

## **Portable Knowledge: Creating Educational Activity Boards to Bring Awareness to ‘Behind the Scene’ Creatures**

*Sarah O’Sullivan, University of Rhode Island*

Each year, The Wetlands Institute works with over 12,000 school children and 20,000 visitors, engaging them in educational programs as a supplement to their school learning or general interest. For some of these children and visitors, it is the first time they are visiting and getting to experience all the wonders the marsh has to offer. Living in the dormitories above the Institute, and being able to observe a plethora of groups, I have witnessed that, not only are these visitors eager to learn, they have a passion for what they are being taught. It is more important now, than ever, to educate the younger generation about the environmental issues we face, not only as a community, but as an entire planet.

Since finding time to teach about all the important aspects of our wetlands during a single visit is challenging, my project will keep children and visitors occupied and engaged during program breaks through the creation of interactive activity boards. These portable educational activity boards will be placed around the Institute near specific rest areas such as picnic tables and benches. The five boards include themes such as, Osprey Hunting, I-Spy, Word Search, Marsh Filtration Cartoon, and, finally, a collaborative piece, with Education Intern, Madison Sandquist to bring awareness to climate change. These boards encompass many different aspects of the marsh and will allow students and visitors to continue to gain additional knowledge and build upon the information they received during the other educational program components.

## **Let’s Get Interactive on the Internet! Updating Creature Feature Presentations using Nearpod**

*Reilly McFoy, Lebanon Valley College*

Providing information and educating the general public has successfully taken place here at The Wetlands Institute (TWI) for 50 years. The success of educating the public on wildlife conservation is credited to the many wonderful programs that TWI has to offer. During the summer, the public has two opportunities in the day to attend a Creature Feature presentation. During a Creature Feature, a PowerPoint presentation is used, in conjunction with live animals and artifacts, to introduce the audience to different groups of animals, including turtles, fish, and horseshoe crab, to only name a few.

Due to my background in early childhood education, I have been introduced to a program called Nearpod. Nearpod is a website that allows a presenter to give interactive presentations to their audience. The audience can log into Nearpod using their smart devices and insert a code that will link them to their presentation. Nearpod’s features allow the creator of the presentation to add in activities such as games, polls, drawings, multiple choice questions, and more. On average, young children are able to focus their attention for anywhere between 4 and 20 minutes maximum, making it difficult to keep them interested for the whole 45 minute Creature Feature presentation. Through the use of Nearpod components, my project makes Creature Feature presentations more child friendly, while also keeping it possible to deliver the same important information to adult visitors in the audience.

## **Keeping Up With the Climate: Designing a Science Feature and New Aquarium Exhibits to Educate the Public on Climate Change**

*Madison Sandquist, University of Miami*

A well-known statement reads: “Knowledge is power.” I believe that with power comes the potential for monumental change. The Wetlands Institute educates the public on many diverse topics from local wildlife to global environmental challenges, using a diverse range of programming. One such program,

occurring during the winter months, Science Features are tailored to older children and feature guided presentations, followed by interactive activities related to the Science Feature theme.

Climate change is one of the most challenging and complicated problems this world has ever faced, calling for global action. By creating a climate change Science Feature, the public can learn what climate change is, why it is happening, and what can they do to minimize their carbon footprint. To appeal to younger children, the Science Feature will include various live animals to exhibit the direct effects of climate change on wildlife. Additionally, fellow Education Intern, Sarah O'Sullivan and I will create an interactive board game where children will learn to make environmentally friendly choices that directly affect climate change. Lastly, I will add a 3-panel informative poster series related to climate change and an exhibit to the aquarium that displays a consequence of climate change: coral bleaching. The coral bleaching exhibit allows people to compare living coral to bleached coral, emphasizing the realities of the problem at hand. Through the combination of these programs and exhibits, I hope to educate the public on climate change and to inspire a change in their lifestyles.

### **Getting Lit: Ultraviolet Induced Fluorescence in Saltmarsh Biota**

*Brandon Henry, Stockton University*

Ultraviolet (UV) induced fluorescence is an ancient trait in lifeforms, but still very unknown and shrouded to humans. Integrating this concept into The Wetlands Institute's A Night at the Aquarium program will introduce visitors to this fascinating topic. Currently, A Night at the Aquarium consists of bringing live animals for behind-the-scenes into the public space to allow visitors to engage directly with animals not commonly found on display or in the aquarium teaching and touch tank.

For my project, I will enhance this program by including a short presentation on UV induced fluorescence to briefly introduce and familiarize audiences to the topic. Then in the aquarium, animals on display as well as others brought from behind the scenes, will be set up. Visitors will be given laminated sheets with non-toxic markers that feature a bingo-like arrangement of animals. Lights will be turned off and visitors will be handed 365 nanometer UV lights and safety goggles. Following a brief safety talk stating that UV light of this sort is harmless in brief doses, should be used carefully, not shined at eyes, and only in short bursts for aquarium animals, visitors can go about shining the lights at different animals, and checking off whether they glowed or not, how intense the glow was, and what part of the animal glowed. By the conclusion of this activity, visitors can be left well-informed and mesmerized by this incredible natural phenomena.