



*Pictures from left to right: First: New GLOBE teachers at the Botanical Garden entrance.*

*Next: The Soil Characterization Protocol in progress, using the exposed profile technique.*

*Last: Measuring the land cover site.*



## GLOBE WORKSHOP IN SANTO DOMINGO

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GLOBE Santo Domingo is very happy to announce that 20 new teachers were certified in September's Workshop at NOTRE DAME SCHOOL. The protocols that were covered are: Atmosphere, Climate, Soil, Land Cover and GPS. One private school(Colegio Veritas), two public schools, four curriculum technicians from the Ministry of Education and

Notre Dame School teachers learned GLOBE protocols and measurements. The purpose of the workshops is to build a community of trainers and environmental friends that develop an action plan for the rescue of the Dominican Republic's natural resources, understanding that

we are part of the planet, and part of the Earth System. During the workshop the teachers gave excellent ideas for research projects, the first of all: the analysis of our city's water resource the OZAMA River and its surroundings.

## A LATIN STAR IS BORN: CLAG

The 8th Annual GLOBE Conference, "GLOBE: The Next Ten Years," held 25 - 30 July, 2004, in Boulder, Colorado, USA, brought together GLOBE Education and Science Principal Investigators, Country Coordinators and U.S.



Hudson Roditi comments on the ideas gathered by the Latin American and Caribbean region GLOBE community.

Partnership Coordinators to address key education and science elements of GLOBE. During this year's event participants also gathered in regional groups to expand on ideas presented in the conference and develop action plans for their specific areas of the world. One of those groups is CLAG (Caribbean and Latin America GLOBE Group) were

the participants created a vision of local projects and cooperation, and the creation of a newsletter to keep the community up to date with regional and international news.

Mr. Hudson Roditi, our regional director, encouraged the participants to integrate more countries in the new group.



*"Our experience has been a thoroughly exciting and informative one."*

# The Naparima Girls' High School Hydrology Group in Trinidad and Tobago

By Saara Hyatali, Amelia Goordeen, Leanna Mahabir, Alicia Bertie, Arianne Dhanukdharriesingh

As proud participants of the GLOBE project, we are happy to report on its progress. The GLOBE project is aimed at gaining knowledge about our rivers in order to encourage their preservation.

So far, we have visited a river in Williamsville, Trinidad, to test the water for various water chemistry parameters e.g. pH, dissolved oxygen, alkalinity, temperature and to also sample the macro-invertebrates there. We have found that there are many snails - (*Melanooides tuberculata*), as well as

leeches and damselfly larva present in the river. We have also sampled a nearby pond at Ben Lomond, for water chemistry parameters as well as macro-invertebrates and have found similar aquatic life as in the river, as well as water bugs (Hemipterans).

We also attended a GLOBE Video Conference at the US Embassy in Port-of-Spain, where we communicated with various schools and persons in Trinidad and the United States. For the year, we also celebrated Earth Day, by inviting Iere High School to

our school and participating in the Earth Day Web Chat with other schools from Trinidad, Mexico and United States.

Our experience has been a thoroughly exciting and informative one. We encourage our school and others to participate since this is a great opportunity to learn about and appreciate our environment, and develop ourselves as productive citizens of our nation.



The GLOBE Program is pleased to announce that the Ninth Annual GLOBE Conference will be held in Prague, Czech Republic, on 31 July - 5 August 2005. As in the past, the Conference will bring together GLOBE Country Coordinators,

U.S. Partnership Coordinators, Education and Science Principal Investigators and others to address key education and science elements of GLOBE.

The Conference is being organized as a collaborative effort among the European

Country Coordinators and the GLOBE Program Office. The Conference hosts and the committee of organizers are working diligently to arrange a pleasant and affordable venue for the Conference.

## Operation Ruby throat in Santo Domingo

By María Lorraine De Ruiz-Alma



Students of Notre Dame School in Santo Domingo are building their Hummingbird

study site in their schoolyard, in the garden which was visited by local hummingbirds on the first day the cypress vine opened its tiny red flowers. The group discovered that many of the species that are the hummingbird's favorites are in danger of extinction. Some of them were found on the Botanical Garden where some seeds were donated for the project. Although

most participants make observations at hummingbird feeders or the Schoolyard Hummingbird Habitat, some collect hummingbird data at home or at neighborhood sites on weekends. The second smallest Hummingbird of the world is a native Dominican bird. We do not have Ruby throats but some of the native hummingbirds are spotted during fall and winter.



*"The group discovered that many of the species that are the hummingbird's favorites are in danger of extinction."*

## GLOBE receives the Goldman Sachs Foundation Prize for Excellence in International Education in the Media and Technology category.



Congratulations to all our GLOBE Partners, Teachers and Students! Your outstanding efforts have earned GLOBE the Goldman Sachs Foundation Prize for

Excellence in International Education in the Media and Technology category. The Goldman Sachs Foundation and Asia Society created the Prizes for Excellence in International Education to help promote international literacy and to raise U.S. students' awareness of the rest of the world. GLOBE is honored to be awarded this prize from among more than 400 applications and nominations received this year. The

foundation presented the award to the GLOBE program on November 16, 2004, in Washington, D.C. at the States Institute on International Education in the Schools.

"We are honored that GLOBE has been chosen from among so many excellent educational programs," says GLOBE Program Director Dr. Craig Blurton.

"The prize money will be used to facilitate meetings for our country coordinators who are interested in establishing regional committees." The consortia engage corporations, governments, and their communities to find funding and develop goals and activities to serve their regional needs and interests. "Regional Consortia directly support GLOBE Learning Communities working in each locality to bring together country coordinators, local scientists and leaders from related industry or business and governmental agencies to promote K-12 GLOBE activities," adds Dr. Teresa Kennedy, Director of International and U.S. Partnerships and Outreach for GLOBE.

## GLOBE Partners in Tobago Donated Kits

By Henry Saunders

A two day GLOBE teacher training workshop was held in Tobago on 29 October and 5 November 2004. 23 teachers attended the workshop which was open to Primary and Secondary teachers. Four Intermediate and 1 Advanced GLOBE kit was given to the participants. These came from the 26 GLOBE Kits donated by GLOBE Partners British Gas Trinidad & Tobago (BGT&T) and 2 GLOBE Kits donated by our longstanding partner PETROTRIN. Prior to this activity there was a meeting for all GLOBE schools in Trinidad. 15 schools attended.

The next GLOBE workshops are planned for the 14<sup>th</sup> and 15<sup>th</sup> of December at the Lakshmi Girls' School, 15&16 December at PETROTRIN Learning Centre, Pointe a Pierre and a Junior Environmentalist of Trinidad& Tobago

(JETT) training workshop in GLOBE Protocols on 11&18 December 2004. We have started collecting info for our local GLOBE Newsletter. The COUNTRY Coordinator (CC) has continued on site GLOBE training at schools. A GLOBE site has been launched at the Rudranath Capildeo Learning Resource Centre where the country coordinator's office is located. This site will be manned by the different departments housed at the Centre. Some of the staff members have already been trained in the GLOBE Protocols, including Security Personnel. Incentives have been offered to schools at the primary and the secondary level for gathering GLOBE Data continuously. The Country Coordinator will be interviewed on Radio and Television stations on the GLOBE Program. Support groups are being identified in

each Education Division to assist in the monitoring of the GLOBE Program. A GLOBE Audit is presently being done by two persons on all the schools in THE GLOBE PROGRAM.



*"Incentives have been offered to schools at the primary and the secondary level for gathering GLOBE data."*

## GLOBE WORKSHOP IN ZARUMA CITY, ECUADOR

By Estefania Pavón Palacio

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Under the support of, and through an agreement signed between OIKOS Corporation and the Zaruma Research Institute (Instituto de Investigaciones de Zaruma), the GLOBE Program has extended its coverage to El Oro Province, which borders Peru to the South.

From August 16 to 18, 2004, a GLOBE Certification workshop took place in Zaruma, a city that is a candidate to become a World Heritage Site (Patrimonio Cultural de la Humanidad). The objective was to make the participants aware of the need to investigate the ecosystem elements, specially those related with Hydrology and Soil, in order to promote the application of protocols and the scientific and learning activities associated with the local school curriculum. Participants of the workshop included 3 school teachers and 2 representatives of the Zaruma Research Institute.

The donation of GLOBE equipment and materials by the OIKOS Corporation to the schools in the 3 cities of Zaruma, Portovelo and Atahualpa (the school names are “26 de Noviembre”, “Mayo 13” and “Angel Tinoco Ruiz,” respectively) represents OIKOS’ use of the GLOBE Program as a vehicle to bring scientific research opportunities into schools in Ecuador.

We are also very happy to note that the Zaruma Research Institute’s staff will be providing follow-up support to help the participating schools of Zaruma, Atahualpa and Portovelo implement GLOBE successfully.

The workshop consisted of hands-on field work and demonstrations. The instructors applied all the strategic methodologies to emphasize the contents of the GLOBE Teacher’s Guide, the scientific protocols, and the use of the GLOBE instruments, such as calibration, use of reactants, collection of samples, reading of measurements, use of the forms to register data, and using the GLOBE web site.

Each topic involved included three phases: 1) Introduction of the subject material and assessment of the teachers’ backgrounds and level 2) Introduction of protocols and hands-on work in small groups, 3) Review of phases 1 and 2 as applied to the local high school curriculum teachers must work with. In addition, fieldwork was designed to train teachers in some of the Hydrology protocols, such as water temperature, pH, turbidity, dissolved oxygen and alkalinity. The teachers were also trained in the Soils Investigation, including Soil Characterization, and specifically: top and bottom horizon depths, structure, consistency, color and texture. Finally, in the Land Cover investigation teachers worked with the MUC Field Guide, and the determination of dominant and co-dominant species.

The main accomplishments of the workshop were to reinforce the importance to the teachers of scientific research, have them re-commit to conducting GLOBE learning activities, and define their GLOBE study sites, as well as implement the protocols that coincide with the specific interests of each school.

