Hydrilla – The Super Alien Plant

(Performance notes for educator: Stumble onto the stage, breathe heavily, and drag one leg as if struggling under a heavy load. Play the part of a scientist who has discovered a truly amazing plant. Be enthusiastic. Talk like all these adaptations are just the coolest things in the whole world!)

I found it! I can't believe that I actually found it! Here it is. It's the perfect aquatic plant. I was down at the lake. I reached my hand in to collect a water sample, and it was right there! It's everywhere! I was so excited, I fell in. Look, I'm completely covered. This is so cool. Just check it out.

This thing grows so fast, you can see it growing.

(aside) Well, if you had some extra time on your hands, you could see it growing.

But an inch a day is really pretty fast for a plant!

And look how thick it is. All this vegetation came from one little spot on the lake. It grows so thick that light can't even get through it. Talk about wiping out your competition! When this plant moves in, other plants and animals move out of the way.

You have to understand that it has everything it needs to survive in the water.

Some aquatic plants are *soooo* picky. Conditions must be *just right* for them to grow. They have to have *stable* water that doesn't move *too* fast that has *just the right* amount of dissolved oxygen and *ideal* lighting. Not this plant – it's truly ready for any challenge.

- It can handle low oxygen levels.
- It doesn't mind a little salt.
- Lots of nutrients or few nutrients – it can handle both. It can even store some nutrients, like phosphorous, and use them later.
- Low light levels? No problem! In fact, this plant starts photosynthesizing earlier in the morning than most pond plants and keeps photosynthesizing later in the day. With all that extra time, it can grow faster, farther, and longer than other plants.
- Slow water, fast water – it doesn't matter. It seems it can even grow *faster* in fast-moving water.
- And, what about pH levels, you ask? It can grow in a wide range from acidic to basic.

(Really start talking fast now. You're on a roll!)

And that's just the beginning. You know how some plants only produce seeds once a year and if something goes wrong, they don't reproduce at all. This plant has the spreading thing down pat. Look at this:

- It has these tubers. Whole new plants can grow from these things. One plant can make thousands of tubers. Tubers can survive for several days out of water. They can survive four years in pond sediment! They can survive freezing temperatures, drought conditions, and herbicide applications. They can even be eaten by ducks and regurgitated! After all that, they can still sprout and turn into new plants!
- It has these little turion things. They're like superbuds. They can form all year, but the ones that form in fall are tough. They survive the winter and grow the next spring.
- Not only that, but it spreads by these underground stems (rhizomes) and aboveground stems (stolons).
- And check this out. If a piece of the plant gets broken off, it can grow a whole new plant. From just one little whorl of leaves! A whole new plant! Is that cool or what!
- And then, it can also reproduce the old-fashioned way with flowers and seeds and stuff. But really, why even bother when it has all these other ways to get around!

You're probably wondering what this marvelous plant is and where it came from. Well, I have the clue right here. See this old plant tag! You've probably seen it in an aquarium somewhere. People have been using these plants in their aquariums for years. You can hardly kill the stuff, so it makes a great aquarium plant!

(tone changes drastically – to an almost defeated tone)

And *that* is exactly where it came from. In the 1950s, this plant was cultured for use in the aquarium trade. It escaped, and the rest is history. In places where hydrilla has become established, it has outcompeted native vegetation, damaged habitat for fish and other wildlife, altered water quality, and interfered with recreational activities such as swimming, boating, fishing, and water skiing. It's going to take everybody to stop the spread of this super plant. Now that you know all about it, do you have any ideas on how to prevent it from entering new waters?