Moose Day 2026 Report

A Community Science Survey | Jackson Hole Wildlife Foundation



Photo by Jackie Arnal

Summary

Shiras moose in Jackson Hole have experienced significant population declines since the early 2000s, driven by factors such as predation, habitat loss, disease, climate change, and increased human activity. To support monitoring and conservation, Jackson Hole Wildlife Foundation conducted its annual Moose Day survey on February 21, 2026. A total of 155 volunteers surveyed 68 sections across Teton County, logging 510 hours and observing 103 moose, slightly above the long-term average of 97 and higher than 2025's count of 66. Combined with the concurrent WGFD aerial survey, the 2026 Jackson Herd count totaled 289 moose. Most moose appeared healthy, with minimal signs of parasites. Moose Day continues to provide essential data, especially from private lands inaccessible to aerial surveys, and demonstrates the critical role of community science in monitoring and conserving local wildlife populations.

Introduction

Although now considered one of Jackson Hole's most iconic mammals, Shiras moose (*Alces alces shirasi*) only began expanding into Wyoming roughly 150 years ago (Brimeyer & Thomas, 2004). Before the 1850s, moose were rare in Wyoming; by the early 1900s, they had dispersed south from Montana and Idaho to establish breeding populations. Following the implementation of state hunting regulations, moose populations grew rapidly, peaking at an estimated 13,657 individuals statewide by 2001 (Brimeyer & Thomas, 2004; WGFD, 2017).

Jackson Hole once supported some of the largest moose herds in the region. Biologists even translocated individuals from Jackson to other parts of the state to aid population expansion (Brimeyer & Thomas, 2004). By the late 1980s, the Jackson Moose Herd numbered approximately 1,200 moose. However, the population has declined sharply, with recent estimates averaging just 285 individuals between 2022 and 2026 (WGFD, 2026).

The drivers of this decline are multifactorial: reduced reproductive rates in female moose, elevated predation by expanding large carnivore populations, increased vehicle collisions, and ongoing habitat loss from development all contribute to losses (Brimeyer & Thomas, 2004; Kauffman et al., 2024). Climate change, particularly warming temperatures and altered snowpack, may further exacerbate these trends.

To manage moose populations, the Wyoming Game and Fish Department (WGFD) conducts annual aerial moose surveys. The highest count in the Jackson Moose Herd occurred in 1988, with 1,146 individuals detected. Since then, counts have steadily declined, with recent estimates ranging between 200 and 400 moose over the past decade, well below the WGFD's management objective of 800 animals in the population (WGFD, 2025).

Since 2009, Jackson Hole Wildlife Foundation (JHWF) has contributed to these estimates through an annual community science moose count: "Moose Day." Held each winter, trained volunteers survey throughout Teton County and record any moose sighted during the day. Results are combined with WGFD aerial survey data to produce a more accurate estimate of the Jackson Hole moose herd, which is particularly valuable as many surveys take place on private lands inaccessible to helicopter surveys. Moose Day provides invaluable population data and demonstrates the power of community science in local conservation.

Methods

Study Area

Surveys took place on February 21, 2026, in Teton County, Wyoming, covering a total of 240,486 acres. Teton County was divided into 68 survey sections, bounded to the north by Arizona Creek in Grand Teton National Park, to the east by the Gros Ventre River, to the west by portions of the Idaho border, and to the south by the Teton County line (Figure 1). Survey coverage also included the R Lazy S Ranch, a private land location that expands access beyond the standard section grid.

Survey Teams

Survey data were collected by a network of volunteers including JHWF Nature Mappers, local biologists, wildlife guides, JHWF staff and board members, and other community members. Each survey group included at least one trained Nature Mapper responsible for data entry into the Nature Mapping Jackson Hole (NMJH) app and database. Prior to the survey, an NMJH training was offered for new participants, as well as a virtual seminar co-hosted with WGFD and led by wildlife biologist Aly Courtemanch, covering survey protocols, moose identification, age and sex classification, and signs of parasites including winter ticks (*Dermacentor albipictus*) and arterial worms (*Elaeophora schneideri*).

Moose Survey

Each survey team was assigned to one or more of the 68 designated search sections. Surveys were conducted between approximately 07:00 and 12:00, with some observations extending to 15:00. Most volunteers traveled in teams by car, intermittently getting out of the car, walking, peering over snowbanks, and scanning with binoculars. They scouted along main highways and throughout neighborhoods. Other volunteers skied and snowshoed public lands and private tracts, and some traversed backcountry terrain on skis. When a moose was encountered, volunteers recorded the time,

date, location, age, sex, and health condition (e.g., evidence of ticks, body condition, coat quality) using the NMJH app or paper datasheets, later entered into the online database. If no moose were seen but fresh signs such as scat or tracks were present, that information was also documented. Volunteers were further encouraged to Nature Map any other wildlife seen during their survey. Following the survey, Moose Day ground observations were cross-referenced with WGFD aerial survey data by Aly Courtemanch using spatial and temporal criteria to identify and remove duplicate detections.

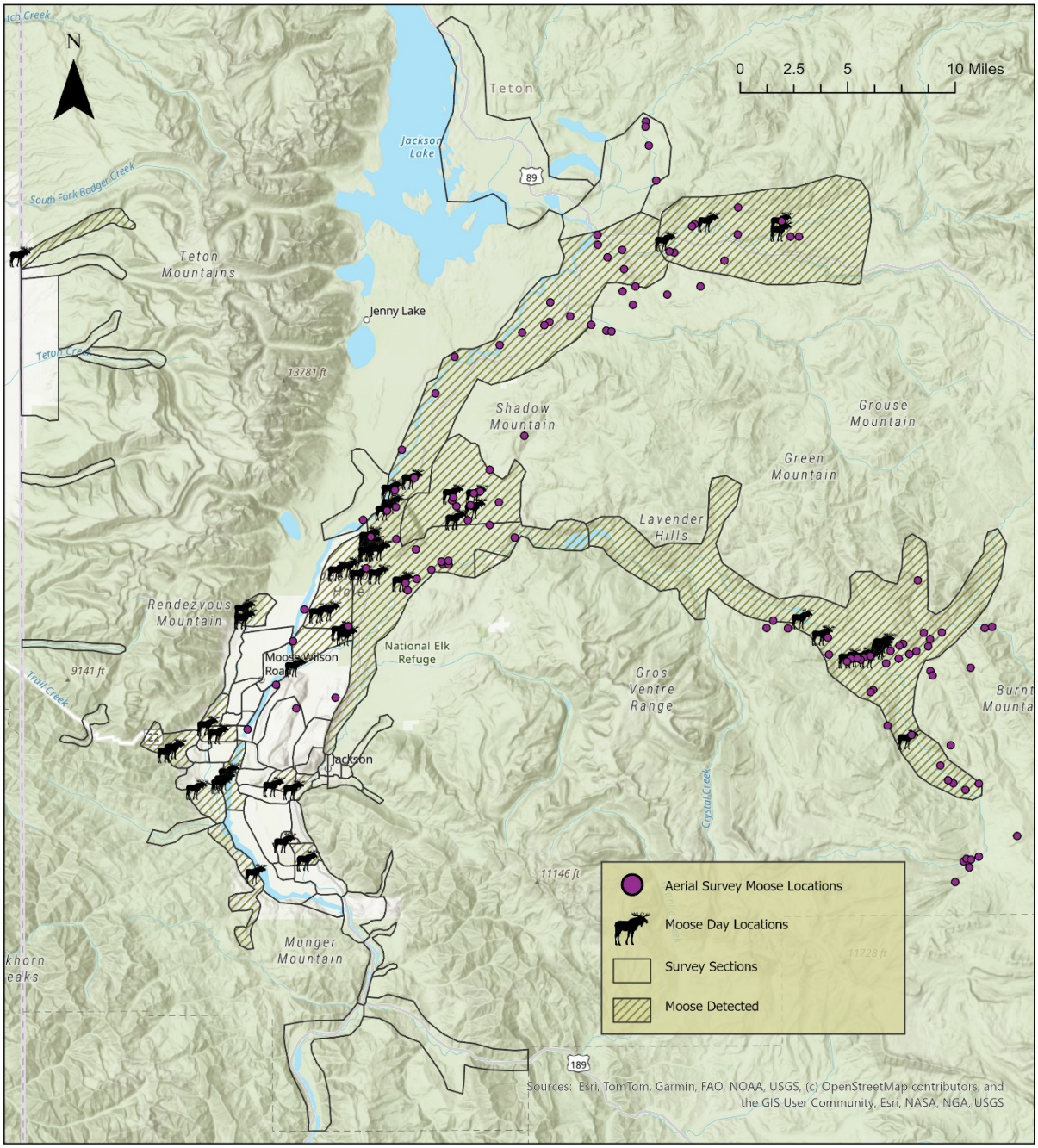

Figure 1. *Moose Day (n=103) observations and WGFD aerial survey (n=274) observations across 68 survey sections in Teton County, Wyoming, during the 2026 survey. Hatched sections indicate areas where moose were detected by ground surveyors. Note: Section boundaries are approximate; some verified moose observations fall just outside assigned areas or within unsurveyed sections due to field boundary uncertainty. All observations are included in overall totals.*

Results

Moose Survey

During the February 21, 2026 survey, 103 moose were recorded across 510 person-hours, equating to a mean detection rate of 0.20 moose per hour. The 2026 count represents a rebound from recent years and sits just above the long-term average of 97 (Figure 2).

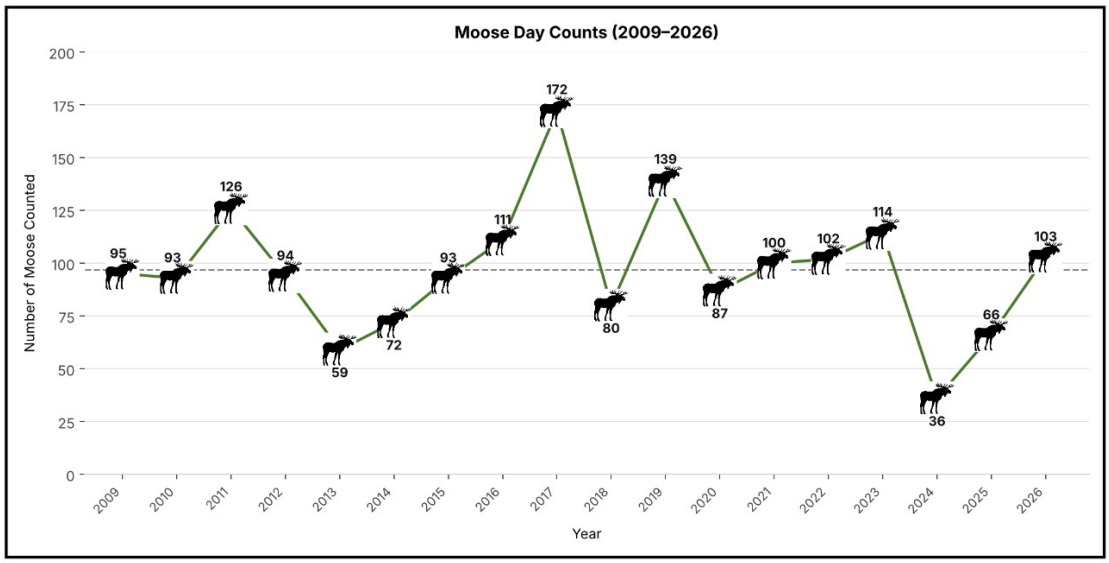

Figure 2. *Number of moose detected during Moose Day surveys in Teton County, Wyoming, 2009–2026. Dashed line represents the long-term average of 97.*

Moose were distributed across Buffalo Valley, Antelope Flats, Blacktail Butte, the Gros Ventre drainage, Lower Slide Lake, Teton Village, Teton Pass, Fish Creek, the Snake River, and South Park (Figure 1).

Age-sex composition included 80 adults (35 females, 10 males, 35 sex unknown), 20 juveniles (4 females, 1 male, 15 sex unknown), and 3 individuals of indeterminate age (Table 1). Health assessments indicated that most individuals appeared in good condition, with observers noting intact ears and glossy pelage. Several moose showed minor signs of wear, including one adult female with fur rubbed from the rump, one adult bull with a slightly patchy coat, and one individual with pale “ghost” shoulders, which may indicate low-level tick (*Dermacentor albipictus*) activity. One adult female had visible tick patches on her trunk. One adult female showed cropped ears, suggestive of arterial worm (*Elaeophora schneideri*) infection. Two radio-collared individuals were also documented: one adult female and one juvenile.

Age and Sex Breakdown

Age Class	Female	Male	Unknown	Total
Adult	35	10	35	80
Juvenile (Calf)	4	1	15	20
Unknown Age	—	—	3	3
Total	**39**	**11**	**53**	**103**

Table 1. *Age and sex classification of 103 moose observed during Moose Day 2026. Sex was undeterminable for 53 individuals, most commonly in group observations or at a distance.*

Behavioral observations were recorded for 82 moose sightings, some of which included multiple individuals. Of those, approximately 65% documented foraging behavior (n=53), followed by resting (n=15), walking (n=5), drinking (n=3), and undetermined (n=6) (Figure 3). Eight detections based solely on sign (scat, tracks, or skeletal remains) are not included in the 103 total.

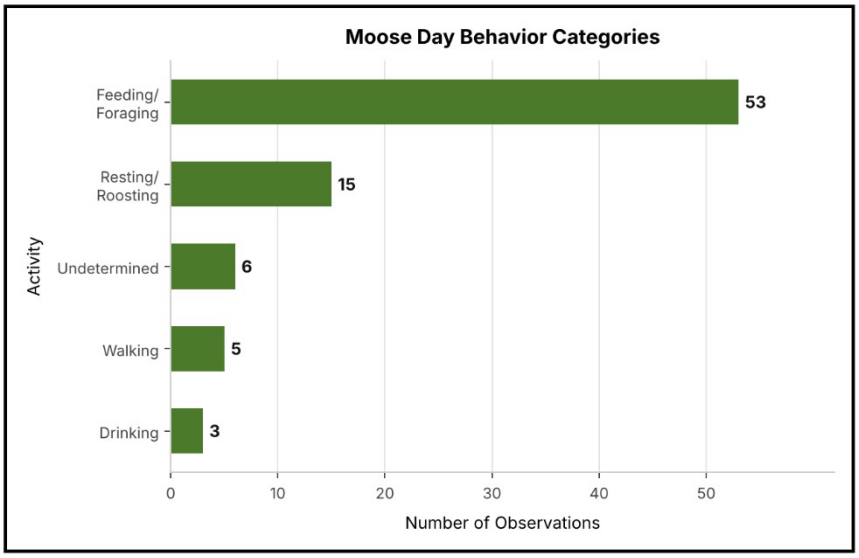

Figure 3. *Frequency of behavioral categories (feeding, resting, walking, etc.) documented for moose during the 2026 Moose Day survey.*

Combined Herd Estimate

A concurrent WGFD helicopter survey counted 274 moose in the Jackson Herd. An additional 15 moose detected during Moose Day were confirmed as non-duplicates, bringing the total combined count to 289 moose. Demographic ratios from the combined survey effort were 41 calves per 100 cows and 96 bulls per 100 cows, compared to Moose Day ground-survey ratios of 57 calves per 100 cows and 29 bulls per 100 cows (Table 2). The lower bull ratio from ground surveys likely reflects the difficulty of confidently assigning sex to lone adults or groups at a distance, and the loss of antlers by late February, which makes bulls particularly hard to distinguish from cows.

Demographic Ratios

Metric	Moose Day Count	Combined Herd (Aerial + Moose Day)
Calves per 100 cows	57:100	41:100
Bulls per 100 cows	29:100	96:100
Total Counted	**103**	**289**

Table 2. *Demographic ratios based on moose with confirmed sex and adult age class. Bull:cow and calf:cow ratios are standard metrics for assessing population health and productivity.*

Incidental wildlife observations submitted to the Nature Mapping database included Bald Eagle, Bighorn Sheep, Coyote, Elk, Gray Wolf, Great Blue Heron, Great Gray Owl, Mallard, Mule Deer, Red Fox, Ruffed Grouse, Trumpeter Swan, and White-tailed Deer.

Surveyor Effort

In 2026, 155 volunteers spent 510 total survey hours across 68 search sections, marking the highest volunteer participation in Moose Day history and surpassing the previous record of 136 in 2025 (Figure 4). Survey methods included travel by car, cross-country ski, foot, backcountry ski, snowmobile, and snowshoe. Participants included trained Nature Mappers, agency biologists from Grand Teton

National Park, Bridger-Teton National Forest, Teton Conservation District, and Wyoming Game and Fish Department, as well as JHWF staff and board members. Many were long-time Nature Mappers and Jackson Hole residents, while many newcomers joined as well. Some volunteer teams were accompanied by Wyoming PBS documentarians filming a short documentary on the community science effort, and by KHOL Radio. The steady growth in participation since Moose Day's inaugural year in 2009 reflects the deep connection Jackson Hole residents have to local wildlife and community-based conservation.

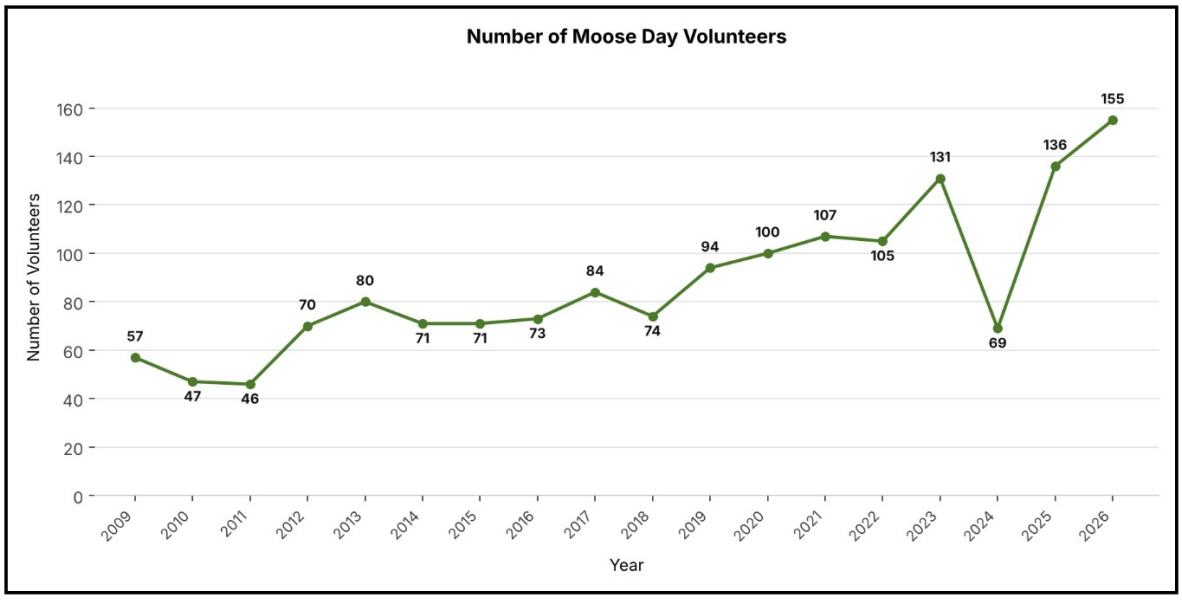

Figure 4. *Number of volunteers participating in Moose Day surveys across Teton County, Wyoming, 2009-2026.*

Weather

Weather during the survey period on February 21, 2026, was clear with low winds of 0–13 mph, high visibility averaging 10 miles, and temperatures ranging from 9°F to 34°F, with a mean daily temperature of approximately 19°F (Weather Underground, 2026). These favorable survey conditions coincided with a winter of historically low regional snow accumulation. The Phillips Bench SNOTEL site recorded a snow water equivalent of 17.4 inches on this date, below the historical average, while snow cover on the valley floor was near zero in many areas (NRCS, 2026). This regional snow drought left extensive low-elevation sagebrush flats open and accessible.

Discussion

Moose Survey

In 2026, 103 moose were counted over 510 survey hours, equating to a detection rate of 0.20 moose per hour. This represents a rebound from the record low of 36 moose in 2024, when a blizzard limited coverage to 34 of 68 sections, and surpasses 2025's count of 66. The 2026 count is the highest recorded since 2023 (114 moose) and sits just above the long-term average of 97 (Figure 2).

The higher count likely reflects improved survey conditions more than population change. All 68 designated sections were completed in 2026 under favorable weather, with clear skies and high visibility throughout the survey window. Survey coverage also extended to the R Lazy S Ranch. Conditions in 2025 were also favorable, with high visibility and comparable temperatures, suggesting that the more significant factor in 2026 was the unusually low snowpack. Many moose were observed in open sagebrush and bitterbrush habitats around the Airport and Antelope Flats, which is unusual for February and may reflect how winter severity influences moose distribution and detectability.

Most moose observed in 2026 appeared healthy, with observers noting intact ears, glossy pelage, and no evidence of widespread tick infestation. Only one adult female showed cropped ears suggestive of arterial worm (*Elaeophora schneideri*) infection, a lower rate than observed in some previous years. A large proportion of adults were recorded as sex unknown, most commonly in group observations or at a distance, which limits the precision of demographic ratios derived from ground survey data.

When combined with WGFD's concurrent helicopter survey, Moose Day results contribute to an updated herd estimate. WGFD counted 274 moose in the Jackson Herd during the 2026 aerial survey, with 15 unique Moose Day observations bringing the combined total to 289 moose. Together, these complementary approaches strengthen WGFD's ability to monitor the Jackson Moose Herd over time. Continued community participation in Moose Day remains an important contribution to those long-term efforts, and demonstrates the broader value of community science: expanding survey capacity, building public awareness, and bringing together community members who share a commitment to local wildlife conservation.

Acknowledgements

Thank you to all the volunteers and community scientists who contributed to Moose Day 2026 by surveying Teton County, and to our partner agencies, including the Wyoming Game and Fish Department, Grand Teton National Park, Bridger-Teton National Forest, and Teton Conservation District, and their staff for supporting this cooperative effort. We are also grateful to Wyoming PBS and KHOL for helping spread the word about Moose Day and connecting us with the broader community. We thank local wildlife tour companies, including Buffalo Roam Tours and Jackson Hole EcoTour Adventures, whose guides generously donated their time. We also thank the property owners and managers who granted access to key survey areas: Snake River Ranch, Spring Creek Ranch, Jackson Hole Winery, Jackson Hole Golf and Tennis, Teton Pines, Astoria Park Conservancy, Snake River Sporting Club, and Teton Science Schools, along with the many private landowners who opened their properties or submitted data. Finally, we recognize WGFD's Aly Courtemanch for her leadership and coordination, without which Moose Day would not be possible.

References

Brimeyer, D. G., & Thomas, T. P. (2004). History of moose management in Wyoming and recent trends in Jackson Hole. *Alces, 40,* 133-143.

Kauffman, M. J., et al. (2024). *Wyoming Moose Jackson Routes* [Data release]. U.S. Geological Survey. https://doi.org/10.5066/P9SS9GD9

Natural Resources Conservation Service. (2026). *SNOTEL Daily Snowpack and Weather Data: Phillips Bench, WY (Site #689)*. U.S. Department of Agriculture, National Water and Climate Center. usda.gov

Weather Underground. (2026). *Historical weather data for Jackson, WY (February 21, 2026).* https://www.wunderground.com/history/daily/us/wy/jackson/KWYJACKS36/date/2026-2-21

Wyoming Game and Fish Department. (2025). *Jackson Region job completion report - 2025.* Wyoming Game and Fish Department.

Wyoming Game and Fish Department. (2017). *Moose (Alces alces): Species account.* In *State Wildlife Action Plan.* Wyoming Game and Fish Department.