

The following is designed to serve as an example of a story line for the Aquatic Invaders program as it is conducted at The Florida Aquarium, but it can serve as a model for programs throughout the Gulf of Mexico and South Atlantic region. Please take some time to become familiar with species of concern in your region by browsing through the Aquatic Invaders CD-ROM. Feel free to adapt the story to reflect invasive species and pathways of introduction and spread for your area. Also, coastal facilities that focus on marine environments may treat the 'pond' as a harbor or estuary.

EDUCATOR: How many people here today are from [your state]? Do you live here, or visit here because you enjoy the beaches, lakes, streams, rivers or other outside places? If you like being outdoors in [your state], you may be interested to know that these places are changing.

I want to tell you a story, and I'll need the help of some volunteers to help you understand how our outdoor places are changing and what that means to us.

Select 6 volunteers from the audience.

EDUCATOR: Each of our volunteers represents a native species in [your state]. Who can name some native [your state] plants and animals?

Place a blue 'N' around the neck of each volunteer. Introduce them as you place the letters.

EDUCATOR: Each empty chair represents a niche, or home, for our native species. There are six niches and six species. Is everyone familiar with musical chairs? When I begin the music, our volunteers will begin the game. There is no need to rush, because we know there is a niche for everyone.

Make sure to emphasize NO RUNNING or PUSHING. Start track two on Biodiversity & Billy B., the Biodiversity song. Stop the music when you are ready for the volunteers to sit.

EDUCATOR: While our native species get comfortable in their niches, let me tell you about the pond where they live. It is near my house, in the woods out back. It's a beautiful pond where I love to go to swim and fish. (*Point to the banner and talk about the different fishes, dragonflies, and frogs.*) In fact I like fish so much I have a home aquarium. How many of you have a home aquarium?

If you own an aquarium you know how much work it can be to keep it clean and feed the fish. I decided the last time I went on vacation that it was too much trouble to ask someone else to care for my aquarium. I thought it would be a great idea to release my goldfish, and the very cool plants, from my aquarium into the pond out back. That way I could still visit my fish! In [your state], many introduced species thrive because of our climate and plentiful access to fresh and salt water, so I am sure that my pet goldfish will do just fine!

Hold up your 'aquarium' and remove a goldfish and some water plants and set them aside. Ask for two more volunteers from the audience. Introduce the volunteers when they arrive and hang a red 'I' around each of them. Explain that one person represents the introduced goldfish and one repre-

sents the introduced plants. 'T' stands for introduced. Have the six 'N's stand with the two new 'T's and explain there will be another round of musical chairs. There is still the same amount of habitat available, but new species have been introduced. NO PUSHING or RUNNING! Start the music and complete another round.

IF BOTH OF THE VOLUNTEERS WITHOUT A CHAIR ARE AN 'N,' SKIP TO *.

IF ONE OR BOTH OF THE VOLUNTEERS WITHOUT A CHAIR IS AN 'I':

EDUCATOR: It looks like the introduced species didn't find a niche. In reality many of these introduced species reproduce more quickly, can tolerate environmental extremes, and eat many different things. They have an advantage over native species, so we need to give them an advantage in this game. The 'I' gets to go to any 'N' in a chair and take its seat.

*** The 'I' now represents an invasive species, because it is able to take over native habitat after being introduced.** The displaced 'N's can help us see how our pond is beginning to change by each removing a piece of habitat and standing to the side.

Each displaced 'N' removes a section of the banner's top layer, thus exposing a section of the bottom layer to show the habitat has been changed.

Now, I've so enjoyed the free time I have without the burden of caring for my aquarium that I've decided to also release my pet turtle, and the plants I keep with it. The turtle seemed to like Hydrilla a lot, so I added some to its tank. If I put my pet turtle in my pond I know my goldfish will be in good company! It was the cutest little red-eared slider when I bought it a while back. I tell you, it wasn't much bigger than a quarter! But I didn't realize how big it would get, and I don't think I can keep it any longer. Nobody told me that sliders can get as large as a dinner plate!

Select two more volunteers from the audience. Introduce the volunteers when they arrive and hang a red 'T' around each of them. Explain that one person represents the introduced red-eared slider and one represents the Hydrilla. Have the four 'N's and two 'T's stand with the two new 'T's and explain there will be another round of musical chairs. There is still the same amount of habitat available, but new species have been introduced. NO PUSHING or RUNNING! Start the music and complete another round.

EDUCATOR: If there are any 'I's left standing guess what they get to do? Why? (These new introduced species are invasive.) The displaced 'N's can help us see how our pond is changing by each removing a piece of habitat and standing to the side. Hydrilla, in particular, has thrived in many freshwater streams, rivers, and lakes, and clogging many waterways. It costs millions of dollars annually just to remove Hydrilla from Florida waterways. (Adults, much of this is paid for with your tax dollars!!!)

I've got so much free time now I get to go fishing more often. I didn't have much luck in one of the spots I went to, so I took my boat out of the water and tried another spot without rinsing my boat. It looks like I had some water hyacinth stuck to my propeller, but I just didn't have time to do anything about it. I'm sure it's not a big deal, right? It's really pretty, so maybe it would be nice to see it spread to other waterways. You know, I was also disappointed with my bad luck in the last place, I decided to dump out the bait fish I'd caught there- water and all! There were some things in there that looked like eggs, but I couldn't be sure, and I didn't want to touch them.

Select two more volunteers from the audience. Introduce the volunteers when they arrive and hang a red 'T' around each of them. Explain that one person represents the introduced water hyacinth and one represents the water that was dumped... which had eggs from Cuban tree frogs in it! Cuban tree

frogs out-compete our native green tree frogs. In fact, adult Cuban tree frogs can even eat green tree frogs! Have the two 'N's and four 'T's stand with the two new 'T's and explain there will be another round of musical chairs. There is still the same amount of habitat available, but new species have been introduced. NO PUSHING or RUNNING! Start the music and complete another round.

EDUCATOR: If there are any 'I's left standing guess what they get to do? Why? The displaced 'N's can help us see how our pond is changing by each removing a piece of habitat and standing to the side.

I went out to my pond today and noticed it had completely changed.

Why did it change? *Audience responses: YOU introduced new species!*

- *NEVER introduce plants or animals into the wild.*

What could I have done instead of putting my pets and plants into the pond?

Audience responses: They may or may not recognize solutions here and can be prompted to:

- *Check with local pet stores to see if they take unwanted pets.*
- *Put water plants in a plastic bag and freeze, then discard them.*
- *Dispose of unused bait in the garbage.*
- *When possible use native plants and bait so you don't have this problem!*
- *Clean your boat and drain your bilge before moving your boat to a different body of water.*

EDUCATOR: Let's give our volunteers a round of applause and let them take a seat. *(Give volunteers bookmarks and/or stickers as they leave to reward them!)* The introduction of new species to native habitats is a threat to ecosystems worldwide.

No matter where you are from there are things you can do to be part of solving this problem. Please take one of these bookmarks with resources to inform you about introduced species that become invaders in your area. These 'invasive' species not only change the way your backyard wilderness looks, BUT ALSO they can impact your local economy and change your way of life.

Please take a moment to complete the evaluation cards and drop them by the door as you exit.

Thanks for coming – and help spread the word!

THE END