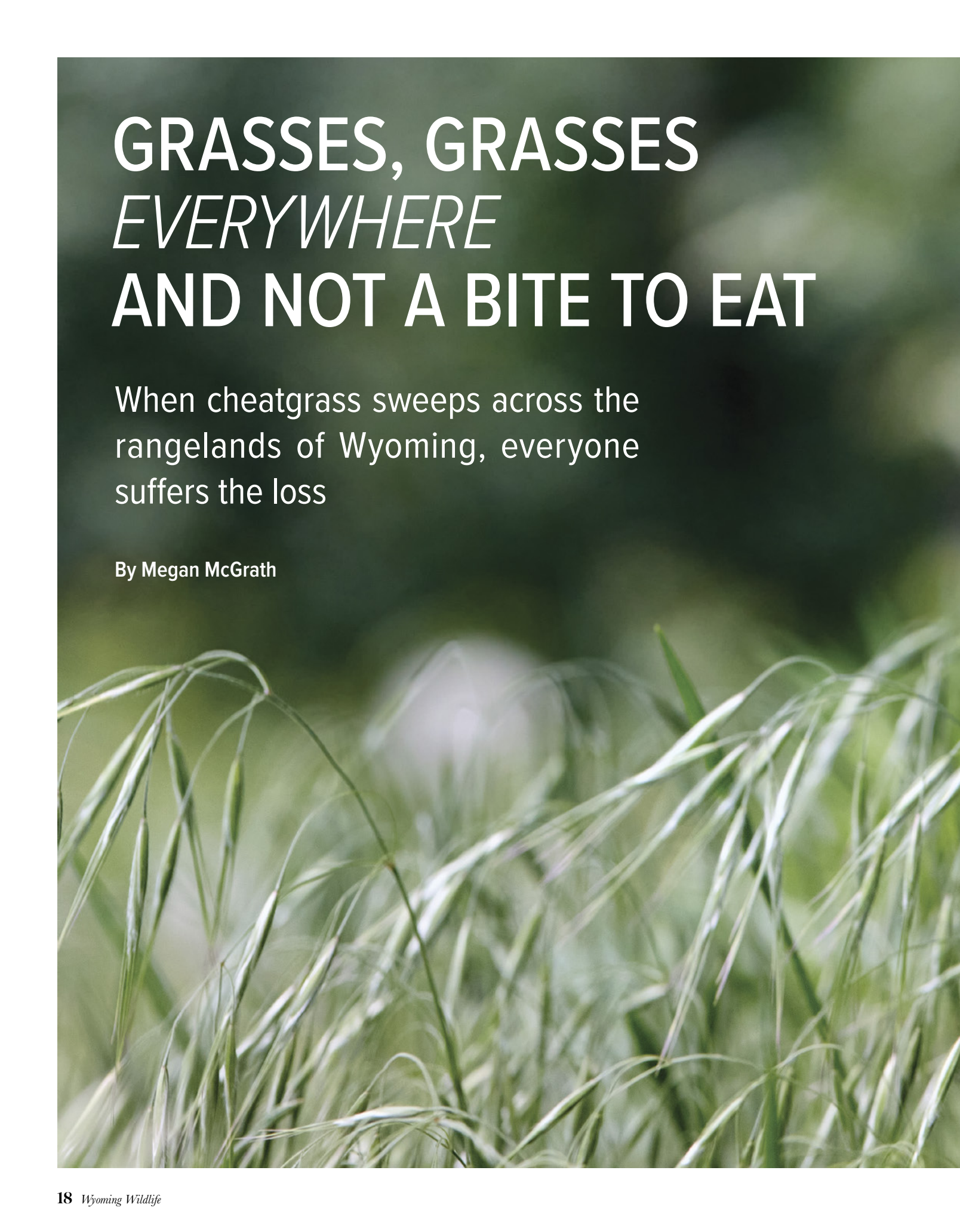




GRASSES, GRASSES *EVERYWHERE* AND NOT A BITE TO EAT

When cheatgrass sweeps across the rangelands of Wyoming, everyone suffers the loss

By Megan McGrath



Cheatgrass continues
to be a challenge for
the land and wildlife
across Wyoming.

📷 Adobe Stock

LIFE IN WYOMING is about one's relationship to the landscape. And as such, according to Ian Tator, everyone in Wyoming loves mule deer. They can't help themselves.

"You just create this bond," he said. "You see them nearly every day, their fawns are incredibly cute, and often those of us who care the most about mule deer also appreciate them as hunters. They provide us with sustenance, time to go out and enjoy nature and an opportunity to harvest an animal that will go in your freezer and get you through the winter."

As the Wyoming Game and Fish Department's terrestrial habitat supervisor, a big part of Tator's work is reckoning with a singular, alarming threat to the well-being of mule deer, pronghorn, birds and everyone else who relies on the land in Wyoming: an invasive grass called cheatgrass that grips the land, paints it green, then purple and then yellow, and can fuel explosive fire in its wake.

THE BEST REMAINING

Wyoming is one of the best remaining strongholds of North America's sagebrush rangelands, with the most ecologically intact sagebrush habitat of any state. Approximately two-thirds of the state, or 40 million acres, is covered by sagebrush. Rugged hills

of native shrubs, grasses and forbs support game species like mule deer and pronghorn, livestock like cattle and sheep and birds like sage-grouse. One hundred-mile mule deer migrations take place within the state, and in and out of the Greater Yellowstone Ecosystem as well as short-distance movements and migrations. But when cheatgrass spreads into the sagebrush, everything starts falling apart.

"We are pretty certain that we have more than 15 million acres within Wyoming that have some level of cheatgrass infestation, and we know from research that mule deer, once cheatgrass cover reaches 20 percent, tend to avoid those areas," Tator said.

In early 2026, Game and Fish released a new Mule Deer Conservation Strategy that identified combating invasive species, such as cheatgrass, as a priority for mule deer habitat restoration. Healthy sagebrush rangelands, Tator said, are especially critical for mule deer in their low-elevation winter habitat.

"In winter, often the only thing sticking up above the snow line is our shrubs like sagebrush," he said. "So if you lose that sagebrush to invasive annual grass competition or in a fire, there's nothing left for a mule deer to be able to sustain themselves through the hardest time of the year."





Research indicates once
cheatgrass cover reaches
20 percent, mule deer
avoid those areas.

📷 *Vic Schendel*



Cheatgrass increases chances for wildfires on the landscape.

WGFD



WHEN FIRE FOLLOWS

Cheatgrass is an invasive annual grass native to Eurasia that thrives in the spaces between native shrubs, such as sagebrush. It's fast-growing, germinates before other plants and when it dries in summertime it turns entire hillsides once dotted with silver-green shrubs and colorful flowers a uniform straw-yellow. And then the fires can follow close behind.

Cheatgrass and wildfire aid, abet and accelerate one another. In a healthy sagebrush plant community, soil gaps between larger, established shrubs keep flames more sedate, licking from place to place. But a hillside of dry, densely growing cheatgrass is a hillside of tinder.

"It's a lot more flammable than it would otherwise be," Tator said. "If you get a spark for any reason, like a lightning storm in the summer, that fire is able to spread very, very quickly."

Fire in sagebrush isn't necessarily a bad thing. "Fire is a natural process that many areas need to regenerate," said Alicia Hummel, a range specialist with Wyoming's Bureau of Land Management. "However, invasive annual grasses change the dynamic from what can be a natural process to something that

is accelerated, larger than it should be and that has more long-term negative impacts."

Burnt rangeland is even more susceptible to cheatgrass invasion and regrowth. The invasive grass encourages out-of-control fire, and fire encourages invasive grass. It is a sickening cycle that land managers in Wyoming watch with a growing sense of horror, dismay and urgency.

LAND THAT TAKES CARE OF YOU

Nancy Fleming knows all about that feeling of urgency. She grew up around the Big Horn Basin and serves as the Wind River and Big Horn Basin Invasive Annual Grass Coordinator with the University of Wyoming's Institute for Managing Annual Grasses Invading Natural Ecosystems, the Bureau of Land Management and the Intermountain West Joint Venture.

"My family has lived off and ranched the land in this area for generations," Fleming said. "When I was growing up, we would pack into the mountains for a week, or we'd go hike to a hidden lake and fish all day. Knowing how much this landscape shaped who I am, I want to keep this place beautiful and resilient."



Being Native American and a young mother, the work is clearly a calling for Fleming, who feels a responsibility to make sure that the land that has supported her family throughout living memory remains healthy for future generations.

“I was raised that if the land takes care of you, you have to take care of it in return,” she said. “Everything here on Earth has a spirit that we must respect and take care of in our time here.”

For Fleming, watching cheatgrass take over the land that raised her is incredibly disturbing.

“During monitoring work, I have had an opportunity to revisit places that my family packed into when I was in high school,” she said. “These landscapes are completely invaded with invasive annual grasses now.”

TEST PLOTTING RESULTS

To combat that invasion, a big part of Fleming’s work is helping coordinate an array of local, state and federal partners to share information and establish consensus on how to combat cheatgrass — one plot of land at a time.

“I stay in close contact with the county weed and pest departments — they’re the ones who are actually

getting these treatments on the ground,” Fleming said. “But then you have the BLM, the Natural Resources Conservation Service, Game and Fish, the ranchers. What’s important with having every single one of those people at the table having these discussions is their working knowledge of the landscape.”

When it comes to fire, Fleming often collaborates with wildland firefighters, such as Derek Trauntvein with the U.S. Wildland Fire Service.

“In the Big Horn Basin, we are a small workforce with several million acres to steward,” Trauntvein said. “During a year with multiple fires going on at the same time, multiple incidents can occur simultaneously, requiring personnel to balance wildfire response with ongoing land management responsibilities.”

Just like fighting invasive annual grasses, fighting the fires they fuel requires careful coordination of multiple partnering organizations.

“Wildfire incidents almost always include a mixed landownership, because wildfires do not recognize jurisdictional boundaries,” Trauntvein explained. “So effective response and recovery depend on close collaboration among tribal, federal, state, local and private partners.”



▲ **Above:** Herbicide treated test plots.

📷 *Nancy Fleming/BLM*

▶ **Right:** Participants of the Intermountain West Joint Venture observe a treated test plot of cheatgrass to see the effectiveness of herbicide applied to the area the year prior in the Big Horn Basin.

📷 *Hannah Nikonow*

USING THE TOOLS WE HAVE

In addition to information sharing and monitoring, Fleming manages a series of plots on BLM land that show how stunningly effective certain selective herbicides can be in fighting cheatgrass.

“The most effective tool that we have right now is herbicides,” Fleming said. “No one loves that we’re putting chemicals on the landscape, but it is truly the best tool that we have. At this point I know what it would look like if we weren’t using this tool. We need to keep using tools like Indaziflam and Imazepic to protect what we still have.”

Each of Fleming’s herbicide demonstration plots is clearly visible from nearby roads, and partners describe the difference as night and day. In June, each plot is a square of green, native vegetation in a field of dry, crispy yellow invasive grass.

“In every single demonstration plot, we have found that invasive annual grasses decrease, and native perennial bunchgrasses increase,” Fleming said. “It’s drastic. We see species re-emerge that we never would have guessed were there.”

THE LAND IS WHO WE ARE

Whatever part of this puzzle they’re attending to — grass, sage, fire, or wild game — all of the partners in

the effort to save the Big Horn Basin seem united in agreement: everyone in the state should care deeply about this problem.

“People in Wyoming should care about wildfire response and invasive annual grasses because in one way or another we are all affected by it,” said Hummel. “Our wildlands and open spaces are where our water comes from. It’s where some of our food comes from, it’s where our wildlife calls home, it’s where we recreate — it’s where we make our living.”

“Everyone should care about this problem because invasive annual grasses change the landscape so quickly,” Fleming said. “If we don’t act now, we are at threat of losing everything that makes Wyoming what it is: biodiversity, hunting, our natural resources, our landscapes, even certain sacred grounds and plants. It’s so much more than a plant issue. It’s cultural. It’s economic. The land is who we are.”

Megan McGrath is the Sagebrush Communications Specialist for the Intermountain West Joint Venture. To learn more about this and other partnership-driven conservation efforts across the West, visit www.IWJV.org.



About the Intermountain West Joint Venture

The Intermountain West Joint Venture is an organization that builds and supports partnerships for conservation and working lands efforts across 11 Western states, including Wyoming. At its core, the IWJV strives to conserve and enhance bird habitats at meaningful scales. These efforts have far-reaching impacts for many species of wildlife across the West, including sagebrush obligate species, waterfowl and big game.

The group prioritizes bringing together diverse partners and varied perspectives to implement conservation solutions at scales that matter. This often means bridging gaps between federal and state agencies, landowners, agricultural producers and nonprofit groups.

“Time and again at the IWJV we find that the absolute best way — maybe the only way — to get meaningful habitat restoration work done is by building relationships with people and organizations within communities across the West,” said Megan McGrath, the IWJV’s sagebrush communications specialist. “People like Nancy Fleming and other conservation capacity professionals are our best investment: They live and work in the landscapes we’re trying to serve.”

McGrath describes the region the IWJV works across as a beautiful, complicated mosaic of habitats and land ownerships, where all have a shared goal of making natural systems work for both people and wildlife.

“When we can get everyone to come to the table to share their experiences and expertise, the outcomes can be really amazing,” she said.

The IWJV works to balance habitat conservation with natural resource benefits, seeking science-guided solutions.

“Although the IWJV covers so many things well, including effective partnerships, they are particularly good at providing science support,” said Ian Tator, terrestrial habitat supervisor at the Wyoming Game and Fish Department. “When we have specific questions and we’re looking for answers to inform management decisions, they are able to look into it and come back with the answers we need. The products they develop also span multiple states, which is incredibly valuable to us when looking at the big picture. That’s something we wouldn’t necessarily be able to do without their support.”

Conservation efforts at the IWJV include programs for sagebrush rangelands, water and wetlands and dry forest habitats. Since 2018, their sagebrush rangelands habitat program has accomplished nearly 1 million- acres of habitat improvements, including more than 600,000 acres of treatment to reduce invasive plants like encroaching conifers and cheatgrass.

— By Tracie Binkerd



Scan the QR code to learn more about the Intermountain West Joint Venture.