

Bluffviews

a quarterly newsletter by Clifftop

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Help Benefit Biodiversity with Responsible Use of Fire

By Kevin Rohling, U of I Extension Specialist,
Forestry Management and Ecology

Why do we use prescribed fire in natural areas? The main reason is that overall biodiversity is typically greater in natural areas maintained by low-moderate severity fires in our region. Several factors can contribute to declines in biodiversity that fire helps to alleviate. Such factors include woody species encroaching on habitats that would otherwise be more open, such as in the hill prairies along the Mississippi Bluffs, where frequent fires prevent many woody plants from overtaking more sun-loving plants. Or areas threatened by invasive species that outcompete native species and can be set back by fire, such as bush honeysuckle and autumn olive. Mesophication is another problem for biodiversity conservation. Mesophication is a process where more shade-tolerant tree species, such as maple and beech, overtake oak trees as the dominant canopy species, primarily due to insufficient fire frequency. Fewer oaks on the landscape is a problem because the number of species that rely on oaks is significantly greater than that of maple and beech (see *The Nature of Oaks* by Douglas Tallamy). Fire gives the competitive advantage to oaks that have adaptations encouraging fire, such as leaves that curl and are more likely to combust versus those of maple and beech that lay flat and are less likely to carry fire, or the thick bark of mature oaks to resist fire and greater ability to resprout following fire exhibited by many oaks but not by species less tolerant of fire. Those are all good reasons to apply prescribed fire in our natural areas.



Frequent, low-intensity fires help maintain diverse plant communities

Still, we need to make decisions about fire based on science and use best practices to execute fires safely and minimize potential adverse effects. One of the best examples of the need to reduce the negative effects of fire concerns invasive plants. Some invasive species, as mentioned above, can decrease following fire. However, some species, such as stiltgrass, typically increase with fire, and others, like garlic mustard, may increase or decrease depending on the timing, frequency, and/or intensity of a burn and other factors. Check out this webinar on invasive plants and fire for more details on that topic: <https://go.illinois.edu/fireinvasives>

Wildlife should also be considered when planning burns. Because so many habitat types rely on fire to maintain species communities and habitat characteristics, prescribed fire is critical to ensure the habitat remains suitable for many wildlife species. That said, there are some important considerations to

remember. Some insect species, for example, overwinter in leaf litter and other vegetative matter that will burn in prescribed fires during the dormant season. Therefore, it is vital to have refugia, either nearby or within the burn unit, where insects may repopulate. State-threatened species, such as ornate box turtles and timber rattlesnakes, may be susceptible to fire depending on the time of year a burn is conducted. In areas where reptiles emerge from hibernacula in the spring, the animals can react slowly. Timing fires while wildlife is dormant in areas with sensitive species will minimize

adverse effects. It is also important to remember that without fire, the habitat would not be suitable for many wildlife species, so not conducting fires is not a solution that will benefit wildlife.

Safe and effective use of prescribed fire is critical for maintaining habitats in Illinois and beyond. You can help! Organizations like Clifftop need volunteers to help safely and effectively conduct prescribed fires. For those interested in learning more, Clifftop is partnering with the University of Illinois Extension Forestry on a prescribed fire training event from 12:30 – 3:00 p.m. on January 25, 2025, at the Monroe County Annex, 901 Illinois Avenue in Waterloo, IL. Follow this link for more information and to register: <https://go.illinois.edu/firetraining>

Alaskan Adventures: Where We Began Our Conservation Journey

By Kim and Mark Atkins

We met in Anchorage, Alaska back in the late 80's at Elmendorf Air Force Base where we both served in the United States Air Force. We worked in the same duty section which is where we met and shared a common desire for adventure. When you live in Alaska, it's hard to not become immersed into the environment while you explore the state. Anchorage offered the opportunity to get outside and enjoy nature in the summer and winter. We learned there is no such thing as bad weather, just poor clothing. We ran many races, hiked, camped, fished for salmon, skied, biked and more. The outdoor experiences changed us for the rest of our lives and gave us an appreciation for nature and conservation. The following are some of our outdoor adventure experiences while living in a beautiful place also known as "The Great Land."

The Tony Knowles Coastal Trail system is a great place to ride bikes during the summer. Alaska is known as the Land of the Midnight Sun so it was not uncommon to be riding bikes until 11:00 p.m. then realize you needed to get home to prepare for the next day's work. The 11-mile trail system meanders through forests and along the coast where you can spot beluga whales. Running is also popular along the trail and then a transition is made to cross country skiing in the winter. The Nordic Ski Association of Anchorage is responsible for the precise grooming of the trails for cross country skiing. The trail is host to many native plants and trees. We would pack sandwiches and soup in our backpack and ski the tracked trails for hours. It was cold but you worked hard enough to stay warm while skiing.



Internet photo, NOT Kim and Mark!

One of our first impressionable conservation experiences was hiking and rebuilding a trail up Flattop Mountain. The mountain is a 1,200 ft climb located 15 miles outside of Anchorage. It is not uncommon to climb the mountain for a view of Anchorage or to watch the sunset. Back in the 80's the climb was difficult and there was no defined path resulting in large areas of trampled native habitat. We participated in a project to build a trail from the gravel parking lot to the top. This was our first experience working under the guidance of a conservation organization. One important lesson learned that remains with us today is using designated trails versus making trails.

There is a section of Flattop Mountain called Blueberry Hill which is true to its name because in the fall, the trail is popular for blueberry picking. However, unless you are good at identifying berries it's not recommended to just forage as many berries are poisonous. In May of 2024, the entire Atkins family flew in the plane in the photo below, left, and landed on a glacier on Denali. Our son was born in Anchorage, so we've always talked about taking the family back to see where he was born. It was the trip of a lifetime. The mountain has changed as it's now managed by Alaska DNR. There is now a paved parking lot, an outhouse, and paved trails. This makes the trail more accessible, but it also takes away the old charm we experienced about the hand dug trail we helped build. It also costs \$5.00 today, which it didn't in the 80's. Many events also occurred during our few years of living in Alaska.



A very fond memory is volunteering for the Iditarod Sled Dog Race from Anchorage to Nome. The race is inspired by the heroic efforts of mushers and sled dogs who delivered lifesaving diphtheria serum when an epidemic broke out in Nome, Alaska. We were dog handlers for mushers at the beginning of the race in Anchorage and worked many shifts in the control center tracking the location and status of the mushers and their dogs. The details were relayed via ham radio operators out on the trail, today these statistics are available on the Internet. Mark was lucky to fly in a Cessna 172

(equipped with skis) to deliver dog food to checkpoints along the course. We volunteered for the sled dog race for three years and still follow it online today. The 2025 Iditarod Trail Sled Dog Race will take place on the 1st of March. While in Alaska with our family in 2024, we flew in a helicopter and landed on a glacier to observe real Iditarod sled dogs in training. We also got a sled dog ride on the glacier. It was a spectacular experience.

In 1988, three gray whales became stuck in ice in the Beaufort Sea near Point Barrow. Back in the day there wasn't any form of news except for the newspaper and television. News of the rescues reached the 'Lower 48' where planes full of equipment passed through Elmendorf Air Force Base to aid in the rescue. We were both very involved in the coordination of the equipment heading to the North Slope. The whales were freed, but their ultimate path of migration was hampered by the press and curious onlookers.

In 1989, the Exxon Valdez oil spill had a major impact on the environment and wildlife in Alaska. There were many opportunities to help wash oiled birds with Dawn dish detergent. Kim volunteered for the Alaska Conservation Foundation for a year collecting newspaper articles about the event. The idea was that newspaper articles would be saved for research in the future. This was before computers, so it sounded like a reasonable but labor-intensive task.

Today, we live in Millstadt on a 17-acre farm we purchased in 2020. Since then, we have taken row crops out of service to build a barndominium, planted hundreds of native trees, created pollinator gardens, grown produce to donate to those in need, facilitate two 4-H programs, teach science related classes, and give tours to many youth and adult groups. Atkins' Acres Educational Farm is a 501(c)(3) whose superpower is in the experiences we provide to visitors.

Upcoming events...

Saturday, January 25, 2025, "Prescribed Fire Basic Training", 12:30 – 3:00 p.m., Monroe County Annex, 901 Illinois Avenue, Waterloo. Kevin Rohling, U of I Extension Specialist in Forest Management and Ecology, will lead this training, providing an overview of prescribed fire, including reasons to burn, burn plans, preparations, weather considerations, permits, training options, tools, risks, hazards, and effects on vegetation and wildlife. This training will be a broad introduction for those new to prescribed fire or a refresher for those with more experience with controlled burning. Register at this link: <https://go.illinois.edu/firetraining>



June, 2025 (date and place to be determined) "Hidden in Plain Sight: How Herbicide Drift is Effecting Native Trees and Herbaceous Plants" Martin Kemper, retired IDNR Natural Heritage Biologist, will present data collected over several years about the health of trees and ecosystems across Illinois, as a result of years of damage from drifting herbicides.

If you haven't yet renewed your Clifftop membership, please do so at your earliest convenience either by check mailed to P O Box 131, Maeystown, IL 62256 or using our PayPal Giving Fund platform:
 paypal.com/us/fundraiser/charity/2435507
 Thank you!



Photo gallery...

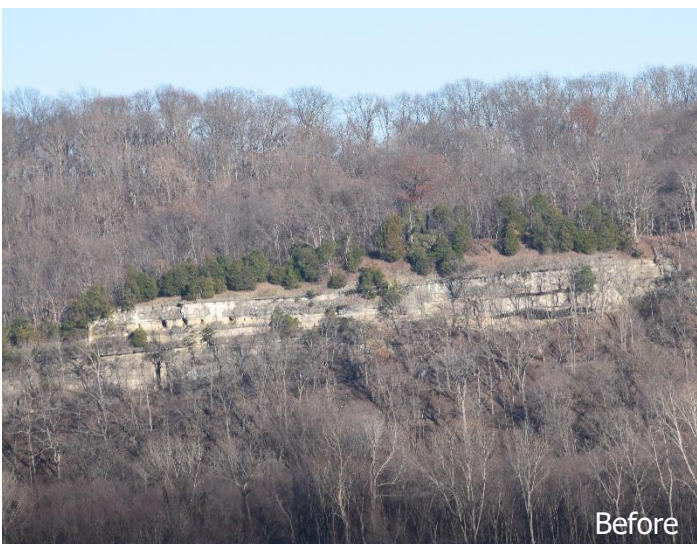
Clifftop recently hired Ozark Koala Ecosystem Services to perform contract work to restore Vulture Prairie at White Rock Nature Preserve as part of our Natural Areas Stewardship Grant. We could not be more happy with how things turned out.



Before: many cedars dotted the once vibrant hill prairie.



After: the cedars are gone and the natural plant community can breathe once again.



Extending northward from the main section of prairie, the cedars had taken over and now, those that could be safely reached, have been removed.