

## NEWSLETTER

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Citizen Scientist Project Progress Report, Year's 1 and 2

An initial accomplishment of the Citizen Scientist Project (CSP) was to form a team of sponsors and partners to write and submit a proposal to the Knight Community Information Center (KCIC) of the Knight Foundation. Sponsors and partners included the Key Biscayne Community Foundation (KBCF), the Village of Key Biscayne and the Rosenstiel School of Marine and Atmospheric Science (RSMAS) of the University of Miami. Mrs. Melissa White of the KBCF and Drs. A. Baker and D. Lirman of RSMAS were major contributors to the Knight proposal. Mr. Nate Moyer of Light Made Liquid, LLX developed the graphics for the grant.

The objective of the proposed project was to develop a CSP to educate, encourage and train Key residents on how they can contribute to preserve the nature resources of the Island. The proposal was submitted to the Knight Foundation and was successful. The work began in August 2012. The CSP completed the objectives of the two-year grant awarded by the Knight Foundation on August 31, 2014. The following report provides a summary of the major accomplishments of the CSP during the 2-year grant period. Much of this information is also available on the CSP web portal, <a href="https://www.keyscience.org">www.keyscience.org</a>.



The Key, fortunately, has a wealth of natural resources to study. To develop a tractable program (i.e., one that could be completed in 2-years) an Internet survey of Island residents was developed under the guidance of Dr. Manoj Shivlani. The objective of the survey was to determine which resources residents considered most important and direct the initial work of the CSP at these resources. Over 700 residents provided their opinions on such topics as the most important natural assets of the Key (typically resources they used most), the stressors that affect these assets, and management tools/processes to implement to protect these resources.

Responses are summarized on the CSP website, <a href="www.keyscience.org">www.keyscience.org</a> and were used to establish the initial focus of the CSP. For example, environmental education was voted as the top management tool. Thus, we focused on providing information on the resources, which received the most votes (e.g., beaches and water quality) through lectures, field trips, and a Newsletter. Details describing these activities are included on the CSP portal.

Providing environmental education to the K-12 students of Key Biscayne was adopted as a top priority. The approach adopted by the CSP was to follow the example of the Fairchild Challenge an educational program developed by the Fairchild Tropical Botanic Garden. The Fairchild Challenge is an extremely successful program that promotes environmental awareness among the students of Miami-Dade County through writing, art, technology and science projects taken on by the participants.



The CSP, with considerable assistance from Fairchild Garden, developed a Key Challenge (KC) for students at the 6 schools on Key Biscayne and Virginia Key. Each school had a lead teacher for the Challenge and Mrs. Anne Rothe served as overall coordinator. The KC had 3 components, art, writing and technology. Each component had sub-components such as Collage and Mixed Media in the Art Component for different grades. Each entry had to be related to an environmental feature on the Key. Participating schools selected winners for each sub-component and overall winners were selected from the school winners by volunteer judges. Over 900 students participated in the Key Challenge. The Challenge demonstrates the importance of having committed volunteers (e.g., lead teachers, coordinator, judges, etc.) to achieve successful activities.

Lectures by experts in different fields were used as another method of disseminating environmental information about the Key. Using the results of the Internet Survey we obtained University Professors, managers and field personnel of Key Biscayne parks and Nature Centers and experts in select topics to give talks on the top vote getters in the Survey. For instance, we had lectures on the beaches of the Key, water quality, birds of the Key and parks of the Key. Each lecture provided the audience with an appreciation for the wealth of environmental features we have on "The Island Paradise".

In addition, to lectures we also conducted field-trip type events to give residents a hands-on appreciation for the Key. Again, beginning with school age children, we conducted two fishing clinics in Bill Baggs Park. Over 100 grade school kids participated in these events. They were taught responsible fishing habits with the help of volunteers. These clinics were also made possible through the assistance of volunteers, many from RSMAS.

Other field trip activities for adults as well as youngsters included bicycle and walking tours led by Park Rangers through Bill Baggs. These events provided participants with an appreciation for the many environmental features located in this area. Bird watching beach walks provided Islanders with considerable knowledge about the importance of the Key to both migratory birds that transit the area and those that call the Key home. Volunteers at the Marjory Stoneman Douglas Nature Center, the Key Biscayne Beach and Bill Baggs took part in a global water quality-monitoring event. Data they collected were forwarded to a data center where a global picture of the health of the ocean will be constructed. Participants and volunteers in these events learned about sampling the ocean and the importance of reducing ocean pollution.



The Village of Key Biscayne and the Key Biscayne Community Foundation have continued support of the CSP following the completion of the Knight grant. The CSP will continue

activities described previously to provide residents with the information they need to preserve the resources of the Key and converse knowledgeably with government agency personnel when decisions are made relative to these assets (e.g., dredging in Government Cut, changes to waste water management). Thus, in conclusion, we strongly encourage active participation in CSP activities to ensure we have a Key with natural resources we can continue to take pleasure in.

Contacts for questions:

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### — CITIZEN SCIENTIST EVENTS —



#### 1) Water World Monitoring Day, Saturday, September 20, 2014

World Water Monitoring Challenge $^{\mathbb{M}}$  (WWMC) is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies. This event was conducted at the Biscayne Bay Nature Center, where citizen scientists gathered to collect data. The CSP advertised the event to encourage participation by Island residents at the Nature Center.

## 2) Village & Citizen Scientist Project Conduct Mangrove Cleanup, Saturday, October 18, 2014

The Village of Key Biscayne and the Citizen Scientist Project of the Key Biscayne Community Foundation joined forces on Saturday, October 18th to conduct a cleanup of the mangroves adjacent to the Mashta Flats.

Village Council Member Jim Taintor led the activity. Councilman Taintor was assisted by a group of over 10 Key Biscayne volunteers ranging in age from grade school students to seniors. Particularly encouraging were the several family groups that participated in the cleanup. The group was enthusiastic and cheerful in spite of the muck the mangroves occupy. Trash ranged in size and weight from bottles to a tire attached to it's rim, which took 5 of the volunteers to get out of the mangroves. A non-cleanup portion of the event was the appearance of a small nurse shark, which generated considerable interest among the group.

Hopefully, the word will be spread by participants in this undertaking about future cleanup activities ranging from mangrove to beach activities, and the fact that they are fun events, which keep the Key's resources healthy.

#### 3) Fishing Clinic for Grade School Students, Sunday, November 9, 2014

The Fishing Clinic was held at Bill Baggs Cape Florida State Park on November 9th, 2014 under the direction of Dr. Lisa Krimsky, Sea Grant Extension Agent, University of Florida. In spite of very inclement weather, over 60 grade school students participated. Volunteers obtained by Dr. Krimsky and from the CSP taught the kids about the animals that live in our marine environment. In addition the kids learned proper casting techniques, how to bait their hook, and tie their own fisher's knot. They then used the information to actually fish off the Bill Baggs sea wall. The enthusiasm of Dr. Krimsky and the volunteers led to a very successful event in spite of the fact that few participants left early in spite of pouring rain.



# Ongoing Events

#### **Key Challenge 2015**

The Key Challenge is an islandschool initiative (including Virginia Key's Mast Academy) whose format closely follows the Fairchild Challenge and is directed increasing student's appreciation and knowledge of the island's natural The challenge incorporates three disciplines - art, writing, and technology. These disciplines are further broken down into sub-challenges. The subchallenges are open to either individuals, groups, or both as well as grade levels depending on the type of event.

The Key Challenge opened on

October 27th, 2014 and will end on April 22nd, 2015.

# Future Events

These events are described in detail to ensure volunteers have successful endeavors. If you are interested in participating in one or more of the events, please forward the name of the event along with an email address. As we get closer to the events, we will provide details on dates, times, locations, etc. The variety of tasks to be performed should provide numerous opportunities for volunteers.

#### **Key Biscayne Nature Photo Challenge**

Show us how you view the natural environment of Key Biscayne!

As a part of the Key Challenge, the photography contest is open to all ages. Submit your photos of nature and wildlife (may be terrestrial or underwater) on Key Biscayne, Virginia Key, or the surrounding area.

Submissions for the contest will be accepted from December 1st to December 15th. For more information please visit <a href="http://www.keyscience.org/photo-challenge/">http://www.keyscience.org/photo-challenge/</a>



Key Biscayne Citizen Scientist Project

### — CITIZEN SCIENTIST LECTURES —



# Previous Lectures

#### Thursday, September 11th 2014:

Dr. Andrew Baker, Rosenstiel School of Marine & Atmospheric Science of the University of Miami.

Lecture Topic: Effects of dredging in Government Cut on Coral.

#### Thursday, October 16th 2014:

Anne Akes

Lecture Topic: Sea turtle conservation, turning turtles.

#### Thursday, October 16th 2014:

Dr. Thomas Carsey, Atlantic Oceanographic and Meteorological Laboratory, National Oceanic and Atmospheric Administration

Lecture Topic: Just Beyond the Shore: Observations of Florida's Coastal Ocean.



#### December 11th 2014:

Dr. Marius Robinson. Butterflies

### Contacting the Citizen Scientist Project

The KB CSP welcomes your input and strives to maintain open and clear lines of communication with Key Biscayne residents, visitors and anyone interested in becoming a Citizen Scientist.

Please use any of the following contact information to get in touch with us.

ADDRESS:

50 West Mashta Drive, Suite 3 Key Biscayne, Florida 33149

Phone: (305) 361-2770

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