judy Jones	3	49
10/12/2011	PS 102	Mn	Judy Jones	3	49
10/17/2011	PS 102	Mn	Judy Jones	3	49
10/14/2011	Bronx Success Academy #2	Bx	Tony Depiano	2	28
10/18/2011	PS 87-William Sherman School	Mn	Kazue Takenaga	5	29
10/19/2011	PS 87-William Sherman School	Mn	Kazue Takenaga	5	*
10/20/2011	PS112	MN	Jennie Blind	1	28
10/21/2011	PS 87-William Sherman School	Mn	Kazue Takenaga	5	49
10/6/2011	Bronx Success Academy #2	Bx	Tony Depiano	2	*
10/7/2011	Bronx Success Academy #2	Bx	Tony Depiano	2	*
10/13/2011	Bronx Success Academy #2	Bx	Tony Depiano	2	*
10/24/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	6	57
10/25/2011	PS 102	Mn	Judy Jones	2	33

10/26/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	6	59
10/31/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	7	41
11/1/2011	PS 102	Mn	Judy Jones	2	33
11/1/2011	Bronx Success Academy 2	Bx	Tony Depiano	2	26
11/2/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	8	48
11/3/2011	School of Environmental and Applied Sciences	Mn	Pam Scott	8	25
11/4/2011	TAG	Mn	Katie Kelley	4	25
11/7/2011	TAG	Mn	Katie Kelley	4	30
11/9/2011	Harlem Success Academy 1	Mn	Margaret Fandrich	6	35
11/9/2011	Bronx Success Academy 2	Bx	Tony Depiano	2	28
11/10/2011	Bronx Success Academy 2	Bx	Tony Depiano	2	23
11/14/2011	Harlem Success Academy 1	Mn	Margaret Fandrich	5	41
11/19/2011	SafeSpace	Qns	Jeffrey Moyes	4,5,6	18
11/23/2011	PS 112	Mn	Nieve Gonzalez	K	7
				TOTAL	**1583**

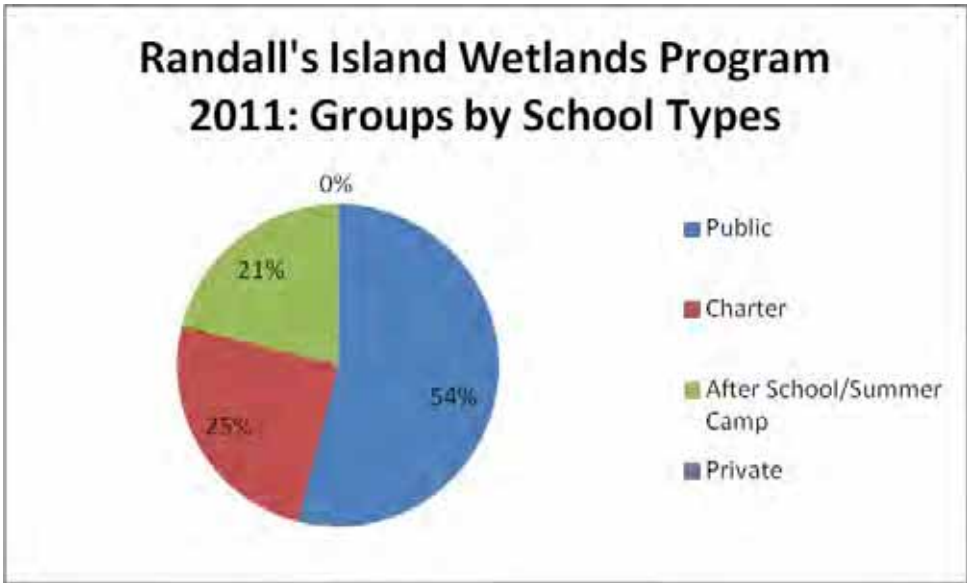
During 2011, the Randall's Island Wetlands Stewardship program was visited by 24 different school groups and community-based organizations. Of these groups, the majority of visits were from Manhattan-based schools, camps, and after-school programs (14). There were 6 Bronx, 2 Queens, and 2 Brooklyn based schools, camps, and after-school programs that visited the wetlands in 2011.



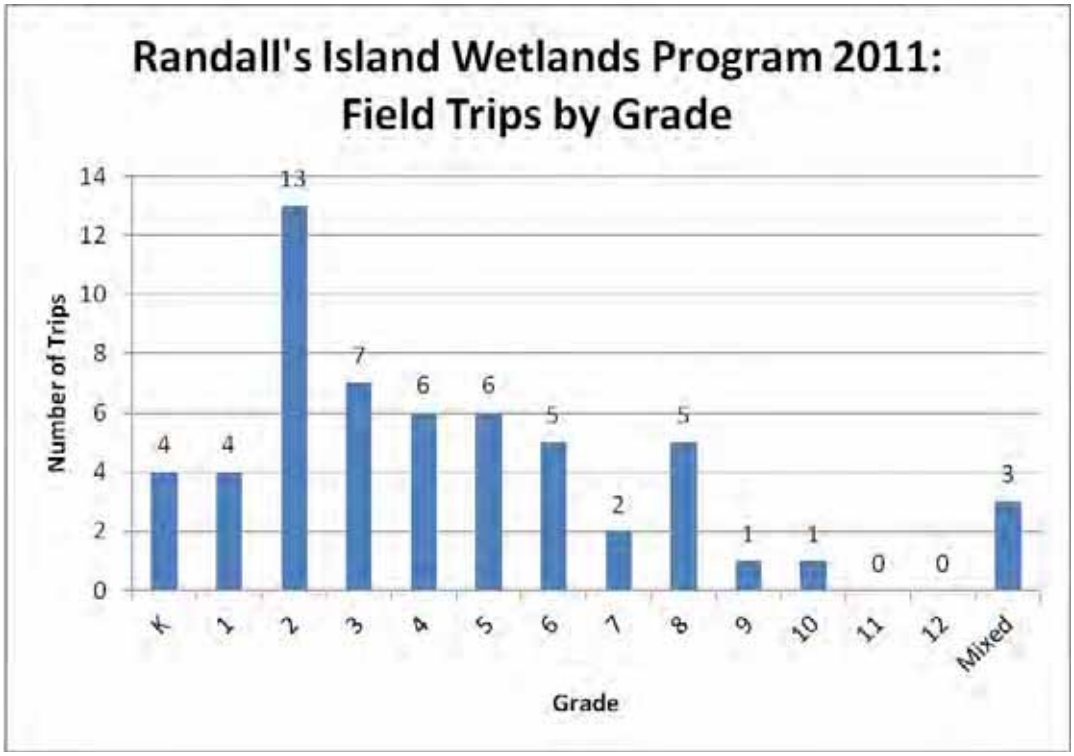
Further analysis of school/camp/community group location shows that the majority of groups that took part in the Randall's Island Wetlands Program in 2011 were from our target neighborhoods of East Harlem and the South Bronx (67%). Schools participating from the East Harlem neighborhood included: Academy of Environmental Science, Central Park East 2, PS112, Renaissance School of the Arts, PS/IS 50, Harlem Success Academy, RIK-Casita Maria, RIK-The Children's Aid Society: East Harlem Center, PS 102, TAG, and RIK (mixed group). Schools participating in the program from the South Bronx included: Hyde Leadership Charter School, Hunts Point Recreation Center-After School, P.S.49x / The Willis Avenue School, Bronx School of Excellence, PS 18, and Bronx Success Academy #2.



The majority of visits in 2011 were from public schools (13 schools). Charter schools (6 schools) and camp/summer programs (5 programs) visited the site in lesser numbers and there were no visits from private schools.



During 2011 the Randall's Island Wetlands Stewardship Program received visits primarily from elementary students, but there was an increase in the number of middle school and high school class visits compared to 2010. The most visits were from 2nd and 8th grade classes.



Randall's Island Wetland Stewardship Program
Volunteers 2011

Schools

Group: High School of Environmental Studies & United by Blue
Date: April 5, 2011
Time: 1:00pm-3:00pm
Contact: Leslie Weinberg (Phone: 800-779-0240; Email: leslie@unitedbyblue.com)
Number of Volunteers: 37
Task: Students from the High School of Environmental Studies and representatives from United by Blue worked with the Natural Areas Crew to remove 379lbs of trash and debris from our shoreline and wetlands.

Group: PS 182-Bilingual Bicultural Mini School-5th Grade
Date: May 14, 2011
Time: 9:00am-3:00pm
Contact: Gisela Joyce (Phone: 201.951.7059; Email: SO2TO@aol.com)
Number of Volunteers: 12
Task: Volunteers from Colgate-Palmolive joined the students from BBMS to weed 3000 sq ft of upland area in the freshwater wetland. In addition, the Colgate-Palmolive and BBMS students planted 2250 plugs of saltwater cordgrass and erected hundreds of sq ft of new goose fence in the Little Hell Gate Salt Marsh.

Group: Renaissance Charter HS for Innovation
Date: May 23, 2011
Time: 10:00am-3:00pm
Contact: Elizabeth Smith (Phone: 717-917-3710; Email: elizabeth.smith@innovationhs.org)
Number of Volunteers: 14
Task: Students planted 600 plugs of saltwater cordgrass in the Little Hell Gate Salt Marsh and weeded over 1000 sq ft of the upland area in the freshwater wetland of mugwort.

Group: Baruch College High School
Date: May 26, 2011
Time: 9:00am-2:00pm
Contact: Diana DiRicio (#212-683-7440; msdirico@gmail.com)
Number of Volunteers: 23 (21 freshman, 2 teacher)
Task: As part of a freshman student body volunteer day, students planted native saltwater cordgrass in the Little Hell Gate salt marsh. The students planted 550 grass plugs in an area lacking vegetation due to goose herbivory. In addition, the students weeded 2000 sq ft of upland area in the freshwater wetland of the invasive plant mugwort (*Artemisia vulgaris*). Altogether the students removed 10 trash bags of invasive mugwort.

Group: Inwood School
Date: June 14, 2011
Time: 11:30am-12:00pm
Contact: Pam Scott (Phone: 917-214-1484; Email: pamscott64@yahoo.com)
Number of Volunteers: 44
Task: Students visited the wetlands as part of the Wetlands Stewardship Program and, per the teacher's request, the students participated in a small volunteer project. Students weeded the freshwater wetlands upland habitat of the invasive plant species mugwort.

Group: Spiritus Christi Senior High
Date: July 19, 2011
Time: 9:00am-4:00pm
Contact: Dave Foster (Phone: 585-755-8923; Email: dfoster3@rochester.rr.com)
Number of Volunteers: 11
Task: Student volunteers weeded the upland area of the freshwater wetland of invasive mugwort & watered the native upland salt marsh plants.

Group: Spiritus Christi Senior High
Date: July 20, 2011
Time: 9:00am-4:00pm
Contact: Dave Foster (Phone: 585-755-8923; Email: dfoster3@rochester.rr.com)
Number of Volunteers: 11
Task: Student volunteers weeded the upland area of the freshwater wetland of invasive mugwort & watered the native upland salt marsh plants.

Group: Renaissance Charter HS for Innovation
Date: August 1, 2011
Time: 11:00am-3:30pm
Contact: Elizabeth Smith (Phone: 717-917-3710; Email: elizabeth.smith@innovationhs.org)
Number of Volunteers: 7
Task: Student volunteers removed trash and debris from the Little Hell Gate salt marsh and at the Bronx Kill.

Group: Lycée Français de New York
Date: September 17, 2011
Time: 9:00am-12:00pm
Contact: Vivianne Kurzweil (Email: vkurzweil@lfny.org)
Number of Volunteers: 40 (38 students and 2 teachers)
Task: RISF also partnered with the American Littoral Society on September 17 to participate in the International Coastal Clean-up Day 2011. The Natural Areas Crew and 40 students and teachers from the Lycée Français de New York worked to collect 192lbs of trash and debris from the wetlands and shoreline of Randall's Island.

Internships

Group: NYischool
Intern: David Yang
Date: Spring 2011
Time: 1-3pm
Contact: Lidia Rolle-Key
Task: Intern worked with the Natural Areas Crew to plant native vegetation, water, and weed in the wetlands.

Group: YAI Interns
Intern: Michael McGregor
Date: June/July 2011
Contact: Jennifer Grappone, Marketing Representative (#212-273-6540; jgrappone@yai.org)
Number of Interns: 1
Task: Intern worked with the Natural Areas Crew to plant native vegetation, water, and weed in the wetlands.

Non-Profits

Group: NY Cares
Date: April 8, 2011
Time: 9:00am-11:00am
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 20
Task: Volunteers planted large trees around Randall's Island.

Group: NY Cares-Hands on NY Day with Moody's
Date: April 16, 2011
Time: 9:00am-12:00pm
Contact: Kim Wilson (Phone: 212-402-1111; Email: kim.wilson@newyorkcares.org)
Number of Volunteers: 24
Task: Volunteers planted large trees around Randall's Island.

Group: Neu Shul
Date: May 14, 2011
Time: 9:00am-1:00pm
Contact: Maia Wechsler (Phone: 917-612-1211; Email: maiawechsler@gmail.com)
Number of Volunteers: 13
Task: Volunteers planted 70 native shrubs black chokeberry (*Aronia melanocarpa*), white oak (*Quercus alba*), Red Chokeberry (*Aronia arbutifolia*) within a newly planted upland area adjacent to the Little Hell Gate Salt Marsh. In addition, volunteers also weeded 1000 sq ft of upland area in the freshwater wetland of the invasive species mugwort.

Group: NY Cares
Date: May 24, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 6
Task: Volunteers erected new goose fencing around newly planted saltwater cordgrass in the Little Hell Gate Salt Marsh. In addition, volunteers planted 400 plugs of cordgrass in an area lacking vegetation due to goose herbivory.

Group: NY Cares
Date: June 21, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 6
Task: Volunteers weeded the freshwater wetlands upland area of mugwort, eastern cottonwood (*Populus deltoides*), and black locust (*Robinia pseudoacacia*).

Group: NY Cares
Date: June 28, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 12
Task: Volunteers weeded the freshwater wetlands upland area & pathway of mugwort.

Group: NY Cares
Date: August 9, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 11
Task: Volunteers weeded the freshwater wetlands upland area of mugwort and black locust. They were able to remove 3 truckloads of vegetation!

Group: NY Cares
Date: August 23, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 12
Task: Volunteers weeded the freshwater wetlands upland area & pathway of mugwort.

Group: NY Cares
Date: September 6, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 2
Task: Volunteers fill mulched flooded, low lying sections around the park in the aftermath of Hurricane Irene.

Group: NY Cares
Date: October 11, 2011
Time: 9:00am-12:00pm
Contact: Catherine Kost (Phone: 212-402-1113; Email: catherine.kost@newyorkcares.org)
Number of Volunteers: 8
Task: Volunteers removed black locust, mugwort, white mulberry (*Morus alba*), commonreed (*Phragmites australis*), cottonwood from the freshwater wetlands upland and emergent wetland habitat. Several truckloads of vegetation were removed.

Corporates

Group: Zog Sports
Date: April 14, 2011
Time: 2:00pm-5:00pm
Contact: Jodi Kanter (Phone: 646.442.2068; Email: jodi@zogsports.org)
Number of Volunteers: 13
Task: Zog Sports staff planted 14 large trees around the Island.

Group: Colgate/Palmolive
Date: May 14, 2011
Time: 9:00am-3:00pm
Contact: Dick Eaton (Phone: 781-643-5384; Email: dick@leapfroginnovations.com) & Sally Phipps (Email: Sally_Phipps@colpal.com)
Number of Volunteers: 25
Funding: $360
Task: Volunteers from Colgate-Palmolive joined the students from BBMS to weed 3000 sq ft of upland area in the freshwater wetland. In addition, the Colgate-Palmolive and BBMS students planted 2250 plugs of saltwater cordgrass and erected hundreds of sq ft of new goose fence in the Little Hell Gate Salt Marsh.

Group: Ernst & Young
Date: 9/26/2011
Time: 1:00pm-4:00pm
Contact: Samantha Schorr (Phone: 516-426-8539; Email: Samantha.Schorr@ey.com)
Number of Volunteers: 35
Funding: $1600
Task: Volunteers planted 500 native saltwater cordgrass plugs in the Little Hell Gate salt marsh. In addition, volunteers erected several hundred feet of new goose fence around the newly planted area.

Randall's Island Wetlands Stewardship Program - Tours 2011

During 2011, the Natural Areas Manager gave tours of the wetlands to high school and college students, corporate groups, and nonprofit groups. The table below shows the groups that visited Randall's Island for tours of the wetlands in 2011 and a description of their individual visits.

Randall's Island Wetlands-Academic & Community Group Field Trips			
Date	**Group**	**Participants**	**Description of Visit**
3/18/2011	Validus Preparatory Academy	33	Teachers at Validus Preparatory Academy were interested in exposing their 9th grade students to green infrastructure, energy efficient vehicles, and ecological restoration projects. As part of the visit to the Island the students toured the greenroof and green fleet at the Parks 5-Boro building and then toured the salt marsh.
7/20/2011	Fordham University Graduate Students	17	Fordham University Adjunct Professor Nettie Compton, RLA is also the Senior Project Manager for Sustainability at NYC Parks Department. She brought her Environmental Design students to view the salt marsh & freshwater wetland.
7/29/2011	Columbia University-Department of Ecology, Evolution and Environmental Biology	62	Graduate students from the EEEB Program at Columbia University toured the salt marsh and freshwater emergent wetland site. Students listened to 15 minute sessions that focused on wetland ecology, restoration funding, permits, and restoration site maintenance and management. Sessions were led by Natural Areas Manager Victoria Ruzicka, Natural Areas Crew members, and EEEB Professor Matt Palmer.
8/5/2011	NYCEDC	101	Employees from NYCEDC attended a staff day at Randall's Island. As part of their event they were offered tours of the salt marsh and freshwater wetlands.
10/8/2011	NYC Audubon	8	October 2, NYC Audubon guide Gabriel Willow and Natural Areas Manager Victoria Ruzicka led 8 bird enthusiasts on a walking tour of the woodlands and wetlands of Randall's Island. Fall migration is in full swing and recent cold snaps this past week make it the best time of year to view birds (and Monarch butterflies) as they head south for the winter. The Island's natural areas offer food and resting spots for the birds as they pass through NYC on their long journey. Some of the highlights of our tour include Northern Flickers, Black and White Warbler, Eastern Phoebe, Great Blue Heron, Osprey, and an American Kestrel eating a praying mantis!
10/26/2011	CUNY City College	12	CUNY Assistant Adjunct Professor Marcha Johnson PhD, ASLA is a Landscape Architect and Ecological Restorationist at NYC Parks Department. She brought her Landscape Architecture students to view the restored wetlands at Randall's Island and work on some plant ID.
	TOTAL	**233**	