26,005 Total 2021 Montana elk harvest

(bulls: 13,088; cows: 12,340; calves: 577)

A crew manages a controlled burn designed to rejuvenate grasses and kill encroaching shrubs and trees.

FWP magazine, website, and social media campaign take top honors

FWP's magazine, *Montana Outdoors*, won first place in the Magazine category at the national Association for Conservation Information (ACI) 2021 awards competition. FWP also won for best agency website, best social media campaign, and best magazine article in the Cultural/Historical category.

The winning article, "From Warrior to Warrior," told the story of Chief Plenty Coups's role in the 1911 dedication of the Tomb of the Unknown Soldier.

Other *Montana Outdoors* articles receiving awards, announced at the ACI annual conference on July 28:

- **2nd place: Magazine Article: Fisheries**, for "Small River, Big Fish," a portrait of the Beaverhead River.
- **3rd place: Magazine Article: General Interest**, for "On the Prowl," on FWP's aquatic invasive species search crews.
- **3rd place: Magazine Article: Wildlife**, for "Tracking Wildlife's Ups and Downs," about how and why wildlife biologists track wildlife populations.

Formed in 1938, the ACI is a nonprofit organization of communicators working for state, federal, and private conservation agencies and organizations. ■

MONTANA STATE PARKS

Prescribed burn rejuvenates native grassland at Lone Pine State Park

In April 2022, fire crews with the Montana Department of Natural Resources and Conservation (DNRC) teamed up with FWP staff to conduct a prescribed burn at Lone Pine State Park in Kalispell. The aim was to rejuvenate the park's native grassland, specifically bunchgrass species such as rough fescue, Idaho fescue, and Montana's state grass, bluebunch wheatgrass.

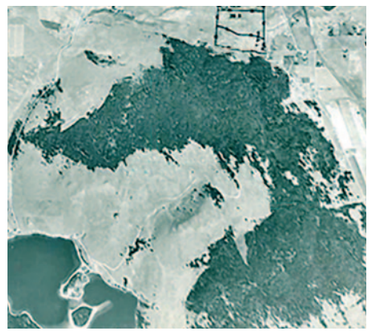
Without periodic fire disturbance, native bunchgrasses can become too thick for wildlife use, and the open areas get taken over by shrubs, trees, or noxious weeds.

While scorned by some hikers and hunters as "ankle turners," native bunchgrasses play an important ecological role. They supply a nutrient-rich food for deer and elk, while grassland birds and small mammals use them for nesting habitat and hiding cover.

But to provide benefits to wildlife, bunchgrasses must remain healthy—what plant ecologists call "vigorous." Periodic burns kill encroaching trees and shrubs, burn up thick, dead vegetation, add carbon to soil, and expose new growth to sunlight.

Setting fire to aging grasslands is increasingly difficult in places like Lone Pine and other urban parks along what's called the "wildland-urban interface." If not conducted under ideal conditions, prescribed fires can threaten nearby homes and forests.

But crews had perfect weather during the windless morning of April 7, as dew evaporated and trained DNRC staff carefully burned 7 acres of Kalispell's backyard state park. As planned, the conditions helped produce a slow-burning, low-intensity fire not hot enough to burn grass roots, which would kill the grasses, yet sufficient to clear out woody plants and dense, dry undergrowth. Within two or three years, the Lone Pine State Park grassland should be fully rejuvenated and regrown into its natural state. ■



A 1946 aerial photo of the Lone Pine area, with about 65 percent of the grassland (light) displaced by stands of Douglas-fir (dark), shows how the lack of fire leads to prairie loss.

CLOCKWISE FROM TOP LEFT: MIKE MORAN ILLUSTRATION; DILLON TABISH/FWP; FWP; SHUTTERSTOCK

WILD WEATHER

Recent floods devastate communities but spare most fish and wildlife

A freakish set of climatic conditions combined to create floods that tore out bridges, ravaged roads, and smashed flow records on the Yellowstone and other south-central Montana rivers late this past spring.

During the weekend of June 11-12, several inches of rain—what one local meteorologist called a "high-elevation firehose"—drenched Gallatin, Park, Carbon, and Stillwater counties. The precipitation hit heavy mountain snowpack, created by an unseasonably cold spring. The rain rapidly melted the snow, and all that water rushed downhill, filling tributaries, then overwhelming mainstem rivers.

By Monday, flows were setting all-time records, especially in the Beartooth and Absaroka mountains. At Corwin Springs, near Yellowstone National Park's northern entrance, the Yellowstone River registered a record volume of 49,400 cubic feet per second, toppling the previous record of 32,200 cfs set in 1996 during what was called a "100-year flood event."

While wiping out roads and washing away U.S. Geological Survey flow monitors, the Stillwater River shattered its old record of 12,000 cfs with a torrent of 23,900 cfs.

The floods destroyed homes, businesses, and ranch buildings. Economic damage to the region could last for years.

Fortunately, fish and wildlife populations were relatively unharmed. "Most fish, especially adults, can handle heavy flows," says Eric Roberts, chief of FWP's Fish Management Bureau. "They find safer places behind boulders or in floodplain shallows when water levels rise." Roberts adds that floods improve aquatic habitat. "They clean silt out of gravel bars that will be prime spawning areas, and all those downed trees, debris, and even bridges provide good fish habitat and cover."

Large mammals and adult birds were able to walk or fly to higher ground, according to Brian Wakeling, chief of the FWP Game Management Bureau. "But no doubt the eggs and hatchlings of some ground-nesting birds were washed away, as were many small mammals, reptiles, and amphibians," Wakeling says. He adds that losses of individual animals "weren't at a scale likely to harm populations."

The floods should also help cottonwoods in the floodplains, because the trees need river silt to facilitate early seedling growth.

FWP officials say many fishing access sites are still closed on the Yellowstone, Stillwater, East Rosebud, and Rosebud rivers due to closed county roads or damaged bridges. But many others have since reopened after temporary closures following the flooding. ■

The North Entrance Road between Gardiner, Montana, and Mammoth in Yellowstone National Park was washed out during the June 13 flood.

FROM TOP: KYLE STONE/NPS; SHUTTERSTOCK

WILDLIFE DISEASE

Azure Cave bats decline by 98%

Biologists conducting a spring survey of bats at Azure Cave in Phillips County were shocked to find a catastrophic decline from the previous year, likely due to white-nose syndrome (WNS).

Scientists with FWP, the Montana Natural Heritage Program, and the Bureau of Land Management (BLM) conducted their yearly bat survey in May. Azure Cave is a critical hibernating location for bats, hosting approximately 1,700 to 1,900 of the winged mammals in a typical year. Surveyors were stunned to find a 98 percent reduction in numbers, with only about 40 bats remaining in the cave. Half of those showed visible fungal growth associated with WNS. "We're assuming the rest died of the disease," says Kristina Smucker, chief of the FWP Nongame Wildlife Bureau.

WNS is a fungal disease that has killed more than 6 million bats in North America since 2006. It can wipe out entire bat colonies and has caused dramatic population declines for several North American species. The first confirmed case in Montana was found in 2021.

Located on BLM land in the Little Rocky Mountains southeast of Havre, Azure Cave previously was the largest known hibernating winter colony of the little brown bat (*Myotis lucifugus*) in the western states. The species has also suffered severe declines in the eastern and central regions of North America.

This is the third year in which the fungus has been present within Azure Cave.

Anyone who encounters dead bats or bat colonies should call the FWP Wildlife Health Lab in Bozeman at 406-577-7882. For more information on white-nose syndrome, visit whitenosesyndrome.org. ■

Little brown bat (*Myotis lucifugus*)