



## **Teens 4 Tampa Bay: Empowering Youth to Save the Estuary**

During the 2013/14 program year, funding from The Tampa Bay Estuary Program allowed teen volunteers at the Zoo to form the "Teens 4 Tampa Bay" Program. Through this exciting program, both new and experienced teen volunteers worked together to put their skills and knowledge into action, by developing projects aimed at educating the public about important conservation issues facing the Tampa Bay area.

An enthusiastic group of 25 young volunteers gave 300 hours of their time after school and on weekends during the 2014 school year to help the Zoo raise public awareness about environmental threats to the water and wildlife of Tampa Bay. With a generous grant from the Tampa Bay Estuary Program, the Teens4TampaBay group researched topics and designed hands-on activities to educate Zoo visitors about what they can do to help.

### **Storm Run-off and Florida Friendly Gardening**

In order to illustrate that everything we put on our lawns and gardens eventually makes its way into our waterways, we created a simple, interactive storm run-off model out of materials that are easily available. We started with a paint tray, because of its sloped design. We used a miniature house and artificial grass to represent a typical yard at the top of the tray and glued glass stones (the type used in fish bowls) down the tray to the bottom area, which represents the bay. Next, we filled a shaker with colored sand to represent fertilizer, and asked Zoo visitors to shake it onto the lawn area. Then, we "made it rain" by using a second shaker to add water to the lawn, and watched as the water carried the excess colored sand from the lawn area down the stones and into the bay. This simple demonstration was a great starting point for having discussions about how nitrogen from fertilizer makes its way from our front yard into the estuary, as well as other substances like oil from our driveways or even dog poop! We wanted to create something that was simple enough for kids to go home and build themselves, so they can teach others about storm run-off.--Samantha



We also used recycled items along with some craft store purchases to create a model of a Florida Friendly garden, to illustrate how to conserve water in home gardens and flower beds. Our model included a rain barrel to irrigate our garden while conserving water, flower beds with native plants that require less water to grow, and natural items like pine straw used as mulch to help hold in moisture and prevent soil erosion.

Remember that whatever you put on your lawn or garden can end up in the Bay. Nitrogen and phosphorus from fertilizers can cause harmful algae blooms like red tide that lower oxygen levels in local waterways. Be careful when choosing fertilizer and pesticides. Avoid using fertilizers during the summer months when we experience more rain, and never over-fertilize! Avoid cutting your grass too short, and always clean up after your pet! Also, be sure to properly dispose of oil and other substances instead of letting them flow into gutters. Using a paint tray, a couple of shakers and some simple decorations from the craft aisle or pet store, you can create your own storm run-off model!

### **Litter and Wildlife**

*What we did:*

When we learned just how damaging different kinds of trash can be to animals, we knew that we wanted to help get the message out to others, but we also wanted to find a way to make cleaning up trash seem fun. We created our own mini-beach by filling a large container with beach sand. We then gathered objects that represented the kinds of things that might be left on the beach and have the potential to harm wildlife – plastic



bags, plastic rings from soda bottles, etc. and buried them in the sand. To make the activity into more of a game, we also hid items that do belong on the beach (shells, starfish, etc.). We invited children to dig in the sand to find items, then decide if the item they found should go into the recycling bin or needed to be returned to the beach. This allowed us to have conversations with kids about how plastics and other forms of trash can hurt turtles, sea birds and other animals.

*What you can do:*

First, when you are at the beach, the park or anywhere outdoors, be sure to clean up after yourself and dispose of items properly. Not only can litter pose a threat to animals, but so can

abandoned fishing equipment like nets or fishing line. Also, think about what happens to the items that you throw away and where they might end up. Reduce, reuse and recycle whenever possible. Help to protect wildlife and the environment by organizing a beach or shoreline clean-up day!

### **Thinking About the Future**

*What we did:*

In addition to projects that address current conservation issues, we also wanted to encourage people to think about the future. Specifically, we explored the idea of producing food in a more sustainable way. We created a miniature hydroponic farm, in which basil plants grew from a tank of small fish. The plants helped to filter the

water by drawing out nitrates, while the fish helped to fertilize the plants, eliminating the need for soil. Along with this project, we asked young people in the Zoo to think about other ways of growing food that use less resources and have less impact on the environment.

*What you can do:*

Conduct your own experiment in food production by growing plants in different substances, or create your own aquaponic herb garden (some pet stores now sell ready-to-use starter kits with fish and plants). Challenge members of your class or club to come up with new ways to produce food that use less natural resources!

The Teens for Tampa Bay 2014 project was funded by the Tampa Bay Estuary Program.



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