



Checking the Wild Side

Oregon ranch dividends come with a wildlife biologist.

Words & photos by Larry Turner.

All is quiet on the western front of South Steens Mountain at 4:30 a.m. Even the sun is not quite awake in the east across nearby Alvord Desert as Roaring Springs Ranch wildlife biologist Andrew Shields stealthily scours the open landscape with his Cabela's 10x42 binoculars. Soon he spots what he is looking for and hands the binos to me. I hand my large-lens camera to him to hold and, for the first time ever, I see a sage-grouse lek.

"I counted 13," says Shields, almost in a whisper. They hadn't seen us yet because the males were too busy doing their mating strut,

above Beatty Butte as we drive.

Shields' job as a wildlife biologist is certainly rare and atypical for a ranch, but he has been on the payroll since 2012.

"Roaring Springs Ranch [RSR] contains some of the most intact and important wildlife habitats in eastern Oregon," ranch manager Stacy Davies says. "Our mission states that we will maintain robust and

almost to the amusement of the females. Nearby were two pronghorn antelope staring directly at us. After confirming his count and marveling about their iconic feather display, I gave the binos back. Later that day at the ranch's Rock House, I opened some close-up YouTube videos on the sage-grouse strut and was immediately captivated. This is a common mid-to-late-spring activity for Shields. He's up before the roosters crow and off to one of the eight leks on this vast deeded and leased one-million-plus-acre ranch in remote Harney County—Oregon's least populated county that is the size of Vermont.

Andrew's knock at the kitchen door comes early. "Are you ready to go?" he asks. "Yep," I answer. "I'll follow you in my rig." I gather a few items and a cup of coffee and off we go into the dim light of dawn. We are the only vehicles on State Highway 205, heading south. In 10 miles or so, we leave the pavement heading east, past a locked gate (where I leave my vehicle) to Skull Creek Reservoir, and then onward to V Lake where we spot the first lek. It is the heart of the new COVID-19 crisis and Harney County as of yet has not had a recorded case. The last supermoon of the year is hanging bright and lucid in the western sky



Andrew Shields points out round gravel for spawning. Wildlife (clockwise from top): Mule deer in velvet; large-brood redband trout; Andrew scours Roaring Springs Ranch landscape for sage grouse (there are plenty); pronghorn antelope; and male and female sage grouse (the male is the fancy one).



resilient wildlife populations, biodiversity, perennial plants and functioning watersheds. Andrew is a critical part of our team as he helps me determine appropriate management practices that will benefit the ecosystem. The old adage 'We can only manage what we measure' is true. The monitoring of habitats and populations provides us important information as we make adjustments to our management practices. Andrew represents the ranch in meetings and activities involving the various land-management agencies we work with and spends a great deal of time reading and providing comments on the plans that the various agencies put forward. All these activities allow me to focus on production and marketing of the cattle."



While Davies and the farm, mechanic and cowboy crew tend to the domestic side of the ranch, Shields looks after the wild side.

"I love my job and this is the perfect place to raise a family. It is unique because

most wildlife biologist jobs are connected to the feds or the state. There is more elbow room on the private side and I get to do a variety of things from sage grouse to elk to redband trout. And I've found out that we generally get better results than the feds and state, and we're mainly a cattle operation. For instance, when they took the cattle grazing off nearby Hart Mountain National Antelope Refuge, the sage grouse populations plummeted. Our private leks here have higher numbers because we have more flexibility and active management." Shields notes that the RSR has conservation agreements on sage grouse with the U.S. Fish & Wildlife Service and the Bureau of Land Management. The RSR averages 30 to 35 males per lek.

Currently sage grouse are not listed as threatened or endangered, and that is the way Shields and the RSR want it to stay. "We're doing a number of things on the ranch to maintain and increase sage grouse numbers," he says. "We're thinning juniper because that is the worst culprit for sage grouse. Over four percent juniper encroachment, the sage grouse flee as the forbs become much reduced. Also, perch trees allow ravens to hang out and kill young grouse. We've also put reflectors in fences that occur near leks to prevent collisions, such as they do where there are power lines and crop dusters." During his eight years working at the RSR, Shields has collected 25,000 sage grouse GPS locations.

He points out that cattle grazing and fire with proper management is a great tool to provide and maintain sage grouse habitat.

"They eat wildflowers, sage and forbs. Fire and grazing create younger, fresh sage leaves and forbs. Aspens regenerate with fire, too, and that is important, especially for deer and elk as they dine on new aspen leaves. We need a good fire every 30 years to bring about new sage and bitterbrush and aspens. Fire suppression on Steens Mountain by the feds has created less foraging for wildlife and, therefore, numbers are down. Old bitterbrush and sage are not desirable. Occasional disturbance is good for the land; total suppression is not."

Davies justifies Shields' salary based on these facts. "The only revenue source for the ranch comes from selling cattle. We do not have a recreational business or any other revenue stream. Andrew's work allows the cattle operation to thrive. There are many interest groups that create roadblocks by filing lawsuits or protesting decisions that BLM and other agencies make. We are able to fend off most of the attacks and win lawsuits because of the information we have through the work of our wildlife biologist. When we are taken to court over an endangered species issue or a Clean Water Act issue, we have the science to defend ourselves. More important, however, is our sincere love of the land and the wild animals that share this time and space with us. We want abundant wildlife populations. We feel it is our responsibility

to be good stewards. Andrew helps us achieve our mission and fulfill our responsibility."

After an hour watching, studying and photographing the lek, we drive higher on the mountain overlooking an aspen belt. Our discussion turns to the deer and elk habitat and problems on the ranch. We had seen none so far and that would be the case for the remainder of the day.

"Deer and elk populations are down on both federal and private land on Steens Mountain," says Shields. "We had 4,000 deer last year and 3,000 this spring on the Steens. In the 1960s and '70s, there were 20,000 to 30,000 deer. This is something that we and the feds and state are studying because we are well below carrying capacity...although these numbers are possibly the natural level prior to the settling of this country. Cougar populations in southeast Oregon are up from 310 in 1994 to 910 in 2014; statewide, 3,100 in 1994 to 6,200 in 2014. Each cougar will take one to three deer a week, so that is one of the main problems. Oregon outlawed hound



hunting for cougar and that is the only effective way to control them. If you love predators, you love the law. If you love game, not so."

Earlier in the year, a cougar killed a ranch horse at Skull Creek, near where we are now. "Since it killed our stock, we could and did call in a government agent and the cougar was harvested," says Shields. "Deer is a tough one to manage. The big question is what is most limiting the numbers—habitat and nutrition or predation. The first step is to determine that

through research and then address what we find. The reality is that it's probably both to some extent. There are several ongoing projects that will help: juniper cutting to restore aspen stands, disturbance treatments to reset the successional stage of the vegetation, restoring and conserving the existing sagebrush/bitterbrush winter ranges. On the predation side, I think targeted coyote control in fawning and wintering areas might help."

Our last visit is with the redband trout of Skull Creek and Skull Reservoir. This is one of Shields' favorite and most challenging projects on the ranch. I tell him about my son and I fly-fishing the reservoir 20 years ago with spectacular results and I mention that more recently the fishing has not been remotely the same.

"Well, river otters moved in and nearly wiped out the fishery," he explains. "It was like an easy turkey shoot as all they had to do was wait at the mouth of small Skull Creek for the trout to begin their spawning in early April. Easy pickings. We've eliminated most of that problem with trapping. Hopefully, things will improve as time moves on."

Some of the improvements made for the redband are bank renovations and spawning habitat improvement by adding round gravel. The creek was fenced to manage it differently than the uplands around



it and Shields has kept the water level in the reservoir higher. A flume/weir was installed to measure and record stream flow, junipers were cut in the upper canyon to increase creek flow, and the mountain access road from next to the creek in the upper canyon was moved to the next ridge to reduce sedimentation. At ranch headquarters, a new building provides fresh aerated water from the nearby natural springs—which the ranch is named for—in a new spawning area.

“The building houses the micro-hydro-electric generator,” Shields adds. “We designed the outlet channel with a fish-friendly gradient and added nice smooth gravel to allow for spawning. This was the first year it was in place ready for fish to use and it appears they very successfully spawned in the new channel.”

When asked about the future of maintaining a wildlife biologist, Davies responds: “We will always have a wildlife biologist on the ranch. It is a critical role. Andrew helps many of our ranch neighbors too, with his knowledge and skills, and he works on the various ranches we own and lease. Very few ranches are large enough to justify a full-time biologist, but I do see more and more ranchers leaning on biologists within the various agencies for assistance. Many of the large ranches do have a biologist or range specialist of some type. We manage large landscapes that have critical habitat and ecological function. The world depends on the health of these landscapes. Land stewardship will increase in importance and a wide range of knowledge is needed to properly manage land.”

Davies says he has learned a lot from Shields’ work: “Life is a journey and we never quit learning. The migration patterns of the various species are fascinating. We have or have had tracking units on fish, birds, big game, cattle and wild horses. We have found that we knew very little about the life cycles of the various species we track. Some travel great distances for no apparent reason; others spend their entire lives in a relatively small space. The ranch is a working laboratory with research projects covering a wide range of topics—from fire to riparian function, to salt desert shrub establishment, to wild horse interactions and beyond. These projects generally involve universities or research agencies and the ranch benefits from the knowledge gained. And they would not be possible without Andrew’s oversight.” ■

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