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# State of Nevada Assembly

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## THE SHELDON: A CASE STUDY IN GRAZING AND SAGE GROUSE

***SUMMARY: Livestock grazing was eliminated entirely on the Sheldon Antelope Refuge in 1994. Removal was predicted to result in substantial increases in wildlife, including sage grouse. Grazing had begun to be cut back earlier, starting in the late 1960s. An aggressive predator control program also existed there from the early 1940s to 1967. Following the removal of livestock, not only did the population of sage grouse and other game species NOT expand, they in fact declined, with sage grouse reaching their lowest population ever recorded in 2013.***

**IN 1931** President Herbert Hoover created in Northern Nevada the Charles Sheldon Antelope Refuge, a former ranch of 31,399 acres. This area to this day is known as the "Little Sheldon".

In 1936, President Franklin Delano Roosevelt expanded the refuge by more than 540,000 acres. The new area was called the Charles Sheldon Antelope Range. The combined acreage is approximately 575,000 acres. FDR also created a dual bureaucratic control system for grazing, with the original Hoover created range, the Little Sheldon, under the U.S. Fish and Wildlife Service, and the remainder, over 500,000 acres, under the U.S. Grazing Service, whose name in 1946 changed to the Bureau of Land Management (BLM).

The primary original purpose of the refuge was a combination of improved public grazing and wildlife habitat. Grazing year round occurred on both areas. Two slightly different grazing systems evolved. On Sheldon, out of a total of 549,000 acres, 151,000 were set aside for wildlife, leaving 397,933 acres for livestock grazing. On Little Sheldon, 28,640 acres were for livestock grazing.

In 1976 all of the grazing on the Sheldon was placed under control of the USFWS. With the by-then-in-vogue theory that reducing livestock grazing would "restore" the habitat and enhance native wildlife, grazing was significantly cut back, eventually in 1994 being eliminated entirely.

The grazing theory was spelled out in the 1980 “Sheldon National Refuge Management Plan” which said: *“The underlying assumption on which the program is based is that improving vegetative condition and vigor will enhance wildlife habitat, which, in turn, will ultimately result in increased diversity and abundance of native plant and wildlife species.”*

In short, remove the livestock and everything will get better and more abundant.

The 1980 report even gave a population goal for sage grouse – assuming the theory was correct. *“Sheldon has the capacity to support an estimated 6,000 to 8,000 sage grouse. The current population (1980) is estimated at 4,000.”* They attributed this below carrying capacity number to (hard to guess!) – cattle grazing.

Almost universally, livestock grazing is condemned by “wildlife” advocates, biologists and environmentalists. In the current debate over the sage grouse, for example, grazing is always listed at the very top as “degrading” the habitat, in theory resulting in the bird’s demise.

My observations are the opposite. And, for starters, I have absolutely no connection with the livestock industry. But I have spent literally years in the back country of Nevada, as well as doing a great deal of serious study of journals and books dealing with the interactions of wildlife/livestock and of Nevada history.

The history of the Sheldon is truly an open book, for a yearly narrative of all of the activities there was kept, in great detail, from 1940 to 2000. Thus, a 60 year window is fully available to the serious student. I have purchased and read every single page of those narratives, and have provided for you here a synopsis of the year by year changes for your own opportunity to judge.

While I have great respect for the highly educated biologists, I have also spent many years working with them, and have learned they, like all humans, have their own biases and pre-judgments. They are also subject to peer pressure, group conformity mentalities, and desire for public acclaim. Rocking the boat, going against the grain, is rare.

The very first, and oldest, observation about the Sheldon area was noted by explorer John C. Fremont, who traveled through this part of Nevada in December 1843. He wrote about the Indians that lived there: *“...they seemed to have no other subsistence than the roots or seeds they might have stored up, and the hares that live in the sage...”*

In August of 1864 the US Army gave the assignment to Colonel C.S. Drew of creating a possible new connecting road from northern California to southern Idaho. He led a large military expedition through the Sheldon area, seeking a shorter route. He of course was on horseback and wagon, with water and grass critical for his animals. As he was constantly going to springs and streams at the time of year when sage grouse flock to such locations, his observations are especially pertinent.

He wrote, “*Game is scarce. We saw a few mountain sheep, but always beyond gun range. These and the gray rabbit [black-tailed Jack rabbit], with a few sage hens, seemingly constitute the game of this region.*”

As I have documented in several earlier papers, the historical record is very conclusive: sage grouse were rare to non-existent in pre-white, pre-livestock Nevada. Drew and Fremont’s observations are simply further confirmation of what literally every early commentator noted.

Drew and Fremont also commented on the near universal coverage of sagebrush and in some cases its enormous size – which totally refutes another pet theory - that range fires there were frequent and hence the area was a “grassland”. But that is fodder for another report.

Exactly when livestock became abundant in Northern Nevada is not specifically known, but by 1880 the great Miller and Lux operation, running hundreds of thousands of head on literally millions of acres, was well established here. What later became the Sheldon was part of their range. By the early 20<sup>th</sup> century, many smaller outfits had also established, including several Basques who ran huge flocks of sheep as well as cattle.

Assuming this section of Nevada had the same changes as most of the rest of the state, by the late 1800’s sage grouse populations went from nearly non-existent to abundant. I have documented the reason why in another paper, but, in a nutshell, the expansion of man-made meadows, the removal of old decadent plants and shrubs, water development, the introduction of non-native forbs and predator control all created a very positive sage grouse environment.

The Sheldon Narratives begin in 1940. The very first narrative noted “*The Sheldon Antelope Range appears to be well populated with sage hens.*” The author for example estimated, in his range reconnaissance, having seen 1100 birds. Keep in mind, by 1940, the Sheldon had at least 60 years of intense year round grazing.

Note at this time grazing was still year round, basically unregulated, and highly competitive. Sheep, cattle and horses from numerous outfits crisscrossed the Sheldon. The USFWS has estimated “conservatively” 70,000 AUMs were removed as a yearly average for 1880-1940. By comparison, the sustainable levels estimated in later years were a maximum 48,000 AUM’s.

Yet sage grouse, compared to Drew’s observations prior to livestock, thrived.

The yearly narrative was originally broken into three four month windows, with sage grouse listed specifically by population in each. For 1940 through 1949, the yearly average population of sage grouse on the Sheldon was 4,950. For that same ten year window, the yearly estimated AUMS eaten by livestock was more than 30,000; horses ate another unknown amount, but it must have been substantial. In the 1946 narrative

for example, they estimated 360 feral horses roamed the Sheldon. However, in the 1948 narrative they documented removal by a hired contractor of more than 2,700 wild horses, none of which were factored into the AUM removal figures. They also document in the narratives that ranchers mowing meadows removed a yearly average of almost 750 tons of hay in that decade.

All in all, this represents a tremendous amount of grazing – yet sage grouse not only did *not* decline, they in fact showed a substantial increase!

In the 1950s, USFWS biologists and range personnel conducted consistent and well documented population studies of sage grouse. In spite of the heavy grazing levels of the last decades - or perhaps because of it – sage grouse populations literally exploded. The 1950's was also the golden era of predator control on the Sheldon, with an average of 35-50 "1080" poison bait stations strategically placed across the refuge. 1080 was first used there in 1946. Coyote and raven numbers, also documented in every narrative, saw sharp declines. The average yearly sage grouse numbers from 1950 to 1959 was an amazing 10,150 birds, with a peak in 1954 of almost 15,000!

Yet grazing continued almost unabated. Indeed, compared to the 1940's it actually expanded. On the Little Sheldon alone on only 28,000 acres, yearly AUM removal averaged 9,334. Additionally, on the 397,000 acres on "Big" Sheldon, AUMS averaged at least 25,000 a year, with several hundred feral horses and almost 1000 tons of hay mowed as well.

The early 1960s average was similar, although toward the end of the decade both grazing and sage grouse decreased. Predator control was slowly phased out, ending entirely in 1967. The yearly average sage grouse population for the 1960's was 5900; AUMS averaged 31,150, plus hay and horses, although again a decline in grazing was mandated in the second half of the decade. Over the objections of the Sheldon personnel, the State of Nevada implemented an annual sage grouse hunting season as well in the 1960's.

The 1970s, by then heavily influenced by the "environmental" movement, saw demands for sharp cutbacks in livestock grazing. The narratives reflect this, and very hostile comments by the USFWS, as written in the narratives, in regards to BLM grazing "management", as they mocked it, led in 1976 to giving full authority to the USFWS over grazing. The 1970s saw a yearly sage grouse population of 4,450 birds. AUMS by 1978 had been cut to 16,000, with a decade average of less than 20,000.

Note the trend; as AUMS go down, so do sage grouse numbers.

In the 1980s public lands grazing was under major assault. Sheldon, now entirely controlled by the USFWS, saw a constant cutback. AUMs averaged 15,543 – less than half of the 1940's, 50's and 60's. Sadly, and suspiciously, although the yearly narrative was still kept, no specific population estimates are recorded, and the overall comments clearly reflect a sea-change in attitude from the 1950s and 60s towards livestock and

grazing. However, despite the constant removal of livestock the downward trend in sage grouse clearly continued as evidenced by their comments.

In the 1990s grazing was entirely eliminated. The environmental chant of “Cattle free by ‘93” literally occurred on the Sheldon. The average AUMs for 1990 to 1993 was only 2,120, and zero for the rest of the decade. Sage grouse population numbers were not recorded. But, if the theory of livestock removal benefitting wildlife is correct, we should have been seeing an explosion in sage grouse numbers. So what happened?

*Not only did they not increase; rather, they took a major nose dive!* The exact opposite of what the pet theories promised.

The Nevada Department of Wildlife (NDOW) was delegated primary responsibility to monitor the sage grouse populations on Sheldon. Since 2001 with a total absence of livestock, what have the populations done?

But first a recap:

<b>Year</b>	<b>Sage grouse population</b>	<b>AUMS</b>
1864	“A few sage hens”	0
1940s	4,950	30,000+
1950s	10,150	34,300+
1960s	5,950	31,150+
1970s	4,450	20,000
1980s	(less than 4000)	15,543
1990s	(less than 4000)	212
2001-2013	3030	0
2013	750	0

From 2001-2013, with zero AUMS removed by domestic livestock, sage grouse populations as estimated by NDOW was only 3030. And the most recent year, 2013, NDOW estimated the population for the entire 575,000 acre Sheldon was only seven hundred and fifty birds.

***THIS IS THE LOWEST DOCUMENTED POPULATION IN THE HISTORY OF THE SHELDON.***

***With ZERO domestic livestock!***

While there are many causes of population changes, the constant downward trend documented here clearly demonstrates the theory of livestock grazing harming sage grouse is bogus. In fact an unbiased person observing the above numbers would quite reasonably conclude the exact opposite – *that sage grouse, rather than being harmed by grazing, are instead greatly benefitted by grazing.*

By the way, most of the other animals charted through the years, including mule deer and antelope, show a consistent downward trend as well. I will be following up with their numbers soon.

Another clearly traceable fact is the benefit of the predator control efforts, reflected not only in the sage grouse numbers but in the big game populations and fawn survival data as well. Again, fodder for a future paper.

Last thought: the one bright spot in Nevada for sage grouse as singled out by the de-facto leader of the Governor's Sage Grouse task force, NDOW biologist Sean Espinosa, is the Smith Creek Ranch in central Nevada, where in the years of 1999 to 2013 as documented by NDOW the population of grouse went from next to nothing to thousands.

Note what I just said. The very best place in Nevada is a working CATTLE RANCH with over a thousand head constantly grazing, and with a man-made meadow complex (created in 1999) they mow and graze.

With the unfortunate high probability of the sage grouse being listed as "endangered" by the Federal government in 2015, one of the protocols will be to FURTHER cut back on grazing.

As the history of the Sheldon proves, this will not only NOT restore the bird, but will result in its further demise. The Federal government to the rescue!  
As Ronald Reagan once said, "The most dangerous words you will ever hear: *"I'm from the government and I'm here to help."*

As the evidence clearly shows, if we were serious about "restoring" sage grouse in Nevada, *we should be increasing livestock grazing.*

Sincerely,  
Assemblyman Ira Hansen  
District 32