

Bog Turtle Habitat Threats Activity

The bog turtle habitat can be made out of 20 (or 16 with a class of 20 or less) pieces of cardstock or laminated paper for repeated use. You can design a habitat or print the one provided. Place the sections of habitat next to each other on the floor (each section is numbered) and keep the housing, roads and invasive plant sections to add during the activity. Have a tub ready to remove the turtles that are stolen for the pet trade. To help keep track of how many turtles die, you can add a border around the habitat in colored paper where turtles that are removed during each scenario can be put.

Cut out the sheet of small turtles and give one to each student (they can add their names if desired so students have a stronger stake in the turtle's survival). About half of the students should have turtles with dots on their backs. Explain that the green areas in the habitat represent wet marshy grass that would provide good habitat for a bog turtle. Bog turtles travel only a few feet each day and can live their whole lives in an area as small as a football field, so can be put close together if the students wish.

Each student should then choose a good place for their bog turtle to live. Emphasize that once their home is chosen, the turtles have to remain in place unless told to move.

Tell the students that these turtles represent all the turtles that lived in Maryland about 30 years ago. Explain that since then the turtles have faced many different threats and we are going to see some of the bad things that have happened to them.

Choose students to read each scenario and add the new sections of housing, roads, pictures of the dog and raccoon or invasive plants directly on top of the turtle habitat. Any turtles that die should be removed from the habitat area. These turtles can be placed around the edge of the habitat to see if they have a chance to return.

Count how many turtles survived. Compare this to the approximately 50% loss of bog turtles in Maryland over the last 30 years.

Have students consider:

- What caused the greatest decline in turtles?
- Should dogs be let off the leash in places where wild animals live?
- How can we help turtles that are trying to cross the road?
- Why might wild animals not make good pets?
- Why are turtles difficult pets to keep? (consider their longevity, carry salmonella, need to clean tank, do not respond to name or show affection)

Are there things students could do to help protect turtles? They can write ideas on the outlines of the bog turtles provided on the follow-up document.

Scenario Cards for Bog Turtle Habitat Threats Activity

1. Meadow Brook Homes

New houses are built with lovely views over the river.

Place the 4 new housing areas over 4 of the habitat areas - the houses must all be next to each other.

Any turtles that lived in these areas die and have to be removed from the bog turtle habitat.

2. Fast Cars

A new road is built to access the new houses.

Place the two road sections on the map so they meet the houses

The turtles that lived in these habitat areas try to cross the road and are hit by cars. Remove these turtles from the bog turtle habitat.

3. Trash and Predators

Trash left out at the new homes attract more raccoons to the area. One family lets their dog run off the leash. The raccoons and dog find turtles that live close to the houses and kill them.

Place the dog and raccoon pictures each in a habitat area next to the houses. Any turtles that live there are killed and have to be removed

4. Invasive Plants

Meadow Brook homeowners have planted lots of flowers and trees in their yards. Unfortunately some of these plants are invasive and their seeds spread into the turtle habitat. Thick bushes grow and shade the ground, stopping the turtles from basking in the sun. Although the flowers of purple loosestrife look pretty, the plants grow so closely that the turtles cannot push through to find food.

Add 3 invasive plant areas on top of the bog turtle habitat.

Any turtles that live in these areas have to move to a habitat next to them

5. Goats to the Rescue

Maryland Department of Natural Resources' scientists work to help bog turtles by restoring their habitat. They bring in goats that eat the invasive plants and make open, muddy areas for the turtles again.

Any turtle with two dots can be added back into the habitat (as new baby turtles)

6. Pet Trade

Bog turtles are so cute that people will buy them as pets even when they have been stolen from the wild. A robber comes to the area to take turtles.

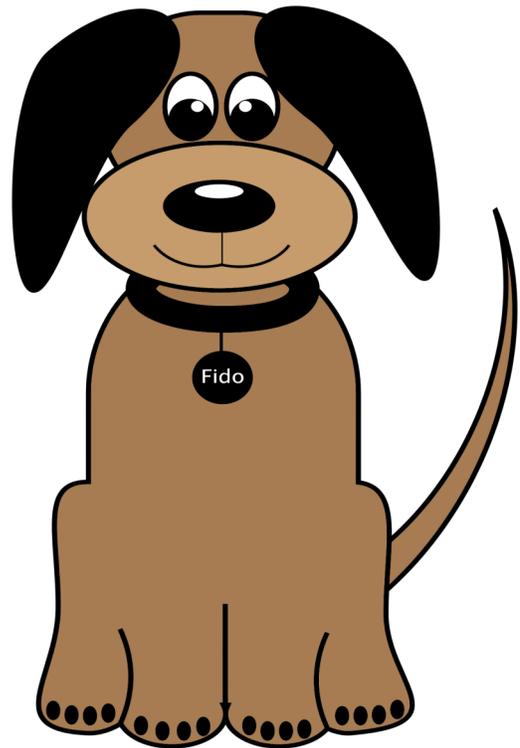
Look for the habitat section with the most turtles. All of the turtles in this section are taken and put in the tank to go to the pet store. Most of the turtles will die in their first year kept as a pet.

How Many Turtles Survived?

What caused the most deaths?

How can we help turtles cross the road? If it is safe to stop, you can pick a turtle up and take it across the road, the way it is trying to go - don't turn them around as they will just try to cross again when you leave.

Should you take animals from the wild as pets?





Turtle Troubles

Threats to Bog Turtles include invasive plants such as purple loosestrife

- Purple loosestrife is native to Europe and Asia
- Each plant can produce over 2 million seeds
- Likes to grow in sunny, freshwater wetlands - the habitat of bog turtles



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Turtle Troubles

Threats to Bog Turtles include invasive plants such as purple loosestrife

- Purple loosestrife can invade wetlands and become the dominant plant
- Bog turtles find it hard to bask and find food in the thick growth
- DNR has used goats to eat the many invasive plants that impact bog turtles but purple loosestrife is also controlled by the release of a European beetle that eats the plant