

# The Sandwatcher

*The Voice of The Sandwatch Project*

[www.sandwatch.org](http://www.sandwatch.org)



United Nations Educational,  
Scientific and Cultural Organization

Black River Foundation



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## Welcome Sandwatchers!

This is the 6th International issue of "The Sandwatcher". This is our largest issue ever, with 16 pages of stories and photos demonstrating a grass roots commitment and dedication to the environment from all over the World.

Sandwatch seeks to change the lifestyle and habits of youth and adults on a community-wide basis, and to develop awareness of the fragile nature of the marine and coastal environment and the need to use it wisely.

All Sandwatchers are encouraged to submit articles on their projects to...

### The Editors:

**Gillian Cambers**

[gcambers@sandwatch.ca](mailto:gcambers@sandwatch.ca)

**Paul Diamond**

[pdiamond@sandwatch.ca](mailto:pdiamond@sandwatch.ca)

## Inside this Issue...

### Sandwatch Activities in Twenty Four (24) Countries World Wide!

*Including— Australia, Bahamas, Barbados, Belize, Brazil, British Virgin Islands, Canada, Cook Islands, Cuba, Dominican Republic, Guyana, Jamaica, Kenya, Malaysia, Mayotte, Mexico, Montserrat, New Zealand, Nevis, St. Croix, St. Vincent & The Grenadines, Trinidad & Tobago, Turks & Caicos, Wales...and much more!*

## The Sandwatch Climate Change Video Competition

by Gillian Cambers & Paul Diamond

*Have you ever used a video camera, or used a cell phone to shoot some video footage, or visited one of the internet video sites such as "YouTube"? If you answered "yes" to any of these questions, then keep reading.*

In April, the Sandwatch 2008 Video Competition was launched: "Coping with Climate Change: Sandwatch Leading the Way".

This competition is for amateur video makers and the idea is for entrants to make short videos showing how Sandwatch activities such as measuring water quality, doing a beach clean-up, sharing information about the beach with the community and other beach users, can help beaches adapt to the looming threat cast by climate change. As global warming continues, and temperatures increase – beaches are coming under added threats from sea level rise, more intense storms and more acidic seawater. Helping keep beaches healthy, not just for today but also for the future, is one way of helping them adapt to climate change.

A wide clean beach backed by a coastal forest and protected by a healthy coral reef can better withstand sea level rise and future more intense storm waves than a narrow beach, littered with plastic debris, confined by a concrete wall on the landward side and a degraded, dying coral reef on the seaward side.

The competition runs until 1<sup>st</sup> December 2008. So there is plenty of time to get busy during the school holidays. A special **Sandwatch You Tube Channel** has been created where the videos can be uploaded – a sample Sandwatch video is already there

– go to [www.sandwatch.ca/video\\_contest.htm](http://www.sandwatch.ca/video_contest.htm), take a look and find out for yourself how easy it is to make a video. Simple software is available on the web (and is available on many computers) and it is easy to use – just like making a PowerPoint presentation using video clips instead of photos or slides.

The Competition is open to schools, youth groups and communities, and you are invited to make a short video (**no more than 3 minutes long**) showing how your Sandwatch activities are keeping your beach healthy and therefore better able to adapt to climate change. Entries will be judged in three categories: children 12 years and under, youth 13-18 years old, and adults 19 years and upwards. Videos can be submitted in English,



**Sandwatch Team, St. Croix, USVI Gears up for the Video Contest!**

French and Spanish.

**Entry forms, guidelines, and instructions on how to edit video footage are available on the Sandwatch website:**

English: [www.sandwatch.ca/video\\_contest.htm](http://www.sandwatch.ca/video_contest.htm)

French: [www.sandwatch.ca/video\\_contest\\_french.htm](http://www.sandwatch.ca/video_contest_french.htm)

Spanish: [www.sandwatch.ca/new\\_page\\_28.htm](http://www.sandwatch.ca/new_page_28.htm)

So whether you are "high-tech" or "low tech" this competition is a opportunity to win great prizes and at the same time show other people around the world what a great programme Sandwatch is and how it can contribute to climate change adaptation. Groups from as far apart as Cuba and New Zealand have already submitted entries – have you submitted your entry yet?

## Sandwatch to be Launched Across Australia



**Conservation Volunteers (CV)** is a not-for-profit, non-political, independent and community based organisation. It was established in 1982 and is now the **largest practical conservation group in Australia**, managing community involvement in approximately **2000 projects** across the nation each year.

Around 85% of Australians live on or near the coastline and that's where the majority of CV regional offices are. We also recognise that the long term sustainable management of our environment rests with the younger generation; indeed, this is why we already engage schools and young people in our programs. We think **The Sandwatch Project** is a great opportunity to link school students to their local beaches, encouraging them to take greater notice of

the ecology and function of a beach and ultimately become stewards of Australia's wonderful coastline. *Conservation Volunteers is currently investigating how we can help get Sandwatch happening in schools and community groups around Australia.* We have 23 regional offices servicing all States and Territories where we have well established relationships with key community groups, land managers and government agencies. We have also established numerous partnerships with the chief government Natural Resource Management agencies and developed/implemented major programs in conjunction with government, so we look forward to introducing them to **Sandwatch**. **Ashley Bland, Corporate Liaison and Initiatives Conservation Volunteers, Bathurst, NSW, Australia**



## Sandwatch Receives New Sponsorship



See a two (2) page 'Special Feature Section' on Sandwatch and Endangered Sea Turtles on pages 14-15!

The Black River Foundation is pleased to announce that it is increasing its support of **The Sandwatch Foundation** (see story on page 3)

The Black River Foundation is especially impressed with the progress that the Sandwatch Foundation has made in soliciting support from students at education centers around the world who are participating in watching over their seas and beaches and the constantly changing ecological balance of their coast lines.

It is axiomatic that these vibrant

### Black River Foundation



interested students are developing an ethical and caring persona along with their teachers and professors and are by example spreading the vision of a caring ecological popula-

-tion Black River Foundation was particularly impressed with the effort of the participants in the new **Sandwatch Video Climate Change Competition** and fully intends to support this noble and creative endeavour.

The Black River Foundation is pleased to be a part of this ecologically exciting adventure for our youth worldwide

**Robin Cotterell, St. Johns, New Brunswick, Canada**

## What's inside this Issue....

### Wow! What an issue this is!

This is by far our largest and most international issue of **The Sandwatcher** to date, thanks to the dedication of educators and students all over the world.

This issue is also notable for the sheer scope of the articles and photos it contains; in fact we had a real problem trying to decide which story goes where, as the selection was so rich and varied.

Clearly Sandwatch has truly become a global environmental project, thanks to all of you.

Just some of the highlights of this issue include...

- The new Sandwatch Climate Change Video Contest
  - Sandwatch being adopted for use all over Australia
  - Brazil & Trinidad hosting a huge Sandwatch Student Exchange
  - An upcoming Sandwatch-Caribbean Climate Change Workshop to be held on Barbados
  - New sponsors and project partners joining the programme
  - A Special Feature on Sandwatch & Marine Turtles
- Plus amazing stories and photos from Sandwatch Teams from 24 countries worldwide!



Read all about the huge Sandwatch Student Exchange between Brazil and Trinidad, on page 4

*Above: Brazilian students visit beautiful Tobago*

## WWF 'Climate Witness Programme' & Sandwatch



**WWF**

Behind the graphs of rising temperatures and models of melting sea ice and rising sea levels are the stories of how people around the world are experiencing these impacts and what they are doing to address the often massive changes that these events are having on their livelihoods, lifestyles and local environment. The **World Wildlife Fund's 'Climate Witness Programme'** is working with individuals and communities around the world to document their stories via video and share them widely as a very powerful way to illustrate to our decision makers the real impact that climate change is having on people's lives here and now. Climate Witness has been working closely with the **Sandwatch**

**Project** in Nevis & St Kitts to document the climate change impacts in the region. Both projects have the key goal of raising awareness about the fragile nature of our environments - locally and globally - so it seems like a very complementary and natural association. A new global deal will be made in Copenhagen, Denmark in December 2009, and that deal will decide how the international community moves forward to address climate change. WWF is working with Climate Witnesses to push our national and international decision makers to reach a deal that will meet the greatest challenge of our time. As small islands are especially prone to the ill effects of changes

in global climate and rising sea levels, etc, we hope that you will take a few minutes to investigate this project in detail and watch some of the videos.

To find out more about the Climate Witness Programme and see some of their videos, **please Google 'climate witness'**. Perhaps you or a member of your community would even be interested in becoming a "Climate Witness" themselves? If so please contact me...

**Nigel Allen, Communications Director, Climate Witness Programme, Sydney, Australia**  
[nallan@wwf.org.au](mailto:nallan@wwf.org.au)



Climate Witness Project Manager, Claire Carlton is interviewed by Roann Eusebe & Almon Dasent during recent visit to Nevis and surrounding region.



## Sandwatch at 'Climate Camp' in San Francisco



In early March, Paul Diamond of **The Sandwatch Foundation**, represented the project at a week long international conference on **Climate Change** sponsored by the **World Wildlife Fund (WWF)** and Hewlett-Packard in San Francisco, California.

The '**Climate Camp**' was a great success with 160 delegates attending the meeting from more than 30 countries. The conference was extremely productive with many new friendships and valuable contacts being made between Sandwatch and several other international environmental organizations.

In addition, **Sandwatch** was eligible to submit details regarding our current projects for possible funding and support by the

WWF organization and others. Particular interest was shown in the Sandwatch Project's unique international community of motivated educators and students, resulting in offers of technical support and advice for the project being offered by a variety of sources. Specifically, the **WWF's Marine Turtle Project** wants to expand its scope into the Eastern Caribbean and other places worldwide and is eager to help Sandwatchers in setting up sea turtle projects on their island's turtle nesting beaches (*see page 14 for details*).

We look forward to working with them in support of this initiative and indeed the Nevis Turtle Group have already taken its first step towards this goal (*see page 15 for details*).

The **WWF-International's** "Climate Witness Programme"

has also established a partnership with Sandwatch (*see page 2 for details*) and we hope that all Sandwatchers will take the time to investigate and hopefully become actively involved in this new global media project. Its a very exciting project!

In fact the **Program's Manager, Ms. Claire Carlton** paid the Caribbean region a personal visit for several weeks over May and June, from her office in Sydney, Australia to meet some Sandwatch participants and forge bonds of mutual support between both our projects (*see story on page 2*)

No doubt we will all be hearing much more about this partnership in the future.

**By Paul Diamond**  
**The Sandwatch Foundation**  
**Nevis, West Indies**



California's Attorney General (and former Governor) Jerry Brown was one of the many exciting guest speakers at the WWF's 'Climate Camp'

## Breaking News: Sandwatch Foundation Established

At the beginning of 2008, the **Sandwatch Foundation**, a **non-profit organization**, was established in order to formalize the Sandwatch programme such that new partners and donor organizations can be approached for support and funding. While **UNESCO** and the **University of Puerto Rico Sea Grant College Programme** remain committed sponsors for Sandwatch, it is recognized that a wider support base will strengthen the Sandwatch network and its project goals globally.

The **Sandwatch Foundation** is registered in the island of Nevis in the Caribbean and Paul Diamond and Gillian Cambers are its Directors. The purpose of the Sandwatch Foundation is to:

- Promote awareness of the fragile nature of the marine and coastal environment and the need to use it wisely;
- Promote a new vision of education, one that seeks to empower people of all ages to

assume responsibility for creating and enjoying a sustainable future;

- Facilitate school-aged youth and youth outside school, and communities to work together to monitor and critically evaluate the problems and conflicts facing their beach and coastal environments and to develop sustainable approaches to address these issues;
- Design, develop and promote climate change adaptation and mitigation measures;
- Research and develop field monitoring protocols for data collection and analysis;
- Develop a common international on-line database for beach monitoring information;
- Prepare materials (written, audio, graphic, video, web-based) to disseminate the data and conclusions obtained by the Foundation;
- Raise funds to supplement groups who do not have the resources to fully support Sandwatch-related activities, both monitoring and projects, in their region;
- Support and finance specific ecologically sound endeavours, that the management board feels have proper merit;
- Support and help organize regional and international workshops, seminars and meetings both specifically for Sandwatch, and related environmental conferences.
- Actively forge mutually beneficial partnerships with other environmental organizations globally.

We will be working through the **Sandwatch Foundation** to continue to support and coordinate Sandwatch projects worldwide – *Let's make Sandwatch everybody's business!*

**Gillian Cambers, Barbados and Paul Diamond, Nevis**

*Sandwatch is featured in the latest issue (Forum News 32) of the **UK Overseas Territories, Conservation Forum**, which can be found at [www.ukotcf.org](http://www.ukotcf.org)*



The Sandwatch Foundation's new Logo. Look for it on t-shirts, coffee mugs and mouse pads soon! ;-)

## Trinidad & Brazil: Sandwatch Team Exchange!



A Brazilian TV crew came on the Sandwatch Exchange trip and filmed a 5 part show about it. Here they interview DJ Santos in the Rain Forest of Tobago

Here are pictures and a text about our **student exchange** with Trinidad and Tobago students. It was awesome! We had a such blast and a fun time with them. We learned a lot from what they are doing for the **Sandwatch project**. I really believe that the Sandwatch project should go for more student exchange like this. It helps a lot to keep students excited for the project.

Now, back in Brazil many more students and schools want to become part of Sandwatch. A local TV station even sent a crew to go to Trinidad with us and back in Brazil they showed a special program about our visit to Trinidad and Tobago as well as what **Sandwatch** is all about. They broke the program in **5 parts** and **showed it everyday on TV at midday**. It was great! Now we are getting ready to host Trinidad and Tobago students in Brazil in return.



*The latest **Sandwatch Student Exchange** was a huge success. Now its Trinidad's turn to visit Brazil...but that will be in our next issue!*

I would also like to thank everyone from the **UNESCO Trinidad and Tobago office**, with a special thanks to **Susan Shurland the Secretary General** and **Monica the ASP Net Coordinator** for hosting our students and for all the work that they did to make our stay possible. We had such a blast visiting schools, enjoying the sights, and making new friends! Our students have learned so much from the Mayaro students under the coordination of **Mr. Andy Paul**. It was so great to know that students from

Trinidad and Tobago are concerned about global warming and that they are taking action to try to minimize its effects. Our students will never be the same again after such a grand experience. We would like to encourage other schools from all over the world to engage in the **Sandwatch Program**. Its a strategy to get students excited not only to become aware of their environmental problems, but also to motivate students to experience what they learn through textbooks. I hope that this student exchange will be the first of many other exchanges because not only did our students learn

about Sandwatch activities, but they were also exposed to other cultural experiences!

We believe that international exchange programs have the power to promote positive discussions and open doors for ideas to be shared. Through this the students have the opportunity to share with foreign students the need to protect the earth and make the world a better place.

**DJ Santos, Sandwatch Coordinator, Alfonso Pena High School, Santos City, Brazil**

### News from Trinidad



History was made during the months of January and February 2008 (**17 January – 2 February**), when the Colegio Afonso Pena Secondary school from Santos City,

for the duration of the exchange. Members of Mayaro Environmental Wave (MEW) excitedly chanted "the Brazilians are here!!!"

The main purpose of the visit was to share experiences in the **Sandwatch Project** an environmental project which seeks to modify the lifestyle and habits of children, youths and adults on a community wide basis.

The objectives of the Sandwatch Student Exchange were met and surpassed! Opportunities were afforded us to share our knowledge and experiences. Our guests were eternally grateful for the workshops (theoretical and practical) we conducted, as they strive to be better "**Sandwatchers**." As we say in Trinidad, they got it "live and direct." We were also grateful for the information they shared with us, as it relates to Sandwatch in Brazil. Their students made many informative presentations. Thanks guys.

During their stay, many memorable times they had. Our new found friends defeated us in a friendly game of soccer. They visited the world famous Pitch Lake, Bird Sanctuary, other Secondary and Primary Schools, Buccoo Reef, Tobago Rain Forest and off course our Carnival. Finally, we had to say goodbye. Goodbyes are always hard to say. New found friends, email contacts, phone numbers – we got them all. A "trini" carnival send off was a fitting end to a successful first ever Student Sandwatch



See all the great photos taken during this Sandwatch Exchange at the Brazil and Trinidad homepages on the Sandwatch website

Sao Paulo, Brazil, arrived in Trinidad on the First Sandwatch Student exchange. They were warmly greeted by the **Secretary General for the Trinidad and Tobago National Commission for UNESCO, Ms. Susan Shurland**, host for this memorable event.

This exchange was in the making thanks to the Mayaro Environmental Wave, a UNESCO community based club, comprised mainly of Primary and Secondary school children. Excitement was in the air and expectations high when students, teachers and principal arrived at the beautiful bpTT Staff Complex, their home

Exchange. WOW! What a fantastic closing ceremony. This was truly a taste of Trinidad and Tobago's culture. It was difficult to say goodbye. No wonder everyone was singing along with our ever popular female calypsonian Denyse Plummer "Nah leaving." Thank you Colegio Afonso Pena Secondary School. Thanks also to the Trinidad and Tobago National Commission and Mayaro Environmental Wave. Let us all keep the Sandwatch flag flying. We look forward to the return trip in August 2008. *Tchau!* **Andy Paul, Sandwatch Coordinator, Mayaro Government School, Trinidad**



The trip wasn't all fun and games, Sandwatch monitoring work had to be conducted as well.



## Climate Change Workshop Planned for Barbados



Climate change and its effects on the region of the Caribbean has been identified as a major risk to livelihoods, landscapes and resources just to name three areas. Adaptation has been recognised as the focus for dealing with the phenomenon, while mitigation is seen as something which primarily has been left for the majority of the developed world to address. Caribbean youth are the next generation who will be left with the task of ensuring adaptation is completed with mitigation to be brought to the fore in the region. **Nicole Garofano**, a representative of **Counterpart Caribbean at The Future Centre, Barbados**, has linked up with **Randy Woodroffe**, coordinator of **Sandwatch** in Barbados and **Gillian Cambers**, an inter-regional **Sandwatch** coordinator, to develop a workshop concept which addresses

these issues of adaptation, mitigation and Climate Change, with the main objective being to produce learning tools for teachers and students that would reflect some of the impact on the region. Support for the initiative has been received from the **Commonwealth Foundation** and approaches are being made to other organizations.

**The workshop will invite Sandwatch teachers & students from ten regional states from November 5th through 7th, 2008, to Barbados** as the host country. Participants will be charged with the task of completing some basic research in their home countries prior to their departure related to the localised effects of Climate Change. Each individual will be allocated into one of four groups to produce the required learning tools, those being: **website, video, workbook and a verbal communication tool**.

The outputs of the workshop will be made available to all students, teachers, and Ministries in the region via the use of the internet.

Participants will be asked to provide a presentation in their home countries upon their return to other like minded environmental groups and schools for the benefit of sharing their knowledge and the learning tools. This will be followed up upon commencement of the school term in January 2009. This project will provide a unique learning experience to secondary school children and their teachers, already sensitized to environmental issues, by participating in a workshop where the outputs will be the creation of much needed learning tools with a regional focus of the effects of Climate Change.

**By Nicole Garofano, Counterpart Caribbean at the Future Centre, Barbados**



**Nicole Garofano (left) at the Barbados Minister of Environment award ceremony (Award for demonstrating Sustainable Living with the Lester Vaughan School's Used Vegetable Oil Recycling Project)**

## Sandwatch Begins on Volcanic Montserrat



**The students of the St Augustine Roman Catholic Primary School in Montserrat, are very excited about joining Sandwatch, and we send greetings to all the Sandwatchers and Environment Clubs around the world.**

Due to volcanic activity in Montserrat since 1995, most of us had to move from our homes in the "unsafe" areas near the volcano, and those of us who have stayed in Montserrat have had to start new lives in the safe northern area of the island. Our school also had to move to a new location. We have lost access to some of our beaches and other natural habitats, so we have to protect those that we are able to use now. We have started out with a general focus on protecting our environment, as this has a special meaning for us. We would like to tell you about a few activities we have been doing. Students and teachers decided that in order to spread our message, we needed to start "at home"! The pupils of Grade One (with their teacher Mrs Hixon), spearheaded an anti-litter campaign among their schoolmates, and composed a song "**Please Don't**

**Be A Litter-Bug**". They taught the song to the whole school. They also designed a fun-filled way to dispose of garbage by making basketball hoops attached to garbage bags. Our entire school grounds are now kept so clean, and visitors to the

this exercise for the upcoming science fair, by making projections of the amount of garbage disposed of by all households on the island over the course of one year, and making recommendations on how we could produce less garbage.

Students of our school held a fund-raising 'Walkathon', which ended at Woodlands Beach, one of our main turtle-nesting beaches. The students did a clean-up of the recreation area at the beach. This was an important exercise, as plastic bags and other debris could be blown into the sea and cause danger to sea life as well as pollute the sea water. In a few weeks,

we will be going to examine the beach again, to see how, and where, turtles use the beach for laying their eggs. We will be doing further beach studies with the staff of the Fisheries Department. We are excited about protecting and preserving our environment so that we can all enjoy it now and in the future.

**Ann Marie Dewar and Mary Hixon Teachers, St Augustine R. C. Primary School, Montserrat**



school comment on how litter-free it is. We will be presenting our idea at our Science Fair in July, in the hope that other schools and communities will try our idea. The Grade Six students also kept a detailed record of everything that was thrown away in their households for one week. They were amazed at the number of plastics, paper, glass, tin, and other materials that were discarded in such a short space of time. They are developing



*The Montserrat Sandwatch Team use a magnet to show how much iron there is in beach sand, compared to river sand.*



**Pyroclastic flows from the Soufriere Hills Volcano are a constant threat to the people of Montserrat. Photo: Montserrat Volcano Observatory**

## Sandwatch Nevis Protecting Coastal Wetlands



Nevis's Pinneys Beach in 1968...today its been it eroded to a fraction of this size as coastal development has expanded and its wetlands have been destroyed.

### Sandwatchers June 19th, 2008, Form III, Lyn Jeffers School, Nevis.

As the current Sandwatchers, the Form V class, are leaving, the Form IV and Form III classes will be taking over Sandwatchers duties. Form III travelled to the Nelson Museum and Pinney's Beach in front of Chevy's and Sunshine's (beach bars / restaurants) on Thursday, 19th June, 2008 from 11:30 pm to 1:00 pm. There, concerned about the environmental hazards that this might pose for the beach and wetlands, the students studied and photographed a patch of land where a marsh was



Sandwatch Nevis, has identified the island's shrinking coastal wetlands (as shown above) as a priority for environmental study

blocked from the beach by man-made sand dunes. Assisted by Mrs. Miriam Knorr, the students

also collected bags of trash from the beach.

In other Sandwatchers news, Mr. Stefan Ahmed-Murell, Form IV, won second place in a Nevis CTO/Travel and Leisure Tourism Youth Congress. Though he was awarded second place overall with his speech, firmly defending the wetlands and their conservation, Mr. Ahmed-Murell came out on top in the extemporaneous category.

**By Rachel Yearwood  
Sandwatcher  
Form III, Lyn Jeffers School**

*The Sandwatch Manual is now available in both French and Spanish editions. They can be downloaded from the Sandwatch Website, or hard copies can mailed to you, if requested.*

*-The Editors*



The Sandwatchers conducted many measurements and tests, including chemical testing of coastal waters. This test shows E.Coli (sewage) contamination.

## Dominican Republic Celebrates Day of the Oceans



Sandwatch operates nationally in the Dominican Republic as part of the environmental education curriculum.

**Sandwatch Teams commemorate 'The Worldwide Day of the Oceans' in The Dominican Republic.** With support of UNESCO, Worldwide Day of the Oceans

were held simultaneously in three education centres around the country which are part of the Sandwatch and Associated Schools Project on June 8th, 2008. To commemorate the Worldwide Day of the Oceans (8th June), the Secretary of State of Environment and Natural Resources met with Sandwatch students from three schools from San Pedro de Macoris and Santo Domingo on Friday 6th June.

The program was also inaugurated in the Santa Teresita School, in Santo Domingo, under the coordination of the Undersecretary's Office of Coastal and Marine Resources with the collaboration the Dominican National Commission for UNESCO, and the Undersecretary's Office of Information and Environmental Education, and had the objective to inform everyone about the developments of the Sandwatch programme ("Observando la

Arena") during 2008. The motto chosen for the Worldwide Day of the Oceans 2008 is "Help our climate/Help our oceans", with special attention on coral reefs. The education centres where the activities were celebrated, besides the

Janeiro. Also it was the idea of the Ocean Project that works closely with the Worldwide Network of the Ocean and helps every year to coordinate events and activities with aquariums, zoos, museums, conservation organizations, universities, schools and businesses. The importance of taking care of the oceans directly affects half of 6.3 billions inhabitants of the planet who live in coastal zones. The oceans cover 2/3 of the Earth's surface and are the primary food source for more than 3.500.000.000 people. Approximately 90% of international trade is transported by sea. Among the main threats facing the oceans are over-fishing, and pollution – 80% of which originates from terrestrial activities.

**By Maria Mercedes Brito,**

**ASPnet Coordinator,  
Dominican Republic**



**The Sandwatch Team of the Dominican Republic**

Santa Teresita School in Santo Domingo are: the Gastón Fernando Deligne School and the San Pedro Apostle School, in San Pedro de Macoris. Another objective was to inform and involve the education community about vital environmental problems, such as coral reef destruction, the disappearance of the marine species and protection of coastal regions. The Worldwide Day of the Oceans was proposed in 1992 during the Worldwide Earth Summit in Rio de



**Students from San Pedro Apostle School take part in Worldwide Day of the Oceans**



## Mauke Island in The Cook Islands Reports



**Kia Orana and greetings to everyone! My story is about one of our very unique beaches called Teoneroa, which means 'the glittering long white sandy beach'.**

I will briefly tell you a short story of how this beach was named Teoneroa. In ancient times there lived a Tahitian warrior called Iro-Nui-Maoata.

He was traveling the Pacific Ocean seeking land for him and his people to live. Apparently while still searching for land to live, he crossed along the southern side of Mauke where Teon-

eroa was located and saw a land. Iro-Nui-Maoata encouraged his people to paddle harder. When they got closer they heard a sound of drums coming from the island, so Iro-Nui thought that there is a celebration on land. Eventually while reaching the land the sound they heard before was not a drum, but the sound of the waves crashing onto the cliffs. At the same time they saw a beautiful glittering long white sandy beach. Then he named it Teoneroa (the glittering long white sandy beach) and the island Te-Rae-O-Te-Pau (**The forehead of a drum**) That's how this beach got its name but he didn't know that the island was already been named and occupied before by Uke Ariki and his descendants. However today we have selected Teoneroa to be our area of study for the **Sandwatch project** with the agreement of the land owners. This program allowed us to carry out research work and collect information's on what is on the beach and what is

happening on the beach, e.g. living organisms, human activities, natural rubbish or changes occurring on the beach. Through out our field trips we've noticed lots of changes that people and our natural resources caused to this beach. During our first trip to Teoneroa the beach was untidy, there were lots of rubbish left behind by people and lots of natural rubbish, there were also rubbish carried by the waves, washed on to the beach. All the litter that we have collected were brought to school and these were classified into different groups.

We will put this information on our homepages on the Sandwatch Website ([www.sandwatch.ca/cook\\_islands.htm](http://www.sandwatch.ca/cook_islands.htm))

To conclude I would like to encourage the people of Mauke to look after our Teoneroa beach before its beauty disappears from our sight.

**Jane Taurarii, Sandwatch Coordinator, The Cook Islands**



**Sandwatch students on Mauke Island measure the width of beautiful Teoneroa Beach**

*...I am sure that **Cuba** will participate with many videos for the (Sandwatch) climate change contest. This past week, I informed all school/years of the Associated Schools project about the competition, and having the information in Spanish for them makes it much clearer.*

**- Delia Vera Medina**  
Associated Schools Project Network  
Coordinator  
Comisión Nacional Cubana de la UNESCO



## Jost Van Dyke, BVI Starts Island Enviro Study

With funding from the U.K.'s Overseas Territory Environmental Programme (OTEP), The Jost van Dykes Preservation Society is starting its "Community-based Programme Advancing Environmental Protection and Sustainable Development", which will include several educational elements for the residents and youth of the island, such as **Sandwatch** and will be based upon field research and publication of an island-wide environmental profile.

The environmental profile will help provide accurate information on the current state of island's environment and will help identify major issues, conflicts and problems in the island's natural resource management. The programme hopes to influence the conservation agenda and ensure that management approaches are island-specific and not merely "one-size-fits-all". The programme also



**Students on Jost Van Dyke Island, in the British Virgin Islands, conduct beach cleanups as part of Sandwatch and similar environmental protection & sustainable development projects**

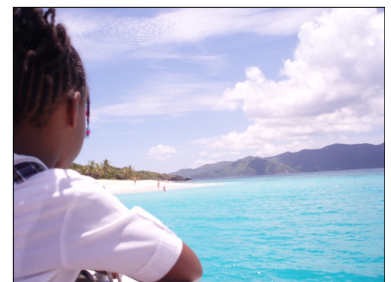
works to engage island residents and stakeholders to help guarantee that the community is actively involved in decision-making processes.

To help gear up local students for the new programme's upcoming environmental education activities, the JVD Preservation Society will send a group of the island's students, along with Principal

Merlyn Gordon to attend the "Wider Caribbean Environmental Programme" in St. John, US Virgin Islands for a week of hands-on field activities and demonstrations in natural history and ecology of selected Caribbean ecosystems this summer. Through a unique scholarship opportunity with the Marine Re-

sources Development Foundation (MRDF), Jost van Dyke's Sciences teacher, Donnell Trumpet will attend a week-long teacher training workshop in coastal ecology in Key Largo, Florida.

**Susan Zaluski**  
Projects Manager  
Jost van Dykes (BVI) Preservation Society



**Jost Van Dyke Students visit Sandy Cay a noted turtle nesting area in the British Virgin Islands**



## Sandwatch Comes to The Turks & Caicos Islands!



Sandwatch is being integrated into TCI's existing adopt-a-beach programme

Wow! The timing is just right. It seems coincidental that the Clement Howell High School's Environmental Club has launched Clean-up activities at school during last term with the focus of extending these to Blue Hills community which is actually on the shore line.

The club members along with the teachers Mrs. Macion, Mrs. Wil-

liams and myself and the Royal Police Cadet Corp. had a work day last month of cleaning up the school environment. Mrs. Macion's students have made message sign boards to sensitize the school on the drive to keep the place clean. It has 'caught on' remarkably. Later on today, DECR and Environmental Health workers will assist us clearing an

area for a garden.

**The Sandwatch Project** will surely enhance our drive. We will therefore be a part of your team and give our support to this endeavor. Thanks for the opportunity.

**Ms. Annmarie Campbell,**  
**Clement Howell High school,**  
**Providenciales, TCI**

## Sandwatch on the Move in St. Croix, USVI



### Hello, Sandwatch Team!

The Good Hope School's Fourth Grade spent the last day of class on "their" beach, checking for signs of erosion, taking measurements and picking up any litter and debris. During the same visit, we filmed a portion of the video that will eventually be submitted to the **Sandwatch Climate Change competition** and took some still photos to add to our growing collection. We had a wonderful time and stirred the interest of those students and faculty members observing us during our outing. By keeping our beach in good shape, we do draw the attention of



tion to help, to keep the waters and sand as safe and pure as possible. Our students are doing their part to keep this particular location in the public eye and are proud to be part of a program de-

the entire school community and help to spread the word about the importance of keeping our natural environment in pristine condition. Our beach is at risk due to its location. Nearby, there are sources of potentially dangerous toxins and it's necessary for the public, particularly those in a posi-

signed to protect world treasures such as our beach.

Happy summer to all and keep up the good work!

**Pamela Buckley and Cindy Mault's 4th Grade Students**  
**The Good Hope School, St. Croix, U.S. Virgin Islands**

*In addition to being a coastal environmental project, Sandwatch also has components for studying rivers, lakes and even off-shore marine environments*

## Malaysia's River Care Project Wins 3rd Prize



The Rive Care Team of Malaysia won 3rd place with their study of Palm Oil Pollution of the Tapah River & Water shed

- see their new video at ....

[www.youtube.com/user/SandwatchFoundation](http://www.youtube.com/user/SandwatchFoundation)

### Water Vision Contest 2008

*Theme: Environment Conservation Issue*  
*Participants: Teacher Rohaniah Ibrahim, Project Manager; Fadhil Ibrahim and Hafiz Hadi, Technical Officers; Zulaikha Mohamad and Asma Wahab, Reporters.*

On May 2008, **Save Our River Project Team** took part in the Water Vision Contest 2008 which had been organized by Coca Cola Malaysia and Malaysia Nature Society. The aim of this contest is to encourage students to show their concern on the water issue like water pollution around their neighbourhood. Their awareness on this issue is very important since water is such a precious nature resource for every single creature in this planet. However some irresponsible people prefer to dump household, industrial and

agricultural wastes including chemicals into the rivers without thinking the bad consequences that we have to deal with if the water resources being polluted continuously.

This contest focused on three main areas:

1. The background of the water issue (The pollution occurs at Tapah River).
2. How the water issue will affect the students and their neighbourhood (including economy, social and life income)?
3. What can the students, the neighbourhood community and others can do to solve the water issue of Tapah River?

The team members also interviewed several people like a teacher at school, a

lab assistant, a local and an American teacher, Mr Leonard Salter from Connecticut, USA about the water issue. We submitted our PowerPoint presentation which included the interview sessions on May14, 2008. Last week, on June 11, 2008, we had been informed that we won the third place for the contest. It's an unexpected news and we felt over the moon. We won a trip to Kuala Lumpur and RM500 (approx \$150 US) for all the team members and also RM500 for the team to take a further step for our next project which is to save Tapah River. That's all the latest news from the Malaysian team.

**By Teacher Rohaniah Ibrahim,**  
**Tapah River, Malaysia**



## Sandwatchers From Around The World!

Sandwatch is a truly global project with schools in more almost 40 countries participating



The Sandwatch Teams of The Dominican Republic are constantly monitoring and recording their beaches



Though new to the project, the Sandwatch students of Brynhyfryd Primary School, Wales are busy recording data



Sandwatch students of the Colegio Santa Teresita during World Oceans Day, Dominican Republic



Sandwatch teams study the beautiful Teoneroa beach of Mauke, in the Cook Islands



Hope Town Students, Abaco, Bahamas conduct beach interviews as part of Sandwatch



Huey, one of the Nevis nesting turtles is radio tagged and released by the Nevis Turtle Group.



Sandwatch students of Jost Van Dyke, British Virgin Islands, relax in the shade of a coconut tree on Sandy Cay

### The Green Turtles

Turtles are our friends  
How can we help  
End of quarrels

Green turtles  
Really love the lagoon  
Environment is vital  
Eggs of the turtle look like pearls  
Nyamba titi ,don't go away

This is their "mahorese" names  
Understand and  
React  
Travellers of the oceans  
Let's not lose them  
Extraordinary creatures  
See and save the turtles

-By Maimoune, Mayotte



The Soufriere Hills Volcano keeps things interesting for the Sandwatch team on Montserrat



A Turtle Conservation group in Cahuitan, Oaxaca State, Mexico, collects eggs to save from poachers



A recent photo of a rodent in Nevis's Rainforest, has been tentatively identified as a 'Megalomys' a species long thought extinct! Photo: Jim Johnson



## Sandwatch New Zealand Adopts a Dolphin



Hector and Maui Dolphins have a unique rounded dorsal fin (*Wikipedia*)

As children who live in a country surrounded by water, we understand how important it is to protect our ocean and the creatures that live in it. Not only is the ocean a source of food for us, it is the home to such mammals as the **Maui and Hector Dolphins**. These dolphins are native only to New Zealand and are both endangered. **For instance there are only 111 Maui dolphins left.** So it is up to us to make others aware of how important it is to protect them. So what have we done personally? Recently as a class we adopted a



Hector's Dolphin (see picture, we named him Vinnie) to help with research and further initiatives to protect this beautiful mammal. We have also written to our Prime Minister, Helen Clark, and organ-

ised a beach clean-up for next term. As Mahatma Ghandi once said "If we were going to bring about peace in the world we have to begin with the children." It is no less the same for the future of our country and its natural resources.

**Sarsha Bailey, Stanmore Bay Primary School. Auckland, New Zealand**

## Sandwatch Events Over the Next 12 months



*Sandwatch is currently working on developing an 'online form', that Sandwatchers can simply input their beach measurements and other data into on the website, and it will be automatically graphed and converted into a database for you -Perfect for Science Fairs and Environmental Reports!*

As you can see from even a cursory reading of this issue, the **Sandwatch Project** is extremely busy with a wide variety of projects on the go all over the world.

In addition to the ongoing **Sandwatch Climate Change Video Contest**, the project is also being launched widely in both *Australia* and *Mexico*. A student exchange project between *Trinidad* and

*Brazil* is underway and a Sandwatch Workshop is planned for *Puerto Rico* in August. Also a Climate Change conference in *Barbados* will feature **Sandwatch representatives from at least 10 Caribbean islands** in November. UNESCO HQ in *Paris* have also recently informed us that Sandwatch maybe featured at the Mid-Term **Decade of Education for Sustainable Development Con-**

**ference** in *Germany*, March '09. Hopefully representatives from several Sandwatch teams will have the opportunity to attend...and these are only a few of the project highlights! *Clearly together we are all making a difference and our impact is starting to grow so please keep up the good work!*

## Students Make a Bottle Cap Mural in Bequia



*Bequia, in the Grenadines continues its long standing commitment to Sandwatch and protecting their beach and near shore environments*

**Bottle Cap Campaign in Bequia**

As part of the anti-litter awareness campaign for Bequia, St. Vincent and the Grenadines, the R.I.P.P.L.E.S. group and children from La Pompe and Paget Farm began creating a mural with bottle caps and paint on a large piece of plywood. The mural is intended to be outdoors in a visible, highly commuted area of the



island. On April 26, 2008 the children collected bottle caps from the ground in Paget Farm and Lower Bay for their art project. On May 1, 2008, the group drew the design

and began sticking the bottle caps. On June 14 they added paint and sand to the mural, creating an attractive sign with vibrant colors. It is fabulous. Many thanks to the Eastern Caribbean Cetacean Network and the Bequia Tourism Association for sponsoring this environmental activity! Please do not throw bottle caps on the ground. Bequia sweet, keep it clean!

**By Leah Belmar  
R.I.P.P.L.E.S., Bequia, St. Vincent and the Grenadines**



Is your beach a sea turtle nesting area? If yes, then why not make sea turtles part of your regular Sandwatch monitoring duties?



## Junior Students Learn about Sandwatch in Wales



Children learn about the environment through teaching and play! As part of my class's study of **Langland Bay in Swansea** we visited the beach on Friday 13th June. The weather lately has been cold for this time of the year and the beach was quite empty. When we arrived the children completed a worksheet to make them aware of environmental changes that people have made to the beach and surrounding area. The history of the beach came into focus with the repair of Victorian changing huts taking place while we were there. The children became aware of the importance of the beach to tourists with facilities and services being provided. A new restaurant on the front was not supported by the majority of children who thought it was not beneficial within keeping to the bays natural environment. They observed the tidal markings on the beach and the fact that it contained both sand and pebbles. The children also noted that the beach was free of litter and rubbish. The topic of pollution also came onto the agenda. Later pupils went on to research the

rock pools around the bay and the sea creatures' habitats. Crabs and other small sea creatures were found. Children were taught the importance of putting them back where they had found them and replacing rocks they had overturned. It was noted that the amount of creatures living in the rock pools seemed to have dwindled from previous years. The inapt weather may have been the cause of this. It was interesting that children became



more concerned about caring for the environment than developing the tourist facilities on the beach. My pupils also learnt the importance of water safety and why there was a need for danger signs and the presence of a life-guard on the beach. Towards the end of the visit children were

allowed to build sandcastles using a variety of materials. This benefited the pupils who worked as teams and learnt from using a variety of natural materials found on the beach. They were able to develop their social and communication skills as well as their knowledge of the beach environment. Play is an important part of any study and children asked and answered questions when in practical play as well as developing skills and strategies.

Before the visit to Langland Bay children had completed numerous tasks and researched information in the classroom.

A large display within the classroom shows the art work completed together with poems about beaches and posters to identify the numerous beaches. Children learnt about the importance of beaches around Swansea and the

Gower to both the environment and tourism within the area. They are now aware of the need to have a balance between tourism and the environment where local beaches are concerned.

**Russell Bevan**  
Brynhyfryd Junior School, Swansea.



The students of Brynhyfryd Primary learn that Sandwatch can also mean making sand castles! *After all the project is supposed to be fun as well and educational!*



*The latest community group to join Sandwatch is the 'Reforestamos Mexico, A.C.' who protect the coastal regions of Mexico by replanting mangroves, protecting turtle nesting sites and other activities with schools and environmental clubs across the country (see page 13)*

## Sandwatch 'Reef Doctors' on Call in The Bahamas



**Hope Town school** students in Grades 5 and 6 continue their work on their adopted **Sandwatch** patch of reef in front of their test site beach. We called ourselves '**Reef Doctors**' as we gave the reef a good "check up" by snorkelling out to observe first hand if any additional parts had been broken off by tourist snorkelling or if bleaching had begun since we last cut the huge fishing net off last spring.

This spring the group of 10 students widened our work by first cleaning the debris off the beach after weeks of rage seas. We then conducted interviews with tourists who had snorkelled on the reef about what they had observed on our reef. The tourists all expressed their pleasure that we students were ECO-STEWARDS. After conducting the interviews, we produced our second pamphlet (this time with illustrations) for use by tourists explaining how to enjoy

the reef using sustainable practices. After weeks of rage seas, the reef appeared

many species of fish.

When we went out to see firsthand, we did not see many species ourselves. We think it was because the whole Caribbean had been experiencing several weeks of very turbulent seas.

Since our reef is only 50 feet off the shore we believe the fish usually on the reef were seeking shelter in deeper waters. We will continue to monitor "our" reef for any changes Global Warming may bring. Hopefully we can keep it healthy to withstand any stress from climate changes. Until the next issue ----



**Student give Award to Hotel Manager for using bio-degradable take away containers and utensils made of corn starch**

to be affected by bleaching. However; when our group snorkelled out to the reef we were relieved to see the reef was instead coated with a layer of sand deposited on to it by the pounding seas. We were disappointed when the tourists told us they were not seeing

**Natasha Albury, Tiffany Senn, Brittant Sweeting, Aisha LeBrun, Kelly Blanc, Sheena Etienne, Sean Stevenson, James Boyce, Zack Key and Michael Blanc with teacher, Mrs. Candace Key, Sandwatch Coordinator. Abaco, Bahamas**



**Hope Town students, Abaco, Bahamas show the lost fishing net they cut off of their local reef**



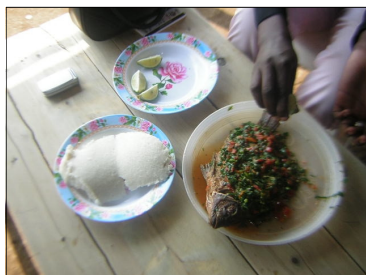
## Fish Disappearing From Lake Victoria, Kenya



Raw sewage and other pollutants are dumped directly into Lake Victoria



*The most famous person from this area (of Kenya) is United States Senator Barack Obama Jr. of Illinois. His father, Barack Obama, Sr., was born in the village of Nyangoma Kogalo near by Lake Victoria.*



Fish and Ugali, Kisumu's Staple Food

### Fish Perform a Disappearing Act Kisumu High School. (Kenya)

My students and their families are digging deeper into their pockets after to find their only and favorite protein provider. Fish.

This has caused concern and so members of our school conservation club.,

#### The Sandwatchers.

The current chairperson of

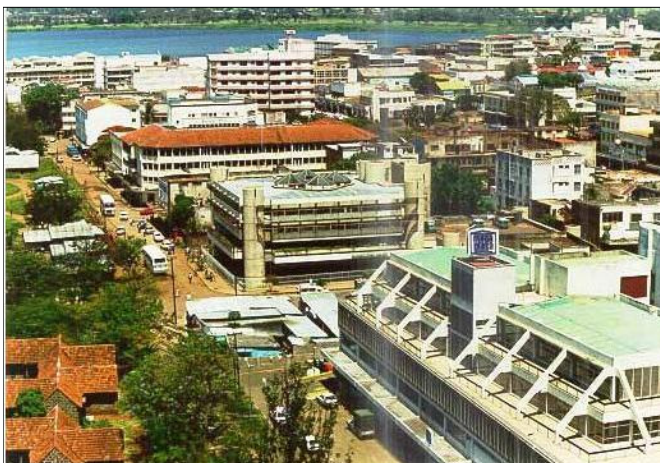
our school's Sandwatcher, Lizy Okoth, called for a crucial meeting in early May of all club members to discuss the situation and how it relates to environment and conservation. We have not had many activities in our club due to violence experienced in our country early this year. Just to update you, my school is known as Kisumu High School which is found in Kisumu City of Kenya. Kenya is an East African country.

Kisumu is the capital of Nyanza province, on the north-eastern shore of Lake Victoria and is the third largest city in Kenya. It is the commercial, industrial, and transportation centre of western Kenya, serving a hinterland populated by almost four million people. The most famous person from this area is United States **Senator Barack Obama Jr.** of Illinois. Obama. Currently Obama is the only black member of the US Senate and a Democratic party nominee for this years US presidential elections, was actually born in Hawaii, but his father, Barack Obama, Sr., was born in the village of Nyangoma Kogalo nearby Lake Victoria. On August 8, 2006, Senator Obama, visited Kisumu, as part of his African tour. Obama was greeted by thousand of cheering well-wishers who included my students.

However, things have not been very rosy for residents of Kisumu in the recent past. Early this year, hundreds of protesters took over the streets, and smoke was seen rising across the city. The tension erupted after Mwai Kibaki was named the winner of the December presidential election. Many Kenyans and international observers believe the election was rigged to favor Kibaki, who was first elected in 2002 and is a member of the country's largest tribe, the Kikuyu over main rival is

Raila Odinga, a member of the Luo tribe and Kisumu is his homeland. In the most violent protest in Kenya's history that started on 29th December 2007, people looted shops, burnt government and private buildings and vehicles, leaving Kisumu on its knees. The impact of post-election violence in Kisumu will be felt for

meters above sea level, has a mean depth of 40 meters and maximum depth of 80 meters. Lake Victoria basin is used by communities and industries as a source of food, energy, water and transport. The lake is also a sink for human, agricultural and industrial waste. The Lake provides employment for up to 30 million people.



The City of Kisumu, see the lake in the background?

The Lake's catchment area of 258,700 square kilometers has a GDP of US\$ 300-400 million and supports nearly one-third of the total population of East Africa. The Lake is the source of River Nile, which is renown for white-water rafting and flows to Egypt through Sudan. Towns of Kakamega and

many years to come. The businesses that provided employment opportunities have gone into flames, rendering thousands of people jobless; many children have been left orphans, while the wanton destruction of infrastructure left the economy ravaged. But that is not all. The staple food, fish has performed a disappearing act from the plates of my students. Members of Kisumu High **Sandwatcher** decided to go to patrol the beaches of lake Victoria to find out why the fish is disappearing. Led by Lizy, we set out with our note pads and cameras to look for the fish and fishermen of Lake Victoria. My students discovered three reasons as to why fish is fast disappearing from our dinner tables in Kenya. First Pollution, Second pollution and third, pollution. Pollution and lack of conservation of our existing natural resources is the source of escalating food prices all over the world.

Lake Victoria is at risk of dying off from pollution! At 26,560 square miles (69,000 square kilometres), Lake Victoria is the world's largest freshwater lake, second only to Lake Superior in North America. The lake is shared by East African states of Kenya (6%), Uganda (45%) and Tanzania (49%). The lake with a 3450 km-long shoreline lies at altitude of 1135

Kisumu discharge inadequately treated sewage in rivers draining into Lake Victoria because of deficient treatment plants.

**The Sandwatchers** visited the Kisumu sewage plant and found a disgusting picture. The sewage plant with a design capacity of 9000 cubic meters now receives 15000 cubic meters of effluent, much of which flows into Lake Victoria without treatment. Clearly, more than anything else, it is the discharge of untreated effluent and the lack of enforcement of discharge standards that are removing fish from my students dinner tables.

The Lake has for along time been a sink to excessive nutrients and untreated effluent that have led to fish die-offs, algal blooms and the spread of hyacinth, a ferocious waterweed. Although mostly eradicated now, the remnants of hyacinth on Lake Victoria deplete dissolved oxygen, sunlight and are an obstacle to water transport. Along the shoreline, hyacinth provides habitat for malaria mosquitoes and snails which harbour bilharzia parasites.

**The Sandwatchers** then decided to speak to some of the fishermen and fishmongers as to how the problem can be resolved. (continued on back page)



## Sandwatch to Pilot in Oaxaca, Mexico



The Wetlands Protection Project along the Pacific coast of Oaxaca State in Mexico, are run by two organiza-

tions, **The Program for Restoration and Reforestation of the Ecosystems of Mangrove swamp** (PROMANGLAR), and the **Program for the Protection and Conservation of Marine Turtles** (PROTUMAR). PROTUMAR has 5 protected turtle nesting sites/beaches registered with the **Secretariat of Environmental and Natural Resources** (SEMARNAT) and two

more sites are in process. Each of the nesting sites are located on a different beach and are taken care of by organized community conservation groups that rely on sustainable and productive projects for their livelihoods.

Within the framework of the PROTUMAR programme, we hope to introduce **The Sandwatch Project** to our groups, by virtue of it fitting in so well with the conservation of both beaches and the protection of marine turtles habitats.

In particular we think that **Sandwatch** would fit in well with the community groups we have in **Playa Ventanilla**, and also interest a team of Life-guards at

**Puerto Escondido**, which is a very important beach for tourism in Oaxaca.

We may also introduce the participation of local schools, however, the groups at Playa Ventanilla and Puerto Escondido will be our **pilot Sandwatch Projects**, as they have both been involved in our turtle projects since '97/'98 and work on the beaches everyday of the year and are very expert groups.

We are glad that Oaxaca and our beaches will be the first place in Mexico to introduce **The Sandwatch Project**.

**By Floriberto VÁSQUEZ, Red De Los Humedales, De La Costa de Oaxaca**



The beach at Playa Ventanilla, Oaxaca is an important sea turtle nesting area

## Sandwatch at Int'l Coastal Cleanup Conference



Every year since 1986, hundreds of volunteers get together on a designated Saturday in September to remove trash from the world's beaches and waterways, to identify the source of debris and to change the behaviours that cause pollution as part of an effort known as the **International Coastal Cleanup**. Supported by **The Ocean Conservancy**, more than 378,000 volunteers participated in the 2007 cleanup. Many **Sandwatch** groups also participate in this activity. Measuring beach pollution and marine debris is one of the methods described in the Sandwatch manual. International Coastal Cleanup coordinators meet every year to review their programme and foster partnerships within and between countries. This year the annual meeting was held in Montego Bay, Jamaica, and **I was invited to give**

**a presentation on the Sandwatch programme**. It was also interesting to meet up with **Sandwatch coordinators** from **Nevis** and **Dominica** who were present at the meeting.

The International Coastal Cleanup is transitioning from a once-a-year event to a year round event. Additionally they are working towards establishing internet-based social networking and online data reporting. These topics were the main subject of the conference programme and it was enlightening to hear about the problems the coordinators were experiencing with the data collection cards. One of the most interesting parts of the conference was the updates from the different coordinators. For example the coordinator from Trinidad and Tobago, Gina Carvalho, mentioned that they were using the International Coastal Cleanup

data to get support for a Beverage Bill and she emphasised how important it was to display the data visually. She presented a graphic showing how the number of plastic bottles collected by the International Coastal Cleanup in 2007 compared to the Twin Towers.

Other great presentations included one on the power of online social networking and how sites such as the Harry Potter Alliance (<http://thehpalliance.org>) are used to address real world problems such as poverty, AIDS and global warming. Nick Drayton of the Ocean Conservancy made mention of the video "The 11th Hour" and how the issues of climate change are giving young people in the US Virgin Islands a new dimension to get involved and take action. There remains much to be done!

**Gillian Cambers, Puerto Rico**



*The amount of plastic bottles collected off of Trinidad's Beaches every year, is larger than their downtown 'Twin Towers' buildings*

## Bajan Students Take Sandwatch to the USVI



Two members of the Coleridge and Parry School **Sandwatch Team from Barbados**, Sean Clarke and Leslie Bascombe will be attending the **Wider Caribbean Environmental Youth Program Summer Camp** in the United States Virgin Islands from July 7 – 12, 2008.

Mrs. Pauline Farley, a senior teacher will be accompanying them as the chaperone. While at the camp, the students will set up an exhibit and make a

presentation on their **Sandwatch** beach monitoring exercises done at Queens Street Beach in Speightstown.

*They will also conduct training sessions for participants and do beach monitoring exercises on Lameshur Bay, St. John, USVI.*

The trip is being sponsored by the Parents, The Barbados Environmental Youth Programme, The Ship Inn Restaurant and The Coleridge & Parry School Parents Teachers Association.

For more information about VIERS and their summer camp visit... [www.islands.org/virgin/viers](http://www.islands.org/virgin/viers)

**Randy Woodroffe, Sandwatch Coordinator, Speightstown, Barbados**



The Bajan Sandwatch Team off to the USVI, Chaperone Mrs. Pauline Farley, Sean Clarke and Leslie Bascombe

## Sandwatch's New Sea Turtle Assessment Kit



Elda Varela-Acevedo, from Duke University, USA is helping Sandwatch assemble a kit specifically for beaches with sea turtle nests.

The island country of Barbados, the easternmost island along the Caribbean island chain, has many beaches characterized by steep slopes and low wave energy along its west coast. Such characteristics are favored by nesting **hawksbill sea turtles** (*Eretmochelys imbricata*) making Barbados the site of one of the largest populations of nesting hawksbill sea turtles in the Caribbean.

High density nesting areas can be found spread across many of the beaches on the west coast. As hawksbill sea turtles are an endangered species, preserving

nesting habitat areas is key in assisting the conservation of sea turtle populations.

Climate change is predicted to result in several changes for the environment, including sea-level rise and higher storm intensity in coastal areas. These changes could have many effects such as higher erosion rates and loss of beach area which would, in effect, decrease the beach area available for sea turtle nesting.

A master's student from Duke University, Elda Varela-Acevedo, is currently working on performing a rapid assessment of the west

coast beaches response to these predicted changes and its possible effects on sea turtle nesting success. **A kit consisting of Sandwatch methodology and tools** will be used for defining coastal characteristics in this evaluation.

Using such accessible methods will allow for this sort of evaluation to be replicated in many regions throughout the Caribbean and beyond to assess climate change's possible effects on coastal ecosystems.

**Elda Varela-Acevedo, Duke University, USA.**

## Sandwatch to Help with WWF Marine Turtle Project



*Students in Belize enjoy watching a nesting turtle..and protecting the nest until the little ones hatch.*

The World Wildlife Fund (WWF) is working on a project to understand how climate change might affect **hawksbill** sea turtles across the Caribbean. All 5 species of marine turtles that are found in the Caribbean are of special conservation concern, and climate change will likely become a very serious threat to them in the future. However, turtles are a really good way to study climate change because they depend on healthy beaches (on which they nest) as well as mangroves, sea grass beds, coral reefs (in which they develop and feed) and ocean ecosystems to live. If we can understand and mitigate how climate change may affect the beaches, it will not only benefit sea turtles, but also people who live along the coast.

WWF hopes to map how the most impor-

tant nesting beaches for hawksbill sea turtles across the Caribbean will change through time with global warming. The project also wants to record where natural (e.g. mangrove) and artificial (e.g. sea walls) coastal defences exist that may make it difficult for turtles to nest. In addition, they would like to work with **Sandwatch** to record the temperature of the beach sand, as this is a very important environmental feature for sea turtles – it determines the sex of incubating turtles eggs in the sand.

This is where **Sandwatch** can help – the data collected by Sandwatch can be used to map where Caribbean beaches are located and how they might change with sea level rise.

WWF would like to work with Sandwatch teams both to collect and analyse these data.

This project (<http://www.panda.org/lac/marineturtles/act/>), an initiative of the World Wildlife Fund, through a grant from the MacArthur Foundation and support from Hewlett Packard, is a component of the LAC marine and species program. By 2010 the project hopes to understand the current state of knowledge about the impacts of climate change on marine turtles and their habitats with a global network of marine turtle and climate specialists and make management recommendations for their conservation.

**By Dr, Lucy Hawkes.**

For further information contact Dr. Carlos Drews at [cdrews@wwfca.org](mailto:cdrews@wwfca.org)

## Mayotte's Students Try to Stop Turtle Poaching



Sandwatch Team Mayotte, on Papani Beach, Petite terre, to discourage turtle poaching

Every year in Mayotte, 1,000 turtles are killed for their food. Poachers go to the beaches at night, and put the turtles upside down while they are nesting. They leave the turtle during the day and when they come back, the turtle has died with much suffering. Of course, they go to inaccessible beaches, they don't want to be caught.

Their killing is cruel and useless because they get very little meat that they sell 4 € per kilo. So our

**Sandwatch Team** are trying to inform the people here, telling them that a living turtle will bring more money than a dead turtle. A lot of people are fond of watching turtles and they are willing to pay for that, and for the future it is essential for our island to see tourism increase.

With our favourite association, ONN, we went to the **Beach of Papani, on Petite terre**, a beach, very difficult to reach, only by boat or by the coast but at low tide, to

look for poachers, since it is their favourite site.

We had a beautiful walk to go there, of course we didn't see any poachers, they are not very brave in front of humans, they prefer to attack unprotected turtles, but we could watch and admire two turtles nesting, and as usual, it was very moving.

**By Amada, Maïmoune, Antonin, Fadhula, Kassidi, Wilaya, Gwennaelle, Houssouna, Haniya, Addija.**



## A Report from Shell Beach, Guyana



**Shell Beach Conservation Camp is located on the wild rugged coast of Guyana.**

This 90-mile stretch of land has developed with a mangrove shoreline interspersed with shell beaches along the Atlantic Coast. The Camp is located on Almond Beach. Because of its distance from any permanent settlement the area has remained unharmed. A few temporary fishermen's houses and a small number of Indigenous **Amerindians of the Arawak nation** farm there.

Working along with the **UNESCO, Sandwatch and local Amerindians**, Dr. Peter Pritchard of the Florida Audubon has been able to discourage the slaughtering

of the turtles for meat and converted farmer turtle hunters to protectors of this very special region. Four of the world's eight sea turtles nest here – the **Leatherback** largest of all sea turtles, the **Green Hawksbill and Olive Ridley**. The turtles now have refuge, protected by continual educational campaigns to the Amerindians and watched over by the James' Family. Romeo James, awarded by **Conservation International** for his work in protecting the endangered species and his parents, fully trained wardens, manage the camp and share with you the behavioural patterns of the turtles. Nesting occurs between April – August usually at night when the turtles emerge

from the water to burrow deep into the sand and lay as many as 130 eggs. So as not to disturb the site, the camp is located some distance away. This allows you to enjoy either a boat ride or beautiful star lit walk along the beach in search of the nesting turtles.

A few people get to experience this wonderful occurrence. To add to your experience spot a variety of bird and wildlife in the lagoons and rainforest behind the camp, including the beautiful Scarlet Ibis.

**By Paula Tulloch, Sandwatch Coordinator UNESCO National Commission for Guyana.**



Paul Tulloch (blue shirt) and her Sandwatch Team on Shell Beach Guyana.

## The Nevis Marine Turtle Group



**The Nevis Turtle Group** was formed in 2003. However, monitoring efforts had started since 2001 when hawksbill tracks were seen at Garling Bay, Stock Pen Estate in December 2008. The nest was monitored until the eggs were hatched. The low success rate was one of the factors that prompted further research. Preliminary surveys were done during the daytime in 2002 to identify the main nesting beaches on the island. Having found out that the main nesting beach was Lovers or Seahaven Beach night patrols commenced there.

**The Rufford Small Grants Foundation** is assisting sea turtle conservation efforts on Nevis in 2008 with a grant of

£5000.00. Already the Nevis Turtle Group has launched a poster competition for children aged 16 years and under. Children should draw a poster of a turtle on A4 paper and hand it in to the Department of Fisheries by May 30th 2008. Children can choose an appropriate background for the poster. The group also held a quiz competition on 24th and 25th of May 2008 at the Agricultural Fair held at the Charlestown Secondary School grounds (the Villa). On May 3rd 2008 the group plans to conduct a cleanup of sea turtle nesting beaches on the island to welcome the sea turtles of Nevis back to clean beaches. Throughout the year the group plans to

extend night patrols to beaches other than the index beach (Lovers Beach). Student volunteers will be sourced for these efforts. The group also plans to bus as many persons as possible to the nesting beaches in order to educate them about sea turtle conservation on the island and to build general awareness about the sea turtles of Nevis. A number of quiz competitions will be held and already talk shows have been hosted by the Nevis turtle Group to discuss sea turtle conservation. More activities will be announced as the year progresses and there are attractive prizes to be won.

**By Emile Pemberton, NTG.**



*The first Guadeloupe Leatherback Turtle of the season nested on Lovers Beach Nevis, in early June. Photo: Emile Pemberton*

## How to Make a Large Silver Model of a Dolphin



**The Mayotte Sandwatcher Club** for this years Science Fair theme was the dolphin as it is **The International Year of the Dolphin**. We made a dolphin with bits and pieces, old cardboards and paper, our objective is to re use things. Have a look at the photos and you'll understand the different steps of its fabrication. We cut

smaller and smaller shapes of the body of the dolphin, we pasted them (there are about 40 layers) then we covered it with white paper and to finish, we wrapped it with aluminium foil.

We made research about dolphins, how they live, how they breathe, how they reproduce, where they live, how many species there are in Mayotte. We looked for information on the web and we found plenty of things. So we could tell the students that came to the Science Fair. And there was the origami humpback whale as well, the children loved it and they all went back with the origami they had made. This Year Science Fair took place



**See our homepages on the Sandwatch website for full details and lots of photos**

in Tsimkoura, a new collège that opened in 2006 and it had a lot of success.

**By Amada, Maïmoune, Antonin, Fadhula, Kassidi, Wilaya, Gwennaëlle, Houssouna, Haniya, Adidja**



The 2008 Sandwatch Team of Mayotte wishes everyone a fun and exciting summer!

## Several New Sandwatch Publications Now Available

Covering so many countries with different cultures, Sandwatch tries to produce publications, including this newsletter, in English, French and Spanish.

So we are very happy to announce that the Sandwatch Manual is now available in French. "Introduction à Sandwatch (Surveillance des plages). Outil pédagogique pour un développement durable" can be downloaded from the Sandwatch website and it has also been published and printed in UNESCO's Coastal Region and Small Islands Series of Papers. Paper copies can be obtained from:

Plate-forme pour les régions côtières et les petites îles (CSI)

UNESCO, 1 rue Miollis

75732 Paris Cedex 15, France

fax: +33 1 45 68 58 08

e-mail: [csi@unesco.org](mailto:csi@unesco.org)

The Sandwatch Manual is also available in Spanish. "Introducción a Guardarenas. Una herramienta educativa para el desarrollo sostenible" (photo right) can be also be downloaded from the website and has been published and printed by the University of Puerto Rico Sea Grant College Program with support from the Puerto Rico Tourism Corporation. Paper copies can be obtained from:

Programa de Colegio Sea Grant, Universidad de Puerto Rico

PO Box 9011

Mayagüez, Puerto Rico 00681

Fax: +1 787 265 2880

e-mail: [seagrant@uprm.edu](mailto:seagrant@uprm.edu)

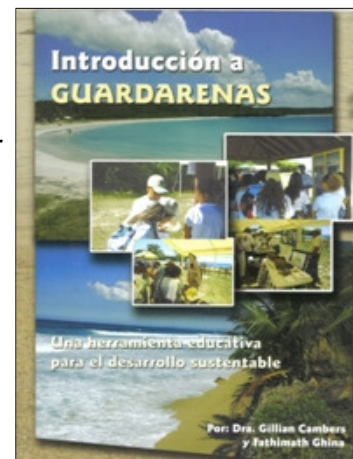
An article entitled: "Sandwatch: A practical, issue-based, action-orientated approach to education for sustainable development" will shortly be published in a special environmental education edition of the *Caribbean Journal of Education*. This will be published this summer and the article is a combined effort by Sandwatch coordinators from the *Bahamas, Cook Islands, Dominican Republic, Puerto Rico, St. Kitts and Nevis, St. Vincent and the Grenadines, Trinidad & Tobago*.

A *Teacher's Guide on Education for Sustainable Development in the Caribbean* will shortly be published by UNESCO. This Guide also features a chapter on Sandwatch.

A publication from the *International Union for the Conservation of Nature (IUCN)*: "The Beacons of Europe: Impacts of Climate Change on the European Union Overseas Entities" includes an story on Sandwatch, featuring programme activities in Mayotte in the Indian Ocean. This publication will be presented at a conference in July this year to be held in Mauritius.

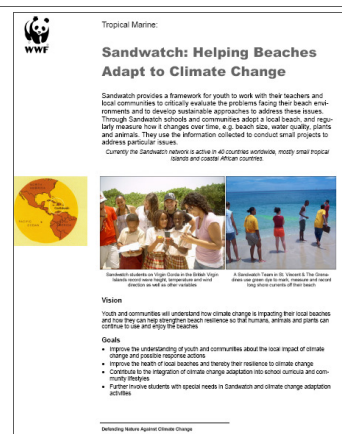
We will publish the links to these three articles in the next issue.

Gillian Cambers & Paul Diamond



**Left:** Sandwatch Coordinator for Mayotte, **Ms. Pascale Gabriel** poses with the model dolphin her students made to highlight environmental issues on the island. Pascale has been a huge help to the Sandwatch Project, and has been invaluable in many aspects of the project over the last several years, including helping to translate both the Sandwatch manual and issues of The Sandwatcher into French. *Ms. Gabriel has now returned to France but is eager to continue on with her environmental work with students; so if you are looking for a truly excellent environmental project/manager/educator...please let us know!*

**Right:** The front of The Sandwatch Project's promotional sheet 'Sandwatch: Helping Beaches Adapt to Climate Change' produced and distributed by the World Wildlife Fund, as part of their 'Defending Nature' funding and support folder that is distributed to their many corporate sponsors. About a dozen or so environmental projects worldwide are chosen to be part of this 'funding folder' which allows them the opportunity to be presented to select multi-national corporations for possible financial support and other considerations. *We hope given Sandwatch's global popularity that this initiative will prove very successful.*



## Kenya's Disappearing Fish (continued from Page 12)

A fisherman by the name Mr Obure, has to brave all the dangers because nowadays the coveted Nile Perch has become hard to come by. It is a tasty, quick growing and massive, making it an ideal staple species for a fishery. The fisherman says finding the massive Nile Perch - which can fetch more than 10 US dollars per kilogram, thanks to its popularity in Europe - is becoming an increasingly perilous game with shrinking returns. The consensus among fishermen in Kisumu is that water pollution, which is exacerbated by a lack of government regulation, has forced the perch to leave. Run-off from the many rivers that feed into the lake is ferrying toxic substances into the water, and industrial and residential waste is increasing. Justine Tindi a top student in my class pointed out to the Kisumu high sandwatchers some of the visual evidence as, fertilizers used by farmers upstream have caused water hyacinth to flourish, pushing some species farther out or killing them altogether. Jacob pointed to the hills surrounding Kisumu which are barren, having been stripped of trees to make charcoal. Rivers once protected from direct sunlight are now exposed and drying up faster, leading to a shrinking lake. This has seen the perch - a hunter that needs clean water to see its prey - move away from the shore.

As the club patron, I reminded my students that the impact of the Nile perch's introduction has been mostly negative on the lake's ecosystem, despite being a boon for the pocketbooks of fishermen. The World Conservation Union considers the Nile Perch one of the world's 100 worst invasive species. Many native fish, including the Tilapia and several species of cichlids have all disappeared. A spot check showed that tilapia, which previously sold at Kenya shilling 150, was going for Sh450. Some outlets have taken advantage of the situation and are selling tilapia at Sh500. Prices of dagaa fish, a popular dried fish delicacy, have also shot up from Sh25 to Sh60. A kilogramme of omena is now selling for Sh120 up from for Sh5. That afternoon, we left the shores of Lake Victoria crest fallen. Our main source of food in Africa is being destroyed under our very noses. We have to do something, anything to save the lake for us and for the future generations. Later that evening I watched on CNN as world leaders sat in air conditioned halls in Rome Italy discussing escalating food prices in the world. I wished I could tell them to stop. Seminars and workshops are important but they may not help us. It is time to roll up our sleeves and get out there and conserve our environment. That is my friend Geoff from Britain travelled all the way to Kisumu and joined my students and I in cleaning the beaches around Kisumu. The world cameras may notice us, but we love what we are doing. Returning fish back to our dinner tables.

By Amunga Peter

Kisumu High Sandwatcher club. Kisumu.

