



The Fairchild Challenge 2009-2010 Annual Report



Fairchild Tropical Botanic Garden

2009-2010 Fairchild Challenge Annual Program Report

The Fairchild Challenge fosters interest in the environment
by encouraging students to

APPRECIATE the beauty and value of nature
DEVELOP critical-thinking skills
UNDERSTAND the need for biodiversity and conservation
TAP community resources
BECOME actively engaged citizens and
RECOGNIZE that individuals do indeed make a difference.

THE FAIRCHILD CHALLENGE celebrating nature ~ cultivating minds ~ inspiring action

This year the Fairchild Challenge
saw more than 73,400 counts of student and teacher engagement
in its local Miami program and Satellite Partner programs.

This was made possible thanks to generous support from:

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2009-2010 Fairchild Challenge Annual Program Report

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Overview

As a result of their participation in the Fairchild Challenge, tens of thousands of students worldwide are actively learning about, exploring and devising imaginative and effective responses to some of the most pressing environmental issues of our time. More importantly, these students are being moved to action and are becoming actively engaged citizens because their participation in Fairchild Tropical Botanic Garden's (FTBG) unique and world-renowned educational program.

The Fairchild Challenge – an annual, standards-based, environmental education outreach program that offers a menu of multidisciplinary competitions for grades Pre-Kindergarten to 5, 6 to 8 and 9 to 12 – is in its ninth year of being offered to Miami-area students. What began in 2002 as an environmentally-themed competition for local high schools, with some 1,400 high school participants in its first year has now blossomed into a global movement in environmental education, with more than 73,400 counts of student and teacher engagement in its local Miami program and Satellite Partner programs during the 2009-2010 program year.

Throughout the years, the Fairchild Challenge has clearly become a model beyond South Florida, influencing programs nationally and internationally. The success of the program in the Miami region prompted FTBG to share it as a replicable model with other regions, both within the U.S. and abroad. The eagerness with which so many institutions have embraced the program exemplifies its relevance in a diverse array of settings.

High School and Middle School Programs

In 2009-2010, the Fairchild Challenge offered 21 diverse options for middle and high schools and awarded top-scoring schools a total of \$13,000 in cash prizes for their environmental activities. In addition, each actively participating student and teacher received a Fairchild Challenge T-shirt and four-person family admission pass to Fairchild, an \$85 value.

Resources and Workshops

Fairchild Tropical Botanic Garden is committed to making this outreach program accessible to all regional schools (particularly Title I schools where many students receive free or reduced-cost lunches), teachers and students regardless of their resources by providing modest garden and environmental action grants, specialized workshops, professional development seminars, transportation subsidies, books, DVD's and other resources. In addition, to promote civic engagement, we offered voter registration at all high school events.

Mini-grants for school gardens/habitat restoration and environmental action

The Fairchild Challenge, in partnership with the National Environmental Education Foundation (NEEF), provided schools with mini-grants for two options: school garden/habitat restoration and environmental action. Forty-one different middle and high schools received mini-grants, totaling \$24,150 (24 environmental action/water conservation education grants and 39 school garden grants). Grant recipients, selected through an application process, attended a "Be Water Wise" workshop and concluded their year with a report describing their projects and results.

Art workshop: Local edible plants

The Fairchild Challenge's free, annual art workshop again demonstrated success attained through community partnerships, as local artists volunteered to mentor students, further establishing and reinforcing their connections to nature. The Fairchild Challenge invited eight students from each participating school to take part in an art workshop that helped improve their skills for the art option. In 2009-2010, more than 170 middle and high school students from 25 schools came to Fairchild to learn about the theme of "local edible plants." The workshop itinerary began with students and mentors listening to Noris Ledesma, Fairchild's curator of tropical fruit, give a presentation about "Fruits of the Tropics." Afterwards, students worked with 15 professional artists as they sketched, painted, and photographed throughout the Garden. The students' attentiveness and enthusiasm delighted the art mentors; many of these students rarely have traveled beyond the confines of their neighborhoods and, through this experience, were able to expand their horizons while developing new skills.

Environmental Immersion Day

In 2009-2010, 289 high school students from 30 high schools participated in the Environmental Immersion Day (EID) option, providing them with "authentic experiences" at 29 environmental sites, scientific laboratories, college science departments, and other locations ranging from John Pennekamp Coral Reef State Park in Monroe County to The Kids Ecology Corps in Broward County. During the work/study day, students studied and removed exotic plant species from native ecosystems, restored native plant habitats, collected and identified aquatic specimens, grafted and propagated trees, and described and analyzed soil layers. The goal of EID is two-fold. Firstly, it gives students a close-up view of environmental professionals at work. Secondly, it inspires them to think, "Hey, I could do that!" Many participants stated that they never had access to such experiences and most of them had not considered entering such professions before participating in EID.

The following sites participated in Environmental Immersion Day:

- Bill Sadowski Park
- Biscayne Nature Center
- Citizens for a Better South Florida
- Everglades National Park
- Fruit and Spice Park
- John Pennekamp Coral Reef State Park
- Miami-Dade College, North
- NOAA National Marine Fisheries
- Shake-a-Leg Miami
- Vizcaya Museum and Gardens
- Officer Snook, Youth Environmental Programs
- South Florida Water Management District
- The Fairchild Farm at Williams Grove
- Kids Ecology Corps / John U. Lloyd State Park
- University of Miami Rosenstiel School of Marine and Atmospheric Science
- United States Department of Agriculture, S.H.R.S.
- Fairchild Tropical Botanic Garden – Herbarium
- GROW - Green Railway Organic Workshop
- The Kampong of the National Tropical Botanic Garden
- Miami-Dade College, North – Green Urban Living Center
- Biscayne Bay Aquatic Preserve
- Crandon Park - EcoAdventures
- Deering Estate
- Loxahatchee Wildlife Refuge
- Montgomery Botanical Center
- NOAA AOML
- National Park Service
- South Florida Audubon
- Tropical Audubon Society, Miami

Professional Development

Fairchild Tropical Botanic Garden annually offers professional development workshops in conjunction with Miami-Dade County Public Schools. Teachers who want to further their knowledge in plant sciences and earn professional learning credits (TEC) frequently take advantage of these free, M-DCPS approved, workshops. In 2009-2010, we conducted the following professional development workshops: school gardens, environmental action, South Florida plants and ecosystems, ethnobotany, basic botany and tropical botany. Emphasizing both pedagogy and standards-based learning, we delivered instruction using a combination of lectures, labs, outdoor and hands-on activities. Teachers received a wealth of resources during the workshops including printed materials, plant materials, curriculum ideas and lesson plans, laboratory specimens and activity samples, a CD of electronic resources, and other applicable materials for their classrooms. This year 201 teachers participated in our professional development workshops. In addition, 36 teachers took part in a “Be Water Wise” workshop that was mandatory for all schools that received a “Water Conservation Education Grant” from the National Environmental Education Foundation (NEEF).

Community Outreach

The Fairchild Challenge staff shares information and updates about the program frequently through e-mail exchanges and updates on Fairchild’s website. In addition to two teacher luncheon events at Fairchild, there were nine other Fairchild Challenge events open to the public this year. The high school events included the Everglades: “River of Grass” performances, environmental debates, research projects showcase, environmental action reports, and awards ceremony. The Fairchild Challenge for Middle Schools events consisted of the Everglades: “River of Grass” performances, Green Treasures (intergenerational ethnobotanical interviews), environmental action reports, and awards ceremony.

Fairchild Challenge staff devotes significant energy during the academic year to providing presentations at schools; giving special attention to Title I schools. In addition, Fairchild Challenge staff participated in various community outreach efforts, including state and national conferences, science fairs, and events in under-resourced neighborhoods (e.g., the Tacolcy Center in Liberty City). The Challenge team cultivates positive relationships with many other individuals and organizations willing to host Environmental Immersion Day or otherwise donate their energy and expertise – and occasionally goods in kind – to the program. This year, these have included a presentation by nationally acclaimed poet Jonathan Walton as well as tremendous support from the Everglades National Park rangers who donated their time and expertise at numerous judging panels.

Initiatives and Partnerships

Fairchild Challenge Alumni Movement

In an effort to track former Fairchild Challenge participants’ long-term college and career plans, and how their involvement in the program impacted those decisions, the Fairchild Challenge initiated an alumni movement. This initiative is multifaceted, using social networks (such as Facebook and LinkedIn) and summer internships to provide alumni with opportunities and support. To date, three Fairchild Challenge alumni have interned with the Fairchild Challenge team, bringing with them knowledge of current environmental issues and a student’s perspective of the options. Not surprisingly, the interns have chosen to make environmental studies part of their careers.

Botanic Gardens Conservation International

Botanic Gardens Conservation International (BGCI) is an international consortium of botanic gardens and other organizations whose mission is to ensure the world-wide conservation of threatened plants. The Fairchild Challenge/BGCI partnership began in 2008-2009 with participating Fairchild Challenge middle and high school students creating political cartoons depicting the case studies in BGCI’s report “Plants and climate change: which future?” The top entries were featured globally on BGCI’s website. This year, the

Fairchild Challenge/BGCI collaboration had high school students designing a CD-cover for an environmentally-themed song, by London-based independent band Storey, entitled "Footprints." Storey came from London to perform at the awards ceremonies and to officially announce the winner of the 2009-2010 Fairchild Challenge/BGCI Global Option (see details below). The Fairchild Challenge/BGCI partnership will continue during the 2010-2011 program year, with at least one Global Option that will offer students opportunities to showcase their work globally, while learning about plant diversity and conservation, as well as ecological and cultural diversity.

Highlighted Fairchild Challenge Options

Fairchild Challenge/BGCI Global Option: "Footprints" CD-cover Design

High school students tested their artistic and technical abilities by designing CD-covers based on their interpretation of the lyrics to the environmentally-themed song "Footprints." The song, by London-based independent band Storey, empowers the listener to make changes in reducing their ecological footprint and relates perfectly to the Fairchild Challenge/BGCI mission. Students (through BGCI and Fairchild Challenge satellite partner sites) designed CD-covers and explained, in writing, how individuals could reduce their ecological footprint. The winner from each site was entered into a larger international competition in which the winning entry was printed on the cover of the "Footprints" CD-single. This year, the winner of the Fairchild Challenge/BGCI Global Option was José Garcia from Miami-Lakes Educational Center.

Green Treasures

The Fairchild Challenge paired up middle school students with local senior centers and brought them to Fairchild for a day of intergenerational interviews where students asked elders about traditional and cultural uses of plants. Against a backdrop of many different herbs (many of which seniors currently use), students, in Creole or Spanish, learned about the seniors' lives and how they have used different plants. The students then conducted further research and prepared a report for the option and for sharing with the seniors. Over 250 students and 60 seniors took part in this workshop opportunity.

Environmental Debates

After researching numerous topics, high school students convened at Fairchild for a day of student-congress style debates where they tackled current local and global environmental issues. These students dived into controversial policies, weighing accurate science against economic issues and political reality. In 2009-2010, 92 students from 23 schools participated in the debates. Topics included: introducing a bill instituting an uncapped 50% investment tax credit for Florida residents who install rooftop solar photovoltaic panels, a bill imposing a "bag fee" on each consumer purchase that requires paper and/or plastic bags to be distributed by retail stores in Miami-Dade and Broward Counties, and a bill requiring that strictly native species be used for landscaping within one mile of the urban development boundary line.

Environmental Action

Students that participated in the environmental action option increased environmental awareness within their homes, schools and communities. Through the preparation of environmental action presentations and reports, the students demonstrated creativity, inventiveness, innovation, and leadership. This year, before a panel of expert judges and dignitaries, middle and high school students presented their schools' initiatives in water and energy audits, tree canopy measurements and home and community initiatives among others. The environmental action option provided an invaluable experience to the students and teachers because it empowered them to become environmental scholars and stewards.

School Garden/Habitat Restoration

This option encouraged participating schools to create or restore a school garden or native habitat. Fifty-eight schools created gardens that incorporated sustainable concepts such as Florida-friendly gardens, ethnobotanical gardens, butterfly gardens and gardens that restored native habitats. Schools that received a grant for this option made or restored gardens that included water conservation principles such as incorporating water barrels and planting drought-tolerant, Florida-friendly flora.

Additional Options

High School

- Everglades: “River of Grass”
 - Botanical fashion show
 - Research projects
 - Art: Local edible plants/people and edible plants
 - Fairchild Challenge news video in two languages
- Fairchild Challenge design
 - Opinion Papers

Middle School

- Performances - Everglades: “River of Grass”
 - Fairchild Challenge design
 - Baynanza T-shirt design
 - Interpretive sign: research poster on invasive species
 - Fairchild Challenge news video in two languages
- Creative writing: “A Bug’s Life”
 - Art: Local edible plants
 - Botanical fashion show

Awards and Prizes

The Fairchild Challenge 2009-2010 Awards Ceremony for high schools took place on Tuesday, May 18, from 6:30 p.m. – 8:30 p.m. and Monday, May 19, 2010 for middle schools. Each participating school received four-person family passes to Fairchild and a limited number of Fairchild Challenge T-shirts to distribute to students and teachers who participated actively. Each student that was awarded first place for individual options received a medal. First-place group entries received one trophy and up to five medals. Each participating school was allowed to select one teacher and one student Environmental Role Model (ERM). ERMies were celebrated at the awards ceremony.



Fairchild Challenge 2009-2010 Participating High Schools

Congratulations to the more than 25,000 students* at 54 South Florida high schools who participated in the Fairchild Challenge

1. Academy of Arts and Minds
2. Alonzo & Tracy Mourning
3. American
4. Archbishop Coleman F. Carroll
5. Atlantic Community
6. Barbara Goleman
7. Beis Chana for Girls
8. Belen Jesuit Preparatory
9. C.O.P.E Center North
10. Carrollton School
11. Christopher Columbus
12. Coral Gables
13. Coral Reef
14. Doctors Charter School
15. Doral Academy
16. Dr. Michael M. Krop
17. Felix Varela
18. Forest Hill
19. G. Holmes Braddock
20. Gulliver Preparatory
21. Hialeah Gardens
22. Hialeah Senior
23. Hialeah-Miami Lakes
24. Homestead
25. John A. Ferguson
26. MAST Academy
27. Mater Academy Charter
28. Miami Central
29. Miami Country Day
30. Miami Edison
31. Miami Jackson
32. Miami Killian
33. Miami Lakes Educational Center
34. Miami Northwestern
35. Miami Palmetto
36. Miami Senior
37. Miami Southridge
38. Miami Springs
39. New World School of the Arts
40. North Miami
41. Our Lady of Lourdes Academy
42. Pembroke Pines Charter
43. RASG Hebrew Academy
44. Robert Morgan Educational Center
45. Robert Renick Education Center
46. Ronald Reagan/Dora
47. Somerset Academy Silver Palms
48. South Miami
49. South Plantation
50. Southwest Miami
51. TERRA
52. The Samuel Scheck Hillel
53. Westminster Christian
54. Young Men's Preparatory Academy

**counts of active student and teacher engagement*

Fairchild Challenge 2009-2010 High School Awards

Congratulations to the more than 25,000 students* at 54 South Florida high schools who participated

By earning more than 1,000 points, 24 high schools received the Fairchild Challenge Award

- Archbishop Coleman F. Carroll
- Christopher Columbus
- Doctor's Charter
- Gulliver Preparatory
- Homestead
- MAST Academy
- Miami Central
- Miami Killian
- Miami Senior
- Our Lady of Lourdes
- Somerset Academy Silver Palms
- South Plantation
- Carrollton School
- Coral Reef
- G.Holmes Braddock
- Hialeah-Miami Lakes
- John A. Ferguson
- Mater Academy Charter
- Miami Jackson
- Miami Palmetto
- Miami Springs
- Pembroke Pines Charter
- South Miami
- TERRA Environmental Research

HIGHEST HONORS

Cash prizes for environmental initiatives awarded to the 16 top-scoring high schools

- \$1,000-South Plantation
- \$500-MAST Academy
- \$500-Miami Jackson
- \$250-Christopher Columbus
- \$250-Gulliver Preparatory Homestead
- \$250-Miami Central
- \$250-Somerset Academy Silver Palms
- \$500-G. Holmes Braddock
- \$500-Miami Palmetto
- \$500-Our Lady of Lourdes
- \$250-Coral Reef
- \$250-Mater Academy Charter
- \$250-Miami Killian Miami Springs
- \$250-TERRA

Fairchild Challenge "Schools of Excellence"

Banners are awarded to schools that earn the Fairchild Challenge Award for five consecutive years

Inducted 2010

Carrollton School of the Sacred Heart

Inducted 2009

G. Holmes Braddock • Gulliver Preparatory • Hialeah-Miami Lakes

Inducted 2008

MAST Academy • Miami Killian • Miami Southridge • South Miami

Inducted 2007

Coral Reef • Miami Palmetto • Our Lady of Lourdes

*counts of active student and teacher engagement

Fairchild Challenge 2009-2010 Participating Middle Schools

Congratulations to the more than 40,000 students* at 74 South Florida middle schools who participated in the Fairchild Challenge

1. Apollo (Broward)
2. Archimedean Middle Conservatory
3. Arthur and Polly Mays
4. Arvida
5. Aventura City of Excellence School
6. Aventura Waterways K-8
7. Beis Chana School for Girls
8. Belafonte Tacolcy Center
9. Belen Jesuit Preparatory
10. Carrollton School of the Sacred Heart
11. Centennial
12. Coconut Palm K-8
13. COPE North Alternative Education
14. Coral Way K-8
15. Country Club
16. Cutler Ridge
17. David Lawrence Jr. K-8
18. Devon Aire K-8
19. Doral
20. Epiphany Catholic School
21. Eugenia B. Thomas K-8
22. Frank C. Martin K-8
23. George Washington Carver
24. Glades
25. Gulliver Academy
26. Hammocks
27. Henrietta Scheck
28. Herbert A. Ammons
29. Homestead
30. Horace Mann
31. Howard A. Doolin
32. John F. Kennedy
33. Jose de Diego
34. José Marti
35. Kenwood K-8
36. Key Biscayne K-8
37. Kinloch Park
38. Lamar Louise Curry
39. Mandarin Lakes K-8
40. Mater Academy Charter Middle
41. Mater Gardens Academy Charter Middle
42. Miami Country Day School
43. Miami Lakes K-8
44. Miami Springs
45. New River (Broward)
46. Norland
47. North Dade
48. North Miami
49. Palmetto
50. Pinecrest Preparatory Middle High
51. Ponce de Leon
52. Redland
53. Renaissance Middle Charter
54. Richmond Heights
55. Ruben Dario
56. Ruth K. Broad/Bay Harbor K-8
57. Ruth Owens Krusé
58. Sawgrass Springs (Broward)
59. Shenandoah
60. Somerset Academy Silver Palms
61. South Miami K-8
62. South Miami Middle
63. Southwood
64. St. Andrew Catholic (Broward)
65. St. Kevin Catholic
66. Sunrise School of Miami
67. Sunset Christian Academy
68. The 500 Role Model
69. Thomas Jefferson
70. Vineland K-8
71. West Miami
72. Westminster Christian
73. Winston Park K-8
74. Youth Co-op Charter

*counts of active student and teacher engagement

Fairchild Challenge 2009-2010 Middle School Awards

Congratulations to the more than 40,000 students* at 74 South Florida middle schools who participated

By earning more than 800 points, these 38 middle schools received the Fairchild Challenge Award

- Arvida
- Centennial
- Coral Way K-8
- Devon Aire K-8
- Frank C. Martin K-8
- Glades
- Hammocks
- Herbert A. Ammons
- Howard A. Doolin
- Mater Academy Charter
- Norland
- Ponce de Leon
- Renaissance Middle Charter
- Ruben Dario
- Shenandoah
- South Miami K-8
- St. Andrew Catholic
- Sunrise School of Miami
- Thomas Jefferson
- Carrollton
- Coconut Palm K-8
- David Lawrence Jr. K-8
- Eugenia B. Thomas K-8
- George Washington Carver
- Gulliver Academy
- Henrietta Scheck
- Homestead
- Lamar Louise Curry
- Miami Springs
- North Miami
- Redland
- Richmond Heights
- Ruth K. Broad/Bay Harbor K-8
- Somerset Academy Silver Palms
- South Miami Middle
- St. Kevin Catholic
- Sunset Christian Academy
- West Miami

HIGHEST HONORS

Cash prizes for environmental initiatives awarded to the 16 top-scoring middle schools

- \$1,000-George Washington Carver Middle School
- \$1,000-Shenandoah Middle Museums Magnet
- \$1,000-West Miami Middle Community School
- \$500-Carrollton School of the Sacred Heart
- \$500-South Miami Middle
- \$250-Centennial Devon Aire K-8
- \$250-Glades
- \$250-Ponce de Leon
- \$250-Ruth K. Broad / Bay Harbor K-8
- \$500-Coral Way K-8
- \$250-Arvida
- \$250-Frank C. Martin K-8
- \$250-Gulliver Academy
- \$250-Redland
- \$250-St. Kevin Catholic

Fairchild Challenge "Schools of Excellence"

Banners awarded to schools that earn the Fairchild Challenge Award for five consecutive years

Inducted 2010

Redland • Richmond Heights

Inducted 2009

Centennial • Kinloch Park • Glades • South Miami Middle

Inducted 2008

George W. Carver • José Martí

**counts of student and teacher engagement*

Program Evaluation Results

The Fairchild Challenge continuously tracks and evaluates program success by administering frequent teacher and student surveys, facilitating teacher discussion forums and interviews, maintaining responsive e-mail communications, conducting direct observations of the program at various school sites, and monitoring the quality of student entries. Evaluations focused on four key aspects: content, administration, communication, and effectiveness. Implementation of these evaluative strategies allowed us to analyze student and teacher feedback to the following questions: “What effect do we have on students’ environmental awareness, scholarship, and stewardship? How many students, teachers and schools are we reaching, and to what extent?”

End-of-year Surveys

At the end of the school year, we distributed student and teacher surveys to ascertain how effective the program was at reaching the students [Tables 1-4]. The survey addressed the benefits gained through participation: increased environmental awareness, community involvement, empowerment to effect change, and environmentally minded behavior as well as some background information, such as length of participation in the program and options completed.

Student Survey Results

Table 1: End-of-year Surveys (High School Students)

Survey Questions	Agree or Strongly Agree	Not Sure	Disagree or Strongly Disagree
I can discuss how the environment can impact my life	89%	8%	3%
I can now state ways in which plants are important	83%	13%	4%
The Fairchild Challenge gave me a chance to use what I learned in my classes	63%	26%	11%
I can now convince others to take action to help the environment	73%	20%	7%
I would like to participate again next year	Yes = 69%	No = 31%	

**Based on 670 student responses from 15 schools*

Table 2: End-of-year Surveys (Middle School Students)

Survey Questions	Agree or Strongly Agree	Not Sure	Disagree or Strongly Disagree
I can discuss how the environment can impact my life	82%	15%	3%
I can now state ways in which plants are important	85%	12%	3%
The Fairchild Challenge gave me a chance to use what I learned in my classes	66%	23%	11%
I can now convince others to take action to help the environment	76%	18%	6%
I would like to participate again next year	Yes = 80%	No = 20%	

**Based on 1101 student responses from 20 schools*

Teacher Survey Results

Table 3: End-of-year Surveys (High School Teachers)

Survey Questions	Agree or Strongly Agree	Not Sure	Disagree or Strongly Disagree
The Fairchild Challenge was a worthwhile use of time for my class	97%	0%	3%
My students are more aware of environmental challenges/issues	92%	8%	0%
I have seen an increase in students' environmentally-friendly behaviors	79%	18%	3%
My knowledge of the environment and environmental issues has increased	90%	8%	2%
I intend to participate again in the Fairchild Challenge	Yes = 100%	No = 0%	

**Based on 39 high school teacher responses from 26 schools*

Table 4: End-of-year Surveys (Middle School Teachers)

Survey Questions	Agree or Strongly Agree	Not Sure	Disagree or Strongly Disagree
The Fairchild Challenge was a worthwhile use of time for my class	95%	2%	3%
My students are more aware of environmental challenges/issues	94%	4%	2%
I have seen an increase in students' environmentally-friendly behaviors	81%	17%	2%
My knowledge of the environment and environmental issues has increased	93%	4%	3%
I intend to participate again in the Fairchild Challenge	Yes = 93%	No = 7%	

**Based on 132 middle school teacher responses from 34 schools*

Event Surveys

In addition to the end of the year evaluation, teachers and students were given surveys at the end of each performance/event relating to the content and administration of the respective event [Tables 5-8]. Along with answering several questions about the event, they were also asked to provide suggestions and written feedback. Event surveys were administered at the Everglades: "River of Grass" performances [Table 5], botanical fashion show [Table 6], local edible plants/people and edible plants workshop [Table 7], Green Treasures intergenerational interviews [Table 8], environmental debates, Environmental Immersion Day (EID), research projects showcase [Table 9], and environmental action reports [Table 10].

Table 5: Summary of 2009-2010 Everglades: “River of Grass” Performances
(Middle and High Schools)

		My interest in the environment is...			My understanding of how humans can affect the environment is...		
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
Middle Schools	65	91%	9%	0%	88%	11%	1%
High Schools	129	82%	17%	1%	75%	24%	1%

Table 6: Summary of 2009-2010 Botanical Fashion Show (Middle and High Schools)

		My interest in the environment is...			My appreciation of the environment is...		
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
Middle Schools	22	68%	27%	5%	76%	24%	0%
High Schools	24	71%	25%	4%	71%	25%	4%

Table 7: Summary of 2009-2010 Local Edible Plants Art Workshop (Middle and High Schools)

		My interest in the environment is...			My appreciation of the environment is...		
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
Middle Schools	45	84%	16%	0%	79%	19%	2%
High Schools	57	88%	12%	0%	82%	18%	0%

Table 8: Summary of 2009-2010 Green Treasures Intergenerational Interviews (Middle Schools)

		My interest in the environment is...				My appreciation of the environment is...	
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
In Creole	66	70%	27%	3%	78%	17%	5%
In Spanish	71	78%	21%	1%	80%	20%	0%

Table 9: Summary of 2009-2010 Environmental Debates, Environmental Immersion Day, and Research Projects (High Schools)

		My interest in the environment is...				My understanding of how humans can affect the environment is...	
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
Environmental Debates	92	66%	33%	1%	75%	23%	2%
Environmental Immersion Day	174	87%	11%	2%	83%	15%	2%
Research Projects	91	78%	21%	1%	77%	22%	1%

Table 10: Summary of 2009-2010 Environmental Action Reports (Middle and High Schools)

		My interest in the environment is...				My understanding of how humans can affect the environment is...	
	Number of student respondents	A little or much greater than before	About the same as before	A little or much less than before	A little or much greater than before	About the same as before	A little or much less than before
Middle Schools	59	92%	8%	0%	85%	14%	1%
High Schools	31	97%	3%	0%	87%	13%	0%

Summary

The survey results indicate that 70% of high school students and 73% of middle school students became more interested in and appreciative of the environment following their participation in the Fairchild Challenge. Furthermore, 77% of high school students and 82% of middle school students found that their knowledge of the environment increased since participating in at least one Fairchild Challenge option. In addition, 75% high school students and 78% of middle school students that participated in the Fairchild Challenge indicated an increased willingness to preserve the environment.

The surveys executed at the end of the program reported that 83% high school students and 85% of the middle school students could state ways in which plants are important. Of the student participants, 73% of the high school students and 76% of the middle school students stated that they could persuade others to take action to help the environment as a result of their participation in the Fairchild Challenge. Moreover, 66% of middle and high school students reported that the Fairchild Challenge gave them new ideas by seeing the work of other participants. In all, 69% high school students and 80% middle school students surveyed would like to compete in the Fairchild Challenge next year.

Teachers surveyed noticed a change in student environmental attitudes. Eighty-five percent of the 39 high school teachers and 91% of the 55 middle school teachers surveyed noticed an increase in student interest in the environment. Consequently, 79% of the high school teachers and 81% of the middle school teachers also noted an increase in student environmentally friendly behaviors following their participation in the Fairchild Challenge. Teachers also learned from this program; 90% of the high school teachers and 93% of the middle school teachers surveyed stated that their knowledge of the environment and environmental issues had increased; and more than 96% of them intend to participate in the Fairchild Challenge in the coming school year. The teachers were also satisfied with the program's curriculum integration to the state curriculum standards; 97% of the high school teachers and 95% of the middle school teachers surveyed agreed that the Challenge was a worthwhile use of class time.

Feedback

Comments from teachers and students:

"I was a burned out teacher looking for a new career and then I found the Fairchild Challenge. It has sparked my natural competitiveness and made teaching fun again. My students all enjoy the Challenges as well. We look forward to competing and getting our scores whether we win or not."

Phillip Percy, teacher, G. Holmes Braddock Senior High

"Thanks so much! The debate is my favorite, and my second year competing in [the Challenge]. I will be graduating this year, but would absolutely LOVE joining the Alumni, being a future judge, or assist you guys in any way. Fairchild is a second home to me! Thanks so much."

Carly Bruening, Fairchild Challenge student coordinator, South Plantation High School

"Just letting you know that my students had a GREAT time at Fairchild Farm! One even said that it was the BEST field trip she'd EVER been on!"

Amy Leonard, teacher, TERRA (TERRA Environmental Research Institute)

Teacher Feedback

When asked what they appreciated most about the Fairchild Challenge, teachers responded:

- It's a wonderful opportunity for students to express their knowledge and passion about the environment.
- Students enjoy opportunities to show off their talents. This is first time on stage for some. Students directed, wrote, and performed on their own.
- My students have an increased awareness and appreciation of South Florida Flora and Fauna and the environment.
- Students have taken issues such as water conservation and alternative energy use very seriously and enjoy educating others.
- The students are very aware of how much resources (water, paper, electricity) are being used and offer solutions to save/reuse.
- Makes classroom management easier because students are excited to come to class and participate.
- I get excited when I see students really taking an interest in some aspect of the Challenge and really pulling an option together on their own.
- Watching the students' confidence grow as they create projects or come up with solutions to a problem.
- A lifetime lesson for their personal lives that could pass through generations. A great involvement in the community as leaders who can make a difference.
- Giving so many different students of different levels and abilities the opportunity to demonstrate concern for the environment through positive actions.

Student Feedback

When asked what they learned from the Fairchild Challenge, students responded:

- I learned that it is important for us to care for the environment and if we work together we could make a great impact.
- I became aware of how much danger our River of Grass is in, and the adverse variety of insect species.
- One thing I became aware of while participating in this program is teamwork.
- I learned that many people around the world dedicate their lives to saving the environment.
- One thing I learned is how much we rely on the environment and that there are many ways we can help, even by just speaking up.
- One thing I learned is how big one persons carbon footprint is and how easily it can be reduced.
- I learned the environment is more important than I thought it was.
- I never knew that there were so many invasive species in South Florida.
- I became aware of the importance of environmental factors to progression of civilization.
- Pesticides that are used on crops don't kill the crop, but we eat the pesticide.
- That we use plants in our everyday lives more than I thought.

Elementary Pilot Program

Year three of the Fairchild Challenge Pilot Program for Elementary Schools was formally launched on August 29th, 2009 with an information meeting for teachers and administrators of participating schools. With public, independent and private schools participating, we reached over 14,000 students representing the ethnic, socio-economic and scholastic diversity of Miami-Dade County. The program concluded in May, 2010 with a wrap-up (reflection) luncheon on May 8th, at which time Fairchild staff conducted focus groups with participating teachers. An awards ceremony was held on May 11th, attended by over 200 students, teachers and family members to celebrate everyone's achievements.

Program Options for Elementary Schools

The 2009-2010 Fairchild Challenge Pilot Program for Elementary Schools consisted of four challenge options for students in grades Pre-K through 5th. The options were aligned with public school curricula and Florida's Sunshine State Standards benchmarks. These options included:

Art – Fruit of the Tropics

Students explored the different types of tropical fruits. They then created an original painting or drawing that captured their favorite tropical fruit and all of its interesting characteristics.

Teacher survey results showed that 95% of teachers found this option to be either “valuable” or “very valuable” in contributing to their students' academic skills or knowledge.



*Oscar Guzman, 5th Grade
R.R. Moton Elementary*

Creative Writing – “SENSE-ational Fruits!”

Students selected a type of tropical fruit and wrote a creative story describing it using all of their five senses.

“Inside the mango it was mushy and slimy. As I was falling through the inside of the mango, I could feel all the tiny, prickly hairs of the fruit going up against my body. I then landed on a big, beige-like structure that looked like a row-boat and hurt my elbow. Luckily, it was the seed. Afterwards, I scooped some of the mango juice from outside the row-boat. It made a gulp-gulp, slushy sound as I drank it. It tasted so sweet and smelled like nectar!”

Sofia Jimenez, 3rd, Sunset Elementary

Teacher survey results showed that 78% of teachers found this option to be either “valuable” or “very valuable” in contributing to their students' academic skills or knowledge.

School Garden

As a class, grade, or school-wide initiative, schools established, expanded, or restored a themed garden (butterfly, aquatic, edible, native plant, etc.) at their school and created interpretation for their garden. Teachers designed and implemented a wide diversity of lesson plans that used the school garden as a learning resource. Their gardening efforts and outcomes were summarized in a booklet submitted to Fairchild. According to survey results, 78% of teachers found this option to be “very valuable” to their students' academic skills or knowledge.

Environmental Action

Students were asked to promote and practiced environmental awareness and conservation at their home, school or community. Their efforts and outcomes were summarized in a booklet submitted to Fairchild. Teacher survey results showed that 83% of teachers found this option to be either “valuable” or “very valuable” in contributing to their students’ academic skills or knowledge.

Environmental Action Activities included:

- Establishing or expanding school wide recycling programs,
- Hubert O. Sibley Elementary students wrote a letter to President Obama to urge him to cap carbon dioxide emissions to 350 parts per million,
- David Fairchild Elementary students grew produce at their garden and used it as a fundraiser for the people of Haiti,
- David Lawrence Jr. K-8 Center students designed and assembled environmentally friendly shopping and grocery bags made out of fruit juice boxes,
- Ruth K Broad K-8 Center partnered with their local Rotary Club and Food Bank to donate the produce grown in their garden to help feed members of their community.

YouthCaN

On February 5th, 2010, 250 environmentally-minded elementary students gathered at Miami Country Day School for the 2010 YouthCaN Miami conference. Locally hosted by the Abess Center for Environmental Studies (ACES) at Miami Country Day School, YouthCaN is a national youth-run organization that unites environmentally active youth to exchange ideas about the environment and empower others to make a difference in their own communities. YouthCaN brought together participants in the Fairchild Challenge Pilot Program for Elementary Schools with students from other local elementary schools. Fairchild Challenge schools presented topics ranging from “greenable lunches” to environmental graphic novels. Each school made herbal vinegars and herb container gardens and received palm tree seedlings. At the end of this inspirational day, all students left with the realization that they do have the power to make a difference.



All Fairchild Challenge options were evaluated by panels of professionals in the respective field, volunteers, board members, partners, sponsors and friends of Fairchild Tropical Botanic Garden. Students and teachers responded to the Fairchild Challenge with incredible enthusiasm, creativity and intellectual curiosity. Teachers have reported that the Fairchild Challenge options creatively increased students' depth of knowledge and critical thinking skills related to nature and environmental issues. Students began to assess their own behavior and understand that as individuals they can effect positive change in their homes, schools and communities.

Participation and School Achievements

With 23 participating schools, the 2009-2010 Fairchild Challenge Pilot Program for Elementary Schools received a total of 410 entries. The total counts of student participation was 21,661*, nearly double last year's 10,996 figure.

The top-performing schools received cash prizes to use for their environmental activities. These were:

- \$1,000 Sunset Elementary
- \$500 David Fairchild Elementary
- \$250 Hubert O. Sibley Elementary
- \$250 Ruth K. Broad K-8 Center

By earning more than 500 points, 48% of participating schools received the 2009-2010 Fairchild Challenge Award:

- Beth David Gordon Day School
- David Lawrence Jr. K-8 Center
- Frank C. Martin K-8 Center
- Oak Grove Elementary
- R. R. Moton Elementary
- William Jennings Bryan Elementary
- Bob Graham Education Center
- Doral Academy K-8 Center
- Gulliver Schools SMC
- Pine Lake Elementary
- St. Kevin Catholic School

All First Place individual winners and honorable mentions received an official Fairchild Challenge Award certificate and medal. In addition, a total of 1,300 Family Gift Passes to Fairchild Tropical Botanic Garden were given to participating students and teachers in an effort to reach out to their respective families. Each Family Gift Pass is suitable for 4 people and has an approximate value of \$80 (based on the admission of two adults and two children).

Resources for Schools

Fairchild is committed to making this outreach program accessible to all interested students in the targeted schools, regardless of their schools' resources. The Fairchild Challenge supported schools with incentives such as transportation subsidies for school buses, modest grants for school gardens, specialized workshops and professional development seminars.

Difficulties encountered by faculty/staff engaging in the pilot program:

- Time restraints and curriculum commitment
- Economic challenges faced by the schools

Teachers' suggestions to consider for the upcoming year included:

- Addition of a photography option,
- More visits to the schools by the Fairchild staff,
- More student field trips to Fairchild Tropical Botanic Garden,
- Weather-proof banners to be placed in front of the schools to promote the Fairchild Challenge.

School	Option 1: Art	Option 2: Creative Writing	Option 3: School Garden	Option 4: Environ. Action	Total Incidences of Participation
Archimedean Academy	288	75			363
Beth David Gordon Day Schools	42	21	185		248
Bob Graham Education Center	544	496	100	650	1790
Coconut Palm K-8 Center	148	45			193
David Fairchild Elementary	597	377	606	606	1809
David Lawrence Jr. K-8 Center	44	51	334	600	1029
Doral Academy K-8 Center	12	1146	760	760	2678
Fienberg-Fisher K-8 Center	45	150		400	595
F.C. Martin K-8 Center	295	510	120	767	1692
Gulliver Schools South Miami Campus	168	39	72	72	351
Hubert O. Sibley Elementary	690	900	250	600	3850
Miami Lakes K-8 Center	15	30			45
Morningside Elementary			230	70	300
Oak Grove Elementary	82	52	150		248
Palmetto Elementary	608	414			1022
Pine Lake Elementary	568	190	65		578
R.R. Moton Elementary	140		100	410	650
Ruth K. Broad K-8 Center	225	400	300	300	1229
St. Kevin Catholic School	70	225	200		495
Sunset Elementary	375	400	420	500	1495
Thena C. Crowder Elementary	85	120	120		325
W.J. Bryan Elementary	49	26	250		325
Winston Park K-8 Center	12	643			655
TOTAL PARTICIPANTS	6500	5164	4262	5735	21661

**Figures based on number of students that attempted the options at their school; does not reflect the number of entries that were actually submitted to the Fairchild Challenge.*

Summary of Teacher Evaluation

At the end of the school year, Fairchild hosted a wrap-up luncheon for all teachers who participated in the Fairchild Challenge Pilot Program for Elementary Schools as a means to evaluate the successes and difficulties of the program. The results of this feedback session are outlined below.

Strategies that teachers used to engage more teachers/students at their school:

- Utilizing garden and science clubs
- Informing other teachers about the Fairchild Challenge at school faculty meetings
- Organizing special events that relate to the environmental action option, such as “Planting Days” at their school or community

In addition to the teacher feedback session, Fairchild Challenge staff distributed teacher surveys to ascertain how effectively the program reached students and educators. Some survey results are outlined below.

Measuring Knowledge and Interest in the Environment

Survey Question	Strongly Agree	Agree	Disagree or Strongly Disagree
Students' Knowledge about environment has increased	72%	28%	0%
Teachers' Knowledge about the environment has increased	62.5%	37.5%	0%
Students are more aware of environmental challenges	67%	33%	0%
Students show more interest in the environment	83%	17%	0%
There has been an increase in students' environmentally friendly behavior	72%	28%	0%

**Based on 18 teacher responses*

Measuring Future Teacher Participation

Survey Question	Yes	No	No Response
Teachers intend to participate again in the Fairchild Challenge	94%	0%	6%
Teachers recommend that others participate in the Fairchild Challenge	94%	0%	6%

**Based on 18 teacher responses*

Summary

Overall, teachers were extremely enthusiastic about their involvement in the 2009-2010 Fairchild Challenge Pilot Program for Elementary Schools and expressed tremendous gratitude for being selected as participants.

Because of the breadth, depth and reach of our program, we have positioned ourselves to be leaders in environmental education. The time is right for making a dramatic leap forward. Our ultimate aim is that our youngest generations value the importance of our environment for the future of our society. During the 2010-2011 school year we will expand the elementary program and offer the program to all elementary schools in Miami-Dade County. We expect to see a marked increase in participation. By doing so, we hope to create an education pipeline that will affect positive change throughout our community and beyond.



Teacher Feedback

"The Challenge focuses teachers and students on environmental issues. It gives the students opportunities that they would not be exposed to outside of school." -From Anonymous Feedback Survey

"It has all been very positive, it is infectious. Certain teachers are really interested in becoming involved and my students are so happy!" -From Anonymous Feedback Survey

"The Fairchild Challenge has increased environmental awareness, nutrition, and scientific inquiry." -From Anonymous Feedback Survey

"The Fairchild Challenge has rejuvenated me. I feel like I am really making a difference in my students' lives." -Archimedean Academy

"The most valuable outcome was students' knowledge that each person, including themselves, can make a difference." - R.R. Moton Elementary

"It has been a wonderful and rewarding learning experience having our students participate in the Fairchild Challenge this year for the first time in the elementary grades." -St. Kevin Catholic School

"This has truly been a challenge, one that I am so glad I could lead. The students thoroughly enjoyed it." -Oak Grove Elementary

"Our students have been able to be involved in learning hands-on about their environment and how they can make it better, while at the same time enjoying the excitement of the butterfly life cycle and the great taste of the 'veggies and the herbs of their labor'." -Morningside Elementary

"Teachers are able to give students hands-on experiences connected to what they teach." -David Lawrence Jr. K-8 Center

"For me, it was an excellent tool that encouraged me to become more involved with nature, environmental issues and increase nutrition awareness." -David Lawrence Jr. K-8 Center

Samples of Student work ~ Creative Writing: "SENSE-ational Fruit!"

"Who would have thought that the prickly plant that I stumbled over would be able to create a marvelous fruit like the pineapple?" -Gabriel Hernandez, 4th, Bob Graham Education Center

"When I first held a coconut in my hand it felt kind of funny because I'd never held such a hard fruit, especially a fruit with hair. It was a unique experience." -Khamani Adelson, 4th, Oak Grove Elementary

"I have more vitamin C than an orange, and as much potassium as a banana. I smell as sweet as a cherry pie. If you want to take a bite out of me, don't forget to peel me, because I am as hairy as a grizzly bear" (Kiwi) -Louis D'Antuono, 3rd, Ruth K. Broad K-8 Center

"I come from a very special tall plant called "Tree of Life" because every single part of me is useful to humans. They use my leaves to weave hats, and roofs. They utilize my trunk for construction, to make rafts, for fire wood and many other uses." -Carlos Castro, 2nd, Ruth K. Broad K-8 Center

"Hi, I am starfruit. I know you want my autograph but first let me tell you about myself." - Emily Ponak, 5th, Sunset Elementary

Satellite Partner Programs

Fairchild Challenge staff from FTBG train educators from institutions around the globe to develop their own Fairchild Challenge programs. Annually, FTBG hosts an intensive three-day Fairchild Challenge Satellite Partners training workshop. This workshop is open to representatives from institutions that are interested in learning more about the program and how to establish a Fairchild Challenge program in their local region. Sites trained include botanic gardens, arboreta, nature centers, parks and zoos, among others. To date, ten institutions have launched Fairchild Challenge Satellite Partner programs in their locales.

During the 2009-2010 program year, six Satellite Partner programs successfully engaged students in regions as close as central Florida, and throughout the country in California, Illinois and Utah. Active Fairchild Challenge programs have also reached beyond our nation's borders, as far away as Costa Rica and Venezuela. The Fairchild Challenge also continued its partnership with Botanic Gardens Conservation International (BGCI) to extend the program's reach globally.

Satellite Partner Programs

The following provides information about each of the specific Satellite Partner programs implemented during the 2009-2010 school year.

Cherry Lake Tree Farm (Groveland, Florida, USA)

This was the second year of the Fairchild Challenge at Cherry Lake Tree Farm (CLTF). More than 400 students and ten teachers at three schools participated in CLTF's 2009-2010 Fairchild Challenge. Challenge Options offered to high schools included: Fairchild Challenge T-shirt design, research poster on alternative energy, photojournalism on the theme of "people and plants," opinion papers based on research (on four environmentally-themed topics) and documentation of environmental lifestyle changes. CLTF hosted two events as part of its program: teachers' luncheon and awards ceremony. CLTF has its own Fairchild Challenge website: www.cherrylake.com/challenge.

Chicago Botanic Garden (Glencoe, Illinois, USA)

This was the fifth year of the Fairchild Challenge at Chicago Botanic Garden (CBG). Over 200 students and 28 teachers from 17 schools (seven of which are Title I/under-resourced) participated in CBG's 2009-2010 Fairchild Challenge. Challenge Options offered to high schools included: native pollinators T-shirt design, photography capturing the relationship between man and nature, "Speak Green" poetry slam, natural rhythms musical composition, satire based on an environmental issue, "green" business investigation and evaluation, eco-journalism piece exploring the eco-friendliness of schools and sustainable menu creation. CBG hosted three events as part of its program: poetry slam, eco-concert and awards ceremony. CBG has its own Fairchild Challenge website: www.chicagobotanic.org/fairchildchallenge and Fairchild Challenge YouTube channel: www.youtube.com/user/TheCBGFC.



Huntington Botanical Gardens (San Marino, California, USA)

This was the first year of the Fairchild Challenge at Huntington Botanical Gardens (HBG). There were 835 students and 12 teacher participants from three schools involved in HBG's 2009-2010 Fairchild Challenge. Challenge Options offered to high schools included: editorial cartoon on the theme of "water use in Los Angeles," "Garden Chef" challenge to create a menu using ingredients from a local community supported agriculture (CSA) inventory, postcard design based on the theme of "plants are up to something," letterboxing project, school garden design, California Poppy seed/plant research study, and Fairchild Challenge newsletter. HBG hosted two events as part of its program: "Garden Chef" cook-off and awards ceremony. HBG has its own Fairchild Challenge website: www.huntington.org/thehuntington_full.aspx?id=5230&linkidentifier=id&itemid=5230 and Fairchild Challenge blog: www.huntingtonfairchildchallenge.blogspot.com.

Jardín Botánico de Mérida (Mérida, VENEZUELA)

This was the second year of the Fairchild Challenge at Jardín Botánico de Mérida (JBM). Over 1,000 students and more than 100 teachers from 19 schools participated in JBM's 2009-2010 Fairchild Challenge. Challenge Options offered to primary and secondary schools were: (all on the theme of water) poetry, opinion paper, research paper and story-writing, song composition, cartoon, environmental action projects, art -- painting and sculpture, school newspaper, Fairchild Challenge poster design, performance, puppetry and botanical fashion design. JBM hosted one event as part of its program: awards ceremony (featuring a recycled materials-themed fashion show and student performances). JBM has a page on its website that provides information about its Fairchild Challenge program: www.ciens.ula.ve/jardinbotanico/novedades/index.php.

La Selva Biological Station (San Pedro, COSTA RICA)

This was the third year of the Fairchild Challenge at La Selva Biological Station (LSBS). More than 90 students and 11 teachers from five schools (all of which are under-resourced) participated in LSBS's 2009 Fairchild Challenge. Additionally, almost 30 parents of students that participated in the Fairchild Challenge took part in a Challenge option specifically designed for interested parents. Challenge Options offered to primary schools were: environmental debate, Costa Rican dance, illustrated story based on native Indian history and mythology and replicating sounds of nature. LSBS hosted three events as part of its program: regional dance presentation and competition, fruits and vegetables decoration exhibition (based on the one Challenge option for adults) and awards ceremony. LSBS has a page on its website with information about its Fairchild Challenge program: http://www.ots.ac.cr/index.php?option=com_content&task=view&id=410&Itemid=381.

Thanksgiving Point (Lehi, Utah, USA)

This was the second year of the Fairchild Challenge at Thanksgiving Point (TP). Approximately 175 students and 16 teachers from eight schools (one of which is Title I/under-resourced) participated in TP's 2009-2010 Fairchild Challenge. Challenge Options offered to high schools included: visual arts project featuring community environments, T-shirt design featuring Utah's environmental treasures, environmental debate, musical performance focused on local water conservation and/or quality, fashion show featuring accessory created using reused materials and wind- or water-powered machine design and demonstration. TP hosted three events as part of its program: teachers' opening celebration, Challenge option-based competitions (debate, musical performance, fashion show and alternative energy-powered machines demonstration) and awards ceremony. TP has its own Fairchild Challenge website: www.thanksgivingpoint.com/challenge.

Partnership with Botanic Gardens Conservation International

In an effort to further expand its international reach, beginning in 2008, the Fairchild Challenge initiated a partnership with Botanic Gardens Conservation International (BGCI) – U.K. Through this partnership initiative, local Fairchild Challenge middle school and high school participants were offered an opportunity to create cartoons and accompanying narratives depicting the complex relationships between plants and climate change globally based on case studies provided in BGCI's report, "Plants and climate change: which future?" Many of these students' creative and thought-provoking designs have been showcased to international audiences on BGCI's website (to view some of the top entries please visit: www.bgci.org/education/winners).

In 2009, building upon its successful partnership with BGCI, the Fairchild Challenge offered its first "Global Challenge Option" to Satellite Partner programs and Plant Conservation Day Partners (through BGCI) around the world. This time, high school students were presented with the following challenge: create a design and accompanying narrative that conveys a clear message on the theme of an ecological footprint. The winning design would be printed on the cover of the London-based independent band, Storey's CD single, "Footprints."

Four Fairchild Challenge sites (CLTF, CBG, FTBG and HBG) participated in the Global Option and each submitted their top five entries for the final round of judging. On May 18 -- Plant Conservation Day -- an announcement was made during the Fairchild Challenge Awards Ceremony for high schools that the winner of the Global Option was José García, a high school senior at Miami Lakes Educational Center. In addition to gaining international recognition for his talents, his eye-opening design and narrative that focus on how to reduce one's ecological footprint are helping educate others and raise awareness worldwide. You can view Jose's winning design and other top entries at: www.bgci.org/education/2383.

The members of Storey flew in from London to personally announce the Global Option winner at the high school awards ceremony; they also gave musical performances at both the middle and high school awards ceremonies, which were well-received by the audiences. Storey has also agreed to donate all proceeds from the sale of the "Footprints" CD single and iTunes download to the Fairchild Challenge and BGCI's educational programs.

The Fairchild Challenge/BGCI partnership will continue during the 2010-2011 program year, with at least one Global Option that will offer students opportunities to showcase their work globally, while learning about plant diversity and conservation, as well as ecological and cultural diversity.

Training Workshop 2010

From January 27th through the 30th, FTBG hosted its sixth annual Fairchild Challenge Satellite Partners training workshop. During this workshop, participants representing eight different institutions from around the world engaged in numerous information-sharing and instructional sessions led by FTBG staff. The three-day workshop provided participants with the knowledge and tools needed to develop, launch and implement their own local Fairchild Challenge programs. The workshop concluded with participants attending, as observers, the Fairchild Challenge Environmental Debates for high schools.

Individuals from the following institutions attended this workshop: Botswana Biological Research Station Initiative (BOTSWANA), Humboldt Institute - Proyecto Páramo Andino (COLOMBIA), Jardín Botánico de Bogotá (COLOMBIA), Khama Rhino Sanctuary (BOTSWANA), Tachila Nature Reserve (BOTSWANA), Vermont Institute of Natural Science (Vermont, USA) and Welchman Hall Gully (BARBADOS). Participants came away from this workshop eager to formalize their sites' plans for launching the Fairchild Challenge.

Summary

With excitement about the program rapidly spreading and the number of Satellite Partner sites steadily increasing, the Fairchild Challenge appears destined to continue its global growth and positive impacts around the world. Information about the Fairchild Challenge Satellite Partners initiative at FTBG and its Satellite Partner programs is available on our website: www.fairchildchallenge.org/satellitepartners.

Feedback

"The importance of Environmental Education, introduced at an early age, and followed through to maturity was so enthusiastically presented to teachers and other representatives of the local community, that we came away feeling convinced and inspired. Thank you very much for your valuable input, free of charge." -Satellite Partner site representative

"I ran into one of the kids that had been in the {Fairchild} Challenge Botanical Arts activities when he was in 5th and 6th grade. He is in 'el colegio' now, so I hadn't seen him for a while. He was telling me he is still drawing and painting and he is even starting to sell his art at the souvenir shop at Puerto Viejo. I was surprised and he was really enthusiastic and said he wanted to talk to you someday, that the program inspired him and that all his drawings are about animals and plants, the river...He even suggested we continue with the art workshops." -As reported by Satellite Partner site representative

"I thought the Fairchild Challenge was a great program. Seeing all the projects and going to the Eco-Concert was such a fun experience. My band still plays and practices 'Conservate', the song we wrote and performed, and this summer we will be playing our environmental song in some music festivals." -Student

"This is a really good way to get high school kids involved in saving the environment. We're getting them to think about the environment. Even if they're not making major changes now, maybe they will in the future because they participated in The Fairchild Challenge." -Teacher

"It was awesome! The kids this year were very excited about it." -Teacher

"The Fairchild Challenge is an outlet outside the classroom with support within the community; offering the students a challenging assignment which expanded their thinking processes." -Teacher

"The Fairchild Challenge is an outlet outside the classroom with support within the community; offering the students a challenging assignment which expanded their thinking processes." -Teacher

"It's a way to incorporate our curriculums together. That's where schools should be going. My goal is to make it school wide." -Teacher

"Students were able to explore relevant topics in a mature way. They interviewed people in the field who gave them information that sometimes conflicted with their research. That forced them to think harder and dig deeper." -Teacher

"Students had an opportunity to make an impact outside of the classroom that affects everyone." -Teacher

"{The Fairchild Challenge is a} good avenue that makes {students} think and come up with solutions." -Teacher

Fairchild Challenge Satellite Partner Programs Participant Data at a Glance

Institution Name and Location	Number of Participating Schools	Number of Title 1/Under-resourced Schools	Number of Participating Students	Number of Participating Teachers	Total Number of Student and Teacher Participants
Cherry Lake Tree Farm (Groveland, FL, USA)	3	N/A	407	10	417
Chicago Botanic Garden (Glencoe, IL, USA)	17	7	202	28	230
Huntington Botanical Gardens (San Marino, CA, USA)	3	N/A	835	12	847
Jardín Botánico de Mérida (Mérida, Venezuela)	19	19	1024	109	1133
La Selva Biological Station (San Pedro, Costa Rica)	5	5	93	11 (+29 parents)	133
Thanksgiving Point (Lehi, UT, USA)	8	1	92	16	108
TOTALS	55	32*	2653	215	2868**

* More than half (58 %) of the schools that participated in the 2009-2010 Fairchild Challenge Satellite Partner programs are Title I/under-resourced.

** The combined total number of student and teacher participants in all Satellite Partner programs during the 2009-2010 Fairchild Challenge program year is 2,868. However, the estimated total counts of student and teacher engagement is 3,400.

