

"ENVIRONMENTAL AND TECHNICAL EDUCATION IN RURAL ZONES OF OMETEPE ISLAND"



THE IMPORTANCE OF EDUCATION:

The human population of Ometepe Island is about 40,000 people, most of who live in rural areas. About 60% of the population is under 16 years old. Although access to school is widely available, participation is inadequate and schools lack the basic tools necessary for learning.



In Nicaragua, education needs to be completely revolutionized: only 2% of our children finish high school and 62% do not even reach

elementary schools fifth grade: as a result, 30% of the population is illiterate.

Moreover, in rural areas there is a total lack of education on biodiversity issues, so people often perceive wildlife (including monkeys and birds) as pets or even as food.



The Hotel Hacienda Merida, in the last years, has engaged in the task of encouraging cultural and technical development of Merida's rural population.

The particular focus is on the theme of environmental awareness and protection of our rich natural heritage, which still represents the most important resource for economic and social development of our people.



Over the years, social efforts from Hacienda Merida have continued to expand into several areas of education through different projects that share the unitary goal of training the population in regards to environmental care, English and computer science.



These also include: scientific studies of the island's wildlife, conservation projects, efforts to provide veterinary care for pets of the island, and provide medical assistance for people on Ometepe.

THE MIGRATORY BIRD PROJECT:

In April 2003, the Migratory Bird Center, within the Smithsonian Institution (Washington DC), activated "Migratory Bird Project: Bridging the Americas" in several regions of United States and Latin America.

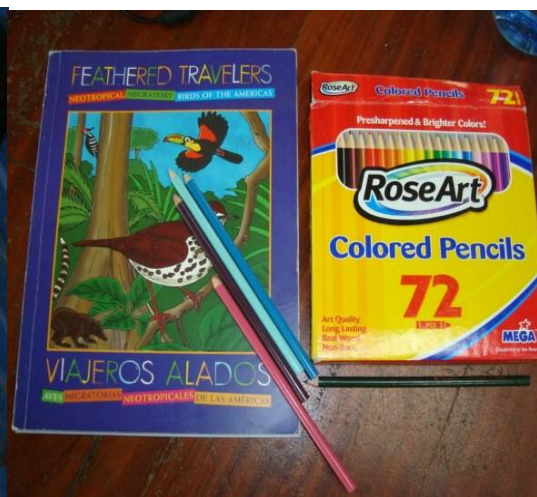
On Ometepe Island the project has been financed by the Hacienda Merida.



The objective of this project is that teachers and specialists in ornithology teach elementary school students about the ecology and behaviour of more than 200 species of migratory birds that fly across the Americas twice a year. The course consists on theoretical lessons in class, as well as guided tours to observe the wild birds in their different habitats within the island.



The Smithsonian Bird Center provides practical and informative materials, such as binoculars, books and guidelines, plus the tools to draw the birds observed.



Another important goal of the project is to establish a cultural exchange between children from Nicaragua and the United States: at the end of the classes, students from both countries send each other pictures and letters of what they could learn and observe about birds, their own culture and daily habits.

According to our records, 1,730 students and teachers from 16 different schools participated in the Ometepe Migratory Bird Project. This project informed children to better their knowledge and passion to learn more about nature and cultures different from their own.



The Migratory Birds Project was so successful that this year we are starting with a parallel educational program for Howler Monkeys conservation.



This project will consist of a series of classes in which students can learn more about the basic elements of ecology and biology of the wild primates, and they learn the importance of protecting these life forms as a means of preserving the biodiversity of the island.

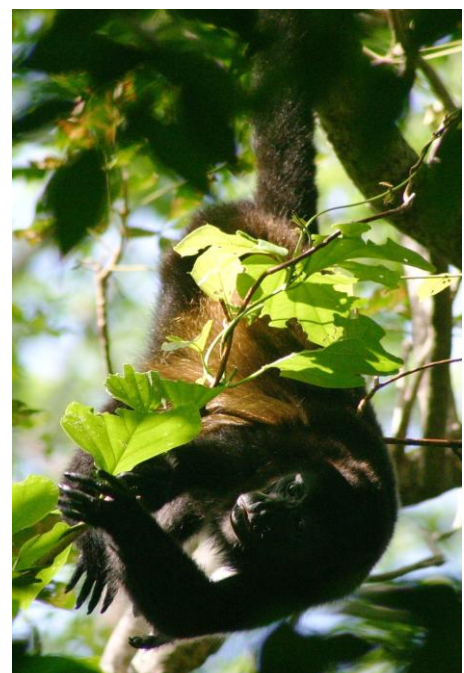
Students will begin reading and commenting on a free e-book for children entitled "Howler's Journey" (written by Katie McCulloch on Ometepe Island), available in both Spanish and English.

We will organize supervised excursions with the use of binoculars to observe the howler monkeys in their natural environment. The technical equipment used by students, such as binoculars and computers, will be the same as by the migratory birds' project.



Howler's Journey

Written and illustrated by Katie McCulloch
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THE VETERINARY PROJECT:

On Ometepe Island the availability of veterinary care is limited or non-existent. A current census (Aug. 2009) among Merida's community records 660 dogs and about 5,522 other pets which is an impressive number compared to a human population that only consist of 1,520 persons!!

N° persons	N° dogs	N° cats	N° horses	N° cows	N° pigs	N° chicken	N° ducks
1522	660	175	206	243	473	3602	163
TOTAL: 5522							

The overpopulation of domestic dogs represents a serious risk to public health in local communities, due to the increase of diseases transmitted to man by animals, such as toxoplasmosis and leptospirosis.

For the past three years, groups of veterinarians and students from Oregon State University in the USA, and from the Commercial Science University (UCC) from Managua came to Ometepe Island for 10 days to work with the Hacienda Merida's owner to provide high quality veterinary care.



Furthermore, the involvement of this group promotes sterilization techniques and animal population control on the island to help to educate the local community on the methods of disease prevention for people and animals.



Each year 15 students and 2 professors of veterinary medicine have come to offer their medical services for a total of:

- 141 animals treated
- 46 castrations performed and numerous among minor surgeries
- 99 dogs were examined and dewormed and more than 200 farm animals received medical attention.



The estimated total value for labour and economic resources with which these veterinarian brigades have benefited the community is about \$20,000 U.S.

THE BILINGUAL AND COMPUTER SCHOOL PROJECT:

In the summer of 2007, Hacienda Merida activated a small English language school. It is a preschool and extracurricular program that is attended by children for free and on their own initiative.

English-speaking volunteer tourists represent the more frequent teachers.



Teaching methods include: English language bilingual card games, movies, singing, dancing, boat rides, kayaking, piñatas and field trips. In addition, we have exiting trips and activities rewarded to the most outstanding students.



The English School accounts with 40-50 students between the ages of 5 and 8 years to date and involves more than 10 teachers, for a total of approximately 1,200 English class hours.

Hacienda Merida also provides students the opportunity to practice and familiarize themselves with computers and to learn the basic skills essentials to the future work world.



17 Netbook computers, equipped with fast Internet connection, are available for all students at any time of the day.



Between 85 children and students constantly use the computers and internet network, with an average of 50 hours per month per student.

THE ECOLOGICAL SIGNS PROJECT:

Hacienda Merida believes in the importance of spreading environmental awareness messages.

For this reason it has produced 6 units of fibreglass signs with double-sided three-dimensional faces.



The signs are now distributed in strategic points of the roads on the island, where they show short slogans and simple pictures that discourage poaching, the capture of animals to trade them as pets and wildlife harassment.

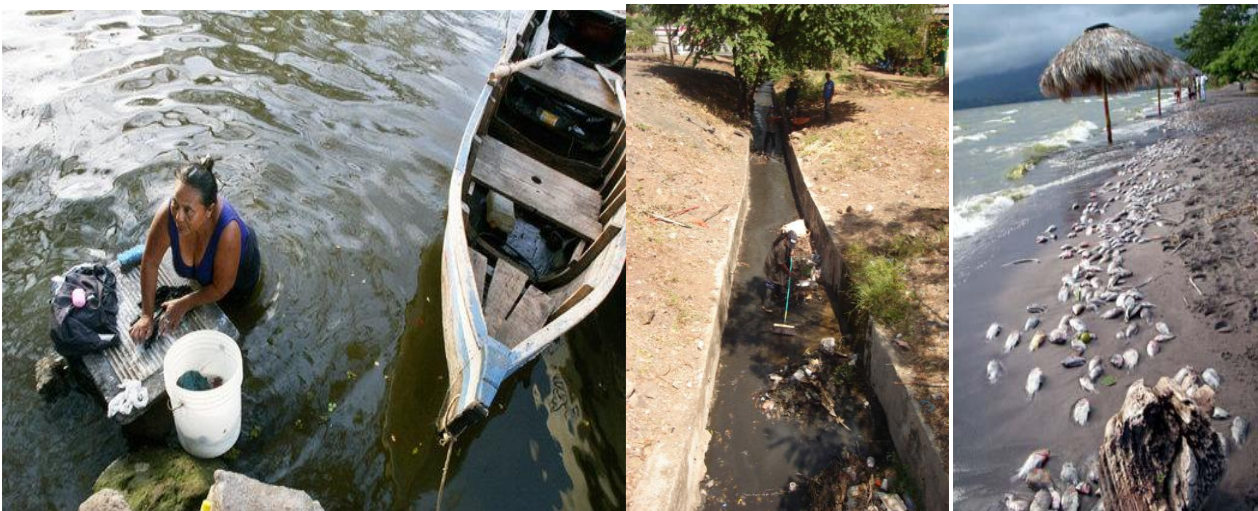


THE PLASTIC RUBBISH RECYCLING PROJECT:

Experts and authorities consider Lake Nicaragua as the most important aquifer surface of better quality, available for human consumption within Nicaraguan territory.



Until now, due to dilution caused by the high volume of water stored, its waters are still of excellent quality and can be utilized for any use. However, recent studies reveal a worrying level of pollution due to the large number of urban and industrial solid waste that end up being deposited in the lake after being abandoned in places without any control or regulation, or that are directly thrown into the water.



Another of one our environmental care programs is the reuse of all types of plastic rubbish (straws, bags, etc ...).



The rubbish is filled into the plastic bottles, which then will constitute the main building blocks for the construction of tables and chairs.

School students are engaged in the manufacturing process of the tables so they can learn the importance of recycling and environmental friendliness.

These tables are donated to Merida' schools, where they serve as dining halls and for educational activities in school gardens.



Each bottle filled with garbage, weight between 200 and 300 gr. on average. Calculating that each table contains about 200 plastic bottles and is equipped with 8 chairs storing 20 bottles each, we can estimate a total of 108 kg of plastic garbage per table built. The bottles are stored in a clean and stable way and are being use as garden furniture in the schools.

CONCLUSIONS:

All of the Hacienda Merida activated projects are characterized by extreme simplicity and the innovation can be replicated.



Our efforts are not limited to a draft sustainable economic and social development, rather they consist of a cluster of initiatives against the disinterest of a population that can only develop by being directly engaged in better conservation, protection, and awareness. The projects will count on the necessary tools to implement the acquired skills and measures of sustainability in their future professional life. This serves as a base for intellectual and rational development of our next generations to inherit.



It is vital for children and youth to learn the connections between forests and animals that inhabit them. The Nicaraguan students are educated about that the importance of biodiversity conservation is the only way to encourage them to reverse the cycle of habitat destruction and trade of wild animals as pets in their own communities.

