

Sage-Grouse at the Crossroads

By Jim Brunner

“We find nests where the baby sage-grouse had hatched. Then we find their little bodies nearby, dead at 1 or 2 days old,” said a spokesman for the Nevada Department of Wildlife. “And we don’t understand why.”

This appears to be the basic problem in the Intermountain Basin where sage-grouse are losing ground. Once the sage-grouse is 8 months old it is full grown, but getting it to this stage is the problem. The bird is beloved by almost every person who has ever seen or worked with birds. So it isn’t benign neglect.

For the past few years, The American Lands Alliance of Washington, DC (a consortium of environmental groups ranging from the Audubon Society to the Sierra Club) has been beating the drums for listing the sage-grouse under the Endangered Species Act. The end goal of listing is removal of livestock from the sagebrush biome. Petitions have been submitted for both the greater sage-grouse and its smaller cousin, the Gunnison sage-grouse. The Gunnison was listed, but the greater sage-grouse was not. Will listing the bird help the grouse or will it ensure its demise? State wildlife agencies take a dim view of this effort to list.

Why would a state wildlife agency, staffed by dedicated wildlifers, object to a listing? Because then control of the land and the birds shifts to Washington, DC. The Endangered Species Act is concerned only with control of land uses and has had, to date, little or no effect on saving any species. A landowner simply cannot afford to have an endangered or threatened species on his land. He faces \$75,000 fines plus jail time if a bird is “harassed,” ie, flushed as the person drives over his own land.

To get a feel for the sage-grouse, we must explore its needs and requirements. Should we start with the chicken or the egg?

The chicken? Okay. The female sage-grouse (hen) wanders into an established courting ground (lek). This must be a nearly bare, flat area so the birds can see each other, with escape cover from hawks nearby. She heads for the center of the lek, walking on the invisible line between various lesser males toward the center where the dominant males preen, blow out air sacs, and otherwise make themselves as conspicuous as possible. Some 20 to 50 males may be in attendance, but only a few central males do all the breeding. Males tend to return to the same lek each year, but hens shop around. (If you’re interested, check with a state wildlife agency to see what tours are available to watch the strut on a cold February day.)

Once serviced, the hen scurries away into the thicker sagebrush and walks to choose a nesting site. If she is a virgin, she’ll try most any site; if she’s an older hen, she’ll often go back to where she successfully nested before. Nest placement depends upon habitat and may be chosen before visiting the lek. Usually she’ll go about a mile, but sometimes as much as 20. She’ll have the best nest success if she chooses an area where sagebrush is scattered, about 14–20 inches tall. Here her nest is pretty well hidden. Several recent studies show that predation and cover are not closely linked. (The raven, a federally protected bird, is the major predator of sage-grouse nests.)

A week to 10 days after breeding, the hen lays a clutch of from 4 to 8 eggs; the average is 6. She spends most of her time on the nest, leaving only during the warm parts of the day to feed on forbs and insects, the high-protein

foods. Predators such as ravens, ground squirrels, badgers, and white-tail deer will eat the eggs or newly hatched chicks. As we learn more about the chicks, we find some die from no apparent cause. Some may be trapped in tall, coarse grass and starve. A chick, which is no larger than the first joint of your thumb, cannot fight its way through tall grass surrounding the nest. If the hen loses her nest to predation, she may well nest again and often this effort is successful.

Some scientists say chicks need free water for the first few days of life, others say no. It is undisputed the chicks must have insects to eat during the first 6 weeks if they are to survive. This high-protein diet is essential, which means they must have relatively bare ground where they can see, chase, and catch the ants, darkling beetles, and black beetles that are the dietary mainstay. Gradually the chicks eat high-protein forbs such as hawksbill, loco, or alfalfa. After the first killing frosts, the bird switches to sagebrush, preferring Lahontan sagebrush (*Artemisia arbuscula longicaulis*).

The surviving chicks grow rapidly and by fall they are nearly full-grown. Only about 50% will survive the first winter to enter the breeding flock. Where hunting is allowed, the hunters account for 2% to 5% of the birds. Predators and harsh weather kill the other 45%–48%. The sage-grouse's natural reluctance to fly indicates that hawks and eagles take a heavy toll of the birds. Once through the first winter, the sage-grouse will often live another 8 to 10 years.

Overlooked in most studies is the preference of the sage-grouse for one subspecies of sagebrush during the summer, namely Lahontan sagebrush. Once winter comes the grouse shift to the ridges where the winds clear the snow. Here they eat

alkali sagebrush, and thereafter their meat is no longer edible.

The Alliance suggests that removing cattle from western ranges will be the panacea for all problems. But almost all the water developed for livestock also waters birds and other wildlife. Without the rancher, these waters will not be maintained. The private land meadows were patented early and these are often prime strutting grounds for sage-grouse. Once the cattle are gone, then these lands must become prime development land for houses.

A great deal of empirical evidence indicates that cattle manure attracts and breeds insects. These insects in turn feed sage-grouse. Where there are no cattle, there are precious few birds. More empirical evidence indicates that sage-grouse follow the cattle as they are rotated between pastures. Not every year is a good year for forbs and when these are lacking the sage-grouse must substitute insects for forbs. A comparison of sage-grouse on the Sheldon Antelope Range (where cattle have been outlawed) and adjacent grazed lands show the flocks are healthier on grazed ranges. Forbs grow only on disturbed soil and cattle tracks provide havens for forb seed.

We should be aware of the natural 10-year boom-and-bust cycle among sage-grouse and not panic when the birds seem to die off excessively.

So, how do you vote? Keep the birds or lose them? It's a political choice now.

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