

THE EAG_{ER}

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Camp GROW 2013— Huge Success

A 2-week summer day camp for 8- to 11-year olds, organized by the EAG and the Gilbert Agricultural and Rural Development Center, Camp GROW was first started in 2011 by our two Peace Corps volunteers. GROW = Gaining Respect for the Outdoors and our World.

Camp Activities

Led by teachers and younger assistants, whose training includes first aid, campers were divided into Hawksbill, Racer, Barracuda and Pelican houses. In-house activities included sea turtle talk, all things bees, art & craft, composting, gardening, birding and journaling. Field trip destinations were Alvin Christian's Farm, Great Bird Island, Tilagro Fish Farm and Themba BioFuels.

Q: When is the next Camp GROW?

A: 11th - 22nd August, 2014

Q: Who helped us make Camp GROW 2013 possible?

A: Diamond sponsors Mill Reef Club and Sandals Foundation. Antigua and Barbuda Defence Force, Antigua Nature Tours, Eastern Caribbean Amalgamated Bank, Horizons Supplies Limited, Mr. Peter Reitz, Premier Beverages, Sugar Ridge Resort, Waterscaping Limited, and West Indies Oil Company Ltd.

"My daughter came home every day excited. She shared many of her experiences with me. I recall I was peeling potatoes and she informed me that the peel needs to go in the compost bin she had started. Great job!"

- Parent



Scenes from Camp GROW 2013

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Natalya Lawrence, OICP Coordinator, engages primary school students with the harmless Antiguan Racer

Making Environmental Science Come Alive – The Floating Classroom

Natalya Lawrence

I was a city girl, not knowing much about the natural richness of the country I was born in, and in my school days, field trips were few and far between. I didn't fare too badly though, but I could have been better. It's so important for children to make relevant, real-life applications to what is learnt inside the classroom, and not only that, but to be aware of our local natural patrimony, appreciating and caring for it. That is exactly what the Floating Classroom does. It brings Science and conservation alive, using familiar examples, in real, current situations.

The Floating Classroom, an initiative by the Offshore Islands Conservation Programme (OICP), takes children into the North East Marine Management Area, a marine protected area established in 2006. The children, teachers, parents and, many times, school bus drivers, observe mangrove ecosystems, sea life, birds, plant life and, reptiles, including the critically endangered Antiguan Racer. It's amazing to share so many first-time experiences with eager children, from being on a boat, to being in the mangroves, to learning to use a pair of binoculars, to holding a Racer Snake.

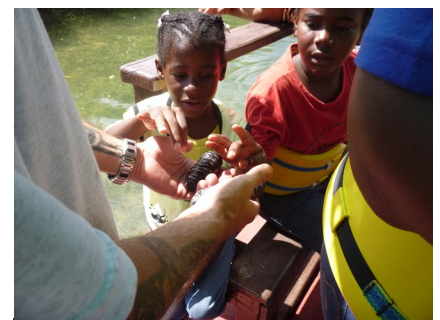
The teaching component is so important. Teaching children not to litter is one thing, but to go out, see the litter, and see how it affects the wildlife, and by extension, our own life is another thing. When you observe the children finally grasping a concept, you know you have accomplished something. A child who does not often interact with wildlife will find it more difficult to appreciate how detrimental a plastic bag, quickly blown from his hand, can be. On the contrary, a child on a Floating Classroom may spot a turtle, and may have learnt that turtles love jelly-fish, and can then understand the connection between plastic in the water resembling "turtle-food". He'll think twice before letting that plastic bag go again, for he wants to go on another boat ride, possibly with a friend or his parents, and he wants to show them a turtle like the one he spotted on his class trip.

Over the years, the EAG has taken thousands of children to the offshore islands, and I have often been told by attending students that it was the best field trip ever! Doubtless they couldn't wait to get back to the mainland to 'spill the beans' about the exciting trip and all that they learnt to their friends and family.

Normally a presentation is given before the field trip is done. Too many times when I ask the children about the importance of safeguarding our biodiversity, they respond saying 'because of the tourists who come to see it'. That's true, but at the end of the Floating Classroom when I ask the same question, one can observe the changing of mind-sets when they respond by saying things such as, "It's ours, and we need to enjoy and take care of it" or, "It has to be taken care of so that those who come behind us may experience it as well".

The Floating Classroom is presently made possible through funding from the Critical Ecosystem Partnership Fund, the Disney Worldwide Conservation Fund and the two tour operator companies who host the trips at a subsidised cost: Antigua Nature Tours, and Paddles Kayak Adventure.

The EAG is proud of the Floating Classroom Initiative, as it promotes the OICP's vision in the hearts of our future leaders: Healthy, functioning coastal ecosystems that are sustainably managed for the conservation of native wildlife and for the benefit of local people.



Curious children from Freetown Primary get up close to marine life (sea cucumber) in the North Sound

PM visits GBI to discuss eco-tourism

As part of a project aimed at exploring Antigua and Barbuda's avi-tourism potential, the EAG hosted Antigua and Barbuda's Prime Minister, Baldwin Spencer, and Minister responsible for the Environment, Hilson Baptiste, on a trip to Great Bird Island in September 2013.

Both the Prime Minister and Minister Baptiste revealed their pleasure at the opportunity to experience the tour through the marine protected area and expressed support for the EAG's and its partners' efforts to protect the area's biodiversity.

The project was sponsored by Finland's Ministry of Foreign Affairs, with support of former Ambassador Mikko Pyhälä. Assistance for this trip was provided by the Critical Ecosystem Partnership Fund.



Andrea Otto, EAG volunteer, introduces PM Dr. Baldwin Spencer to the Antiguan Racer snake



Participants in the birding tourism workshop consisted of government representatives, including from Barbuda, private tour operators, students, teachers and visiting consultants. Photo courtesy Ted Lee Eubanks.

Birding—new tourism component

Another aspect has been added to the EAG's regular bird conservation efforts: putting this rich resource to work for the development of our tourism-dominated economy. In early 2012 at the Christian Valley Agricultural Station, a new trail for bird-watching, which the EAG developed through a project funded by Finland's Foreign Affairs Ministry, was opened. A follow-up 2013 project assessed the potential contribution by bird tourism to our national tourism product.

Ted Eubanks of Fermata Inc. was engaged as a consultant to carry out this assessment and to report his findings at a workshop that would bring together representatives of various parts of the tourism sector. This 2-day workshop, with 50 persons in attendance, was held at the Hospitality Training Institute. Attendees were treated to some very thought-provoking presentations by Ted, whose interests do not stop with birds but spread over many aspects of history, culture and the environment - all of which he suggests are resources that we should be turning to as we plan to diversify our tourism sector and make it more sustainable and adapted to a future where climate change will make traditional emphasis on sun, sea and sand less appropriate.

Ted provided some figures indicating that the total money spent by American wildlife watchers on travel (17.1B US\$) exceeded the total direct contribution of the entire Caribbean travel and tourism industry in 2011 (\$15.1 billion). While admitting that the Caribbean cannot compete with South America in terms of numbers of bird species, Ted thinks it has a competitive advantage in the numbers of national and regional endemics – that is birds that cannot be seen anywhere else.

Other presenters dealt with other aspects of birding and ecotourism. Joseph Prosper related his experiences as a bird guide in Antigua over the last few years, while Graham White, of the Asa Wright Nature Centre in Trinidad, described the status of birding in Trinidad, renowned for its rich bird life. Cortwright Marshal, Director of Tourism, outlined his Ministry's approach to developing ecotourism and Holly Robertson, described the Caribbean Birding Trail, which is now under development as a project of BirdsCaribbean.

The discussions were very lively and it was evident that many participants were very excited by the ideas raised. There seemed to be considerable interest to see bird tourism play a more significant role in our tourism product, which is good, since there are many hurdles to cross before that can become a reality.



Pityrogramma chrysophylla var. *gabrielae* on Barbuda

Antigua & Barbuda Ferns Bounce Back After Centuries of Sharp Decline

Kevel Lindsay

Antigua and Barbuda is seeing a resurgence of its fern flora. Antigua, after it was settled by the British in 1632, was almost completely deforested in an effort to pave the way for the establishment of large fields for agriculture. About 100 years or so after European settlement, much of the island had been reduced to tiny fragments and patches of woodland, and large tracts of open fields, mainly dominated by sugar cane cultivation.

In 2007, the EAG began work on surveying and assessing the country's native and naturalised plants. This effort continued until 2009 and culminated in the publication of *The Wild Plants of Antigua and Barbuda*, yet again increasing the number of [recorded] fern species, [from] 45 to about 54.

In 2010, work began on a field assessment of the ferns of all three islands [Antigua, Barbuda, Redonda], and this work continues today. By the end of 2013, my field work determined that the country has at least 109 species. Some of the increase is due to taxonomic revisions and splits, the recognition of many hybrids, and because of several introduced species, but most were new records, such as the delicate and beautiful *Adiantum fragile* var. *rigidulum*.

Field studies continue, and new species are likely to turn up. But it is now necessary to develop effective ways to protect suitable habitats and ensure that these species maintain sustainable populations.

The EAG's field study of the ferns of Antigua, Barbuda and Redonda is generously funded by the Rufford Small Grants for Nature Conservation...and the Mohamed bin Zayed Species Conservation Fund. The study has resulted in the production of a Regional Red List of Ferns for Antigua and Barbuda, and a Conservation Perspective, both researched and authored by myself, and which can be freely downloaded from the EAG...website.

It has been a life-long dream of mine to experience [the islands'] unique wild fern flora, and I have been granted a most rewarding opportunity to study the...ferns—and it is wonderful to witness this natural event unfold, as a once ravaged part of our natural heritage slowly returns.

As a boy running the open pastures of Jonas Road...I would spend hours exploring the ghauts, mesmerized by the ferns cascading from the Date Trees (Phoenix spp.) and the thick fern groves along the banks of springs.

It was a perfect time and place for a young and impressionable mind...for the imagination to run wild. I loved ferns and always sought them out. I promised myself that one day I would know all I could about the ferns of Antigua.



Kevel Lindsay atop Saddle Hill of the Sleeping Indian

Caribbean Waterbird Census

Spearheaded by the Society for the Conservation and Study of Caribbean Birds (now BirdsCaribbean), the goal of the Caribbean Waterbird Census (CWC) is to increase support for and active conservation of these birds and their habitat through scientific monitoring.

Through funding from BirdsCaribbean and led by long-standing EAG volunteer Andrea Otto, our CWC activities included field training sessions and a number of awareness-raising activities.

Sites surveyed included McKinnon's Pond, Potworks Dam, Christian Cove, Darkwood Swamp, Pelican Isle/Johnson's Point swamp, Nevis Street Pier, and Collin's Dam.

Notably, over 200 Ruddy Ducks and several Lesser Black-backed Gulls were observed at McKinnon's Pond while Ring-necked Ducks were seen at Collin's, all never before recorded by the CWC in these numbers. Additionally, the Nevis Street wetland had a thriving egret colony with over 200 birds that included Cattle, Snowy, Great, and even Little egrets.



Students from Green Bay Primary engaging in citizen science. Photo courtesy Kendra Thomas. Inset: LandBirds of Antigua & Barbuda card, produced by the SCSCB.

BirdSleuth Caribbean

BirdSleuth, a programme developed by the Cornell Lab of Ornithology, seeks to advance bird education among students by providing avenues for citizen science. Students are encouraged to investigate and record observations including bird habitats, identification, diversity, and feeding habits, and to develop relevant conservation activities. But, firstly, educators must be trained in how best to develop scientific enquiry-based attitudes in their students.

BirdSleuth Caribbean seeks to bring this programme to our region. The original programme has been modified through a collaborative effort between Cornell Lab of Ornithology, Caribbean birders and educators, and BirdsCaribbean (formerly the Society for the Conservation and Study of Caribbean Birds [SCSCB]) who spearheaded the funding proposal.

The BirdSleuth Caribbean 2-year pilot project comprises Antigua & Barbuda, the Bahamas and Jamaica. A regional train-the-trainers workshop was held in the Bahamas in late 2012 at which Joycelyn James, Andrea Otto and Kendra Thomas represented the EAG.

In 2013, with full support from the Ministry of Education, these teachers executed a wider training programme to which teachers from each school Zone, from both public and private schools, were invited. A representative from the Environment Division also attended. Content included bird biology, bird identification, migration obstacles, and use of binoculars and spotting scopes. Follow-up training in bird identification was made available to the participants.

Since then, having been provided a draft curriculum, teachers have been implementing a number of activities with their students.

The BirdSleuth Caribbean pilot project wraps up in summer of 2014. The EAG hopes that this experiential learning will indeed foster many more citizen scientists amongst teachers and students who will promote bird conservation in both Antigua and Barbuda. Funding for this project is provided by the Wildlife Without Borders programme of US Fish & Wildlife with contributions from the various BirdsCaribbean partners in the participating islands and the Cornell Lab of Ornithology.



Ginny Field with her grade 2 students at Cedar Grove Primary

Eco-Story Time

The Eco-Story Time project was spearheaded in 2011 by Jennifer Davis, US Peace Corps Volunteer to help improve literacy while educating students about the environment. Mrs. Virginia (Ginny) Field has since continued the programme with grade 2 and grade 3 students at the Cedar Grove Primary School.

In lessons that range from reading and discussion to tree-planting, about 45 students have been exposed to topics that include land degradation due to free-roaming goats, coral reefs, recycling, bees and effects of changes in their populations, shark finning, whale migration and whaling, sea turtles, birds and our often-ignored third island of Redonda.

Tree Planting for Arbour Month

For Antigua and Barbuda's Arbour Month in November 2013, Ginny supervised planting by her students of mahogany, almond, mango, guava and crouton trees in the school yard. They were assisted by Mrs. Nicholas and some of her grade 6 students. These trees were generously provided by the Forestry Unit with kind assistance from the nursery manager Mr. Janeil Simon.

Feedback

Thus far, feedback from students and teachers has been positive. In particular, teachers appreciate the integration with their science classes—topics already covered are shown to be key factors that affect the environment.

Ginny was invited to the school's graduation ceremony in December where she was awarded a gift of appreciation for volunteering her time to teach their grade 2 and grade 3 students about environmental issues. She was "very surprised and honoured" and stands as a true asset to help promote sound environmental education in Antigua & Barbuda.

If you would like to volunteer at another school in Antigua & Barbuda to help educate our youth about various environmental issues, contact the EAG's programme coordinator at eagantigua@gmail.com or call us at 462-6236 for more information.



Sea Turtles

Each sea turtle nesting season in Antigua is different from previous ones. There was an increase in nests on one of the biggest offshore nesting sites in Antigua, Long Island, major hawksbill nesting site that has been part of a [non-EAG] research project since 1987.

From May to November, 72 turtles were seen on the beach. The number of recorded nests increased this year [over 2012], from 250 to 272.

There were 17 neophytes (first-time nesters) in 2012, and 18 in 2013. These newcomers received flipper ID tags so that researchers can track their return and follow them in future years. Nearly 100 EAG guests participated in guided Turtle Watch trips this season.

For more information on sea turtles in Antigua, please visit www.eagantigua.org/page56.html or www.jbhp.org.

To participate in an EAG Turtle Watch in the 2014 season or to report any nesting activity, contact us at eagantigua@gmail.com or 462-6236.



End-of-season turtle tour guests after a Friday night with the hawksbills. October 2013

Antigua Sailing Week

The EAG made its latest foray into helping make one of the premier yachting destinations in the Caribbean a greener one. In particular, mainly through efforts by EAG Director John Esposito, we reached out to the Antigua Sailing Week organising team who responded immediately and enthusiastically.

The EAG facilitated registration by Antigua Sailing Week in the Clean Regattas programme of Sailors for the Sea. This is a certification programme that outlines different levels of voluntary practices designed to improve the environmental standards of the event.

A key player in these efforts was Martin Dudley who continued to spearhead efforts to ensure that recyclable waste was kept out of our landfills. Support came from the Solid Waste Management Authority and Antigua and Barbuda Waste Recycling Corporation.



Clockwise, left to right: Coastal Cleanup at Fanny's Cove, kayaking in North Sound, view of English Harbour from Monk's Hill, atop Signal Hill, Sherwood Dam

2013 Field Trips

Question: what is the best way to get better acquainted with what the Antigua & Barbuda outdoors have to offer? Answer: a monthly EAG field trip.

Led by residents who give you a brief background on the ecology and history of the area while engaging you in heart-healthy physical activity, EAG field trips cater to everyone and have enjoyed rave reviews each time. Whether you prefer a quick-paced hike or like to take it a bit slower, field trip ads include a level of difficulty to help you choose which hike is best for you. And, if you choose a 'difficult' hike but realize along the way that your body disagrees, there will always be someone with you at the back of the pack.

Where did we go/What did we do?

Field trip destinations for 2013 were: star-gazing in Nelson's Dockyard National Park, Ayres Creek, whale watching, birding at McKinnon's Pond, Guiana and Great Bird Islands boat tour, Signal Hill, kayaking in the North Sound, Fanny's Cove, Body Ponds, Sherwood Dam.

The EAG expresses sincere thanks for your support to Adventure Antigua, Paddles and Antigua Nature Tours, our 2013 field trip partners and all long-standing promoters of good environmental stewardship. And, of course, thanks to all those guests who joined us. We hope you learned a lot while having a good time.



White Peacock butterfly (*Anartia jatrophae*) featured for January in the EAG's 2013 calendar. Photo kindly donated by Nick Hollands.

Thanks to our Staff, Volunteers

Serving an organization such as the EAG, which is perpetually in search of resources, is not an easy task but a few fantastic individuals have answered the call.

In 2013, Natalya Lawrence continued in the roll of OICP Coordinator and was joined by a volunteer, Sophia Punnett-Steele. Serving as a part-time Administrative Assistant was Tracy Hodge. Nathan Wilson and Cleo Cooper also temporarily volunteered in this role.

Ginny Field volunteered for our Eco-Story Time effort at Cedar Grove Primary School.

Our web presence is alive mainly through kind volunteer efforts by Chris Pratt (website) and Denise Bevan (Facebook).

Joseph Prosper volunteered for field trips, turtle monitoring and a range of other activities. Sean Lee and Tahambay Smith take the lead with biosecurity monitoring on the offshore islands, that includes vigilance for invasion by alien mammal predators. Andrea Otto continued to volunteer to lead the CWC. Victor Joseph lent his bird-related expertise.

The EAG's 2013 Wildlife of Antigua & Barbuda's Offshore Islands calendar was produced by S. K. Natalya Lawrence, with graphic design expertise from Rachel Hall. The stunning photographs were donated by Nick Hollands, Thomas Aveling, Toby Ross, Dr. Robert Mallin, Chris Clarke, Ambassador Mikko Pyhälä, and Adam Long.

We salute you!

An Award

At the July biennial conference of the Society for the Conservation and Study of Caribbean Birds (SCSCB) in Grenada, Natalya Lawrence was presented with an education award.

This accolade stems from the work that she and her team did over the past 2 years to help educate children and adults about Caribbean birds. A number of activities engaged children in bird-related art and craft, bird identification and more. Birdwatching field trips were hosted for both children and adults.



Natalya Lawrence (left) after receiving her award, pictured with Anthony Levesque (Guadeloupe) and Sheylida Diaz (Puerto Rico) of the SCSCB

2014 Field Trip Destinations

Jan—Crabbs Peninsula

Feb—Barbuda

Mar—Pearn's Point

Apr—Earth Day safari

May—Middle Ground

Jun—Circumnavigation

Jul—Freetown

Aug—Montserrat

Sep—Hanson Bay

Oct—Willocks

Nov—Sleeping Indian

Dec—Star-gazing

2013 Memories



Camp GROW 2013 campers and counsellors. Director, Calesia Thibou, pictured on far right.



Antigua State College cleanup, Jan 2013



Elizabeth Bell dissects black rats during rat eradication workshop



Dr. Janil Gore-Francis, guest speaker at EAG's Annual General Meeting. Giant African snail and lethal yellowing were featured.



A new fern record for Antigua. *Adiantum concinnum* identified above Christian Valley by Kevel Lindsay.



Joseph Prosper (EAG), Holly Robertson (Caribbean Birding Trail), Ted Eubanks (Fermata Inc.) assess eco-tourism potential of Christian Valley Birding Trail

EAG 2013 Board of Directors



Left to right: Back, Tahambay Smith, Ruby Tang-Maginley, Ashton Williams, Nicola Nash, Brian Cooper. Seated, Daryl George (secretary), Karron James-Scholl (president), Bernadette Adams (treasurer), John Esposito (vice-president).

The Board of Directors is elected by the EAG membership. All Directors render voluntary service.

Would you like to become a member?

Joining is easy. Sign up using the membership form on the website or stop by our office for a form. Payment can be made via the telephone using a credit card or at our office.

Individual	\$60	Student	\$90
Family	\$90	School*	\$90
Non-profit*	\$100		
Contact us for corporates rates			

* Limit = 5 persons



Contact Us

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**Environmental
Awareness Group**
Upstairs Museum of
Antigua & Barbuda
P.O. Box 2103
Long Street
St. John's
Antigua

The EAG is a non-profit organisation and the oldest environmental NGO serving Antigua & Barbuda for the past 25 years. Ways you can help us further our work include volunteering your time and skills and monetary donations. Contact us today and help preserve our environment.