



Saving the Sagebrush Sea: An Imperiled Western Legacy

Wind blows across the vast open space, sweeping the sweet scent of sage through the air. A herd of pronghorn swiftly move across the landscape, stopping now and then to feed on the grasses and shrubs. Large eagles and falcons swirl in the wind high above the land, while small song birds perch on sagebrush. This scene plays out across millions of acres in the American West on a stage called the sagebrush steppe. This iconic Western landscape is an important habitat for both wildlife and people.

The sagebrush steppe dominates much of western North America's countryside, thriving in the arid deserts through dry, hot summers and cold winters. Historically, sagebrush stretched across roughly 153 million acres in many diverse places such as valleys, mountains, grass-lands and dense shrub land. Today, only about 106 million acres of sagebrush habitat remains due to development, wildfire and invasion of non-native plant species. As many as 350 plant and animal

species, such as elk, pronghorn, mule deer and golden eagles, depend on sagebrush habitat for their survival. One small, brown, chicken-like bird, called the greater sage-grouse, is at the heart of efforts to save the sagebrush steppe.

The Bureau of Land Management, state and local agencies, private landowners, sportsmen and women, and conservationists are working together to conserve the sagebrush steppe for wildlife and sustainable economic growth in the West. Sportsmen and women want to see the bird's populations rebound and the sagebrush steppe thrive--and continue their commitment to conservation efforts aimed at avoiding the necessity of a listing under the Endangered Species Act. This landscape is vital for hunters, anglers, recreationists, ranchers, responsible energy developers and wildlife. This report highlights the important wildlife visitors to the sagebrush steppe are likely to see so people will rally to protect sage grouse and this iconic landscape.

Wildlife of the Sagebrush Habitat



Photo: STEVE PERRY

Elk

Elk depend on open woodlands and can be found throughout the western part of North America. They live in the sagebrush steppe during the winter and often calve in sagebrush in late spring. The young use the sagebrush as cover for their first few weeks of life. Elk are also known to eat sage brush buds during the winter. Bull elk compete for the right to breed by displaying their necks, antlers and bodies during the fall rut. They also emit a musk odor and bugle to attract females. Predators include mountain lions, grizzly bears, wolves and coyotes.



Photo: CAROLYN MALONE

Mule Deer

The mule deer is a very common animal in the western United States, particularly in arid, open areas. They are easily identified by their large mule-like ears that move constantly and independently of each other. Mule deer are differentiated from white-tailed deer by a black forehead with a light grey face, a white rump patch and a tail with a black tip. They migrate from high elevations in the summer to lower elevations in the winter to escape the deep snow and cold. Mule deer eat small plants as well as the leaves and twigs of woody shrubs, including sagebrush.



Photo: CORBIS

Pronghorn

With one of the longest land migrations in the United States, pronghorn depend on wide open spaces, like the sagebrush steppe to survive. Because of the expansive range, they have evolved to be the second-fastest land animal behind the cheetah, topping out at about 60 mph. They are herbivores, mostly eating grasses, small plants and sagebrush. Fences obstruct migration paths because pronghorns try to avoid jumping. While pronghorns do crawl underneath barriers, the animals can get caught in barb wire fences or on rungs that are too low.



Photo: ISTOCK.COM

Golden Eagle

The golden eagle needs to hunt in large open or semi-open areas, like the sagebrush steppe. They soar above the open sagebrush to spot prey such as rabbits, squirrels, and other small mammals. Once they find prey, they can dive up to speeds of 150 mph. Golden eagles have large home ranges, up to 60 square miles, which they will defend, especially during the breeding season. In their home ranges, the eagles will build large nests on high places, particularly cliffs, and will reuse their nests as they typically mate for life.



Photo: LARRY TEMPLE

Greater Sage-Grouse

Greater sage-grouse are dispersed across the western United States and live year round in the sagebrush steppe. The birds depend on sagebrush for shelter from predators and the weather, as well as a food source. They eat multiple flowering plants, including sagebrush, especially in the winter when no other food sources are available. During the early spring, males congregate in leks (ancestral strutting grounds) to perform courtship displays with two inflating yellow sacs on their chests to attract the females. The dominant males will mate with 80 percent of the females.

“ The sage—low-growing and shrubby—could hold its place on the mountain slopes and on the plains, and within its small gray leaves it could hold moisture enough to defy the thieving winds. It was no accident, but rather the result of long ages of experimentation by nature that the great plains of the West became the land of the sage. — *Rachel Carson* ”

Photo: ISTOCK.COM

Ferruginous Hawk

The ferruginous hawk lives in the open spaces of the plains, prairies, sagebrush and deserts of the American West. The hawks circle in the air looking for small to medium sized mammals and then swoop down once they spot the prey. This large hawk has long, broad wings with dark legs, which appear as a “V” against the white body when flying. Their back can either be a dark brown (dark morph) or a rusty brown (light morph). This bird is often used in advanced falconry techniques to hunt jackrabbits, hares and some large bird species.



Photo: ISTOCK.COM

Prairie Falcon

The prairie falcon is a large falcon that lives in open, arid areas. They eat small mammals and small birds. They hunt by flying fast and close to the ground, hoping to surprise their prey. Prairie falcons are thought to be as fast as peregrine falcons (the fastest bird on earth) but since they do not fly high to catch their prey, they rarely reach high speeds. This falcon is a grey-brown color and has a thin, dark mustache (feathers extending down from the eyes or beak). Many falconers like to use the prairie falcon because they are known to be aggressive and skilled hunters.



Photo: TERRY SPIVEY

Sagebrush Lizard

The sagebrush lizard prefers to live in the sagebrush steppe but can also be found in forests. They are gray or light brown with darker stripes running the length of the body, with numerous small spiny scales on their back. The males have blue patches on their underbelly, which show when they do push-ups to intimidate males and attract females. The lizards are diurnal, meaning they are active during the day and can be seen sitting on warm rocks in dry rocky areas. They come out of hibernation about mid-May and are active through mid-September.



Photo: TERRY SPIVEY

Great Basin Spadefoot Toad

These toads are found in dry areas with shrubs and some areas that are temporary water sources. They need to migrate to water in order to breed since the adults are terrestrial. The Great Basin spadefoot toad is gray, olive or brown in color. Their skin is smooth with large bumps to mimic rocks to help with camouflage. To prevent water loss in dry weather and to stay warm in cold weather, they will dig burrows with a keratinized spade on each foot. They can absorb water from the soil that surrounds them in their burrows.



Photo: ISTOCK.COM

Pygmy Rabbit

Weighing less than one pound, the pygmy rabbit is the smallest species of rabbit. They have short ears, small hind legs and are gray in color. They need plenty of sagebrush for shelter and food. In the winter, 99 percent of the rabbit's diet is sagebrush. Their diet expands to other plants in the summer. They are only one of two species of rabbits that dig their own burrows for shelter and warmth in the winter. The rabbits dig their burrows near individual sagebrush plants that are six feet or more in height and in areas where there is dense coverage to help them hide.

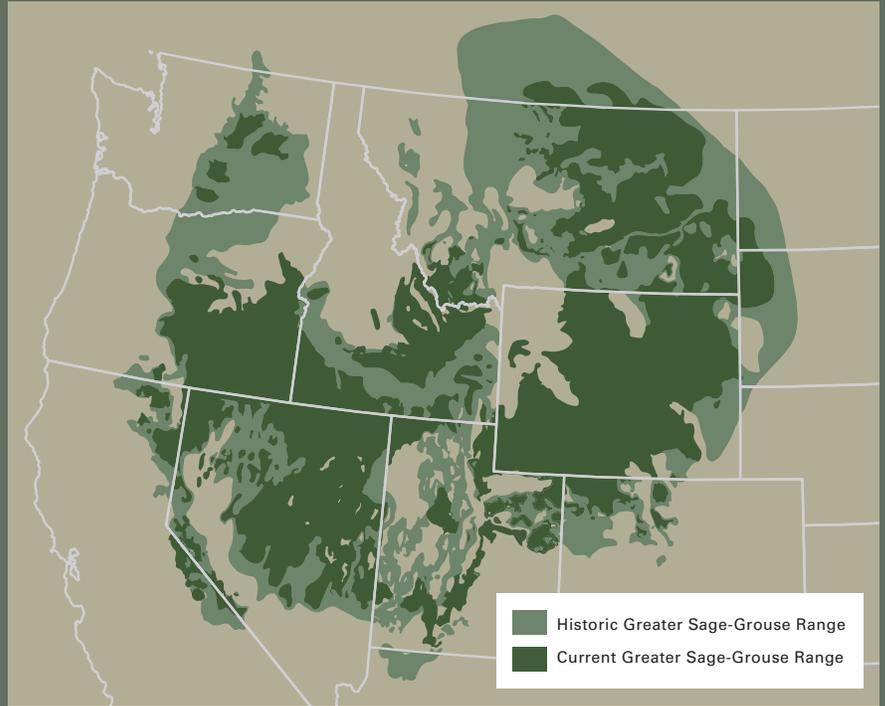


Photo: ISTOCK.COM



Photo: DALY EDMUNDS

The sagebrush is one of the dominant plants in the steppe and provides food and shelter for many species. It grows between 2-7 feet in height and is an evergreen, meaning its leaves keep their silvery green color year-round. Sagebrush has a strong odor, especially after it rains, which is caused by camphor, turpenoids and other oils.



Graph data provided by US FISH & WILDLIFE SERVICE

“ When I was a young boy, I often traveled with my father across the Red Desert of Wyoming during his field work. The sage sea rolled endlessly in front of our eyes while the sights, sounds, and smells captured my imagination and my heart. I knew even then that these places were not something everyone got to experience and that even fewer truly appreciated them. — Aaron Kindle ”

“ Purple mountain majesties get all the ink. But for every picture-postcard perfect acre of Tetons, Big Horns or Snowys in Wyoming, there are ten of high desert sagebrush steppe – and they do the heavy lifting. They never make the movies or the magazine covers. They just make the antelope, sage grouse and elbow room. The mule deer we chase in the hills each fall are born, bred and wintered by Mama Sage. The eagle soaring above the Wind River Range? He makes his living on the rolling Sagebrush Sea. The Sagebrush Sea isn't as charismatic, photogenic or easy to love as the tourist attractions. Hers is an austere beauty, for an acquired taste. It's a hard landscape, and it doesn't suffer fools lightly. — Matthew Copeland ”

“ Once thought of as a boring plant, we now realize that sagebrush is an important thread that holds the Wyoming landscape together. What values are hidden in the sagebrush? This June as I was walking in sagebrush covered hillsides, I startled an antelope doe with her two babies and one baby instantly hid so quietly in the cover of sagebrush. We love our wildlife babies this time of year and knowing how this little one and many others depend on sagebrush gave me a whole new appreciation for the plant. — Janet Marschner ”

COVER PHOTO CREDITS: (Main Photo on Right) ISTOCK.COM, (Upper Left) JOHN GALE, (Middle Left) ISTOCK.COM (Lower Left) JACK DEMPSEY



Written by Meghan Cornwall of the National Wildlife Federation. Design and illustration by Melissa Beckwith Designs. For more information on Sagebrush Habitat, visit www.ourpubliclands.org



THIS REPORT IS PRINTED LOCALLY ON RECYCLED FSC-CERTIFIED PAPER.