



MONTANA OUTDOORS MAGAZINE LITERACY PROGRAM EVALUATION

“Moving Right Along”

name: _____

1. For decades Montana Fish Wildlife and Parks (FWP) and partner organizations have worked to improve wildlife migration routes and habitats that are critical to seasonal movements. Which group has FWP worked closely with to re-establish migration routes for pronghorn (antelope)? Circle one.

business owners

teachers

construction workers

ranchers

hunters

2. Why are barbed wire fences more of an obstacle for pronghorn antelope than they are for deer or elk?

3. Which technology has been used by Brett Dorak (FWP Biologist in Malta) to better understand barriers to pronghorn migration?

4. In some cases FWP helps ranchers pay to modify their fences. What are two modifications that make it easier for pronghorn to get through fences?

5. To help pronghorn migrate, Hi-Line rancher Leo Barthelmess has removed many of the fences on his property. How does he keep his cows where he wants them to be?

6. As Montana’s human population grows, what are two other obstacles (besides fences) that interfere with wildlife migration?

7. Bears don’t migrate, but do make seasonable trips in the spring and fall, often ending up in towns like Valier or Depuyer. What are two strategies used by Wesley Sarmiento, FWP’s bear management specialist, to minimize conflicts with producers (ranchers) as bears move from mountains to prairie and back?

8. What two technologies have made the public more aware of wildlife migrations than they were decades ago?

9. How have Montana’s migrating wild animals benefited from a 2018 order from the Secretary of the Interior.



MONTANA OUTDOORS MAGAZINE LITERACY PROGRAM EVALUATION

10. Why does Harry Liss feel compelled to protect the bighorn sheep that spend time on his property?

11. Jeff Klein is okay with elk migrating through his ranch, but he has made to some changes to keep the elk away from his cows. Why does he keep the two species apart?

12. An important part of Gary Burnett's job as executive director of the Heart of the Rockies is to facilitate negotiations. What is the goal of his negotiations, and who are the two groups he works with?

13. Why is Lauri Hanuska-Brown (FWP wildlife project coordinator) optimistic about the future of wildlife migration projects.?

14. What does Hanuska-Brown think is the most effective tool in removing wildlife migration barriers?

15. Take some time to look at the photographs and read the captions. What have the Confederated Salish and Kootenai Tribes and the Department of Transportation have done to enhance animal migrations and movements on the Flathead Reservation?

16. Read the sidebar titled "Implications of gathering data". Why are wildlife management agencies such as FWP careful about sharing data about migrations routes?

17. Look at the map showing the movements of radio-collared mule deer in Carbon County. List two man-made impediments that the deer may have to cross as they move from their winter range to their summer range.



MONTANA OUTDOORS MAGAZINE LITERACY PROGRAM EVALUATION

Teachers . . .

1. Begin by discussing animal migration. Here are some possible bell-ringers . . .
 - a. Which of Montana's wild animals migrate?
 - b. What are some reasons animals migrate?
 - c. What is a wildlife corridor?
 - d. For higher level students, you might ask, "What is habitat fragmentation?"
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. Ranchers
2. Pronghorn don't jump fences - they crawl under them.
3. GPS collars.
4. Raising the lowest wire, and using smooth wire for the lowest strand.
5. Barthelmess uses shock collars (vencing).
6. Highways/roads, subdivisions (towns, residential areas)
7. He moves carcasses away from ranches and towns, and uses electric fencing.
8. GPS collars and remote camera traps have increased awareness.
9. The 2018 order provided funding for projects to enhance migration and seasonal movement.
10. He knows that he built his house on their winter range.
11. Elk carry brucellosis, disease that he doesn't want his cows to become infected with.
12. The goal is to reach agreements that promote wildlife migration. He works with public agencies (FWP, etc.) and private landowners.
13. She believes there is funding and renewed energy (enthusiasm) for such projects.
14. Landowner tolerance for having wildlife on their property.
15. They have built 42 passageway culverts (tunnels) under Highway 93.
16. FWP doesn't want the data to be used by hunters.
17. Answers will vary – possibilities include highways, fences, residential areas.