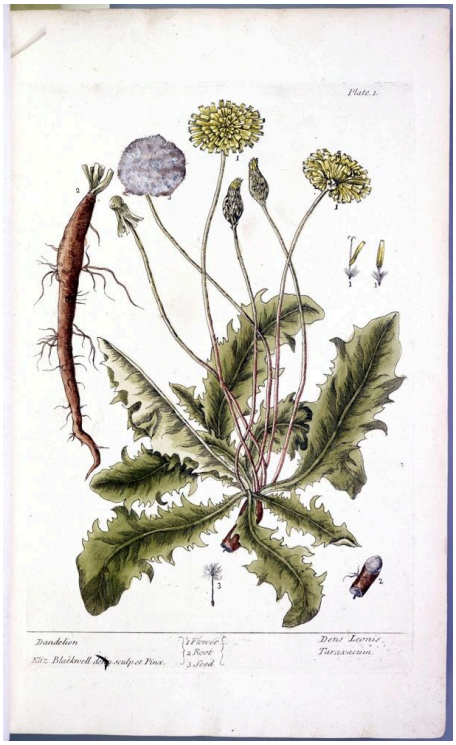
Watch out for the blood-sucking fishes!

AnnMaria De Mars, Ph.D.

“Indigenous” does not just mean Native American !



As you are weeding the garden, pulling up dandelions, Grandma tells you that dandelions are not indigenous to the United States. You are confused because you think indigenous means Native American.

Indigenous means that something (or someone) lives naturally in that region. Dandelions originally came from Europe. Here is a picture of one from London in the 1700s.

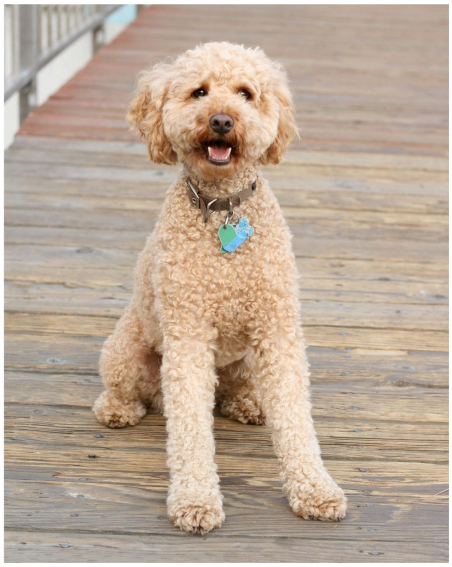
Plants, people or animals that come from somewhere else are NOT indigenous. Some plants or animals are BAD! A plant or animal that is bad for the environment is called an “invasive species.”

This invasive plant, called kudzu, grows over other plants and kills them! You’ll find kudzu in the southern United States.



Kudzu: An invasive species of plant

A species is a group of living things that are similar and can breed – that means can be parents to new living things. (Yes, I went there.) Two different types of dogs are still the same species.





This is a picture of the author and her dog.

The dog on the left, a labradoodle, has one parent who is the dog on the right, a poodle, and the other parent who is a different kind of dog, a Labrador. Still, both parents are the same species, a dog.





These dogs are the same species even if one is much bigger.The girls are a different species from the dogs!

An INVASIVE species is one that is bad for the plants or animals that are indigenous. Kudzu is invasive because it grows over the plants that are already there and kills them! A sea lamprey is invasive because it kills the other fish! See all those teeth? Yes, the sea lamprey latches on to other fish and sucks their blood! Gross!

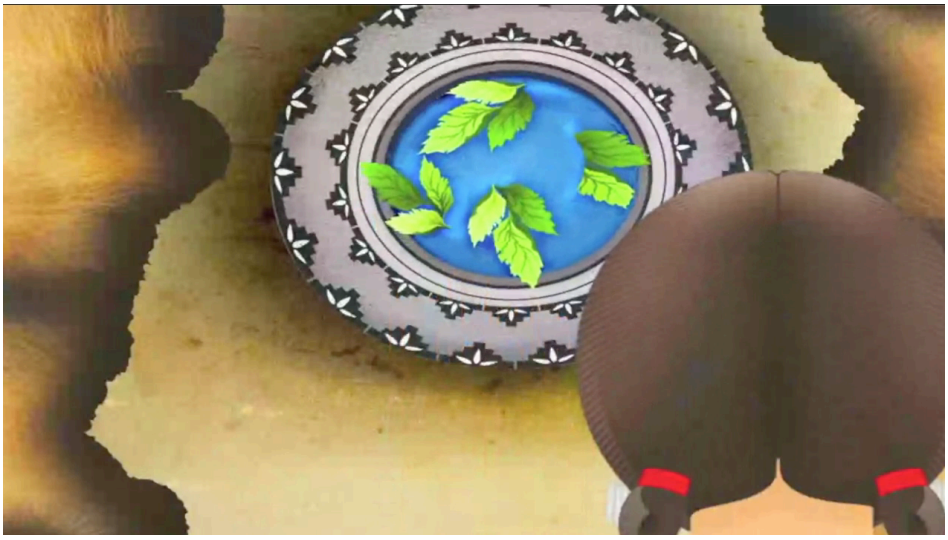


It is not indigenous to the Great Lakes but now it is there and is killing the other fish.

Where and what are the Great Lakes? The Great Lakes are five great, big lakes on the border of the U.S. and Canada. Lake Superior is the biggest. There is also Lake Michigan, Lake Huron, Lake Ontario and Lake Erie.

Indigenous species in games

In the Fish Lake game, all of the species of fish you see are indigenous to the Great Plains states where the Ojibwe lived. All of the plants you see in Making Camp Dakota in the matching herbs game are indigenous to the Great Plains, too.



The Great Plains? Where is that? What is that?

Plains are large areas of land that are mostly flat. The Great Plains of the United States are called that because they take up a lot of space – a great amount! The Great Plains are the whole states of North Dakota, South Dakota, Nebraska, Kansas and Oklahoma. Also, most of Montana, Wyoming, Colorado and Texas.

Insects can be invasive species, too!

This Emerald Ash Borer feeds on the inside of Ash trees. Here is the inside of an Ash tree after the insects have been eating it.



Indigenous people used indigenous plants and animals

Invasive plants, animals and bugs came after indigenous people were already here.

How do invasive species get here?

Some invasive species get here on their own. Fish from one part of the world might swim up a river to get to a lake where they start eating the other fishes, or eating up the food those other fishes need. Insects could be brought into an area in firewood that is brought in from somewhere else.

Sometimes people bring invasive species. This could be by accident or on purpose. Some ships brought rats to islands. When the ship was close to shore, the rats got off and swam to the island. Yes, rats can swim.

Invasive species can multiply really fast!

Brain time!

A female fly can lay up to 500 eggs in her life! HALF of those eggs will be female flies.
How many female flies will there be that can lay more eggs?

Hint: To get the answer, divide 500 by 2.

ANSWER: One female fly could produce 250 more female flies!

Brain time!

Maybe only 10 female flies survive.

If the other 240 eggs were eaten by birds or killed by bug spray and only 10 female flies were left, how many eggs could those 10 flies lay?

ANSWER:

10 x 500 = 5,000

10 female flies could lay 500 eggs each, or 5,000 total eggs.

Things you have learned today

•Indigenous means “native to a place”.

•Plants, animals, people and insects can all be indigenous – or not.

•Something that is not indigenous and causes harm is called an invasive species.

•Indigenous people used indigenous plants and animals because those were already here. Invasive species come later.

•Invasive species come in different ways.

•Invasive species can multiply quickly.