

National Elk Refuge News

Body Condition Assessment Pilot Study – March 22, 2016



Dr. Jennifer Ballard, DVM, PhD (right) and Lee Jones (left) from the U.S. Fish and Wildlife Service Wildlife Health office use a medical imaging technique in the field as part of a recent body condition assessment.

The National Elk Refuge equipped 30 cow elk with GPS collars earlier this month, part of an ongoing cooperative research project that evaluates habitat use and migration patterns. This year, the collaring process included a pilot study by the U.S. Fish and Wildlife Service's (USFWS) Wildlife Health office to evaluate body condition assessment techniques for elk.

Biologists from both the USFWS and Wyoming Game & Fish Department had planned to capture elk for the project using a baited walk-in trap, similar to

a corral. Biologists tested the baiting method the week prior to the testing with some success. However, elk did not come to the location on the first day of the study as they had the previous week. Warm temperatures had melted snow and exposed grass, which likely resulted in elk preferring natural forage over alfalfa pellets. "The elk just weren't hungry enough to be lured into the corral," explained Refuge Manager Steve Kallin.

After the second day, wildlife managers implemented a backup plan of using three teams of

interagency biologists to randomly select and capture cow elk with immobilization darts, a method that has previously been used on the Refuge to deploy GPS collars. During the process of deploying the collars, biologists also draw blood, check teeth to determine the animal's age, and add an ear tag for additional identification. A series of photos and captions in the Refuge's photo gallery give an overview of the collaring process at <http://bit.ly/1T46rik>.

During this month's collaring event, two staff from the USFWS Wildlife Health office joined one of

the collaring teams to implement a body condition assessment technique using ultrasound equipment to measure rump fat on some of the elk. The team was able to complete assessments on nine cows.

When the results of the assessments were analyzed, all nine elk in the sample group showed they had measurable rump fat. In comparison, a previous study of unfed winter elk near Yellowstone National Park showed 49% of the cows had no measurable rump fat when evaluated in mid- to late winter. Although the ultrasound technique used on the Refuge evaluated a small sample size, the results clearly indicated all the elk still carried measurable body fat.

Wildlife veterinarian Jennifer Ballard, DVM, PhD, participated in the body condition assessment study and observed hundreds of elk during the two-day testing. “Based on the ultrasound results and my observations, I saw no evidence that elk were being starved on the National Elk Refuge,” Dr. Ballard summarized. Ballard’s comment was in response to accusations from a local organization that Refuge staff has been intentionally starving elk this winter. “This couldn’t be further from the truth,” Kallin added. “These tests and observations confirm this simply isn’t happening.”

Both elk and bison have been managed consistently each year on the National Elk Refuge since the completion of the Bison and Elk Management Plan in 2007. Since then, the overall elk herd survival rate on the Refuge during Jackson Hole’s winter months has averaged 98.8% (excluding hunting).

This season, total elk mortality to date is well below average at 0.8%, “That is a remarkable survival rate for a wild population when you consider mortality in domestic cattle feedlots can range from 1-5%,” Kallin said. Calf mortality this season is currently slightly below average at 3.2%.

Though the highly visible elk herd can be seen from many locations near or on the Refuge, many visitors enjoy the unique wildlife viewing and photography opportunity offered through the

Refuge’s interpretive sleigh ride program. On the sleigh rides, drivers take participants close to wintering elk while sharing their knowledge and training on the complexities related to elk management in the Jackson Hole valley.

Sleigh rides run this season through Saturday, April 2. Wagons can be substituted for sleighs if necessary to adjust for spring conditions. Roughly 27,000 people have taken part in the sleigh ride program this season.



The Wildlife Health office team uses an ultrasound wand and gel to obtain images for their study.