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# The Sandwatcher

PROMOTING GRASSROOTS CONSERVATION OF BEACH ENVIRONMENTS

Photo: Sandra Moniz, Cape Verde Islands



## Sandwatch Training Video Coming Soon



### Inside this issue Sandwatch activities from 16 countries worldwide!

*Including Australia, Bahamas, Cape Verde, Democratic Republic of Congo, Dominican Republic, England, Gambia, Kenya, Kiribati, Maldives, Mayotte, New Zealand, Puerto Rico, Seychelles, Turks & Caicos, Tuvalu ... and much, much more.*

#### Puerto Rico Sea Grant is producing a series of Sandwatch training videos.

In order to help teachers, community leaders, and Sandwatch members carry out Sandwatch activities, Puerto Rico Sea Grant (PRSG) will be producing short videos of every chapter of the manual. Videos will be compiled in a DVD and will be available on the Internet for 2013.

UNESCO and PRSG are funding the video production. During the remaining months of 2012, educators, video editors, videographers, editors, and staff of PRSG will be engaged on the task of writing scripts, classifying and selecting images, taking footage, and revising educational activities that will appear in the videos, and recording voiceovers.

Videos will provide Sandwatchers the opportunity to revise activities and information about the basics of the Sandwatch project, climate change, erosion and accretion, beach composition, human activities, beach debris, water quality, waves, currents, and the use of visual arts and computer programs to communicate findings and results. Also, the videos will facilitate the process of training new persons interested in the Project.

*"The production of these videos represents for PRSG a way to expand our educational efforts regarding the conservation and sustainable use of marine and coastal resources in Puerto Rico and the rest of the Caribbean. It will also allow us to let other countries know about our educational initiatives,"* said Ruperto Chaparro, PRSG Director.

For more information about Sandwatch in Puerto Rico, access <http://seagrantpr.org/guardarenas/>.

**Cristina D. Olán Martínez**  
Communications Coordinator  
UPR Sea Grant College Program



Jorge Casillas and Omar Ortiz working on a prototype "How to do Sandwatch" DVD.





## Inside this Issue...



Sandwatch have their own YouTube channel, so tune in to see our videos from teams all over the world

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

**Welcome to the 13th edition of The Sandwatcher, the Official Voice of The Sandwatch Foundation.**

This issue highlights the truly global nature of Sandwatch as it contains articles and photos from Sandwatch teams in 20 countries all over the world, from the Caribbean, Indian and Pacific Oceans, Africa, Australia and Europe.

Thanks to all of you, Sandwatch has become a recognized global environmental project.

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

- Sandwatch presented at **UNESCO Experts Meeting on Climate Change Education in The Bahamas**
- Sandwatch to feature at the **Rio+20 United Nations Global Meeting** in June 2012
- New Sandwatch teams are started in **DR Congo, Cape Verde, Mayotte and Tuvalu**
- Sandwatchers in **Kenya** report on oil pollution threats in **Lake Victoria**
- Sandwatch continues to expand in the Pacific region: **Kiribati, New Zealand, and Australia**
- Sandwatch activities in the **Caribbean: Dominican Republic, Puerto Rico and Bahamas**
- **Sandwatch continues in the Indian Ocean: Maldives and Seychelles.**

Sandwatch continues to update and expand its global website and develop an international database. Plus amazing updates, stories and photos from Sandwatch teams.

## Sandwatch shared at UNESCO Experts Meeting



Dr. Davidson Hepburn, President of **UNESCO's General Conference** addresses delegates from around the world at the opening of the Experts Meeting in Nassau, The Bahamas.

**UNESCO's Experts Meeting on Climate Change Education for Sustainable Development and Adaptation in Small Island Developing States (SIDS), Sept 21-23, 2011, Nassau, The Bahamas.**

Once again **Sandwatch** was well represented at an international **UNESCO** forum on climate change and education with Sandwatchers from the **Seychelles, Cook Islands, St. Kitts & Nevis** and of course **The Bahamas** attending. The three day meeting, hosted by Bahamian, Dr. Davidson Hepburn, President of the General Conference of UNESCO (left), saw forty speakers from all over the world give presentations on various aspects of education, sustainable development and climate change to around 100 delegates who flew in for the event from all around the planet.

The meeting was opened by the Hon. T. Desmond Bannister, the Bahamian Minister of Education, Dr. Davidson Hepburn and Dr. Gretchen Kalonji the Assistant Director-General, Natural Sciences at UNESCO HQ. There were several other prominent speakers, including Hollywood actor Forest Whittaker who sent a video greeting. This Experts Meeting in Nassau was a follow up to UNESCO's International Seminar on Climate Change Education (Paris July 27-29th, 2009) where Sandwatch was also well represented. Both Gillian Cambers and myself attended the meeting and gave presentations and in addition met many more experts and grass roots educators from around the world, many of whom have pledged to become involved with Sandwatch themselves and help it grow within their home regions. So we hope to see the programme expanding the coming months.

Copies of the new Sandwatch Manual "Sandwatch: Adapting to climate change and educating for sustainable development" were handed out to delegates as were full colour copies of the latest issue of The Sandwatcher (Sept. 2011). During the course of the conference, three regional focal groups were formed with representatives from the Caribbean, Pacific and Indian Ocean regions. These three groups met to discuss and plan the way forward for their regions for climate change education and Education for Sustainable Development (ESD) related issues. The results of these discussions will help to determine the future direction these programs take globally.



Sandwatch Co-Director Paul Diamond presented a presentation on Sandwatch activities worldwide.

On a personal note it was really great for Gillian and I to meet friends and colleagues from afar, whom we don't see in person very often, only every couple of years or so at meetings of this sort. It was also important to make new friends and meet new colleagues, to learn about their projects and see how we can assist them with finding help and support for their endeavours. Sandwatch is essentially a network of grass roots environmentalists working at the community level and anything we can do to help educators and students in similar circumstances pays dividends by expanding and strengthening our circle of friends and colleagues. During the meeting Gillian and I also took the opportunity to meet with some colleagues to advance the new Sandwatch Online Database. A prototype of the database is currently running on the UNESCO servers at Paris HQ, and a trial with selected groups will shortly commence. More on this project will be announced later this year.

**Paul Diamond, Co-Director, Sandwatch Foundation**

## News about Sandwatch in The Bahamas



A Hope Town Primary student briefs Chargé **Dinkelman** on the school's beach conservation project.

Hello Friends, Well, here we are just spending an afternoon with Prince Harry in Nassau, how exciting! We were invited down for the Prince's visit because of our long standing environmental work. We just won the UN Eco School award at the gold level and are the first Government school in the whole Caribbean region to win this prestigious Green Flag.

I also went down for the Prince's visit as my student, Anna Albury who is blind, and won the Bahamas Primary School Student of the Year for the whole nation, was giving the address at the rally being held in the Prince's honour! So, I dashed from one site to the other, heart swelling with pride at both sites. When my student spoke---she was heard around the whole world as reporters were there by the score to see this historic visit.



Prince Harry, is flanked by Bahamas Sandwatch Co-ordinator Candace Key and her award winning students

In other news from The Bahamas, thirty-five students from across The Bahamas have been selected as finalists in the Bahamian Youth Expression Against Drugs Competition. The Bahamas National Drug Council, the National Anti-Drug Secretariat and the U.S. Embassy partnered to organise the competition to encourage students throughout The Bahamas to consider the harmful impact of illegal drugs and to reflect on how they can resist negative peer pressure and act as leaders against drugs in their community. Students submitted original essays, rap or spoken word performances that demonstrated their commitment to fostering drug-free communities throughout the country.

Entries came from Grand Bahama, Acklins, Andros, Exuma, Eleuthera, and New Providence. Gayle Hamilton, Prevention Educator at the National



Chargé Dinkelman and other U.S. Embassy Officials, Hope Town Primary students, and special guest, Anna Albury, who returned to her old primary school to participate in a tree planting ceremony.

Oh! Did you see Anna being interviewed on CBS Good Morning America this morning! All the British papers have her with the Prince on the front page with the caption "Student outshines Prince!". Anna sat beside Prince on the dais and they kept up a continual conversation the whole time he was there!

Best Buddies Pictures of her and the Prince are all over the world. An exciting 24 hours you can be assured of that! The beautiful child in the green skirt is now a senior in High School but I still consider her "mine" as she went to school here. The other 2 darling ones are in Grade 6 here. Lilly (champion swimmer) broke her leg by slipping and hitting a concrete border. Ouch! **Candace Key, Principal, Hope Town School, The Bahamas**

Drug Council said the finalists will come to New Providence to participate in an all expense paid Summer Youth Leadership Camp from June 25 – 29. During the camp, the 20 students displaying the most leadership potential and discipline will be selected to attend the **National Geographic Photo Camp** at the Island School in Cape Eleuthera in the fall. Ms Hamilton explained that the all of the activities planned by the National Drug Council and its partners serve as positive activities that will help keep young persons occupied. "We want to give them skills and create positive activities as an alternative to using drugs. We will use them in our prevention and demand reduction efforts, because young people relate to young people" Ms Hamilton said.

## A Sandwatch Update from the Dominican Republic



Teachers participating in the Sandwatch training workshop at Juan Doli Beach, Dominican Republic

The Sandwatch project is continuing and growing during the 2011-2012 school year with the support and involvement of several organisations. **The Dominican Republic National Commission for UNESCO** is leading this initiative together with the Ministry of Culture, the Ministry of Education, and the National Aquarium. Between August and December 2011 there was an intensive planning process with numerous meetings.

Following these meetings, on 7th February 2012, a Sandwatch training workshop was conducted. Eighteen teachers from six schools were involved in the workshop during which they learnt about methods to measure waves, tides, beach changes and water quality. Other topics covered in the workshop were education for sustainable development, climate change, coastal and marine ecosystems, and pollution of these ecosystems.

The Dominican Republic National Commission for UNESCO ordered Sandwatch equipment kits and these were distributed in January 2012. The six schools are carrying out Sandwatch monitoring during the school year in the months of October and December 2011, and February, April and June 2012.

**Bienvenido Santana Ferreras, Dominican Republic**



## The St. Joseph School Gambia starts Sandwatch



St. Joseph Sandwatch students pose next to an old coastal defence gun fortification.

**The members of UNESCO ASPNet club of St. Joseph's Senior Secondary School is among the most active partner in the implementation of the Sandwatch program in the Gambia.**

We have been observing, monitoring and evaluating the conditions of the Banjul beach, from the UNESCO NATCOM office to the Christian grave yard in Banjul.

We visited the site last academic year just after a **Sandwatch Training Workshop** attended by two teachers and three students. As a follow up, we visited Banjul beach on the 22nd December, 2011. This visit was aimed at comparing the findings of previous beach conditions with that of the present. During our recent visit, we conducted the following activities:

- Observation and evaluation of beach debris.
- Measurement of beach width from the high water mark to a permanent structure.
- Presentation and recommendations by group leaders on their findings.

The activity was successful and the students were able to better understand the conditions on the Banjul beach. If our recommendations are taken seriously, the Banjul beach will remain to benefit many people for a long period of time.

Our recommendations are:

**A. Assembly presentations:** Monthly presentations at assembly: Since October, two presentations were made at assembly; the first a speech on the aims and objectives of UNESCO ASPNet in schools and the other one was a skit on peace building in schools. ASPNet aims to promote quality education for all in pursuit of justice, liberty, peace and human development. The attendance at both assemblies was more than 450 students. During the above presentations, the following points were emphasised for both the students, teachers and administration:

**1.** To reinvigorate a global network of schools committed to over-all quality improvement in support of Education For All.

- 2.** To promote quality education as a right of all learners emphasizing the dimensions of quality that are inherent in UNESCO's mandate.
- 3.** To reinforce, disseminate and mainstream good practice.
- 4.** To promote local expression as a beacon of UNESCO ideals, especially learning to live together in peace and harmony.
- 5.** To contribute to sustainable socio-economic/cultural development with special attention to issues relevant to the 21st century.

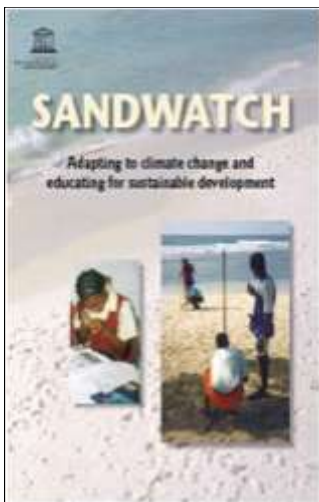
**B. Weekly meeting for the members:** These meetings aim to bring the club members together, review the progress of our action plan, and discuss cultural and educational issues through speeches and skits. The UNESCO ASPNet club in our school is working in the area of environmental sustainability.

**C. Environment cleaning and sanitation:** The members of UNESCO ASPNet club are known for their active participation in environmental cleaning and sanitation. This is a daily routine, where two classes per day will be responsible to clean the school campus after break with the coordination of the members of UNESCO ASPNet and environment clubs. This has helped in keeping our environment clean at all times, hence fostering conducive teaching and learning.

**D. Tree planting activity:** This activity aims to provide food and a beautiful environment for effective teaching and learning in our school. Four mango seedlings, which were given to us by the National Commission for UNESCO and twelve coconut seedlings provided by the UNESCO ASPNet club were all transplanted in October and December respectively by the members of the ASPNet club. This activity was welcomed by the whole school including our school principal. The plants will be nurtured by the club members, and during holidays the school caretakers will take care of them. The membership of UNESCO ASP Net club believe that a good number of people will benefit from the fruits and shade of the trees in some years to come, hence enhancing their livelihood.



St. Joseph's students cleaning up and measuring Banjul Beach, The Gambia .



The new Sandwatch Manual is now available in French and English and soon in Spanish and Portuguese.

## Google Earth: A Great Teaching Tool

An increasingly important part of Sandwatch workshops and training is not only showing educators how to use the Sandwatch manual, and methodology, but also how to network and expand your project using inexpensive or free technologies. This includes using **Google Earth** to show people where your country/community/school/beach is located, or using it to teach your students geography. It is very popular with teachers, especially the first time they use it. It is free and easy to use! Please ask us if you need help on how to best use it for Sandwatch.



## Sandwatch West Australia links with Kiribati



### Joining hands across oceans with Sandwatch

Membership in **Sandwatch** has created new opportunities for students in **Australia** and **Kiribati**. South Coogee Primary School in **Perth, Western Australia** will be linking with students from **Moroni High School in South Tarawa, Kiribati** to gain a greater understanding of coastal processes, climate change impacts and develop cultural bonds.

Students at both schools undertaking Sandwatch activities such as monitoring the beach, then taking action including dune planting and marine debris surveys will then share the information between the schools. Information exchange will occur in a range of forms including photographs, short videos and in song, short stories and poems.

To develop a cultural understanding for the South Coogee students, an I-Kiribati woman currently studying at university in Perth will give a presentation on life in Kiribati and the threats that the people are facing from climate change impacts. The students will then be treated to a dance in true Pacific Island tradition that will tell the story of life in Kiribati.

In Perth, the Sandwatch project is a component of Adopt a Beach, a Verve Energy supported project.

**Craig Wilson, South Metro Coastcare Officer, Perth, Australia**



Coastcare Officer Craig Wilson talking to South Coogee Primary students.

## Sandwatchers plant Trees in Turks & Caicos Islands



New photographs on our national homepages on the Sandwatch website show students planting green buttonwood plants along the walkway of a new building on the **H.J. Robinson High School** on Grand Turk. The money for the purchase of these plants came from students of the SURF club selling icicles, and cakes. The students planting are: Crevanne Adams, Kirkly Parker, Aaron Lightbourne, Dodly Prosper and Layton Lewis. The students also worked with Mr. Thyroid Smith, a landscaper with Carnival Cruises, to erect a sign naming the school (H.J. Robinson High School). Students helped with measuring the dimensions, laying rocks, filling with dirt, levelling and planting.

**Ms. Cordelia Creese, Sandwatch Coordinator, Turks & Caicos Islands**



Sandwatch students in Turks and Caicos Islands plant trees around their school.

## New Zealand Sandwatchers learn about Eco-Travel



At the end of Term 1, three Year 6 **Stanmore Bay Primary School** students, Candice Clark, Seamus Kelly and Shelby Marsh were invited to attend a Young Leaders' Travel wise Seminar at Centrestage Theatre, **Orewa, New Zealand**. On arrival they were presented with goodie bags containing items from the Travel wise team. Along with other local school students they were quickly placed in groups for their first fun activity. It was designed to help them get to know one another. Next the instructors brought them back to a central area where they spoke to them about safe forms of travel, to and from school, as well as what equipment was needed to stay safe. This session finished with a bus stop activity where they recorded all that they had learned.

Following a short break it was time for a quiz. Each instructor held up a card with a statement on it. For example, what form of transport is the most eco-friendly way to get to school? The students then had to go and stand by the one that they thought was the best or worst for the environment. *"I have realised that it is important to start making good choices now. Decisions we make now can affect our future."* said Candice. After that, the next activity was about different parts of bikes and which parts were most important. Advice on safety checks was also given. After a delicious lunch, it was time to do some badge making. Each child got a piece of paper with a circle on it. They could decorate it however they wanted but it had to have a Travel wise message on it. Unfortunately it was soon time to go back to school. *"We had loads of fun, learned lots and are keen to go back and share the message with other students at our school!"* said Seamus. All three children agreed it was a worthwhile trip.

**Written by Candice Clark, Student at Stanmore Bay Primary School**



Sandwatchers Seamus, Candice, Shelby attend a Young Leaders Seminar.



## Sandwatch starts in The Democratic Republic of Congo



Sandwatch is brand new to the DR Congo, so it will be interesting to see how it goes.

Dear Sandwatchers, I am Anny Mandungu, responsible for environmental education for our NGO, The Friends of Nature and Gardens (ANJ). We do not have a website, but you can visit our blog ([www.veloefzero.wordpress.com](http://www.veloefzero.wordpress.com)) for the day of September 24, 2011 on [www.350.org](http://www.350.org) when we organized a bike ride to educate adults on the issue of climate change.

To the left are some pictures of our activities with the schools. We have a ton of pictures of our activities from 2007 to September 2011! As part of our young network of nature clubs in schools in Kinshasa, we try to remove students from their schools for mornings of discovery. We will now go further by including the rivers of the city, especially those with a beach! It will be a very rewarding experience for them but also for local residents! Very few people are interested in the health of our waterways and our beaches!

The work is enormous as we are trying to raise awareness and conduct education and field activities. We will prepare for a day of water studies with this new **Sandwatch** perspective. Usually, we are dedicated to tree planting but we have already tried an experiment on the banks of a river. With schools, the approach is more comprehensive and easier to implement and get started and we will begin with observational visits. To learn more about our organization please visit our homepages on the Sandwatch website.

**Anny Mandungu, Environmental Education, Friends of the Nature and Gardens**



## Sandwatch Teacher Training held in Cape Verde Islands



Sandwatch has really taken off in Cape Verde after the Aug 2009 "Train-the-trainers" workshop with several schools participating.

### Cape Verde Sandwatch Training 2012

This is a short summary of our Sandwatch Teacher Training Workshop held on 10th March, 2012. The participants included 22 teachers of elementary and secondary education from the UNESCO Associated Schools, ASPNet, Santiago Island (coastal zones).

The workshop was opened by the Permanent Secretary of CNU-CV, Mrs. Glória Ribeiro, welcoming the participants. The coordinator and trainer, Mrs. Maria José Pires, gave a presentation explaining the issues and methodology of training, proposing the program and presenting the project in accordance with a series of activities for each group. The methodology was conducted in five stages:

1. Theoretical approach.
2. Field training session.
3. Presenting and analyzing group work.
4. Presentation of schools' projects.
5. Assessment.

As a coordinator and trainer I believe that the objectives were fully achieved, the training methodology was appropriate to the context in which the workshop took place.

It was evident that the representatives of the schools involved were actively committed to participating in the session. In fact, the participants shared some ideas which will eventually lead to quality projects. Due to the participants' involvement, the workshop lasted longer than we were expecting. Therefore, we will have to consider more time for the next sessions in order to critically appreciate the practical application of the project. We would like to highlight the important role that the school plays as a socializing agent, making citizens aware of the importance of understanding the mechanisms of the global environment.

During the session Mrs. Marilene Pereira, **Director of the Brazilian Cultural Center**, officially delivered 300 kits for analysis of water quality (pH), donated by the Brazilian Embassy.

This short report was prepared with the support of Mrs. Maria João Miranda, English Teacher of Pedro Gomes Secondary School and responsible for the English Club, who participated in the workshop and Mrs. Maria Jose Pires, the Sandwatch Coordinator, who is also the Director of Pedro Gomes Secondary School, a UNESCO ASPNet school.

After the Sandwatch Teacher Training Workshop, two further Sandwatch activities were conducted with students on the beaches of **Gamboia** (the capital) and **Tarrafal** (in the north of the island of Santiago) on Saturday, March 17 and on March 24.

**Sandra Moniz and Maria João Miranda**



All the students were given extremely nice Sandwatch T-shirts.

## Sandwatch in England teams up with Greece & Trinidad



The Sandwatch/Making waves team have been very busy at school over the last few terms.

Aside from measuring and monitoring our local beach we have been building up our partnerships with two other schools in different countries. Our first partnership is with **Mayaro Government Primary School in Trinidad** and our partnership has really grown strong with our pupils communicating with each other and learning about our different cultures. We have planned a joint visit so that the children from Mayaro will visit us this July and then we will visit there in October. This is a very exciting time and we are looking forward to working on more of the Sandwatch themes together.

Our second partnership is with the **5th Primary School of Argostoli** on the **Greek island of Kefalonia**. We are working on a joint project about **Loggerhead turtles** as Kefalonia is a prime nesting site for them in the Mediterranean. This has inspired our Making Waves team in Kings Park to create their own animation to promote this project called *Caretta Caretta*. You are able to view this action packed movie on our Sandwatch page (Kings Park Primary School at [www.sandwatch.org](http://www.sandwatch.org)). We hope that you enjoy it.

I have been both excited and inspired by our children's hard work and hope that we have more exciting things to tell everybody about in the next issue.

**Mel Berkhauer, Kings Park Primary School**



The Sandwatchers in England and Greece have co-operated to make a video about loggerhead turtles.

## Sandwatch starts in Tuvalu



Tuvalu's National Adaptation Plan of Action (NAPA), which is implemented by the Department of the Environment, covers all of the country's nine atolls and their communities. Coastal erosion and protection have been identified as serious issues, and building resilience to climate change especially in coastal areas and settlements is a priority need. Stakeholders have recommended that beach monitoring methods linked with education programmes be introduced.

Following discussions with the Sandwatch Foundation, a Sandwatch training workshop for teachers is being planned for this year. This will be implemented by the Department of the Environment in collaboration with the Ministry of Education. The plans are to bring teachers in from the outer atolls to participate in a 4-day Sandwatch training workshop. Equipment kits are being ordered and the teachers will be trained in the various Sandwatch methods.

After this workshop teachers will be in a better position to work with their classes to start beach monitoring and thereby build awareness and understanding about coastal changes and the effects of climate change.

Petesa Finikaso, **Department of the Environment, Tuvalu**



Sandwatch to start soon in Tuvalu, an atoll country in the Pacific.

## Sandwatch Website and Database



Way back in 2005 we launched the first **Sandwatch website** to provide a forum for Sandwatch teams to post their photos, data, project details and other information. Back then there were only a few schools doing Sandwatch so it was a simple matter to keep up with the input. However, over the last several years Sandwatch has grown to include several hundred schools all over the world. Our original website, built using the simple, Microsoft FrontPage program was not designed to handle large global websites. So we have spent the last several months creating a brand new website from scratch! The new website is still at [www.sandwatch.org](http://www.sandwatch.org). It was created using the far more advanced Joomla website program. We have already created pages for all national and many school homepages as well as copying hundreds of photos and other documents. There is still months of work remaining but in the meantime, please take a few moment to examine your homepages and let us know if there are any errors, things you want to add or change. We are also working with UNESCO and Dave Gray of Canada to design a **Sandwatch Online Database** where you will be able to store your data, photos and maps. A prototype will be available for testing shortly.



Sandwatch online database will shortly be available for testing.



## Sandwatch continues to expand in Kiribati



Emily Taano demonstrating how to measure sand composition

### Teachers and Staff enjoy Sandwatch in Kiribati.

Moroni High School in South Tarawa, Kiribati, has some special "set apart days" for social activities for all employees. These can be fun activities or sport activities that everyone takes part in on that day.

On the 22nd March 2012, the Principal and other school leaders agreed to hold this year's social activity on the school's **Sandwatch** beach. Because they selected the Sandwatch beach as their venue, the fun games have been replaced by Sandwatch activities, which can also be considered as fun activities.

The school's Sandwatch representatives, Emily Taano Rotaria, Science Teacher, and Tiritaake Wiram Banimone, Geography Teacher, had the opportunity to introduce and conduct some activities from the Sandwatch manual, such as observing and recording the beach; measuring beach composition, beach debris and water quality.

After a briefing by the Sandwatch teachers, the group of teachers and staff (about 50 people) were divided into groups. The game started and for 20 minutes each group was given a specific chapter from the Sandwatch manual to follow, plus some examples and an activity. The groups then presented their findings. Each group had a great time exploring the different activities.



Students enjoy Sandwatch at the beach in front of Moroni School.

Prizes were given and the day finished with a party and lots of food. Everyone enjoyed the day and recognised how Sandwatch activities can be fun and also improve the beach.

*"Everyday when we pass by our beach, I have this good feeling that we are helping to take care of it. It is a blessing for our community"* said Lita K. Iabeta, Principal, Moroni High School.



Teachers at Moroni High School created a 4 page Sandwatch newsletter, published as Sandwatch eNews Issue 3.

### Emily Taano Rotaria and Tiritaake Wiram Banimone, Moroni High School

Editor's note: Emily and Tiritaake have prepared their own newsletter about this event. This has been published as **Sandwatch eNews 3**, available on the Sandwatch website (Click on Events/eNews Issues on the main page) .



## Sandwatch featured in new video series

Three short films in the series "**Partnerships for Resilience**", produced by the CARIBSAVE Partnership in collaboration with regional organisations, seek to promote public awareness of the threats posed by climate change in the Caribbean and the importance of developing and implementing adaptation strategies. The series highlights adaptation actions from across the region that are reducing the vulnerability of communities to the many direct and indirect impacts of climate change, and, in so doing, strengthening the resilience of the economy, society and environment of the Caribbean region.

"Living Shorelines" features **Sandwatch** and the importance of coastal ecosystems (e.g. mangroves, seagrass beds, coral reefs) in protecting shorelines and vulnerable coastal communities against storm surges and sea-level rise. The degradation and removal of these natural barriers is now recognised as a major concern for the region. The video highlights examples from Belize, Guyana and Barbados.

"Climate Change and Caribbean Tourism" (16 min) focuses on tourism. It showcases success stories from Jamaica, Barbados, Antigua, St Lucia and Belize, where partnerships between communities, private sector and governments are strengthening the social and environmental resilience of this vulnerable region. "Caribbean Fish Sanctuaries" (22min) was designed to increase awareness of the potential benefits that fish sanctuaries (also known as marine reserves, no-take-zones or conservation areas) can generate for the environment.



Sandwatch is featured in the 'Living Shorelines' video

All three of the videos can be viewed at [www.youtube.com/user/Caribsava](http://www.youtube.com/user/Caribsava)



## Sandwatchers report on Oil Pollution in Lake Victoria



Since the 1900s Lake Victoria ferries have been an important means of transport between **Kenya, Uganda and Tanzania**. The main ports on the lake are Kisumu, Mwanza, Bukoba, Entebbe, Port Bell, and Jinja. Kisumu is where our school is located and we are members of **The Sandwatcher club**.

Of late we have been researching the history of oil in East Africa, the increase of vessels on the Lake and the ever increasing accidents that are taking place in and around our Lake. The main objectives of this report is to document marine vessel accidents and oil spills. On 3 October 1995 the steamer MV Bukoba sank in the lake killing nearly a thousand people in one of Africa's worst maritime disasters. An investigation revealed a myriad of possible causes. But what stood out and has inspired our club to do research are environmental concerns.

Just last month 18 schoolchildren including some in pre-school, drowned in Lake Victoria when the boat they were traveling in capsized. The boat was reportedly overloaded and captained by an inexperienced navigator. The children, all citizens of Tanzania, were crossing to another island where the school is located when the vessel ran into a large, dense patch of the invasive water hyacinths weeds.

This is not the first time Lake Victoria has experienced problems due to pollution and negligence. What is needed are measures to cope with adverse pollution conditions including deploying more reliable means of transport on the Lake. One major marine accident and oil spill in Lake Victoria could jeopardize an entire ecosystem.

This situation is threatening to worsen due to the fact that all the three East African countries and their neighbors have announced the discovery of oil. Kenya was the latest

with the discovery of oil in the Turkana area. Other countries involved are Uganda, Southern Sudan, Tanzania.

The Sandwatchers in Kenya wish to advise the East African countries that share the Lake Victoria and who have now discovered oil that we must begin by acknowledging the sensible use of our ecosystem, which has the capacity in the long term to provide more benefits and revenue than oil. We must individually and consciously take up the responsibility of drastically reducing our use of oil and its by-products. We must also set up international tribunals that would bring to justice entities and individuals who destroy the ecosystem.

But more importantly we must build capacities within our communities to ensure as much as possible that the role of oil in our energy matrix becomes inconsequential. This requires investing more in renewable energy, energy efficiency, better public transportation and small decentralized energy projects.

Our salvation in the final analysis lies in igniting powerful environmental clubs and groups like the Sandwatch club. These are the kind of movements that will help check and conserve our beaches for future generations. We must seek help from major multinational companies who are undertaking oil exploration in the region. We need to link with groups around the world to take action that would bring about the change we desire. Sandwatch Kenya Chapter is now on the forefront of spreading this campaign "to leave new oil in the soil".

**Peter Amunga, Kisumu Day High School, Kenya.**



The shore of Lake Victoria, Kenya impacted by a recent oil spill.

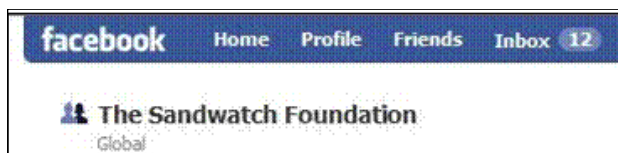


Small, old, poorly maintained and over crowded ferries are an all too common sight on the lake.

## Join the Sandwatch Foundation's Facebook Forum

In its ever continuing efforts to keep up with rapidly changing technology, **The Sandwatch Foundation** has recently set up a dedicated 'Sandwatch Forum' on the globally popular social networking website **'Facebook'**.

If you are a member, or are considering joining the website (it is free) then simply do a Facebook search using the phrase **'The Sandwatch Foundation'**, and it will pop up on your screen. Then you click on the dialog box that asks you if you would like to join this group...and that is basically it!



Sandwatch also has its own dedicated YouTube Video Channel at...  
[www.youtube.com/user/SandwatchFoundation](http://www.youtube.com/user/SandwatchFoundation)

Once a member of the Sandwatch forum you can post photos, links, ask questions, communicate with other members all over the world and be regularly updated on Sandwatch events and activities.

The Facebook forum has just started and has already proven to be quite popular with members, especially students and we hope that you will join the forum and help to make it an informative and fun way to exchange Sandwatch and community information.





## Maldives holds Sandwatch Workshop



The teachers in the Maldives learn Sandwatch methods on the beach

The Educational Development Centre in the Maldives with the assistance from UNICEF is conducting a series of training sessions for school teachers to enhance their knowledge, skills and attitudes towards teaching environmental studies. Several sessions have been organized for various atolls over the past years.

From 27th February – 1st March 2012, 42 teachers from Male and some of the other atolls attended an environmental education workshop. This training also focused on a general understanding of the National Curriculum and trying to link environmental education with the various aspects of the National Curriculum.

The programme covered the following topics:

- An overview of the proposed National Curriculum and how it relates to environmental education.
- Understanding **Education for Sustainable Development** and how to address it in teaching/learning.
- Link teaching to 'learning for sustainable development'.
- Engaging in current models of environment teaching and using the modules to plan lessons.
- Explore the holistic nature of the concepts of 'environment', 'sustainable futures' and 'education for sustainable development'.
- Develop an understanding of the interrelationships among these different types of issues.
- Recognize that education can play a key role in empowering people to work for a sustainable future.
- Develop a common understanding of "sustainable development".
- Gain an in depth understanding of the dimensions of the key competency sustainable practices.

The workshop examined enquiry based education and how to include local and global environmental issues; how to incorporate fieldwork into environmental education; and how to develop learning activities that correspond to the enquiry based approach and key competencies.

Teachers explored several **Sandwatch** methods and activities and in particular:

- Climate change and beaches.
- What is a beach?
- Observing and recording.
- Making a sketch map of the beach.
- Creating a photo mural.
- How to address environmental issues through field work.
- Developing learning activities in line with the inquiry approach and the key competencies.

After the workshop, teachers noted they had gained skills relating to planning lessons proposed in the National Curriculum, analyzed their own pedagogical issues, and had gained a much better insight into the reasons why environment education has to be more of inquiry-based approach.

Aminath Mohammed, Ministry of Education



Teachers from the Maldives observing and recording their beach



The Maldives, being a nation of atolls is especially vulnerable to climate change and sea level rise.



Aminath (far left) explaining the activities to teachers, and (right) a photo mural helps teachers identify problems and issues at the beach.

## Sandwatch Update from Kiribati



Student from William Gower School making a presentation to Sandwatchers in Kiribati.

**Several exciting Sandwatch activities are underway in Kiribati. These include arrangements for a Sandwatch Day; a beach clean-up competition; incorporating Sandwatch into the school curriculum; and presentations on Sandwatch at a Climate Change Education Workshop.**

Plans are well advanced for a Sandwatch Day to be held in May when Sandwatch activities can be highlighted by participating Sandwatch groups throughout South Tarawa. This will also be an opportunity to create awareness about Sandwatch.

A beach clean-up competition will be conducted among Sandwatch groups as part of the Kiribati Green Bag Project, a programme that separates the garden waste so as to reduce the amount of solid waste reaching the landfills.

Teachers are working through the activities in the Sandwatch Manual with their classes. During a Sandwatch coordination meeting on 21st March 2012, students from William Gower School gave presentations on beach observations, erosion and sand mining, and beach composition. (These presentations are available on the Sandwatch website). The Curriculum Development Resource Centre of the Ministry of Education is continuing its revision of the school curriculum. This work is being conducted with technical assistance from AusAID. Work is nearly completed on the revision for Grades 1 and 2. "Looking after our beach" has been integrated into the literacy topic in English teaching for these two grades. Sandwatch activities will be incorporated into other themes for the higher grades, e.g. "Me and my health", "Me and my environment".



Emily, Tiritaake and Melediana at the Climate Change Education Workshop in Kiribati



Kiribati Sandwatch coordinators during their March meeting.

During a **Climate Change Education Workshop**, 24-25 April 2012, sponsored by **UNESCO**, three Sandwatch teachers gave presentations on their Sandwatch activities. The three teachers were Melediana from Junior Secondary School (JSS), Tiritaake and Emily from Moroni High School. They presented the activities that have been carried out with their students. They have been monitoring several activities including beach debris. Emily and Tiritaake also mentioned in their presentation that now they have basic data to keep and to use in the future for comparisons. Melediana explained that every time they do their work, they have to clean the beach again as the rubbish just keeps accumulating. Both schools are keen to continue with Sandwatch.

**Titem Auatabu, ESAT Project, Ministry of Fisheries & Marine Resources Development**

## Sandwatch to be featured at Rio+20

In June, heads of state, world leaders, academics, researchers, NGOs, activists and indigenous groups will gather in Brazil for the Rio+20 United Nations Conference on Sustainable Development.

Two decades after the Rio Earth summit, the first UN conference to address issues relating to development and the environment together, Rio+20 will seek to shape how we can reduce poverty, advance social equity and ensure environmental protection on an ever more crowded planet.

Sandwatch will be represented by Gillian Cambers at a side event on 20<sup>th</sup> June. The side event, **Know our Ocean, Protect our Marine Treasures, Empower Ocean Citizens**, is being organized by UNESCO's Intergovernmental Oceanographic Commission in collaboration with several partners. The side event will feature several prominent speakers including UNESCO's Director-General, Ms. Irina Bokova. The Sandwatch presentation will focus on our global contribution to coastal observations; our focus on linking science education with real-life engagement in coastal conservation and management issues; and our role as an innovative global out-of-the-classroom educational programme through which students come into first-hand contact with the ocean.





## A New School starts Sandwatch in The Gambia



The Bakau New Town Lower Basic School Sandwatch Team poses on Kombo Beach

On the 16th of July 2011, the ASP Net Bakau New Town Lower Basic School embarked on a field trip to historical and other places of educational interest along the Kombo coastal area. The trip comprised 75 members and seven teachers.

The following historical places were visited i.e. Sanimentereng in Brufut and Folonko in Kartong. These are all considered to be sacred by their communities and the Gambia as a whole. In these two places members were briefed on the history and importance of the places by their Custodians.

A visit to Tanji Beach was also conducted. This visit was to brief members on activities to be carried out on Sandwatch.

At Kartong we visited the border end of the country which has one of the main bolongs (Allahein bolong). Other places visited included the Camel Safari in Tanji and the reptile farm in Kartong. Here students had the opportunity to learn a lot about camels which are not common in the Gambia and also about snakes and other reptiles.

Fatoumatta Y. Camara the ASPNet President and Kawsu Daffeh both expressed satisfaction about the trip. Fatoumatta noted "*I can narrate the stories associated to these historical places to my friends and family*" Kawsu on the other hand was very much excited about seeing camels and other reptiles.

**Ebou Sowe, ASPNet Coordinator, Bakau New Town**

### The Sandwatch website logs over 30,000 hits!

Since its creation 6 years ago the Sandwatch website passed its thirty thousandth viewing ...and it seems to be picking up speed as more and more people become aware of the programme. We are making a difference!



The Gambian Sandwatchers taking measurements



## Sandwatch restarts in Mayotte

In December 2011, our school, M'Gombani college, organised a Science Fair. The new **Sandwatch team** prepared a stand in 6 weeks - quite a short time, which in addition to our usual Sandwatch beach monitoring, will feature work on whales and especially on **Blue whales** since we have got quite a few of them coming to Mayotte to give birth to their calves every year.

We have studied whales, their habits, their living, their food, their behaviour, the different kinds of whales. We have made a lot of drawings showing all sorts of whales, not only the humpback whale but also the Blue Whale, The Bowhead Whale, the Fin Whale, the Gray Whale, the Mink Whale, the Narwhal, the Orca or Killer Whale, and the Sperm Whale.

We have learned that a lot of whales are hunted and killed by too many countries, Japan, Norway, Iceland, Feroé islands, so we have written **SHAME ON YOU** posters and made origami whales. We wrote a short message on each whale and we asked each visitor that came to our stand to do the same. So we finished with 296 origami whales and we sent them to all the embassies of the countries hunting whales, in Paris! We've had an idea since, if every Sandwatch team did the same, it would be a support network for the protection of whales and their safeguard. So why not make origami whales or drawings, write messages on them and send them to the hunting countries! It would be a good project.

We have looked for sayings on whales in English and in French and we have made a humpback whale out of old cardboard. We used glue and blue paint. It looks beautiful on the photo (left), doesn't it ?

It's been a lot of work but a lot of fun too and we really enjoyed ourselves.

**Pascale Gabriel, M'Gombani Collège, Mayotte**



The Sandwatchers of M'Gombani college, Mayotte are studying whales as well as their local beach

## Seychelles' Sandwatchers learn about Erosion Issues



Seychelles have been involved in Sandwatch since 2004 and have several active Sandwatch groups.

Like almost all small islands, the Seychelles are facing constant erosion of its coastline from poorly designed coastal developments, loss of coastal vegetation and wetlands and the effects of climate variability and global climate change.

English River Secondary School students in the Seychelles continue their Sandwatch monitoring and investigation. Last term they participated in a public speaking on coastal development organised by Save Our Seas Foundation and won third prize. They obtained a gift voucher (Three return tickets on CatCocos) by Green Islands Foundation.

On 3<sup>rd</sup> February, 2012 students, accompanied by their teacher, Wendy Noel, visited Anse Kerlan in Praslin to evaluate the problems facing the coastal environment and observe different approaches to address these issues.

Coastal areas on Praslin provide examples of different types of coastal management. The students observed houses being undermined by wave action. In one example they spoke to the owner of a house that is severely undermined by erosion and wave action and were shown how they had built a new house behind the original one because the erosion is taking place so quickly. They also observed other coastal areas that have been protected with rock revetments.

Their teacher, Wendy Noel, noted that the fieldwork has enhanced the students' performance and understanding of the lesson topic on coasts. They can better relate the theory part of the lesson to what takes place in real life situations. It has also enhanced their motivation and participation in the class. They now understand clearly the objectives of the topic thus it will improve their performance in the assessment and in the exam.

The study also equips students with different skills, for example data collection, analysis and application. Students are able to compile and analyse the data, interpret the data, and prepare reports, graphs, stories, poems, artwork depicting the results; provide information to government agencies and interested parties where appropriate. The fieldwork has also enhanced the work done during the public speaking on coastal development.

Sandwatch students have also assisted with coastal stabilization at the Anse Marie Louise Coastal Rehabilitation and Road Restoration Project. This project aims at protecting and reinstating a total of 111m of severely eroded dune land. The secondary road here was being undermined by erosion and restricting access for 6 families to their homes. This was causing a lot of inconvenience for the families. The project was seen as an emergency case given the severity of the problem.

The main objective was to protect the dune land from further coastal erosion by placing rock armouring, and three groynes to trap sand and allow for beach accretion. The project also involved backfilling with coral fill and sand.

The project started off on the 14th November 2011 and is nearly completed.

The works have been completed satisfactorily and further to these the area is being rehabilitated by planting coconut plants along the area. So far the groynes are encouraging the accumulation of sand. This is especially the case now with the North West Monsoon, however during the South East Trade Winds we expect removal of sand due to the normal seasonal effects.

The replanting activity is a joint effort by the Environment Department; Lions Club of Paradise Seychelles; Seychelles National Youth Council and Takamaka Primary School.

**Wendy Noel and other Sandwatch Groups**



Students from English River Secondary School observe erosion at Anse Kerlan, Praslin.



The erosion of the old coastal road is all too plain to see.



Seychelles students plant trees to stabilize and secure the new road from erosion

# Sandwatchers around the world!

Sandwatch is a truly global project with schools in more than 50 countries participating



St. Joseph's Girls High School Sandwatchers record the beach width in The Gambia



The Sandwatch Teams of Cape Verde



An aerial view of Coogee Beach, Western Australia that the local Sandwatch Team has adopted



The Sandwatch students of Hope Town, Abaco in the Bahamas

**"The Flagship UNESCO Sandwatch Project is an excellent example of what can be achieved...Sandwatch provides a framework for school children and local communities to work together to critically evaluate the problems facing their beach environments and develop sustainable management solutions. Since its launch in the Caribbean in 2001 which I myself attended, while visiting several islands of the region, Sandwatch has expanded to the Pacific and Indian Oceans, and is now active in around forty nations worldwide, including about 20 SIDS (Small Island Developing States)"**  
**- Excerpt from The Opening Address by Mr Koïchiro Matsuura, Director-General of UNESCO, on the occasion of the International Seminar on Climate Change Education - UNESCO, 27 July 2009, Paris.**



Sandwatchers in the Maldives spend some time learning procedures on the beach



Students in Cape Verde model their Sandwatch tee-shirts



Sandwatchers in Kiribati have a good time on their beach



The new Sandwatchers of Mayotte!



Display stand for Sandwatch in The Bahamas at the UNESCO Climate Change Education Conference



Educators from around the Cape Verde Islands attend a Sandwatch Training Workshop