



Mule deer need good food sources during every part of their migration. Photo by Justin Binfet/WGFD.

Minimize stress for migratory mule deer

Most humans have a consistent address, living in the same location year-round. But we all know someone who lives in a warmer location during the winter and returns to a more moderate climate as things start to heat up.

The concept isn't exclusive to humans. Many animals migrate to a different area as the weather changes. But for deer, relocating seasonally isn't for convenience or to chase the best weather—it's a matter of life and death.

Seasonal changes

Mule deer relocate between summer and winter ranges for survival, not because they're seeking warmer weather. Deer go where the food is, which can vary by season.

Their summer range is lush with green grass and

forage. During the winter, they typically travel to lower-elevation areas where they can find food with nutritional value.

Food in this seasonal habitat is only part of the equation. Deer need to have good groceries along the journey, too. To do this, they "surf the green wave" in the spring, following grass as it grows.

"Deer usually move in blasts," says Jill Randall, Wyoming Game and Fish Department statewide migration coordinator. "They'll move several miles, then stop and hang out for a few days at locations with plenty of forage and to rest before the next move. These stopover areas are very important for deer to gain nutrition during migration."

In the fall, deer begin to move to their winter range. Like surfing the green wave, deer in the fall race the



“brown down,” trying to stay one step ahead of the drying vegetation to get the last bit of nutritional greens along the way. The path they take is nearly identical to their spring migration.

Not just about distance

Although some of Wyoming’s mule deer make long-distance migrations, others remain residents of the same area year-round. Rather than putting in the miles, they move to higher or lower ground as their food source changes.

No matter the distance traveled, it’s important for deer to have suitable habitat and food sources for the duration of the trip.

“Within a herd, having these different strategies can help the population during challenging conditions like winter or with changes to the landscape,” says Embere Hall, supervisor for the Game and Fish science, research and analytical support unit. “It’s important to maintain all of these options for a population and give deer the best chance of survival.”

The same path

Most deer stick to their set path and travel the same routes each migration. “They learn from Mom where to go, and most of those deer will do the same things Mom showed them,” Randall explains. “They summer in the same vicinity in family groups, then go to winter in the same vicinity as the previous year.”

Once deer arrive in their seasonal range, they must have good habitat to fulfill their needs. In the summer, this means they need plenty of green forage and nutritionally dense foods to pack on the fat before the snow flies.

Habitat is important in the winter range, too. While food is scarce, sources like sagebrush can help get deer through the winter. Migrating deer usually head to lower elevations where snow is shallow and they can move around without exerting as much energy and burning much-needed fat stores.

Muleys on the move

Some of the most significant projects for mule deer in recent years have taken place where deer and human paths intersect. As deer hoof it over land, people drive

Wyoming Game and Fish Department Pinedale Habitat Biologist Troy Fieseler modifies a traditional livestock fence to a more wildlife-friendly version, replacing the bottom strand with smooth wire and adjusting wire heights, which can be lowered when stock are not present, on private land near Pinedale. Photo by Mark Gocke/WGFD.

the state's roads. It's no surprise that sometimes these travelers cross paths, and it's often fatal for deer.

According to a 2021 report released by The Nature Conservancy, titled *Impacts of Roadways on Wildlife in Wyoming*, about 5,500 mule deer are struck by vehicles in Wyoming each year.

These collisions are vastly underreported, and a conservative estimate is that two times as many deer are hit on Wyoming's roadways each year. That means 1.5 percent to 3 percent of Wyoming's deer are lost annually on the state's roads. Reducing these incidents is imperative for human safety and to maintain healthy deer populations.

Wildlife overpasses and underpasses can be employed to reduce these types of collisions. Some overpasses and underpasses are put at roadways along migration routes, providing key connectivity between summer and winter ranges. Others are placed within a particular seasonal range, providing deer with safer access to a larger area without the risk of crossing a road.

Wildlife crossings aren't the only way to help migrating mule deer. Game and Fish and partners work throughout the state to improve habitat for deer. These improvements include thinning conifers that encroach on sagebrush and other food sources, treatments to reduce wildfire threats, weed reduction treatments, and spraying to reduce invasive grasses like cheatgrass. By focusing on habitat, wildlife managers can increase food sources for mule deer and ensure they have the best chance of survival.

How you can help

Another way to help deer on the move is to ensure fences are more passable. Fences are necessary for many land uses, especially agriculture. Unfortunately, some fences can create hazards for migrating mule deer due to the type of wire or height.

Some fences aren't passable by deer; others bottleneck movements, slow travel, or can ensnare deer attempting to jump over them. Wildlife-friendly fencing and gates that can be left open seasonally can reduce these impacts while still serving the needs of landowners.

Wildlife-friendly fencing has a smooth bottom wire

placed 18 inches or more from the ground so wildlife can crawl underneath; a top wire or pole no taller than 40 inches to facilitate jumping; and proper spacing of wires so legs don't become entangled when animals jump the fence. This style of fencing marks boundaries and contains livestock without stopping deer.

Converting fencing and adding gates is one of many things landowners can do to help migrating mule deer. Reducing weeds or invasive grasses like cheatgrass is another way to help migrating animals. Weed reduction provides better-quality forage for both wildlife and livestock.

Government and nonprofit programs are available to help landowners maintain healthy habitat. For example, the USDA's Grassland Conservation Reserve Program pays landowners an annual habitat lease for keeping grasslands intact while grazing livestock.

By reducing human impacts on migratory wildlife and their habitat, landowners can significantly help facilitate deer movement in Wyoming. Even the most minor actions can make a big difference.

Mule deer are on the move every fall and spring, and it's imperative they have the best available food and least stress possible during their travels. Whether slowing down and watching for deer on Wyoming's highways, donating to habitat or roadway projects, converting fencing, or helping with on-the-ground efforts, we all can make a difference.

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Mule deer utilize wildlife-friendly fencing at the junction of U.S. Highway 191 and Wyoming Highway 352 near the Trapper's Point overpass west of Pinedale. Photo by Mark Gocke/WGFD.