

Fostering the Next Generation of Climate Stewards: Miami-Dade County Parks, Recreation and Open Spaces Department as a Model for Park-Based Environmental Education (Field Case Studies)



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INTRODUCTION

Parks programs serve as dynamic living classrooms, offering children and youth the chance to engage with climate change education in ways that are both immersive and impactful. Miami-Dade County Parks, Recreation and Open Spaces Department exemplifies this approach, leveraging South Florida's natural landscapes to explore the phenomenon and effects of climate change. The Department's programs enable young participants to observe first-hand the impacts of rising sea levels and extreme weather events on their communities, fostering an understanding of the urgent need for climate action. Through place-based learning opportunities, both in parks and within classroom settings, Miami-Dade County Parks combines experiential activities with curricula developed in partnership with educators and interdisciplinary teams.

Miami-Dade Mayor Daniella Levine Cava has made Resilience and Climate Action a top priority of her administration, leading initiatives to protect against extreme heat by planting native trees in neighborhoods with less tree canopy, raising awareness of sea level rise and flooding, and safeguarding the largest estuary on the coast of southeast Florida, Biscayne Bay. In alignment with this strategy, the field notes presented in this paper describe county parks programs that collectively reach over 70,000 young participants annually through more than 1,000 countywide activities.

Miami-Dade County is located at the epicenter of a region that is not only actively preparing for but already experiencing the impacts of climate change. South Florida's low-lying topography and significant exposure to storm-generated winds, flooding, and an alarmingly rising heat index (Mach et al. 2023) mean that the challenges are happening in real time, right in front of young residents' eyes. Parks provide unique spaces where children can see the natural areas at risk, participate in active and passive recreational opportunities, and learn through guided activities that connect scientific knowledge to real-world impacts. By positioning K-12 learners as key stakeholders, Miami-Dade Parks is educating the next generation on climate adaptation efforts in one of America's most at-risk regions. The effectiveness of youth as environmental change agents was documented in a study highlighting their critical role in addressing climate challenges (Bandura and Cherry 2020).

These programs are all part of the broader community vision, the Miami-Dade County Parks and Open Space Masterplan, which calls for an interconnected system

of parks, public spaces, and natural and cultural areas connected by greenways, blueways and complete streets designed as linear parks. Adopted unanimously by the Miami-Dade Board of County Commissioners in 2008, the Masterplan is a vision for a livable, beautiful, and sustainable Miami-Dade, where every resident lives within a 10-minute walking distance of a public space, with a diverse and balanced system of recreational opportunities. Every incremental action and program of the Parks Department is designed toward full realization of the plan and its guiding principles of beauty, access, equity, sustainability, and multiple benefits, to build park stewards and the climate change action agents of tomorrow.

MOBILE LEARNING UNIT ENGAGES YOUTH IN CLIMATE CHANGE ACTION

Miami-Dade Parks' Mobile Learning Unit is an innovation that represents a transformative shift in how environmental education is delivered to youth. The program draws on the unique natural resources of Miami-Dade County parklands, including the Mobile Learning Unit's hub, Deering Estate, a Miami-Dade County Heritage Park and State of Florida Historic site. Deering Estate is a 444-acre historical landmark located on the shores of Biscayne Bay whose pine rocklands, mangrove forest, salt marsh, and freshwater upwellings provide an ideal backdrop for studying climate change impacts. Incorporating the rich blend of environmental and historical resources of Deering Estate into the curriculum, the Mobile Learning Unit is designed as a "reverse field trip," bringing the park and its environmental education resources to the students, rather than requiring students to travel to the park. This innovative approach was developed to address a critical gap: the inaccessibility of park-based learning for students in underserved and densely populated areas of

OVERLEAF Miami-Dade County Parks Interpretive Program Supervisor Aimee Scott engages afterschool program participants in marine life observation during a guided seagrass exploration at Crandon Park. MIAMI-DADE COUNTY PARKS, RECREATION AND OPEN SPACES DEPARTMENT

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Miami-Dade Parks' Deering Estate Mobile Learning Unit engages children in experiential learning activities about the effects of climate change on the ecological systems of their own community.
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Miami-Dade County, where logistical challenges such as transportation and limited capacity for field trips often hinder access to environmental education opportunities.

The Need

As Miami-Dade's population continues to grow and urbanize, opportunities for students to engage directly with nature and environmental conservation in outdoor park settings have become increasingly scarce. This gap in access has been compounded by resource constraints within local schools. The lack of adequate transportation options and the challenge of fitting field trips into already packed school schedules meant that many students were missing out on crucial hands-on learning experiences in environmental science, especially those related to climate change.

Recognizing this need, parks staff sought a solution that would bring park-based learning directly to the classroom, overcoming both geographic and logistical barriers. The Mobile Learning Unit was conceived as a mobile classroom, equipped to deliver interactive, engaging lessons on climate change, sustainability, and environmental conservation directly to students at their schools.

Evolution of the Program: Parks–Academic Institution Partnerships

The Mobile Learning Unit's development was made possible through strategic partnerships led by Miami-Dade Parks, in collaboration with Florida International

University (FIU) and Miami-Dade County Public Schools (M-DCPS). These collaborations allowed the program to draw upon the expertise of FIU's Department of Biological Sciences, which provided curriculum content grounded in current climate change research and local environmental issues. M-DCPS, in turn, facilitated access to a broad network of public schools across the county, ensuring the program could reach a diverse and underserved population of students enrolled in the United States' second-largest minority-majority public school system.

The Mobile Learning Unit is a powerful example of the impact of public–private partnerships in advancing environmental education. Through its collaboration with FIU, the Unit is able to deliver cutting-edge content on climate change and conservation, grounded in scientific research. FIU's partnership also provides a bridge between academia and local schools, offering students exposure to real-world environmental issues and career pathways in the sciences. Meanwhile, M-DCPS's involvement ensures that the program reaches students from diverse backgrounds and neighborhoods across the county, giving them the opportunity to learn about climate change and environmental issues that directly affect their community.

Experiential Learning Activities

The success of the Mobile Learning Unit has also been attributed to its ability to engage students in hands-on, interactive learning. Students actively participate in

activities that illustrate the impact of climate change on their local environment. For example, rather than simply reading or hearing from the teacher about historic oil spills and their impacts on the environment, students are challenged to simulate cleaning up an oil spill. They work in teams to develop tools for effectively removing the oil from a model “ocean.” This process allows them to practice real-life clean-up techniques, such as skimming and containment of oil, while also experiencing first-hand the difficulties associated with these processes. Teams are challenged to see how much oil they can clean from the water and marine life within an allotted time using only the materials provided, such as cotton, mesh stockings, and pipe cleaners. Students are also required to calculate and consider the financial constraints of the operation by factoring in the costs of the materials they are using for the cleanup, simulating real-world budget limitations. Afterward, with oil-covered hands, the students reflect together on the challenges of the cleanup process, compare the remaining oils in their “oceans,” and discuss impacts on birds, fish, the shoreline, and mangroves, making the lesson both experiential and thought-provoking.

Program Impact and Results

From its inception in 2019 through December 31, 2024, the Mobile Learning Unit has delivered climate change education to 30,000 students across 30 Miami-Dade County public schools, where 42% of the general student population, and 76% of the immigrant student population, are eligible for free or reduced-price meals; i.e., come from low-income homes; 12% have some type of disability and 59% speak a language other than English at home (54% speak Spanish and 5% speak Haitian Creole at home) (Miami-Dade County Public Schools 2022).

While the program’s evaluation is in its early stages, initial indicators gathered through anecdotal reflections from participating teachers suggest that the Mobile Learning Unit is achieving its goals of increasing climate change literacy and fostering environmental stewardship among students. Teachers have reported high levels of engagement and enthusiasm from students, with many commenting on how the hands-on activities helped make complex topics more understandable and relevant. The program has also been praised for its ability to adapt to different grade levels, ensuring that both younger students and high schoolers benefit from age-appropriate lessons on climate science.

Teachers whose students have been participating in the program for consecutive years reflected on the excitement their students express about the Mobile

Learning Unit. One teacher commented: “When the students realize the Miami-Dade Parks staff is in our school for the day, their energy and engagement levels are notably higher. They know whatever they are learning about that day, they are going to have a lot of fun while learning it.” Another teacher recently reflected that after multiple years of participating in the mobile unit, their school has noticed an increase in the average test scores on Florida’s standardized science exams.

As the program continues to grow, Miami-Dade Parks plans to implement a comprehensive evaluation by 2026 to assess effectiveness in terms of student learning outcomes, engagement, and overall impact on participants’ attitudes towards environmental issues. This evaluation will help shape future iterations of the program.

MARINE SCIENCE CURRICULUM: BRIDGING PARKS STEWARDSHIP WITH OCEANIC SCIENCE AND COMMUNITY PARTNERSHIPS

The Marine Science Curriculum is a peer-reviewed, 30-module, standards-based program that serves as a cornerstone of Miami-Dade Parks’ commitment to advancing climate change education and empowering youth with the tools and knowledge needed to engage in environmental action. This transformative program was designed by Miami-Dade Parks’ staff in collaboration with public- and private-sector conservation agencies, local governments, universities, and K-12 educators, including Miami-Dade County Public Schools, Everglades and Biscayne National Parks, Biscayne Bay Aquatic Preserve, Miami Sea Grant, and others. The curriculum is now integrated into the Miami-Dade County Public Schools system, offering practical, hands-on marine science education both inside and outside the classroom.

The Marine Science Curriculum provides a robust framework for students to dive deeply into marine science, exploring topics such as oceanic threats, coastal ecosystems, biodiversity, and the role of marine resources in mitigating climate impacts. By engaging students in self-initiated research projects, the program fosters critical thinking and scientific inquiry while also inspiring a personal connection to the environment. As students conduct experiments, collect data, and analyze results, they are not just learning science—they are becoming part of a global conversation on climate resilience and sustainability. Through these experiences, they learn about the critical need for the conservation of Miami-Dade County’s vibrant marine environments, including the county’s coastal and bay ecosystems, which are at the forefront of climate change impacts such as sea level rise and coastal erosion.

Students participating in the curriculum engage in hands-on research projects that deepen their understanding of environmental science while instilling a sense of responsibility and empowerment to act as climate change action agents in their own community, a region that has been referred to as “Ground Zero in the Climate Crisis” (Union of Concerned Scientists 2019). As part of these real-world experiences, the students test water quality at various coastal points to compare quantities of key nutrients, non-point source pollution, and levels of wildlife activity; they collect and analyze plankton from diverse aquatic ecosystems such as Biscayne Bay and the historic freshwater slough at Deering Estate; they engage in population sampling and biodiversity surveys of coastal wildlife; and they learn about the anatomy of these species through guided dissections. No longer are these environmental concepts just words on a textbook page!

The Marine Science Curriculum encourages teachers to take their students on field trips to experience Miami-Dade Parks and natural areas first-hand. As part of these immersive experiences, students explore the

role of Miami-Dade County’s coastal ecosystems—ranging from coral reefs to mangroves—as integral to biodiversity, coastal protection, and the overall health of our planet. Students witness directly the climate change issues affecting local marine habitats. The curriculum emphasizes both the scientific understanding of ecosystems and the stewardship actions necessary to protect them. It equips young people with the knowledge to not only comprehend the challenges facing our waters, but to contribute meaningfully to their preservation.

Collaboration with Community Partners

The development of the Marine Science Curriculum was made possible through strong partnerships with academic institutions, governmental agencies, and local non-profits. Collaborators such as the University of Miami’s Rosenstiel School of Marine, Atmospheric, and Earth Science, FIU’s UTeach and LTER (Long-Term Ecological Research) programs, and the NOAA (National Oceanic and Atmospheric Administration) National Marine Sanctuary Program provided invaluable expertise, ensuring that the curriculum is not only scientifically

Miami-Dade County Parks Interpretive Programs Supervisor and Site Manager Edward Pritchard brings marine science to life for students during their field trip to Miami-Dade County’s Crandon Park Visitor and Nature Center. MIAMI-DADE COUNTY PARKS, RECREATION AND OPEN SPACES DEPARTMENT



rigorous but also aligned with best practices in marine education. Other key partners, including the Florida Fish and Wildlife Conservation Commission and the Miami-Dade Department of Environmental Resources Management, contributed resources and knowledge to strengthen the curriculum's scientific foundations and its real-world applicability. The result is a comprehensive, scalable educational tool that empowers students and educators alike to bring the marine world into the classroom and community.

An essential aspect of the curriculum is its commitment to accessibility and inclusivity. In collaboration with the University of Miami's Center for Autism and Related Disabilities (UM CARD), an evaluation was conducted to ensure that students of all learning abilities could fully engage with the program. This evaluation led to targeted enhancements that broadened the curriculum's reach and made it more accessible for diverse learners' needs. For example, recognizing that neurodivergent students may experience sensory sensitivities to textures, the curriculum was adapted to include a model-based squid anatomy dissection activity. This alternative utilized solid, structured materials in place of organic specimens, which allowed students who might otherwise experience sensory sensitivity during a traditional dissection to participate fully in the learning experience. Such modifications allowed for a broader range of students to benefit from the program's offerings.

Program Impact, Results and Long-Term Goals

As of December 31, 2024, the Marine Science Curriculum had reached 100,000 students since it was launched during the 2021–2022 school year. The demographics of the students benefiting from this curriculum reflect the diversity of the Miami-Dade County Public Schools system. The program's long-term expansion goals align with those established for the Mobile Learning Unit, described earlier.

The reach of the Marine Science Curriculum has the potential of extending far beyond the borders of Miami-Dade County. By promoting environmental literacy on a global scale, the program introduces students worldwide to the critical role of oceans in sustaining life. These young learners explore the local impacts of global climate challenges, focusing on the vulnerabilities of coastal ecosystems and the importance of sustainable management practices. Through a combination of field-based research and classroom instruction, students not only acquire a scientific understanding of climate change but also develop the practical competencies that

empower them to contribute to mitigation. To further advance the dissemination and accessibility of this curriculum, sample modules are available for review at the [Marine Science Curriculum](#) webpage and inquiries regarding the full curriculum can be directed to Madison Janney at madison.janney@miamidade.gov. The goal is to reach broader audiences of learners with this curriculum locally, nationally, and on a global scale by 2026 through the development of an interactive digital platform.

YOUTH CLIMATE CHANGE ENGAGEMENT THROUGH GUIDED KAYAKING, SNORKELING, AND COASTAL WALKS

As part of Miami-Dade Parks' broad commitment to youth climate action, the department offers a series of immersive field trips that engage children and teenagers in climate change education through direct interaction with the natural environment. These programs serve Miami-Dade Parks summer camp and after-school program participants (age range: 6–14) as well as external, organized groups such as school field trips and other youth-focused organizations, including private summer camps. Through such activities as kayaking, snorkeling, and coastal walks, guided by Miami-Dade Park's interpretive naturalist staff, participants gain first-hand knowledge of climate-related issues. This approach not only enriches participants' understanding of climate change but also empowers them to connect the critical concepts explained by the guides to their own observations, fostering a deeper sense of environmental and climate-action responsibility.

The Setting

The guided kayaking, snorkeling and coastal walks are conducted at two Miami-Dade County heritage parks, Deering Estate and Crandon Park, providing access to South Florida's diverse ecosystems. The richness and climate-change relevance of Deering Estate's natural resources were described earlier, in the Mobile Learning Unit section of this paper. Crandon Park offers an equally fine setting for this immersive learning experience—from tropical hardwood hammocks to beach dunes, the park allows students to observe first-hand the habitats and species they are learning about, deepening their understanding of climate change and its local impacts.

The Experience

Guided kayaking tours take young participants through mangrove forests and seagrass beds, providing them with an up-close-and-personal experience of how these critical habitats serve as natural buffers against storm surge and erosion. These excursions emphasize the importance of coastal ecosystems in climate resilience and biodiversity preservation. Participants engage in exploring the forma-



Miami-Dade County Parks afterschool program participants on guided seagrass exploration experience at Crandon Park. MIAMI-DADE COUNTY PARKS, RECREATION AND OPEN SPACES DEPARTMENT

tion of Key Biscayne, a sedimentary barrier island that evolved through the accumulation of sediments carried by marine currents, gradually forming a shallow sandbar colonized by mangroves and other coastal plants. The mangrove root systems stabilize sediments, prevent erosion, and provide shelter and food for marine life such as sea stars, urchins, and juvenile fish, which find protection among the seagrasses.

Snorkeling experiences provide an underwater perspective on the region's vibrant marine life and coral reef ecosystems, including, at Crandon Park, the site of one of the world's only two ancient, fossilized reefs. Youth are introduced to the unique geological structures of the fossilized reef, composed of black mangrove pneumatophores and seagrass rhizomes that date back 5,000 to 6,000 years. These reefs offer critical protection to the shoreline and serve as a sanctuary for marine species such as the cushion star, queen conch, and spotted eagle ray.

Coastal walks offer land-based explorations of the county's shoreline, where participants learn about the diverse ecosystems that make up Crandon Park's natural areas. They observe coastal dunes, seagrass beds, and the importance of coastal vegetation in mitigating erosion and providing habitats for birds like the osprey, brown pelican, and magnificent frigatebird. Hands-on activities, including Touch the Bay, Snorkel Clinic, Kayak Clinic, and others engage youth in a deeper understanding of coastal environments and the importance of conservation efforts.

Program Impact and Results

The program delivers climate change knowledge via the described hands-on observational experiences to approximately 1,500 young people annually. The demographics of children and youth participating in the program reflect the diverse population of Miami-Dade County, described earlier.

Program impact is measured through informal pre- and post-program interviews with participants. Parks staff speak with the children and youth before and after the program to gauge their pre- and post-program understanding of climate change and coastal ecosystems, and their sense of environmental responsibility. These informal conversations have revealed significant shifts in participants' attitudes towards the environment and climate action, with many reporting a deeper understanding of the challenges facing coastal areas and a desire to act to preserve them.

There is also anecdotal evidence of the long-term impact of the program, with reports from individuals who began as elementary school-age summer campers returning to coastal parks to pursue required high school graduation volunteer service hours. These young people, initially inspired by their early experiences with coastal conservation and resiliency efforts, then became regular volunteers in park cleanup and beautification programs.

In some cases, these same “park kids” who started as summer camp participants in environmental education

programs, and then became park volunteers, have gone on to pursue careers in the parks and conservation fields. As these young adults enter the workforce—either upon high school graduation or after completing college—they return to Miami-Dade Parks, now as employees who once again contribute to the stewardship of beach parks and the continuation of environmental and climate change education. This cycle of cultivating park stewards creates a lasting network of environmental advocates, each contributing to the long-term health of Miami-Dade County's coastal ecosystems and fostering resilience in their own backyards against the challenges of climate change.

PARKS VOLUNTEER PROGRAMS INSPIRE YOUTH TO CLIMATE ACTION

Miami-Dade Parks' PLACE (Parks Leadership and Community Engagement) Program is dedicated to fostering youth engagement in environmental stewardship and climate action through diverse volunteer opportunities and partnerships with local schools, conservation-focused organizations, and corporate sponsors. From coastal cleanups to habitat restorations, these experiences empower youth to take an active role in addressing climate change.

Student volunteers collect debris on Crandon Park Beach as they participate in Miami-Dade Parks' coastal cleanup series. MIAMI-DADE COUNTY PARKS, RECREATION AND OPEN SPACES DEPARTMENT



Each program is designed to connect participants with meaningful service projects in parks while fostering a deeper understanding of the role they play in addressing environmental challenges.

All volunteer activities have an environmental/climate change education component. For example, a young volunteer, fulfilling school-required service hours, might initially view painting stakes to mark off sea turtle nests at Crandon Park as a mundane task. But after hearing from parks staff about how marking nests protects endangered turtles threatened by climate change in the form of extreme storms and warming oceans, they understand their role in safeguarding a keystone endangered species, whose numbers are a recognized indicator of the health of the world's oceans. What started as a graduation requirement became a powerful act of climate action, making the volunteer feel like a true hero in the fight for ocean health. The P.L.A.C.E. Program transforms volunteering into a powerful learning experience for children and youth.

Coastal Cleanup Series

Throughout the year, Miami-Dade Parks organizes Park Service Days. During these events, one of the volunteer offerings is the Coastal Cleanup Series, which engages community youth in preserving the county's coastal ecosystems through hands-on action and education. This series covers all coastal parks in the Miami-Dade Parks system, with volunteer opportunities at different coastal parks, beaches, or marinas every Saturday of the month on a rotating schedule. It offers individuals and organized groups an opportunity to remove debris from the shores of Miami-Dade's coastal parks. Participants contribute to the beautification and ecological health of parks such as Homestead Bayfront Park, Black Point Marina, Crandon Marina, Pelican Harbor Marina, Rickenbacker Causeway, Crandon Beach Park, and Matheson Hammock Park. In 2024, volunteers removed 21,000 pieces—750 pounds—of trash from Crandon Park alone, preventing marine and coastal wildlife from ingesting harmful debris. Through this series, Miami-Dade Parks combines education with environmental action, fostering a culture of stewardship and connecting the community to the critical role of coastal conservation in addressing climate change.

Volunteer Program Demographics

Approximately 23% of all park volunteers are children and youth, many of whom participate as part of school-required service hours or in connection with extracurricular school organizations. The volunteer base is representative of the county's demographics: 69% Hispanic or Latino, 17% Black or African American (non-Hispanic), and 14% White (non-

Hispanic; United States Census Bureau 2023). This diversity enriches the volunteer experience, creating a dynamic community of young individuals from various backgrounds, all coming together with a shared goal of environmental action and climate change awareness.

Program Impact and Results

Between October 1, 2023, and September 30, 2024, the program recorded the following numbers and accomplishments:

- Volunteer hours: 24,856 hours contributed by 9,231 volunteers.
- Marine debris removal: 29,090 pounds collected during 183 coastal cleanups.
- Natural area restoration: Removal of 9,622 gallons of invasive plant species and the installation of 8,792 plants and 754 trees.

To learn more about Miami-Dade Parks' PLACE program please visit laminvolved.org.

GREENING THE FUTURE: MIAMI-DADE YOUTH LOWER THE HEAT INDEX AND BUILD CLIMATE RESILIENCE THROUGH TREE PLANTING

Miami-Dade Parks leads the Million Trees Miami-Dade County initiative, which offers a hands-on way for young people to learn about the essential role trees play in mitigating the effects of climate change. These programs are key elements of the county's ongoing efforts to increase urban tree canopy, with a special focus on underserved neighborhoods that are most vulnerable to climate impacts such as extreme heat.

Miami-Dade County is committed to the ambitious goal of achieving a 30% tree canopy cover for its community. Each year, the parks department's Roadway and Community Forestry and Beautification team, which manages Million Trees Miami-Dade County, organizes a range of tree planting and beautification events. The tree plantings primarily occur in public parks and rights-of-way and focus on neighborhoods with an existing tree canopy cover below 20%. These efforts directly combat the urban heat island effect, where cities experience higher temperatures due to heat-absorbing materials like concrete. Planting more trees, especially native species, helps reduce these extreme temperatures and provides communities with much-needed shade, which is essential to residents' well-being, particularly for vulnerable populations, including children.

A notable aspect of this initiative is the active involvement of children and young people as volunteers. A significant percentage of tree planting participants are youth, who



Student volunteers plant native trees and plants at Miami-Dade County's Larry and Penny Thompson Park to increase the habitat of the park's surrounding endangered Pine Rockland ecosystem.
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gain hands-on experience in climate action. For many, this is their first introduction to the concept that the future of their communities—and indeed the planet—depends on the choices they make today. These young people not only contribute to immediate community beautification but also acquire crucial knowledge about climate change and how urban tree canopy can mitigate its harmful effects.

In addition to these volunteer tree planting efforts, Miami-Dade Parks works closely with schools and corporate partners to expand tree canopy in educational environments and adjacent to students' homes. In 2022 and 2023, the program partnered with corporate sponsors such as TD Bank, Verizon, and Cemex to donate trees and plants to various schools across the county. These donations included trees for Gratigny Elementary's Food Forest Garden, Hialeah-Miami Lakes Senior High School's Autism Garden, and Sylvania Heights Elementary's Food Forest and Autism Garden. At Miami Arts Studio, a 6th-to-12th-grade public magnet school, students received trees to plant in their own backyards, fostering a personal

connection to climate action. Through projects like these, students not only help to green their schools but also bring environmental stewardship into their homes, creating a ripple effect that amplifies the program's impact.

Through volunteerism, education, and community action, the Million Trees Miami-Dade County team led by Miami-Dade Parks is helping to plant the seeds of environmental leadership in youth, nurturing a generation that is informed, empowered, and ready to take on the challenges of climate change.

Program Impact and Results

Between October 1, 2023, and September 30, 2024, the program recorded the following numbers and accomplishments:

- Trees donated to schools: 46
- Youth engaged in tree planting projects: 166
- Trees planted by youth volunteers: 114
- School partnerships: 5

CONCLUSION

Miami-Dade Parks' success in engaging over 70,000 children and youth annually in climate change education and action stems from several key factors. One is robust community partnerships. The parks department has established enduring collaborations with public entities such as Miami-Dade County Public Schools and the local state university, FIU, as well as private-sector partners, including non-profits focused on climate change and private educational institutions. These partnerships have been instrumental in developing and delivering the comprehensive environmental education parks programs described in this paper. The unwavering support and leadership of Miami-Dade County's Mayor Daniella Levine Cava and the Board of County Commissioners have been crucial. Their commitment underscores the county's dedication to leveraging parks as vital community assets in promoting children's health, happiness, and resilience. Finally, an integrated environmental education model—that is, the blending of experiential learning with curricula developed in partnership with educators and interdisciplinary teams—ensures that youth gain a comprehensive understanding of climate resilience while cultivating park stewardship skills. Through these combined efforts, Miami-Dade Parks has effectively engaged a significant number of young residents in climate change education and action, fostering a generation equipped to lead the community toward a climate-resilient future. 🌱

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- Florida Fish and Wildlife Conservation Commission
- Florida International University College of Arts, Sciences and Education: FIUteach
- Florida International University Department of Biological Sciences
- Florida International University Institute of Environment: Florida Coastal Everglades Long Term Ecological Research (LTER) Network

- Miami-Dade County Office of Environmental Risk and Resilience
- Miami-Dade County Department of Environmental Resource Management
- Miami-Dade County Public Schools as an entity and, individually, Gratigny Elementary, Hialeah-Miami Lakes Senior High, and Sylvania Heights Elementary
- National Oceanic and Atmospheric Administration National Marine Sanctuaries
- National Park Service: Everglades National Park and Biscayne National Park
- Sea Turtle Conservancy
- Tree Planting Sponsors: Cemex, Vera Cadilla Buick, Verizon, and WPLG-TV Channel 10
- University of Miami Center for Autism and Related Disabilities
- University of Miami Rosenstiel School of Marine, Atmospheric, and Earth Science

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