

# You Poured It Where? A Case Study in Invasive Species

by

Nancy M. Boury, Department of Animal Science, Iowa State University

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## Handout

Alex was happy to help his friend Jim move out of his mother's basement. They had met last fall in a "Scuba Diving for the Ultra-Beginner" class. Alex's sister, Sarah, had just received a job offer in New York and Jim was happy to take over her lease so she could pursue her dream of acting on Broadway. Unfortunately, this meant moving. Jim, Alex, and Sarah had just finished putting the futon, dresser, desk, and kitchen table in the truck. They were waiting for Jim's little sister's teacher to claim the fish out of the 55-gallon saltwater aquarium that had been in the corner of Jim's basement room for years. She said the kindergartners would love the addition to her classroom.

"Whew, I'm glad you're tearing this tank down so we don't have to carry it to the truck," Alex sighed as he took a breather and admired the brightly colored fish schooling around the feathery seaweed fronds.

"Ms. Sophichthy is in the driveway," Jim's mother called down the stairs.

"Let's get these bagged up, then." Jim and Alex jumped up and made short work of catching and bagging the fish.

Ms. Sophichthy came downstairs to pick up the box of bagged fish. While she was on the steps, she turned to say "Thank you." Just then a bag fell out of her box and bounced down the stairway. Jim quickly retrieved the rather shaken fish in its bag.

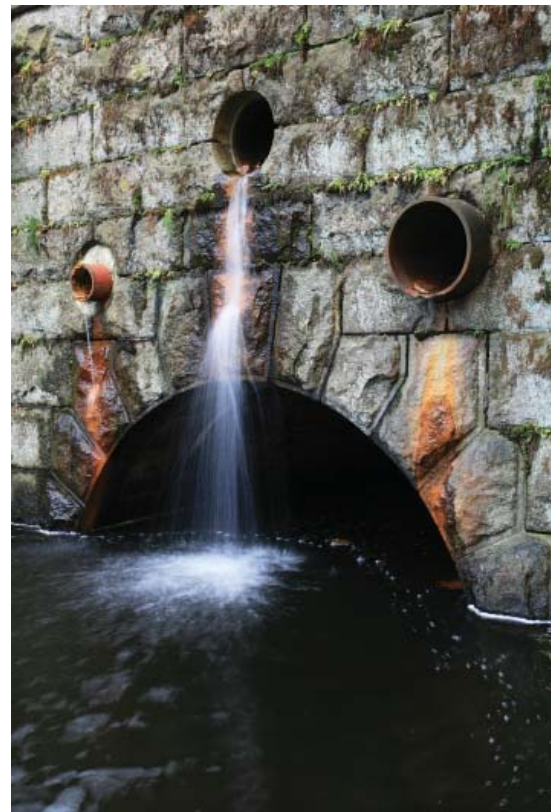
"Let me help you take these to your car," Jim volunteered.

While he was busy with that, Alex got to work draining the tank. It was great that they had a walk-out basement and that the storm drain was right on the corner. That would make it easier. Alex quietly hummed as he dipped a small bucket into the tank, walked out to the curb, and dumped it. He was on his third trip when Jim came back downstairs and yelled "STOP!" Alex nearly dropped the entire bucket of aquarium water onto the new carpet. "What?!" Alex yelled back. He was truly baffled as to what he needed to STOP doing.

"My dad had this tank for 10 years before he gave it to me a few years ago. It has *Caulerpa taxifolia* in it," Jim quickly explained.

"Cauli what? Is it infectious? Does it bite? Should I be wearing protective gear? Where's my Geiger counter?" Alex's fears came rushing out all at once.

Jim took Alex upstairs to his Mom's computer where he printed off a *New York Times* article.\* "My Dad gave me this when he gave me the tank. I've learned more since then and I



just printed a copy for Ms. Sophichthy to read before she decides to add my fish to her aquarium. Why don't you sit down and read this while I take care of the tank?"

While Alex read through the article, Jim got to work, bagging the pretty seaweed and rocks into large garbage bags while Alex read the article. When he was done, all Alex could think was "Oops ... ." He had already taken two buckets of water to the curb.

Jim stopped by Alex's chair on his way up the stairs. "I just bagged the last of the rock and algae. Once I get these in the freezer, do you want to help me dump the aquarium water into the bathtub?" he asked cheerfully.

"Why are you putting garbage bags in the freezer? Isn't it dangerous to put the aquarium water in the tub?" Alex was really confused now.

Jim explained, "The freezer should kill the *Caulerpa* and any small pieces that are on the rocks. Tomorrow I'll stop by and take the trash bag to the curb. We can put the tank water down the drain because the city's waste-water treatment should take care of any small pieces. Just to be sure, though, I think I'll add a cup of bleach to the tub before sending the tank water down the drain. That should take care of any small fragments floating in the water."

Alex was uncharacteristically quiet while he and Jim finished moving the boxes out. All that was running through his head was, "Do I tell him about the two buckets of aquarium water that are on their way to the Pacific as we speak?" He kept silent and left Jim's new apartment after the last box was unloaded. He even missed the pizza that was his payment for an afternoon's labor of moving boxes and furniture up the steep staircase and out to the truck.

"Maybe it's not so bad," Alex rationalized. "I didn't dump the whole tank, after all." By the time he had gotten across town to his own apartment, he was telling himself, "That algae's just a problem in the Mediterranean, it could never happen in the United States."

### *Questions for Discussion*

1. Why are non-native species with invasive traits a threat to local ecosystems?
2. Which of *Caulerpa taxifolia's* traits make it so dangerous to local ecosystems?
3. If you were Alex, would you report the incident to the U.S. Fish and Wildlife Service?

### *Reference (read before coming to class)*

\*Simons, M. "A Delicate Pacific Seaweed is Now a Monster of the Deep." (1997) *New York Times* August 16, 1997.  
<http://www.nytimes.com/1997/08/16/world/a-delicate-pacific-seaweed-is-now-a-monster-of-the-deep.html>  
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