

BIGHORNS

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The most promising sign right now is that biologists haven't seen any dead lambs from this year's births, nor any that appear to be sick, said Ratliff, the district wildlife biologist at the Oregon Department of Fish and Wildlife's (ODFW) Baker City office.

"That's a good sign," Ratliff said on Thursday, June 17.

One potentially bad sign is that biologists have also seen ewes without lambs, Ratliff said. It's not clear whether those ewes didn't have a lamb this year, or whether they had lambs that died. Lambs can be killed by predators or die as a result of something other than the bacterial infection, he said.

Lambs — which usually are born from late May through mid June — appear to be healthy in both the Lookout Mountain herd and in Baker County's other bighorn herd, in the Burnt River Canyon south of Interstate 84, which was infected with the same bacteria later in 2020.

Biologists have counted at least 27 lambs in the Lookout Mountain herd — the tally is not complete, he said — and about a dozen in the Burnt River Canyon herd.

Ratliff said he believes about 95% of this year's lambs in the Lookout Mountain herd have been born.

The situation was dramatically different a year ago.

Ratliff said biologists found dead lambs in the Lookout Mountain herd as early as June 5, 2020. Based on surveys later in the year, it appeared that none of the lambs born in 2020 in the Lookout Mountain herd survived.

The herd, which numbered about 400 sheep prior to the bacterial infection, probably produced 65 to 70 lambs in 2020, Ratliff said.

He estimates that at least another 75 adult sheep from the Lookout Mountain herd died last year from pneumonia.

"There was significant adult mortality," Ratliff said.

An aerial survey of the herd in late 2020 turned up about 250 sheep, compared with 403 in a 2018 aerial census.

To maintain the herd population requires a minimum of 20 lambs per 100 ewes, Ratliff said. The average ratio for the Lookout Mountain herd is 38 lambs per 100 ewes, and the number ranged from a high of 67 per 100 to a low of 24.

Bacterial strain's first confirmation in Oregon

The same strain of *Mycoplasma ovipneumoniae* bacteria was found in tissue samples from bighorns from both the Lookout Mountain and Burnt River Canyon herds in 2020.

That strain had not been detected in bighorn sheep in Oregon before, Ratliff said.

The outbreak prompted state officials to cancel bighorn sheep hunts in 2020 and 2021 in both units. In the past the state had issued three tags for Lookout Mountain and one for Burnt River Canyon.

Ratliff and other biologists have been monitoring the Lookout Mountain herd since mid February 2020, when ODFW received a report of a



Lisa Britton/Baker City Herald

A group of bighorn sheep, including a lamb, in the Lookout Mountain unit in eastern Baker County on June 20, 2020. A state wildlife biologist said it's likely that no lambs born in 2020 survived an outbreak of pneumonia caused by a bacterial strain.

dead bighorn ram from the Lookout Mountain herd lying on the Snake River Road near Connor Creek, about 18 miles north of Huntington.

During the spring of 2020, biologists found several dead adult bighorns.

Ratliff said bacteria can spread rapidly among lambs as the ewes and lambs tend to form large groups, and even a single sick animal can easily infect the others in the group.

With biologists having seen more than two dozen Lookout Mountain lambs since late May, with none appearing ill, it seems likely that the bacteria is not nearly as prevalent as it was in 2020, Ratliff said.

(Bighorns that have pneumonia cough frequently, and are relatively easy to diagnose.)

Although bighorn sheep are stout animals renowned for their ability to easily traverse some of the state's toughest terrain, they are quite vulnerable to a variety of bacteria and viruses that cause fatal pneumonia, Ratliff said.

Pneumonia outbreaks have plagued many bighorn herds in Oregon over the past few decades.

"Bighorn sheep are susceptible to a lot of things," Ratliff said. "They're not the strongest species out there."

Oregon has two subspecies of bighorns — Rocky Mountain and California (also known as desert) bighorns.

The Lookout Mountain herd is Oregon's biggest group of Rocky Mountain bighorns.

The 85 or so sheep in the Burnt River Canyon herd are California bighorns.

Both subspecies are susceptible to the same bacteria and viruses, and they can transmit infections between subspecies.

Sheep in the Burnt River Canyon began dying around October 2020, and Ratliff believes sheep from that herd crossed I-84 earlier in the year, mingled with Lookout Mountain bighorns and became ill, then returned and began spreading the bacteria among Burnt River Canyon sheep.

Trying to identify 'chronic shedders'

The emphasis for ODFW and its many partners now and in the future is to identify sheep in both herds that are "chronic shedders" of the bacteria, Ratliff said.

He said the state is receiving help, including financial aid to buy tracking collars

fitted to sheep and to pay for testing, from the Confederated Tribes of the Umatilla Indian Reservation, as well as the Oregon and national chapters of the Foundation for North American Wild Sheep.

"None of this is cheap," he said. "There are a lot of people really interested in preserving sheep in the (Lookout Mountain) herd."

Umatilla tribal members have the legal right to hunt bighorns in the Lookout Mountain unit because it is part of their ancestral hunting grounds.

But Ratliff said that before he could even ask the Tribes in 2020 to temporarily postpone hunting, they did so voluntarily.

Ratliff said other states, including Idaho, that have had pneumonia outbreaks in bighorn sheep herds have found that identifying chronic shedders, and euthanizing them, can be the key to eradicating bacteria or viruses from the herd.

These adult sheep might not be ill, but because they constantly shed the virus or bacteria, they can infect other sheep and prolong the outbreak, he said.

To figure out which sheep are chronic shedders, biologists tranquilize sheep and test their blood for the bacteria.

Two rounds of testing in the Lookout Mountain herd in 2020 give biologists another reason to be optimistic that the current outbreak is past its peak and that the herd could be saved, Ratliff said.

During the first series of tests, conducted from February through May, 88% of sheep tested were infected with the bacteria and capable of spreading the germ, he said.

The second round of tests, done in the fall of 2020, showed that 91% of the approximately 25 tested bighorns had antibodies in their blood showing they had previously been infected with the bacteria.

But just 8% of those sheep were currently infected, and thus shedding bacteria, Ratliff said.

That, like the apparently healthy 2021 lamb crops in both herds, is a positive sign, he said.

All tested sheep were fitted with tracking collars, which makes it much easier for biologists to find those sheep again and retest them.

That testing is planned for

this fall, Ratliff said.

Any sheep that was a chronic shedder in 2020, and is still shedding bacteria in 2021, will be euthanized, he said.

Ratliff said some states have euthanized bighorns after the first test showing they are shedding bacteria, but ODFW officials decided not to do so with the relatively few sheep that were infected in the fall of 2020, in effect giving them a second chance to get rid of the bacteria.

In the Burnt River Canyon herd, which was infected several months later, 61% of sheep tested in March 2021 were carrying the bacteria, Ratliff said.

Based on the significant drop in infection rate among the Lookout Mountain herd in late 2020 compared with early in the year, Ratliff said he hopes the Burnt River Canyon herd will show a similar trend.

Although chronic shedders pose the greatest risk, Ratliff said some adult sheep can also be "intermittent" shedders, meaning they carry the bacteria but shed it only some of the time and so could produce a negative test but still be capable, at times, of infecting other sheep.

Source of bacteria remains mystery

Ratliff said biologists don't know how the Lookout Mountain herd was initially infected with the bacteria.

Mycoplasma ovipneumoniae bacteria are not known to be carried by cattle, but domestic sheep can be infected.

Domestic sheep graze on a public land allotment, overseen by the Bureau of Land Management, in the Lookout Mountain unit, Ratliff said. None of the domestic sheep that graze on that allotment has been tested for the bacteria.

Sheep from two other domestic flocks near Richland, at the north end of the Lookout Mountain unit, were tested in 2020 and none was carrying the *Mycoplasma ovipneumoniae* bacteria, Ratliff said. A llama owned by a resident along the Snake River Road was also tested, and was also negative for the bacteria.

Ratliff said the strain of bacteria in both Lookout Mountain and Burnt River Canyon herds has not been detected in bighorns in Idaho, which can potentially mingle with Oregon bighorns.

CHLORINE

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"While it is a concern, it isn't a crisis concern for us," Owen said on Monday, June 21. "We do have supply on hand. We don't want this to turn into the great toilet paper hoarding, we're not going to hoard additional chlorine. We're being very conscious about how much we are using and working with our supplier for making sure our next delivery is on schedule."

The city uses chlorine in two places.

First, chlorine is added to drinking water, before it enters the distribution system, as a disinfectant. (The city also uses UV light as a disinfectant because some microbes, including giardia, are not inactivated by chlorine.)

Second, before the city discharges wastewater into the Powder River from storage lagoons about a mile north of town, chlorine is added to remove *E. coli* bacteria, Owen said. The city then adds sulfur dioxide, which removes the chlorine, because the city isn't allowed, under its state permit, to release the chlorinated wastewater into the river (the concentration of chlorine is much higher in wastewater than in drinking water).

The city has about 50 days' supply of chlorine at the wastewater plant, Owen said. The city does have some flexibility there, because wastewater can be stored longer, reducing the amount of chlorine needed.

The situation with chlorine for disinfecting drinking water is potentially more problematic. Based on current water use, the city has enough chlorine through at least July 10, Owen said.

But with record-setting heat forecast, residents are likely to use more water on their lawns and in their gardens and to fill wading pools. And more water use means more chlorine is needed, Owen said.

As a result, she said it's possible that the city will have to enact its water curtailment ordinance earlier than would otherwise be necessary.

She already anticipated that water use would be reduced soon at city parks, Quail Ridge Golf Course and Mount Hope Cemetery due to the drought.

Under the first stage of the ordinance — which the city announced in late July of 2020 — the city asks residents to voluntarily curb water use.

Under stage 2, residents can use city water (the ordinance doesn't apply to private wells) to irrigate lawns and gardens only every other day.

The ordinance also has stages 3 and 4, under which lawn watering with city water is banned outright, with potential fines for violators.

(That ordinance, No. 53.25, is available through the city's website, www.bakercity.com. Click on the "Municipal Code" link and type "water curtailment" in the search bar.)

"We shall see how our water supply holds out and that will likely kind of impact our water curtailment ordinance based on drought conditions, not so much chlorine conditions," Owen said.

Rainfall since March 1 has been about 37% of average at the Baker City Airport.

NEWS OF RECORD

DEATHS

John L. 'Jack' Jacobson: 81, a retired attorney, died June 20, 2021, at his home in Rock Creek near Haines. Services are under the direction of Coles Tribute Center, 1950 Place St., Baker City, OR 97814. To light a candle in memory of Jack, go to www.colestributecenter.com.

FUNERAL PENDING

Beth Johnson: A celebration of her life will take place Saturday, June 26 at 11 a.m. at the Church of the Nazarene, 1250 Hughes Lane in Baker City. Online condolences can be made at www.tamispinevalleyfuneralhome.com.

Dan Harmon: Celebration of life potluck (his family will provide the meat) will be Saturday, June 26 at noon at Dan's Home, 17501 Deer Park Loop. Online condolences can be made at www.tamispinevalleyfuneralhome.com.

James Oliver (J.O.) Maxwell: Graveside memorial service with Air Force military honors, Monday, July 5 at 10 a.m. at the Haines Cemetery. In lieu of flowers, please consider donating to the Haines Elementary School or a charity of your choice through Gray's West & Co. Pioneer Chapel, 1500 Dewey Ave., Baker City, OR 97814. Pam Maxwell is compiling a memory book for the family. If you have a fond memory or

copy of a photo, please send them to Pam Maxwell, 15177 Muddy Creek Lane, Haines, OR 97833.

Don Phillips: A celebration of his life will take place Saturday, July 17 at 1 p.m. in the Family Life Center at the Nazarene Church, 1250 Hughes Lane in Baker City. The family asks that if you have any special memories you'd like to share, please mail them to Tami's Pine Valley Funeral Home & Cremation Services, P.O. Box 543, Halfway, OR 97834. Online condolences can be made at www.tamispinevalleyfuneralhome.com.

POLICE LOG

Baker City Police Arrests, citations
HARASSMENT, MINOR IN POSSESSION OF ALCOHOL BY CONSUMPTION: Justin James Smith, 20, Baker City, 5:45 p.m. Sunday, June 20 in the 2500 block of Ninth Street; cited and released.
SECOND-DEGREE CRIMINAL TRESPASSING: Laura Feign Osterkamp, 57, Baker City, 12:26 a.m. Friday, June 18 in the 1200 block of Place Street; cited and released.

Baker County Sheriff's Office Arrests, citations
THEFT (out-of-county warrant): Zachary Aron Carter, 23, Baker City, 9:19 a.m. Sunday, June 20 at the sheriff's office; jailed.

CHARGED

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The warrant from Baker County Circuit Court stems from investigations by the Baker City Police and Baker County Sheriff's Office related to construction fraud complaints, according to a press release from Ray Duman, interim administrator for the Baker City Police.

The two agencies investigated two incidents with a combined loss of \$78,000, according to the press release.

A third case, from Union County, was also reported to Baker City Police.

Three other cases reported to Baker City Police were

settled by civil action between the residents and Hackett, according to the press release.

According to the Oregon Contractor Construction Board, Hackett has never been a licensed contractor in Oregon.

The agency fined Hackett five times between 2009 and 2021 for working without a license, and he owes \$25,491 in penalties, including interest, said Leslie Culpepper, communications and education manager for the Oregon Contractor Construction Board.

According to the press release, "BCPD anticipates additional charges, as additional investigations will be presented to the Baker

County District Attorney's Office."

People are encouraged to report possible incidents in-

volving Hackett to the Baker City Police (541-523-3644) or Baker County Sheriff's Office (541-523-6415).

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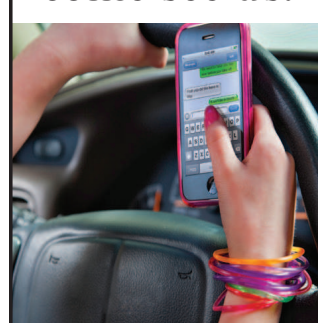
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