Sandwatcher



July 2022 - Issue Twenty



The Sandwatcher's 20th Issue!

Sandwatch has passed its 20-year milestone! This significant achievement is thanks to the hundreds of Sandwatch volunteers around the world who have worked to apply this programme to promote:

- Innovative experiential learning
- Environmental stewardship
- Climate change action.

As we enter Sandwatch's third decade and having successfully endured the COVID-19 pandemic years, we have prepared the 20th issue of The Sandwatcher to encourage new and greater efforts in the years ahead.

To inspire the 2022 renaissance of Sandwatch, we thought it would be appropriate to take a moment to look back on some of the many ways Sandwatch provided positive contributions to local communities around the world since its inception. This 20th issue of The Sandwatcher highlights selected stories from the previous issues. These are articles and photos that

show how Sandwatchers around the world made a real difference to their communities and environments. We hope that you will enjoy these stories and will be inspired to continue the Sandwatch story. We would like to make a special mention of the Sandwatch group in *Trinidad and Tobago*, who restarted Sandwatch activities at the end of 2021 and are now actively monitoring their beaches, contributing to the *Beach Records platform* and promoting Sandwatch nationally.

With the support of the Trinidad and Tobago National Commission for UNESCO, the UNESCO Cluster Office for the Caribbean and the Sandwatch Foundation, schools are implementing Sandwatch. One national training workshop has been held and two more training workshops are planned for the second half of 2022. We look forward to hearing about Sandwatch activities in other countries.

Welcome to the 20th Issue of The Sandwatcher! Visit the website at www.sandwatchfoundation.org. The Sandwatch Foundation acknowledges and thanks everyone for their efforts.

Welcome to the (retrospective) 20th edition of The Sandwatcher!

This issue highlights the truly global nature of Sandwatch as it contains articles and photos from Sandwatch teams in 17 countries all over the world, from the **Caribbean, Indian and Pacific Oceans, Africa and Australia**.

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

We have grouped the stories into six main themes - we hope you will enjoy reading:

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Seychelles: Sandwatch students address beach erosion

The Sandwatcher, December 2006. Original article submitted by Betty Benoiton (student), Seychelles

Students at Anse Royale School in the **Seychelles** noticed the beach in front of their school was eroding and decided to investigate. With the help of their teacher, they undertook a research project to understand the causes of the problem and what could be done about it.

"We also found out about the human actions which cause beach erosion these include: the use of heavy machinery on the beach, building on sand dunes, cleaning of river mouths, sand poaching and removal of beach vegetation. Beach erosion is considered as a serious problem for our beautiful country."

- -In Seychelles beaches are greatly affected by erosion both by human and natural causes.
- -The natural causes included wave action, climate change, seasonal tides, as well as rare events such as the December 2004 Asian Tsunami.

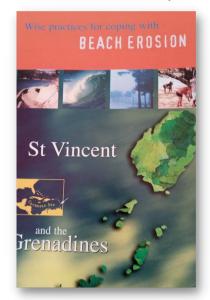


Taking beach measurements in Seychelles

- -The students entered their project in the School Science and Technology Fair.
- -They consulted with the Environmental Engineering Section which conducts a beach profile monitoring programme every three months of the year to measure erosion and accretion.

St. Vincent & the Grenadines: Sandwatch addresses beach mining

The Sandwatcher, February 2007. Originally submitted by Herman Belmar and Marsha Gregg



In 2006 the **Bequia Community High School Sandwatch group** worked with 30 gravel miners, mostly women, of the North Leeward communities to help address the beach erosion at Petit Bordel and Chateaubelair. The miners earn their livelihood by collecting gravel and stone from the beach and selling them to construction companies and individuals. The Sandwatch team consulted with the miners and demonstrated beach monitoring techniques which would provide for the sustainable extraction of beach material. They prepared a proposal to establish a regular monitoring regime and regulate the extraction.

- •Gravel and some larger stones under 20kg in weight are collected every day along the beach of the Richmond and Larikai Bay area.
- •The gravel is bought to the coast by two small rivers flowing down the slope of La Soufriere volcano.
- •The miners make gravel mounds on the beach, 2-8 m3 in size, and sell them to construction companies.
- ·Sand is often mined along with the gravel and the beach has become smaller.

The Sandwatch team demonstrated beach monitoring techniques and showed the miners how this could help them over time harvest the gravel in a sustainable manner. The miners were very receptive to this idea. The next step is to work with government and other partners to regularly monitor the beach so that the mining can be regulated, and then to promote the beach as a tourism attraction and provide an alternative source of income for the community "We believe we could partner with other willing organizations on this project, and help to transform the area and practices of the people into a very sustainable venture".

Dominican Republic: Team uses Sandwatch data to stop illegal jetty construction

The Sandwatcher, July 2009. Original article submitted by Bienvenido Santana Ferreras

Sandwatch monitoring data at Montero Beach in the **Dominican Republic** in 2007-2008 showed a significant increase in turbidity due to the illegal construction of a jetty by a nearby hotel resort. The information was used by the authorities to halt the construction and issue an administrative sanction against the hotel resort, who then had to pay a fine. This is one of the first concrete examples where the data collection and analysis from a Sandwatch group has been used to halt illegal construction in the coastal zone.

Sandwatch students and teachers from Gastón Fernando Deligne School and Sol Ana Nolan School, in the city of San Pedro de Macorís on the south coast of the **Dominican Republic** monitored the beach and water quality at Montero Beach regularly starting in November 2007.

- ·In April 2008 they found a significant increase in the turbidity of the water
- · the turbidity value increased from 40 to 60 ITU
- •The teachers and students submitted their data report to the Under-Secretary of Coastal and Marine Resources of the Environmental and Natural Resources Agency.
- •Their data contributed to the halting of an illegal construction.
- •This example shows how regular monitoring and data analysis can be used to help protect the coastal environment.
- The Dominican Republic had one of the largest and most active Sandwatch groups in the world. During the 2007-2008 academic year more than 800 students from 13 schools located in six provinces monitored 12 different beaches on a regular basis.



Bienvenido Ferreras briefs Sandwatchers at the regional meeting on Abaco, The Bahamas

Mayotte, Indian Ocean: Taking action to address beach litter

The Sandwatcher, June 2007. Original article submitted by College of Koungou Sandwatch Team: Koiheri Anillah, Amina, Moitsoumou, Echati, Souraya, Zouriane, Anfiati, Hadjira, Koudoussia, Zaianti, Rassinia, Maissara, Nouria, Toymina.



The Canny Boy

In December 2006, the **Mayotte Sandwatch Team** took part in the Mayotte Science Fair and created "The Canny Boy" which was made with all the trash collected on the beach of Koungou. The objective was to make people aware and shocked by the litter that is left on beaches. In April 2007 they entered a contest to celebrate "The Green Turtle", sponsored by the Oulanga Na Nyamba Association. Their green turtle was made of recycled materials and they won first prize. Their activities generated a lot of awareness about the need to care for the environment through Sandwatch.

•The "Canny Boy" made with trash from the Koungou Beach in December 2006 and entered in the Mayotte Science Fair attracted many visitors and created interest about Sandwatch. Together with their teacher, Mrs Gabriel, the students were invited by Radio France Outre Mer (RFO) to talk about Sandwatch in a programme called Maisha, "That's life". The "Green Turtle" won them first prize which consisted of visiting Saziley Beach to watch turtles nesting during the night. "We have spoken English, Mrs. Gabriel, our teacher, always insists on this written in English and translated for the Sandwatcher into French, used new technologies and created art objects.

We have also learned a lot of things about our sea, lagoon, beaches, turtles and mangroves and had a lot of fun! We dream of meeting other Sandwatch people from other islands in the Indian Ocean."

The Bahamas: Sandwatch reef doctors care for their coral reef

The Sandwatcher, July 2008. Original article submitted by Natasha Albury, Tiffany Senn, Brittany Sweeting, Aisha LeBrun, Kelly Blanc, Sheena Etienne, Sean Stevenson, James Boyce, Zack Key, Michael Blanc, and Mrs. Candace Key.

Students from Hope Town School, Abaco, **The Bahamas**, have continued to monitor their beach and the small offshore patch reef. They removed a large, abandoned fishing net from the reef a few months ago and continue to monitor the reef, observe changes and remove any debris. They produced a pamphlet for tourists on sustainable practices such as not standing on the coral. Their monitoring showed very few fish species present on the reef and they attributed this to the recent weeks of very rough seas.

- •Students in Grades 5 and 6 call themselves the "Reef Doctors" as they monitor and care for the reef off their adopted beach.
- •They interviewed some tourists who had snorkeled over the reef. The tourists were very pleased to see the students working as eco-stewards.



The Hope Town Reef Doctors

The tourists observed that there were very few fish species present. The students checked the reef themselves and concluded the fish were probably seeking shelter in deeper waters until the waters calm down.

"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 change."

Puerto Rico: Sandwatch applied to conserving the Tres Palmas Marine Reserve

The Sandwatcher, March 2017. Original article submitted by Delmis Alicea Segarra

The Tres Palmas Marine Reserve in Rincon, Puerto Rico functions as an essential habitat for coral reefs, sea turtles, fish, mammals and marine invertebrates. The variety of species and the need for conservation earned Tres Palmas its designation as a reserve in 2014. Its ecological value has made it a location with great educational and research opportunities. Students from the Manuel García Pérez High School started applying **Sandwatch** to monitor Steps Beach, a part of the reserve, and see how it changes over time and promote the conservation of marine resources.

Thanks to the educational efforts, the students have turned into community leaders, and have developed beach cleaning activities, educating the public about marine ecosystems and supporting environmental organizations in the protection of the Reserve's resources."

- -In March, 2016, the Amigos de Tres Palmas (ATP) non-profit organization and the **University of Puerto Rico Sea Grant Program** trained 24 students from the Manuel García Pérez High School in Sandwatch methods.
- -Also, as part of the Sandwatch Project, several scientific research projects are being developed, particularly projects related to water quality.



Measuring beach width in Puerto Rico

- -Arnaldo Cruz, one of the participating students, performed a science fair project measuring water quality in three different parts of the Reserve. His project won first prize at a district level and went on to the next phase within the Mayagüez Region.
- "During 2017, the students will continue monitoring the beach and educating the community about the importance of preserving and using the resources within this Reserve. In this way, they will foster the changes in the attitude in users of this natural treasure such that they and future generations can continue to enjoy it."

Cuba: Children with special needs participate in Sandwatch

The Sandwatcher, June 2007: *original article submitted by Alan Hunter.*

The Dora Alonso School in Havana, which caters for children with autism, took part in the International Community Sandwatch Competition in 2004 - 2005. Eight students with ages ranging from 8 – 18 years partnered with students from Centro Vocacional de Arte Dominica del Amo and Secundaria Básica José Antonio Echeverría in a combined entry.



Alan Hunter & Delia Vera Medina

The entry focused on recording the different types of debris and pollution at the beach and ways to involve the community in maintaining a clean and healthy beach.

As an internet surfer from the UK, I was able to read about this project on your website and in your newsletter, and I was so impressed that together with my wife, Julyan, we felt that we would like to make a small annual donation to the Dora Alonso School and visit the school.

"A colleague we met mentioned that because the autistic children took part in the Sandwatch project, others could clearly see that these children had lots to offer, what a fantastic outcome!"

- -Alan and his wife visited the school in Cuba in 2007 and met with the students and staff as well as the Sandwatch Coordinator, Delia Vera Medina.
- -The schools' entry in the competition won a special effort award.
- -Their entry covered the monitoring of the beach over several months, beach cleaning efforts and a festival that was organized to share their results with the community and promote the idea of keeping the environment clean.
- "Did you imagine that your activities would help put an internet 'surfer' from England in touch with a special school in Cuba?

Brazil, Trinidad & Tobago: Sandwatch international exchange visit

The Sandwatcher, November 2007 and July 2008. Original articles submitted by Degenal Santo and Andy Paul



Sandwatcher Exchange Trinidad & Brazil

Sandwatch leaders from **Brazil** and **Trinidad & Tobago** organized the **First Sandwatch Student Exchange** between their two countries and schools in January – February 2008.

The exchange was spearheaded by the Mayaro Environmental Wave and the UNESCO National Commission for Trinidad & Tobago who hosted the students and their teacher from Alfonso Pena High School, **Santos City, Brazil**. The objective was to share the Sandwatch programme with the students from Brazil and to promote intercultural exchange. "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." Degenal Santo.

- •The exchange took about 6-months to organize and the students from Brazil were also supported by the Prefeitura Municipal of Santos and "English Extreme", an English language school.
- •The students from Brazil were accompanied by a crew from a local TV station, who showed a special programme about the visit and the Sandwatch programme when they returned to Brazil. Now, back in Brazil many more students and schools want to become part of Sandwatch.
- •The students participated in Sandwatch training sessions on the beach and in the classroom and heard about Sandwatch conservation activities. There were also opportunities for the students from Brazil to share their environmental experiences.
- •There were numerous different cultural exchanges, soccer games, visits to some of Trinidad's amazing attractions and Carnival.

"We want to take our kids out of their comfort zone and show them what students from their own age have been doing about their environment in another country. We want students to realize that we all live in the same place – the earth. And that all things are connected. If someone is causing an environment disaster in the other part of the planet, it will affect us all" -Degenal Santo.



The Brazilian Sandwatch Team

Update: Dec 2012 - Trinidad Sandwatchers visit Sandwatchers in UK

WOW! What an experience. Nineteen students, three members of Staff, three members of the Mayaro Environmental Wave (MEW) and four parents started a Global School Partnership (GSP) journey to the Kings Park Primary School (KPPS) of **Bournemouth, UK**. What an experience! Mayaro Government Primary School (Trinidad and Tobago) and Kings Park Primary School (United Kingdom) have partnered on the Sandwatch project as we seek to work together on global themes, develop our curriculums and make our schools more relevant and efficient. Life at these two schools will never be the same again, thanks to Sandwatch.

Mexico: Introducing the Sandwatch ambassador

The Sandwatcher, January 2018. Original article submitted by Guardarenas Mexico

In 2015 the Sandwatch group, **Guardarenas Mexico**, started Sandwatch activities after receiving training from the University of Puerto Rico Sea Grant College Program in Mayaguez. After one year of monitoring the group confirmed their commitment with the four participating schools in **Puerto Escondido** to continue the monitoring for another year and ensure its continuity, and they appointed their first ambassador, the famous surfer, Ángelo Lozano Corzo. "Encouraging students to continue doing research and take action against climate change that is resulting from global warming and generating

awareness among the new generations, about the importance of taking care of beaches and their ecosystems is important for Puerto Escondido and the ecology." -Ángelo Lozano Corzo.

Monitoring is done every Saturday at the beaches in Bacocho and Coral. The group have started a campaign to raise funds for the equipment and maintaining Sandwatch activities. Gabriel Sánchez created a promotional ideo to share on social networks to make Sandwatch sustainable and to motivate people who support us with donations "in kind" and monetary.



The Sandwatch Ambassador, surfer Ángelo Lozano Corzo.

- -Oaxaca and its coast is famous for international tourism, and Guardarenas Mexico hope that donors and companies will identify with the program and adopt it.
- -The team hopes to replicate Sandwatch in other beaches of **Oaxaca**, so far they have had talks with **Pochutla** and the city of **Huatulco**

Cook Islands: Integrating Sandwatch into the school curriculum

The Sandwatcher, June 2006. Original article submitted by Gail Townsend.



Cook Island teachers at Sandwatch workshop

- The Curriculum Advisory Unit in the **Cook Islands** created a short workshop featuring those Sandwatch activities most suited to the environment of their schools. Visits were conducted to each school to trial the activities with teachers. Now, using these materials, teachers are incorporating certain Sandwatch activities into their lesson plan units for the school year.
- "We have found it best just to choose the bits that suit us this means we don't necessarily do all the activities in every unit but just the ones that suit what the students are learning."
- -Teachers have included Sandwatch activities in units on
 - a) landscapes: by looking at erosion and weathering
- **b)** recycling: by looking at the amount & type of litter at the beach
- c) tourism: by seeing how and when the beach is used for different activities
- d) ecosystem studies: by using the mapping, transect and composition activities to find out about the place they are studying
- -Worksheets for some Sandwatch activities have been translated into Cook Islands Maori.
- -Teachers practice activities on the school grounds first, then go to the beach site.
- "The students enjoy studying their own environment rather than reading about someone else's".

Azores: Sandwatch supports school curriculum in Terceira Island

The Sandwatcher, January 2018. Original article submitted by Luis Maciel Silva, Azores

After three years working on the Sandwatch project, the EBI Francisco Ferreira Drummond School, school in the **Azores**, obtained permission from the Portuguese Government to include the Sandwatch project in their curriculum activities for their 7th grade students.

Through weekly staff meetings the Sandwatch project is now shared and discussed widely within the school. "The Sandwatch Manual is very handy and helpful in designing educational activities at the Baía das Mós, a very rich spot both in natural and historical terms." - In 2015 the Sandwatch project was introduced as a project in the school to help the



Sandwatchers of The Azores!

development of civic pride and environmental education and protection, particularly in coastal environments.

- -In 2017, the project continued with a field trip to Baía das Mós and conducted research and activities relating to garbage removal, water temperature measurements and rock sample collection. This was incorporated into different curricular subjects.
- -The students decided to hold an exhibition at school to involve the community in their work.
- -The activities have been recorded on their Sandwatch homepage and they are planning new activities to follow.

Kiribati: Integrating Sandwatch into the primary school curriculum

The Sandwatcher, March 2017. Original article submitted by Curriculum Development Resources Centre, Kiribati.

The vision of the Curriculum Development Resources Centre (CDRC), a part of the **Kiribati Ministry of Education** is "Nurturing our children and young people in Kiribati to become wise and responsible citizens able to adapt to and participate in their changing world."

The curriculum reform started in 2012 and has been completed for years 1 -6.

Angry Waves

When the wind is silent the waves are calm. When the wind blows the waves get angry.

Angry waves break my seawall.

Angry waves take my soulia. What shall I do?

I will plant magroves on the shore and trees on the land to keep away the angry waves.

Angry Waves poster

environmental science and Kiribati community studies. This project was funded by the Australian Agency for International Development and coordinated by the Kiribati Education Improvement Programme.

Sandwatch concepts have recently been incorporated in the curriculum for

Several different materials were produced, some examples include:

- -For year 1 and 2, a Kiribati Reader: Na kanga n taraua au Otanibanin and an English Reader: Playing on the Beach a story about a group of children who couldn't play on the beach because of all the rubbish, so they involved their friends in carefully sorting the different types of rubbish and cleaning up the beach and then keeping it clean.
- -For Year 3 an English Reader: Save our Beach a story about a family who used to play on the beach and one day the beach disappeared. The children worked with their parents to build a small wall and plant mangroves to save their beach.
- -Posters for year 3 and 4: Angry Waves

The focus of all these materials was to provide information about the beach and include ways in which students can enhance and care for their beach.

After the successful reform of the primary school curriculum, the Ministry of Education began to focus on reform for junior and senior secondary school syllabuses. In 2016, they began looking at ways to incorporate Sandwatch activities, which also address the principles of education for sustainable development, at a more advanced level.

San Andres Island, Columbia: More coastal trees, less heat

The Sandwatcher, December 2009. Original article submitted by Lincoln C. Bent, San Andres

In November 2009, 90 students with the support of the **Colombian** authorities planted more than 400 seedlings consisting of Button mangrove, Coco plums, Cordia, Spider lilies and other types of local flora on Spratt Bight Beach and Sound Bay Beach on the north and south shore of **San Andres Island**.

The second stage of the programme will start in early 2010 when the Corporation for the Sustainable Development of San Andres, Old Providence and Santa Catalina (CORALINA), the Secretary of Agriculture and Fishery, and the students will formally invite hotels and shops on the beaches to sign a commitment to take care of the plants and guarantee their survival. They will also teach tourists about the importance of having plants on the beaches and get visitors involved in the initiative. 2010 will be a year of more trees and less heat -"2010 will be a year of more trees and less heat. A wonderful start for Sandwatchers on San Andres Island: protecting the beaches from erosion and tackling global warming."

-90 students from CAJASAI School, Central Baptist School, Liceo del Caribe and Natania School with the assistance of the Colombian Army, Colombian Air Force and the Colombian Civil Defence, planted more than 400 trees over a 2-day period, 20-22 November 2009. Passers-by and local authorities followed their lead and joined the group in the planting. -The reforestation effort was called "More trees, less heat" and was organized by CORALINA with the support of the Office of the Governor, the San Andrés Police Department, the Consultative Commission and Giro Compàs.



San Andres students planted several species of trees around the island's beaches

- -The initiative showed all islanders that we all can and should do something to protect our beaches from erosion and fight global warming.
- "San Andres' Sandwatchers rolled up their sleeves, picked up shovels, sometimes even taller than themselves, and started digging and planting with infectious enthusiasm."

Australia: Sandwatchers explore ocean acidification

The Sandwatcher, June 2013. Original article submitted by Craig Wilson

An important aspect of the Sandwatch program is the implementation of the **M.A.S.T.** methodology and students from South Coogee Primary School, **Perth, Western Australia** were excited to participate in an experiment on ocean acidification. Guided by Activity 6.2 of the Sandwatch Manual, students collected a range of materials from the beach including shells, sand, cuttlebone, limestone rock and granite rock.



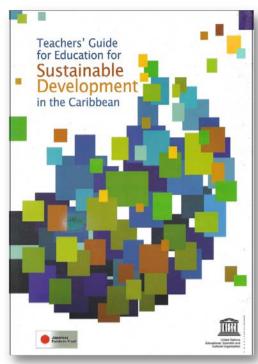
Ocean acidification experiment

- -Vinegar (acetic acid) was added to the samples and the students recorded any reactions.
- -It was evident that all samples containing calcium carbonate reacted with the acid producing bubbles of carbon dioxide gas as the calcium carbonate in the samples dissolved.
- -Students then discussed the effect ocean acidification may have on marine organisms, their local fishery and global food chain.
- -The importance of reducing carbon dioxide emissions was discussed and students then prepared a poster outlining ocean acidification impacts. Perth Region NRM Coastcare Officer, Craig Wilson explained to the students

"that increasing ocean acidification levels from dissolving carbon dioxide in the ocean may affect the ability of animals to produce the calcium carbonate required to build shells or skeletons for animals including crabs, oysters and coral."

After the experiment, students then discussed the effect ocean acidification may have on marine organisms, our local fishery and global food chain. The importance of reducing carbon dioxide emissions was discussed and students then prepared a poster outlining ocean acidification impacts.

Sandwatch features in UNESCO publication on Education for Sustainable Development



The Sandwatcher, December 2008: Original article submitted by Gillian Cambers and Paul Diamond.

In 1987 Gro Bruntland, Norway, made an appeal for sustainable development: "development that meets present needs without compromising the ability of future generations to meet their own needs."

This statement became a top priority in all development and education strategies. This publication, "Teachers Guide for Education for Sustainable Development in the Caribbean", UNESCO 2008, features reflection and discussion of innovative practices that integrate education into sustainable development.

The Sandwatch Project is featured as one of the chapters as an example of an innovative practice.

"Sandwatch takes you places you never dreamed of going and gives you knowledge that will not be acquired on ordinary occasions.

I have been able to impart new ideas into my classroom sessions. Sandwatch is an experience you will never want to forget." - Marsha Gregg, Information Technology teacher, St. Vincent and the Grenadines.

Sandwatch 2014 Photo Competition: A Snapshot in Time

The Sandwatcher, January 2015. Original article compiled by The Sandwatch Foundation

Understanding how beaches change over the years provides important background information as to how beaches might change in the future as a result of man-made changes, climate change and climate variability. Photographs of beaches and coasts are an important tool that can provide useful information about past changes. Twenty Sandwatch groups from around the world submitted amazing entries to the **Sandwatch 2014 Photo Competition: "A Snapshot in Time - Beaches Past and Present"**.

The entries showed how beaches have changed over the last 20 years and even more importantly, the entries show how Sandwatchers, coastal residents and many others too, care about their beaches.

"One day this summer (2014) I visited Caña Gorda beach with 14 people from my family, my grandmother, my uncles, cousins and others. That day I swam, kayaked, played with the sand, walked over the rocks, took a boat ride and had fun. I love going to mybeach and wish to continue enjoying and conserving the natural resources of my island." Entry from Escuela Jose Rodriguez de Soto, Puerto Rico."

- -Entries were received from nine countries: **Bahamas, Colombia, Cuba, Indonesia, Kiribati, Puerto Rico, Turks and Caicos Islands, and Vietnam.**
- -Two schools tied for first place in the primary school age group: Escuela Primaria Ormani Arenado, **Cuba** and Escuela José Rodriguez de Soto, **Puerto Rico**
- -Two schools/groups tied for first place in the older age group: **Indonesian** Green Action Forum Youth group, Bequia Community High School, **St. Vincent & the Grenadines**.

Most significant change stories from Sandwatch

The Sandwatcher, January 2018. Original article submitted by The Sandwatch Foundation

During 2017 the Sandwatch Foundation evaluated Sandwatch achievements using **"The Most Significant Change Method".** This involved the collection of stories of significant change from the Sandwatchers about "who did what?"; "when?"; "where?", "why" and how is the story important. Ten countries submitted stories and these are all available on the Sandwatch Foundation's website



The Cape Verde Sandwatch group focused on environmental protection

-Ten stories were received from Australia, Bahamas, Cape Verde, Cuba, Kiribati, Madeira, Puerto Rico, St. Vincent and the Grenadines, Trinidad and Tobago.

-Sandwatch had inspired students to embark on environmental studies during their tertiary studies and had shaped their career paths: "I hope to have my own school, with my own educational system, in which I'll foster education through projects like Sandwatch, in which children learn by having the most direct contact possible with nature" -Nayrobie Lee Rivera Estévez, Puerto Rico. Other stories pointed to the outreach achieved by Sandwatch, involving communities, local authorities and private companies:

"We have been contacted by other hotel and resorts in Madeira to develop similar initiatives, such as the World Environment Day Commemoration." Cristina Freire, Madeira. -Stories highlighted how Sandwatch had instilled a sense of civic pride and environmental stewardship: "Students no longer take life in and around their beaches for granted; keeping it clean is viewed not only necessary but vital to ensure continuity.

The Sandwatch program allowed students to take a national pride in the upkeep of beaches." -Michelle Williams-Stowe, St. Vincent and the Grenadines,

Sandwatch manuals and videos available online

The Sandwatcher, December 2013. Original article submitted by The Sandwatch Foundation

The Sandwatch training videos were prepared between 2012 and 2013, with the support of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Government of **Denmark** and the University of **Puerto Rico - Sea Grant College Program** (UPR-SGCP).

The communications team at UPR-SGCP filmed, produced and edited 17 videos with editorial input from the Sandwatch Foundation and UNESCO. Each five minute video relates to a particular chapter in the Sandwatch Manual and is available in **English** and **Spanish** on the Sandwatch webstie.

In addition the Sandwatch Manual: Adapting to Climate Change and Educating for Sustainable Development are available in **four (4)** languages, **English, French, Spanish and Portuguese** on our website.



Check out the English and Spanish training videos on the Sandwatch website

Sandwatch was recognized in 2014, at the end of the United Nations Decade on Education for Sustainable Development (E.S.D.) as one of the 25 most successful projects from around the world.

The Sandwatch photo gallary

Some of the best photographs from Sandwatch teams around the world!



Regional Sandwatch Workshop, The Bahamas



The Seychelles Regional Workshop



Mangrove planting in Kiribati



Sandwatchers in the Dominican Republic



St. Vincent & the Grenadines



Cook Islands Sandwatchers



Sandwatch Indonesia



Measuring sand sizes, Kiribati



Sandwatchers planting dunes in W. Australia



Testing water quality in Guyana



Sandwatch Teachers of Grenada



Dominican Republic Sandwatchers measuring longshore currents with dye