

# World Otter Day: *Otterly Fishy!*



*In this activity, you will explore what it's like to be an otter trying to fish in habitats negatively impacted by humans.*

**Age:** Families with children 7-11 years.

## **Gather your Gear**

- Plastic or glass container
- Rice/sand (mimic a sedimentary riverbeds)
- Beans/marbles/beads (represent fish)
- Small spoon (one per participant)
- Food coloring or soap (represent mercury)
- String/ribbon (represent fishing nets)
- Spatula or cardboard (mimic man-made dam)
- Timer
- Note pad and pencil

**Get Ready** *You can help your child make connections by thinking about concepts before the activity.*

Otters are semi-aquatic carnivores. They spend much of their time between land and water, and eat almost exclusively fish. Otters live in family groups, and each family group has their own territory which they mark and defend. They aren't the only species that rely on aquatic spaces for their livelihoods. They share their territories with humans. Unfortunately, sometimes humans using the same waterways relied upon by the otters don't take very good care of them.

What are some things you think people might do which make it difficult for otters to live in their native territory?

**Do the Activity** *Start by setting up your container, and adding a layer of whichever material you will be using for sediment in the bottom, adding water over top.*

1. Now that you have your otter territory, let's see what it looks like for otters to fish in a healthy waterway, without negative human influences.
2. Using whatever material you have for fish, place some fish in your waterway.
3. Now that you have fish in the water, grab your spoon and "go fishing." Use your timer to see how long it takes you to get all the fish out of the water, and record both your time and the number of fish you caught.
4. Once all the fish are out, discuss what trying to fish was like with the clean river to fish in.
5. Now it's time to look at what fishing might be like in a river that humans have not cared for well. The next few lines will be scenarios, but begin by putting all of your original "fish" back in the water.
6. Locals are beginning to sell fish to earn money. Remove at least five fish from the container, and set them aside. The otters won't have access to those fish when it's time for them to find food.
7. A company has decided to use part of the riverbed for a hydroelectric power plant. Use your spatula or piece of cardboard to block off a section of the river. The otters can't fish in an area that is blocked for use as a power plant. This part of the river will remain unaffected by the other changes.

# World Otter Day: *Otterly Fishy!*



8. A small, illegal gold mining operation has been set up. The miners are using mercury to help mine the gold, and it has leaked into the river. Add some food coloring to the water. The mercury will eventually affect the fish, making them sick. When the otters eat these fish, they also will get sick.
9. Some of the fishermen forgot where all of their nets were cast, and have left some of them behind. Add some string or ribbon to the water. Nets create fishing challenges for otters.
10. Now that the humans are finished for the day, the otters can hunt. Grab your spoon and "go fish." Again, time how long it takes to get all the fish out of the water, and record how many fish you are able to catch.

Did you catch the same number of fish? Were you able to catch them all as quickly as you did before?

**Recap** *Have a conversation about what you saw/did and questions your child may have.*

- What was it like to fish in the dirty water after having fished in clean water?
  - You likely weren't able to catch as many fish the second time as you did the first time. How do you think having fewer fish impacts otter families?
- What do you think the otters do when they start getting sick or having trouble feeding their entire family?
  - Otters are what one might call an environmental indicator. Because they are an apex predator, or at the top of their aquatic food chain, the presence of healthy otter groups lets scientists know that the habitat in which they are found is likely healthy and well-balanced. If otters are absent from a place they used to inhabit, it tells scientists that something is no longer healthy in that habitat, and the food chain is likely out of balance. When an otter's habitat becomes polluted or otherwise unable to support the group, otters will leave to find new territory that can support them and keep them healthy.

**Relate** *Create connections to the idea through activities.*

Knowing that things like pollution, overfishing, and depletion of habitat can have negative impacts on otters, talk with your family about things you can do together to help otters.

You can be conscious consumers of seafood. Using apps like "Seafood Watch" from Monterey Bay Aquarium, and participating in "Meatless Mondays" are great ways to start being more sustainable in your consumption of seafood.

Be energy conscious. Turn off things like lights and fans, unplug electronics when not in use, and follow recommendations for energy-efficient thermostat settings to reduce power usage.

Reduce, reuse, and recycle! Pollution not only clogs up waterways, causing entrapment hazards, but it also leaches toxic chemicals into the environment. By reusing items whenever possible and recycling, we can reduce our waste production, helping maintain healthy ecosystems.

# World Otter Day: *Otterly Fishy!*



## **It takes a team.... join ours**

Help us save species by joining the “Zoo Conservation Corps” and raise awareness about wild animals, their habitats and why conserving both is so important. If your family members are on social media, post to show what you have learned, and use the hashtag #OnlyZooATL so that we can see all your great work!

## **Want to know more...**

- Learn about Zoo Atlanta’s giant otters: <https://zooatlanta.org/animal/giant-otter/>
- Learn more about the Seafood Watch Program with Monterey Bay Aquarium: <https://www.seafoodwatch.org>
- Learn about a conservation organization working to protect giant otters: <https://savethegiants.org/>