



MONTANA OUTDOORS MAGAZINE LITERACY PROGRAM EVALUATION

“It’s Not Easy Being Green”

Name: _____

1. Which two tribes call the Flathead Reservation home?

2. Montana is home to _____ native species of salamanders and _____ native species of frogs.

3. How do tadpoles gain energy from the aquatic environment?

4. How do adult frogs transfer this energy to the terrestrial (land) environment?

5. Why does it take less food to produce a pound of frog (cold-blooded, ectotherm) than it does a pound of a warm-blooded animals such as a mouse or bird?

6. Why are amphibians often the first to be affected when toxins enter an ecosystem?

7. Besides pollutants, and habitat loss or degradation, list three other reasons that amphibians have become the most endangered group of animals on the planet in recent decades.

8. Which two invasive species of frog are primarily responsible for the spread of chytrid fungus around the world?

9. How does the health of toad and frog populations in eastern Montana compare to the health of populations in the western part of the state?

10. What gave Dale Becker (CSKT Wildlife Program manager) the confidence to reintroduce leopard frogs to the Flathead Reservation?



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11. Why did the team use eggs rather than tadpoles or adults for the reintroduction project? (2 reasons)

12. What is it about the wetland near Lonepine that reduced the probability that the eggs or tadpoles would be eaten by predatory fish?

13. Why was Art Soukkala so thrilled to see the photo taken by Cindy Bras-Benson?

14. Another project described in the article is taking place on Overwich Creek, a tributary of the Bitterroot River. Look at the map. Which small town is located closest to the project?

15. What was the primary reason biologists wanted to remove non-native Yellowstone cutthroat trout above Overwich Falls?

16. In theory, how would removal of the Yellowstone cutthroat trout above the falls benefit frogs, toads, and salamanders in that area?

17. What was the problem with using rotenone to eliminate the fish?

18. In recent years, why has FWP's Nongame Wildlife Program been focusing more on habitat rather than on individual species?

19. Read the box titled "Bullfrog Bullies." Give two reasons why bullfrogs are on the list of the 100 worst invasive species in the world.

20. How have some homeowners contributed to the bullfrog problem, especially in the Bitterroot Valley



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Teachers:

1. Begin by discussing the difference between cold-blooded animals and warm-blooded ones. It would also be helpful to show students a diagram of the life cycle of a frog and introduce names of the various stages. Here are some possible bell-ringers . . .
 - a. What is an ectotherm?
 - b. How do cold-blooded animals keep themselves warm?
 - c. What is a tadpole?
2. Give students a copy of the article. Have them read it silently, read it as a class, or read it to them.
3. Give students a copy of the evaluation (worksheet), and have them answer the questions.
4. If the assignment seems to be too much for the grade level you teach, consider assigning a certain number of questions (you decide how many, and then each student gets to pick which ones they answer). Any questions they answer correctly beyond the required number can count as extra credit.

Answer Key

1. Salish and Kootenai
2. Four salamander, nine frogs
3. They eat stuff in the water.
4. Animals on land eat them.
5. Mice and birds use much of their energy (calories) to keep themselves warm.
6. They absorb both air and water through their skin, so toxins in the air and water are absorbed as well.
7. Non-native predators like bullfrogs, roads, and disease such as the chytrid fungus.
8. African clawed frogs and American bullfrogs
9. Frog populations in the eastern part of the state are in better shape than those in the western part.
10. Efforts to reintroduce peregrine falcons to the Flathead Reservation were successful.
11. They wanted to avoid transporting diseases and didn't want to deplete source populations.
12. The Lonepine wetland dries up in summer, so there are no fish to eat the frogs.
13. The photo proved that the frogs were expanding beyond the reintroduction area.
14. Darby
15. The Yellowstone cutthroat trout aren't native to the area. It was feared they would spill over the falls and interbreed with western cutthroat trout, which are native to the stream below the falls.
16. It would create an area where amphibians could thrive in the absence of non-native predators such as the Yellowstone cutthroat trout.
17. The rotenone also killed many amphibians.
18. This allows FWP to help many more than one species at a time.
19. They eat many different native species, and they spread the chytrid fungus.
20. They build steep-sided artificial ponds, which are ideal for the development of bullfrog tadpoles.