

Conservation Education Programs at the Bermuda Zoological Society



by **Simieon Massey** SCHOOLS' PROGRAM EDUCATOR | BERMUDA ZOOLOGICAL SOCIETY (BZS) | BERMUDA



Bermuda is located in the Atlantic Ocean approximately 700 miles off the east coast of the United States. The Bermuda Zoological Society (BZS), a not-for-profit organization, supports the Bermuda Aquarium, Museum and Zoo's (BAMZ) mission "to inspire appreciation and care of island environments." One of the ways that this mission is fulfilled is through educational programs facilitated by BZS. BAMZ is an American Zoo and Aquarium Association (AZA) accredited facility.

The Education Department at the Bermuda Zoological Society (BZS) offers a plethora of teaching activities throughout the year. The goal of the department is to encourage environmental stewardship by providing educational experiences to people of all ages, both residents and visitors. The five member Education Team shares the following responsibilities: the schools' program (courses offered to all classes in Bermuda schools), the interpretation of exhibits, a school grounds initiative entitled "Learning through Landscapes", developing and maintaining activities in the "Discovery Room" (a hands on learning centre for young children) and the publication of a variety of educational materials.

Programs

Programs designed to help teachers meet the requirements of the Bermuda Ministry of Education's Primary, Middle and High School Science Curricula are held at the Bermuda Aquarium, Museum and Zoo (BAMZ). Guided fieldtrips to nature reserves enable children to gain on-site knowledge and appreciation of reserves. Our endemic and native plants and animals are a treasure that most school children are unaware of so this is the perfect opportunity to instil in them a respect

for nature. The children are transported to and from BAMZ or the fieldtrips on the colourful BAMZ bus. The former public transport bus was donated to the society and was decorated by local students.

BAMZ Bus.



The **Learning through Landscapes Bermuda (LTLB)** programs assists schools in developing their school grounds into educational resources and helps create learning areas to enhance the formal curriculum.

Teachers are encouraged to borrow **Publications, Resource Boxes and Book Bags**. The publications are a series of Project Nature Field Study Guides for

Bermuda's marine and terrestrial habitats. They include background information, identification guides for common species, field trip and simple data collection suggestions with worksheets that can be used for children of all ages. A complete set of the series is donated to schools and public libraries. Resource boxes are teaching kits on specific topics available for loan to teachers. They include books, DVDs, posters, activities, worksheets, specimens, folders of information etc. Book bags are a collection of books on a specific topic.

Teacher workshops take place on the facility and at nature reserves to highlight the educational programs available through BZS.

Discovery room.



The Discovery Room is a fun, interactive learning centre for young children and their adult companions. The room features rotating themes such as Camouflage/ Animal Coats, The sea around us, Birds and the Rainforest. Children enjoy opening 'discovery doors', putting puzzles together, examining interesting things such as feathers, shells and nests, dressing up as animals such as a bee, making paper plate caterpillars and many other crafts!

Junior Volunteer (JV) Program. This is a weekend program that takes place throughout the school year for school children aged 14 to 16. The students volunteer for one morning on the weekend with the opportunity to work in each of the areas of BAMZ – the aquarium, zoo, education,

invertebrate house, and coral reef section. At the end of each rotation they participate in a fieldtrip. The graduating JV's this year will be visiting Baltimore for a week. They have a fun packed schedule of visiting the Smithsonian Natural History Museum, the National Aquarium in Baltimore, the National Zoo, the Maryland Science Center, joining a wetland conservation project at Fort McHenry and experiencing the festivities of 4 July 2007.

All of these opportunities are offered free of charge!

Camps are offered during the school year holidays, Christmas, Easter and summer. The Bermuda environment and the exhibits at BAMZ provide the rich and diverse content upon which the camp programs are based. Developmentally appropriate activities and experiences help the children to develop an interest in and knowledge of the environment and help to create the building blocks of a sound conservation ethic. "Hands-on" nature activities, animal interactions, field trips to Bermuda's special places, arts and crafts, practical conservation projects, microscope investigation and daily swimming or snorkelling under the guidance of trained staff provide a fun, safe learning experience for children from pre-school age to primary six.

Nature Encounters take place on the weekend for children and adults. Nature encounters for children cover a wide variety of topics that can be explored in depth at BAMZ. One such topic is "coral reefs". The children learn about coral reef life through songs and finger rhymes, constructing a "coral reef cake" and then eating it with great relish! Adult and family activities include snorkel tours, turtle eco-tour, guided walks through Bermuda's nature reserves and eco-tours at private islands that include swimming and a picnic lunch.

Aqua Camp Nonsuch Island.



BAMZ hosts a two day **environmental youth conference** every two years. The program focuses on teaching young people what they can do to help preserve Bermuda's environment. Delegates aged 10 to 17 years of age and teachers from all schools are invited to attend. Each conference includes Interactive Biodiversity Stations (Native and Endemic Species of Bermuda, Invasive Species in Bermuda, Uses of Biodiversity, Conservation in Bermuda (using the Museum), Marine Biodiversity (using the Aquarium & Local Tails exhibits), fieldtrips, and guest speakers.

This year field sites visited by delegates explored how we impact the environment. Sites included the John Barritt & Son Bottling Plant, Tynes Bay Waste Treatment Facility, Marsh Folly Composting Facility and Mill's Creek and the Hamilton Sewage Treatment Facility. A variety of beautiful wilderness sites were selected so the children could learn about some of the natural treasures that still remain in Bermuda and why they are important. Groups of delegates had the opportunity to cull and plant at the ABS nature reserve, collect and analyze trash at Coney Island, survey the public about their views on the environment in Hamilton, conduct amphibian research with Dr. Jamie Bacon at Cloverdale pond and build bluebird boxes and inspect a Bluebird Trail. They learned how to convey environmental messages through drama, to propagate native and endemic plants, to make a skink habitat in a garden, and to reduce a family's ecological footprint.

The **Nonsuch Island Natural History Camp** is a week long camp for a select group of students in Grade 10 or equivalent. The camp takes place on Nonsuch island 'Living museum' project. This project has become an internationally recognized example of the success that can be achieved by taking a holistic approach to ecological restoration. All invasive introduced species were removed and transported off the island by hand and the original native and endemic species were re-introduced within their original context. There are strict regulations that must be adhered to in order to protect the unique features of this reserve. Landing is restricted to guided tour groups based on written permission.

Selection for this prestigious camp is based on a student essay and science teacher recommendations. The students live on Nonsuch Island, camping out under the stars and bathing with solar showers. There are daily excursions to the mainland to study native plants and animals in Bermuda's habitats, boat trips to coral reef sites and Harrington Sound and evening lectures on Bermuda's natural history by local scientists. In the

North Rock Tank Fish Class.



words of a past counsellor, "this week of natural history and camping may be the most enjoyable and interesting week of your life!"

The **Bermuda Natural History Course** is open to Bermuda's public. Lectures and corresponding field trips are offered each week for thirteen weeks of the year and cover the basics of Bermuda's Natural History.

New developments

Education at the BAMZ is one of our highest priorities. Interns have the opportunity to gain hands-on experience in several of the activities of a busy and vibrant informal learning institution. Interns will have the opportunity to assist with teaching and interpretation, the Learning through Landscapes program and visitor studies. In summer 2007 BAMZ and the Botany sea turtle project in South Carolina will initiate an intern exchange program. The one week intern exchange will introduce high school students to global sea turtle conservation through management and outreach projects. Moreover, the acquisition of a new 46 foot outreach vessel and the exclusive use of a private island will expand our education and conservation programs. The adult nature encounters will be enhanced with the use of Trunk Island. We will now be able to provide visiting classes with a half-day field trip complete with on-board lectures and practical hands-on collecting and snorkeling expeditions and we will have the ability to conduct marine experiments in the field, ◊

Author Contact Details: Simieon Massey | schools.bzs@gov.bm