

**IMPACTS TO WILDLIFE
RESULTING FROM LIVESTOCK GRAZING
AT THE U.S. SHEEP EXPERIMENT STATION**

By Robin Smith
August 2005





Forest Guardians seeks to preserve and restore native wildlands and wildlife in the American Southwest through fundamental reform of public policies and practices. We can be reached at:

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EXECUTIVE SUMMARY

The Greater Yellowstone Ecosystem is truly an extraordinary place—one of the few places in our country where, with the exception of the black-footed ferret, all the species of plants and animals that were here prior to the arrival of Europeans to North America still survive. Wildlife abounds here like nowhere else in the contiguous U.S. primarily because 75 percent of the Greater Yellowstone Ecosystem, or 15 million acres, consists of publicly owned lands.

Yet, despite the rich array of wildlife that exists in the Greater Yellowstone Ecosystem, the populations of many species are considerably lower than they were prior to the arrival of Europeans. The long-term survival of some, such as the wolf, grizzly bear, lynx, prairie dog, and bighorn sheep, is tenuous. While multiple factors caused the past decline of these species and continue to suppress their populations today, over the past century a common thread running through the near-elimination of each is livestock grazing.

It is within this context that the activities of the U.S. Sheep Experiment Station need to be examined. By shedding light on this little-known federal agency, it is our hope the public can determine for itself whether they want to continue spending \$2.25 million annually raising domestic sheep on publicly owned lands at the expense of native wildlife.

The U.S. Sheep Experiment Station was established in 1915 as a rangeland grazing and sheep breeding research facility. Today, its purpose is to improve the profitability and sustainability of grazing sheep on open range. To accomplish this, the U.S. Sheep Experiment Station employs 30 people at its headquarters six miles north of Dubois, Idaho. Most of these employees are scientists conducting research in areas such as lamb production; supplementation strategies; wool quality; sustainable production systems; and use of sheep for ecosystem and vegetation management.

In 2002, 7,761 domestic sheep ate an estimated 11.2 million pounds of forage from the 104,000 acres of publicly owned land utilized by USSES. Forty-eight thousand acres of this land is managed by the U.S. Sheep Experiment Station. The remaining 56,000 acres consists of grazing allotments managed by the Forest Service and Bureau of Land Management. Approximately 53 percent of the land utilized by U.S. Sheep Experiment Station is located within the commonly used boundary of the Greater Yellowstone Ecosystem.

What do taxpayers get in return for this grazing? Publicly owned wildlife such as coyotes, wolves, and grizzly bears risk being captured, relocated, or killed if they step foot on publicly owned lands controlled by the U.S. Sheep Experiment Station. The amount of food available to bighorn sheep, deer, elk, and pronghorn is reduced each year by the 11 million pounds of forage the USSES's domestic sheep eat. Livestock fences interfere with daily movements and seasonal migration of pronghorn. Even bird and small mammal populations are reduced due to the loss of cover resulting from sheep stripping away vegetation.

The bottom line is this: the U.S. Sheep Experiment Station benefits only a few sheep ranchers at the expense of harming the public's land and wildlife. It is time for the public—hunters, anglers, hikers, outdoor enthusiasts, and conservationists—to demand the U.S. Sheep Experiment Station be closed and its \$2.25 million annual budget used instead to remove fences, restore wildlife habitat, reintroduce bighorn sheep, and allow wolves and grizzly bears to recolonize the public's property.

INTRODUCTION

Forest Guardians began researching the U.S. Sheep Experiment Station (USSES) with the goal of providing U.S. citizens with a thorough description of the activities of this little-known federal agency. Unfortunately, we have been unsuccessful in accomplishing this. The reason is simple—very little information on the USSES exists in the public domain. It appears this is by design, not by accident.

Other agencies that manage federal land such as the Forest Service, National Park Service, Bureau of Land Management, and U.S. Fish and Wildlife Service provide an abundance of information to the public. This is accomplished via news releases; publication and distribution of planning documents such as those required by the National Environmental Policy Act; by holding open houses, public hearings, and public information meetings; conducting tours of the land they manage to explain their policies and proposals; and by providing much of this same information on their web pages. In fact, it is the policy of federal land management agencies to put into electronic format and post on the Internet any document or data that can be reasonably expected to be of interest to the public. The USSES does not adhere to these sunshine policies. For example, when Jen Gamett of the Greater Yellowstone Coalition recently contacted Greg Lewis, Research Leader of the USSES, to inquire whether the USSES could provide a tour of its facilities and an update on range conditions,¹ Greg responded in the negative. He justified his response by insinuating that USSES's activities should not concern the Greater Yellowstone Coalition since:

...U.S. Sheep Experiment Station land is not considered public land...²

Regarding tours of USSES's Forest Service and Bureau of Land Management (BLM) grazing allotments Greg wrote:

I would not approve any activity that included U.S. Sheep Station personnel conducting tours of BLM and FS grazing allotments. That would infringe on FS and BLM management programs.³

He concluded by writing:

We have considered hosting a small group (i.e., 12 or so people on their own horses) of local people and having something of a field day on U.S. Sheep Experiment Station land in the Centennial Mountains. If we can develop a way to do this equitably and safely, I will contact you. However, to be equitable, we would have to issue a general invitation on a specific date and make up the group on a strict first-RSVP-first-served bases.⁴

¹ Gamett, Jen. 2005. Email to Greg Lewis, Research Leader, U.S. Sheep Experiment Station, from Jen Gamett, Public Lands Specialist, Greater Yellowstone Coalition. June 2, 2005.

² Lewis, Greg. 2005. Email to Jen Gamett, Public Lands Specialist, Greater Yellowstone Coalition, from Greg Lewis, Research Leader, U.S. Sheep Experiment Station. June 3, 2005.

³ Ibid.

⁴ Ibid.

Disregarding Mr. Lewis' nonsensical comment that the USSES is not publicly owned land, it is interesting to note that he *may* consider providing a tour of the land to the general public, *but to be equitable* he could not offer an exclusive tour to a group of environmentalists. What makes this comment even more interesting is the following article posted on USSES's website:

2004 Idaho Wool Growers Range Tour

On July 19, 2004, the U.S. Sheep Experiment Station (USSES) hosted the Idaho Wool Growers range tour. Approximately 60 people, most sheep and cattle ranchers, participated in the tour. Participants were taken to rangeland research sites where USSES scientists described their current rangeland research projects and how the results of their research can be used to enhance sheep production efficiency and rangeland health. Participants from the USDA—U.S. Forest Service, USDA—APHIS—Wildlife Services, Department of Interior—Bureau of Land Management, University of Idaho, and Idaho Department of Lands also discussed timely issues.⁵

Neither the Greater Yellowstone Coalition nor Western Watersheds Project (a prominent Idaho-based organization that works on public lands livestock grazing issues) received an invitation to this tour.^{6,7} So much for USSES's concern for treating everybody equitably!

To obtain information for this report, Forest Guardians searched USSES's website. This produced very little information so we submitted a Freedom of Information Act (FOIA) request for documents and information pertaining to many aspects of USSES's operation. This law gives the public a general right of access to information held by or on behalf of public agencies and promotes a culture of openness and accountability of public agencies. This, in turn, is supposed to lead to a better public understanding about: (1) how public agencies carry out their duties; (2) why they make the decisions they make; and (3) how they spend public money. Most other federal agencies in the Greater Yellowstone Ecosystem have responded to similar FOIA requests from Forest Guardians by providing hundreds of pages of documents (hard copy and/or electronic). Some agencies have provided thousands of pages of documents. The USSES responded to our information request with a 2½ page letter. Needless to say, this did not reveal much about the activities at the USSES.

In an attempt to obtain additional information, Forest Guardians called Greg Lewis, the Research Leader of USSES, in March of 2003 with a list of questions. Mr. Lewis was helpful and answered our questions. The next day, while reviewing our notes from the conversation with Mr. Lewis, we realized his answers prompted additional questions. We emailed a list of questions to Mr. Lewis and asked him "to call to discuss these questions or provide a written

⁵ U.S. Sheep Experiment Station. 2004. News & Events—2004 Idaho Wool Growers Range Tour. Viewed at the website of the U.S. Sheep Experiment Station, Agricultural Research Service, United States Department of Agriculture, found at: www.ars.usda.gov/News/News.htm?modecode=53-64-00-00&page=2&docid=4422, on July 17, 2005.

⁶ Gamett, Jen. 2005. Personal communication, email to Robin Smith, Forest Guardians, from Jen Gamett, Public Lands Specialist, Greater Yellowstone Coalition. June 24, 2005.

⁷ Marvel, Jon. 2005. Personal communication, email to Robin Smith, Forest Guardians, from Jon Marvel, Executive Director, Western Watersheds Project. June 24, 2005.

response via email—whichever is easiest for you.”⁸ Twelve days later, a response arrived from the Agriculture Research Service’s FOIA coordinator in Washington DC stating:

Your previous FOIA request has been fulfilled and therefore has been closed. If you would like to request additional documents, you should submit a new FOIA request to this office in which you specify the documents requested.

Please note that the FOIA allows for individuals to come in and request specific documents. **The FOIA does not require an agency to address questions.**⁹ (Emphasis added.)

It turns out that rather than answering our questions Mr. Lewis had forwarded our information request to Stasia Hutchinson, the FOIA coordinator for the Agriculture Research Service—USSES’s parent agency. Ms. Hutchinson denied us the opportunity to have a telephone conversation with USSES. Instead, she insisted we follow the time-consuming FOIA process to obtain the additional information. It had taken fourteen months to receive all the information we requested in our first FOIA request. Now, instead of answering questions in a 15 to 20 minute telephone conversation, they wanted us to submit a FOIA request and possibly wait another 14 months. At this rate, 2½ years would pass from the time of our initial FOIA request until we received the information we were requesting. USSES was resorting to the time-honored method of trying to discourage the public from discovering what the agency was up to by using delaying tactics in hopes they could wear us out and we would go away. Needless to say, this didn’t work. We jumped through their hoops, submitted a second FOIA request, and eventually received a response.

Why is the USSES so secretive? Why is this agency uncooperative with public interest groups? Why does the USSES resist taxpayers’ efforts to learn about their activities? Whatever the reason, these policies are the antithesis of good government and USSES’s lack of transparency should be of concern to all Americans.

NATIVE SHEEP OF NORTH AMERICA

On July 11, 1835, Osborne Russell was traveling with a group of trappers along the DuNoir River, in the Absaroka Mountains approximately 35 miles southeast of Yellowstone National Park. After partially descending from a “high point of mountain” they passed through a meadow that Russell estimated to be one mile in circumference. They continued through this valley “and fell into a chasm” where they were surrounded by “towering rocks several thousand feet high” to the North and West. Then, in a matter-of-fact recounting of what they saw next, Russell wrote:

⁸ Smith, Robin. 2003. Personal communication, email to Greg Lewis, Research Leader, U.S. Sheep Experiment Station, from Robin Smith, Forest Guardians. March 12, 2003.

⁹ Hutchinson, Stasia. 2003. Personal communication, email to Robin Smith, Forest Guardians, from Stasia Hutchinson, Freedom of Information Act Coordinator, U.S. Department of Agriculture. March 24, 2003.

Thousands of mountain [bighorn] Sheep were scattered up and down feeding on the short grass which grew among the cliffs and crevices: some so high that it required a telescope to see them.¹⁰

In the next sentence, Russell moves on to another subject—as if he had not just seen anything out of the ordinary. The fact that Russell did not express the slightest surprise or amazement at coming upon thousands of bighorn sheep would seem to demonstrate that herds of this many bighorns were common in the Rockies in the 1830s.

Indeed, prior to the arrival of Europeans bighorn sheep were abundant and widespread. Scientists estimate that two million bighorns lived in western North America when early settlers began moving westward across the prairie.¹¹ In addition to being widespread, they were also distributed much differently than they are today. George Grinnell, who in 1886 founded the first Audubon Society, wrote:

In the old times the wild sheep were not confined to what we call mountains but in many parts of their range lived in a country not very different from that then commonly occupied by the mule deer—that is to say, about the near buttes, rough bad lands or low rocky hills.¹²

With the westward spread of civilization, the immense herds of bighorn sheep began to disappear as early as the 1850s.¹³ Bighorns were being hunted to death, even in our early national parks. In his report on Yellowstone National Park in 1877, Superintendent Norris wrote that hide hunters killed over 2,000 elk and nearly as many bighorn sheep.

Settlers brought domestic sheep to the west in the 1870s. By the 1880s, bighorn sheep populations were declining dramatically in most places. By 1900, many populations of bighorn sheep had disappeared. Hunting alone was not the culprit. Domestic sheep competed with bighorns for forage, and introduced exotic parasites and diseases into wild sheep populations with devastating effect.

In contrast to the resilience of other species such as deer and elk, bighorn sheep populations did not recover from their enormous population declines of the late 1800s and early 1900s. Bighorns have demonstrated less tolerance than other ungulates to hunting, poor range conditions, competition for forage, and stress related to habitat loss. Most importantly, they have shown a much greater susceptibility to diseases contracted from domestic sheep.¹⁴ When domestic sheep

¹⁰ Russell, Osbourne. 1965. *Journal of a Trapper*. Page 21. Edited by Aubrey L. Haines. Published by University of Nebraska Press.

¹¹ Singer, Francis. 1995. Bighorn Sheep in the Rocky Mountain National Parks. Pages 332 – 333 in: *Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems*. Edited by LaRoe, E.T., G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac. 1995. U.S. Department of the Interior, National Biological Service.

¹² Grinnell, George B. 1928. *Mountain Sheep*. Pages 1 – 9. *Journal of Mammalogy*. Volume 3.

¹³ Schommer, Tim, and Melanie Woolever. 2001. *A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep*. Page 1. August 2001.

¹⁴ *Ibid*.

and bighorn sheep intermingle, it almost always results in the death of bighorns, primarily from pneumonia, without affecting the domestic sheep.¹⁵

Scientists believe that we have lost between 92 to 98 percent of the bighorn sheep population that formerly lived in North America. The total number of bighorn sheep that survive today may be as few as 40,000.¹⁶ In the Greater Yellowstone Ecosystem, the most optimistic figure for bighorns is 7,800.¹⁷ Those bighorns that survive exist mostly in small, isolated populations within their former vast range.¹⁸

About 90 percent of all Rocky Mountain bighorn sheep in the U.S. spend all or part of their lives on National Forests.¹⁹ The fact that most of the remaining Rocky Mountain bighorn sheep live on publicly owned lands is a reason for optimism. After all, as Americans we own this land and collectively have the right to determine how these lands are managed. If we want to restore populations of bighorn sheep to their former range on publicly owned lands, it should be a simple matter of instructing state and federal land management and wildlife agencies to do so.

In reality, it is not that simple of a matter to remedy. The primary reason bighorn sheep populations have not rebounded is the same reason their numbers declined more than a century ago—widespread domestic sheep grazing. An estimated 200,000 domestic sheep graze in the Greater Yellowstone Ecosystem alone, producing a ratio of 26 domestic sheep for every one native bighorn sheep. Before bighorn populations can be fully restored on the remaining unoccupied habitat on publicly owned lands, domestic sheep grazing must be brought to an end in our National Forests, BLM land, and lands utilized by the USSES.

It is within this context that the activities of the USSES need to be examined. By shedding light on this little-known federal agency, it is our hope the public can determine for itself whether they want to continue spending tax dollars raising domestic sheep on publicly owned lands at the expense of native wildlife.

THE U.S. SHEEP EXPERIMENT STATION

The USSES was established in 1915 when President Woodrow Wilson withdrew lands from the

¹⁵ Rauber, Paul. 2001. The Lion and the Lamb—What happens When a Protected Predator Eats an Endangered Species? Sierra Magazine. Viewed at the website of the Sierra Club, found at: www.sierraclub.org/sierra/200103/sheep.asp, on March 22, 2005.

¹⁶ Singer, Francis. 1995. Bighorn Sheep in the Rocky Mountain National Parks. Pages 332 – 333 in: Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems. Edited by LaRoe, E.T., G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac. 1995. U.S. Department of the Interior, National Biological Service.

¹⁷ Willers, Bill. 2002. Where Bison Once Roamed. Page 241 in: Welfare Ranching: The Subsidized Destruction of the American West. Edited by George Wuerthner and Mollie Matteson. Published by Foundation for Deep Ecology.

¹⁸ Singer, Francis. 1995. Bighorn Sheep in the Rocky Mountain National Parks. Pages 332 – 333 in: Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems. Edited by LaRoe, E.T., G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac. 1995. U.S. Department of the Interior, National Biological Service.

¹⁹ Schommer, Tim, and Melanie Woolever. 2001. A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep. Page 1. August 2001.

public domain to become a rangeland grazing and sheep breeding research facility.²⁰ The Agricultural Research Service, an agency of the U.S. Department of Agriculture, operates the USSES. Its mission is “to produce technology to increase efficiency of livestock production in a manner that assures agricultural and natural resources are available for our grandchildren.”²¹

According to Research Leader Greg Lewis, USSES’s purpose is to improve the profitability and sustainability of grazing sheep. To achieve this goal, the USSES employs 25 permanent employees (mostly scientists), 3 to 4 summer seasonal employees, and 3 shepherders. The University of Idaho also stations two permanent employees at the USSES.²²

Areas of research at the USSES include: lamb production; supplementation strategies; wool quality; sustainable production systems; suitability of various breeds for range conditions; monitoring of carbon flux on rangelands; and use of sheep for ecosystem and vegetation management.²³ A few examples of completed research projects published in 2004 include:

- Effects of Grazing after Fire in Sagebrush Steppe Communities
- Effect of Peptidoglycan-Polysaccharide Complex on Reproductive Efficiency and Mastitis in Sheep
- Effect of Level and Source of Selenium on Maternal and Fetal Metabolic Hormones in Pregnant Yearling Ewes
- Genetic Correlation of Ram Sexual Performance with Ewe Production Traits for Four Sheep Breeds²⁴

USSES headquarters is located on a facility six miles north of Dubois, Idaho. This 27,930-acre ranch contains offices, laboratory, and residential buildings, lambing facilities, dry-lot facilities for research, and lands used for spring and fall grazing. USSES owns two additional ranch properties used for spring and fall grazing—the 2,600-acre Humphrey Ranch near Monida, Idaho, and the 1,200-acre Henninger Ranch near Kilgore, Idaho—and two summer range properties in the Centennial Mountains of Montana that total 16,600 acres.²⁵

Other lands grazed by USSES include one BLM and three Forest Service grazing

²⁰ Agricultural Research Service. Undated. Brochure: Range Sheep Production Efficiency Research—U.S. Sheep Experiment Station at a Glance. United States Department of Agriculture.

²¹ Agricultural Research Service. Undated. Current Status. Viewed at the website of United States Department of Agriculture, Agricultural Research Service, found at: http://www.ars.usda.gov/main/site_main.htm?modecode=53-64-00-00, on March 8, 2005.

²² Lewis, Greg. 2003. Personal communication, phone interview with Greg Lewis, Research Leader, U.S. Sheep Experiment Station. March 10, 2003.

²³ Agricultural Research Service. Undated. Brochure: Range Sheep Production Efficiency Research—U.S. Sheep Experiment Station at a Glance. United States Department of Agriculture.

²⁴ Agricultural Research Service. Undated. Current Status. Viewed at the website of United States Department of Agriculture, Agricultural Research Service, found at: http://www.ars.usda.gov/main/site_main.htm?modecode=53-64-00-00, on March 8, 2005.

²⁵ Ibid.

allotments. Table 1 shows a list of all the publicly owned lands used by USSES.

Table 1 PUBLICLY OWNED LANDS USED BY THE U.S. SHEEP EXPERIMENT STATION			
Property	Managing Agency	Location	Acres
1. Ranch Headquarters	USSES	Clark County, Idaho	27,930
2. Humphrey Ranch	USSES	Clark County, Idaho	2,600
3. Henninger Ranch	USSES	Clark County, Idaho	1,200
4. Centennial Mountains Summer Range	USSES	Beaverhead County, Montana	16,600
5. Mud Lake Feedlot	Idaho National Laboratory ²⁶	Jefferson County, Idaho	740
6. Three Forest Service Grazing Allotments ²⁷	Caribou-Targhee National Forest	Clark & Fremont Counties, Idaho	32,058
7. Bernice Grazing Allotment	BLM	Butte County, Idaho	23,237
TOTAL			104,365

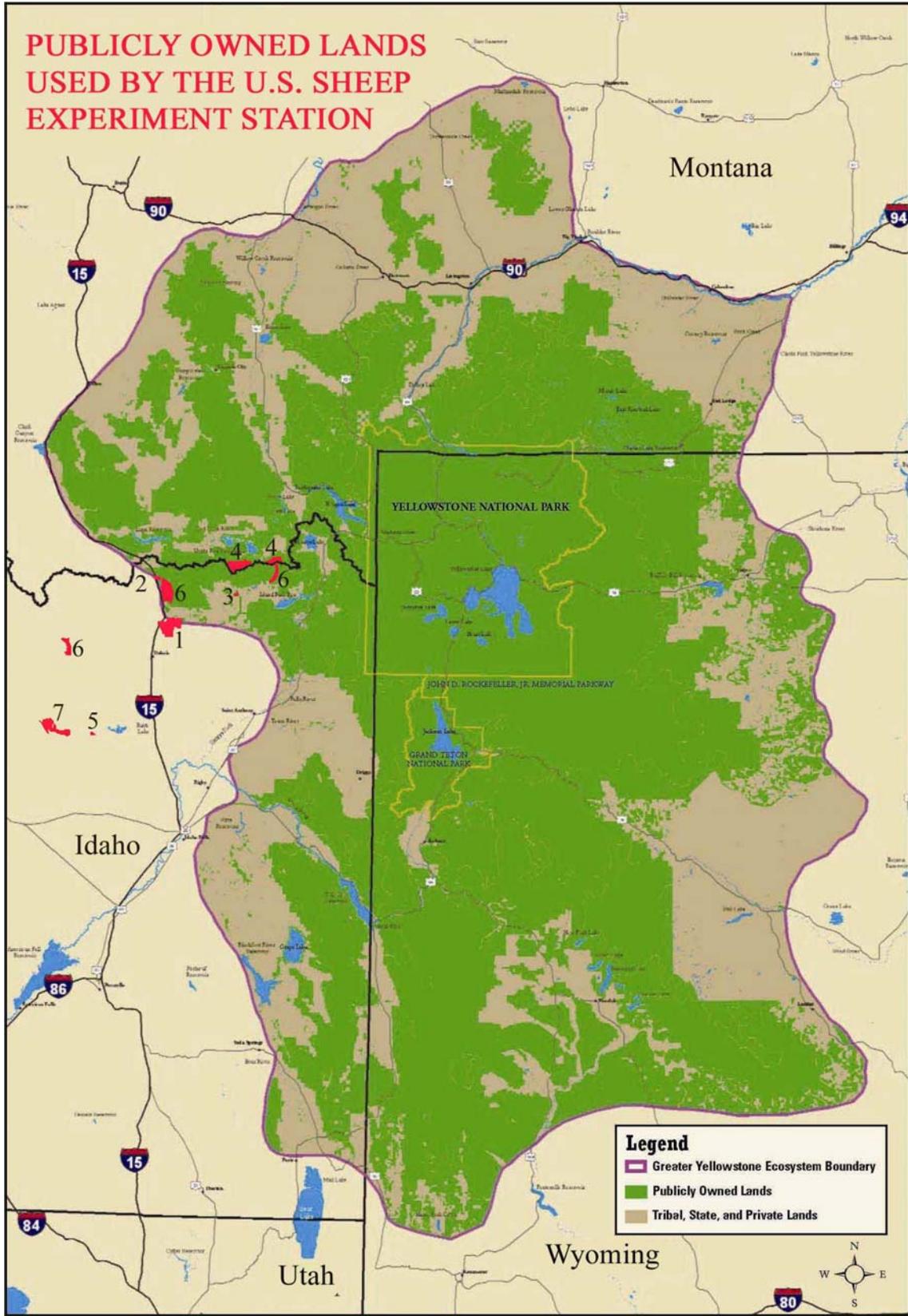
All told, USSES utilizes 104,365 acres of publicly owned land—48,330 acres managed by the USSES and 56,035 acres managed by other federal agencies. Approximately 53 percent of the land utilized by the USSES is located within the commonly used boundary of the Greater Yellowstone Ecosystem. A map on the next page shows the location of these properties.

With the exception of the Mud Lake Feedlot and the area where offices, labs, employee housing, and ranching facilities are located, all of the remaining publicly owned land used by USSES—or more than 103,000 acres—is available for grazing.²⁸ Not all of this land, however, is grazed each year. In 2002, 66,972 acres, or 64 percent, was grazed while 37,393 acres, or 36 percent, was not grazed. Table 2 shows where grazing took place in 2002.

²⁶ Formerly known as INEEL (Idaho National Engineering and Environmental Laboratory), this facility is operated by the Department of Energy.

²⁷ Estimated acreage for the three Forest Service Allotments is: Allotment I: 3,520 acres; Allotment II: 5,818 acres; Allotment III: 22,720 acres.

²⁸ Harvested feed is fed to sheep at the Mud Lake Feedlot.



Red areas on the map indicate publicly owned lands used by the USSES. Numbers 1 through 7 correspond to the property numbers found in Table 1 on the previous page.

Table 2 ACREAGE GRAZED BY THE U.S. SHEEP EXPERIMENT STATION IN 2002				
Property	# of Acres Grazed ²⁹	# of Acres Ungrazed	Total Acreage	Percent Grazed
Ranch Headquarters	27,000	930	27,930	97%
Humphrey Ranch	2,600	0	2,600	100%
Henninger Ranch	922	278	1,200	77%
Centennial Mountains	5,100	11,500	16,600	31%
Mud Lake Feedlot	0	740	740	0%
Forest Service Allotments	13,500	18,558	32,058	42%
BLM Allotment	17,850	5,387	23,237	77%
TOTAL	66,972	37,393	104,365	64%

The sheep that graze the land available to USSES are owned by the University of Idaho. In 2002, the University's 7,761 sheep³⁰ harvested an estimated 13,970 AUMs³¹ while grazing on 66,972 acres of publicly owned lands for approximately 9 months of the year.³² This amounts to nearly 11.2 million pounds of forage that was eaten by domestic sheep.³³

TAX PAYERS SUBSIDIZE THE SHEEP INDUSTRY

The University of Idaho does not pay any grazing fees to the U.S. government for the forage its sheep remove from federal lands.³⁴ According to research conducted by the San Jose Mercury

²⁹ Data in this column for the Ranch Headquarters, Humphrey Ranch, Henninger Ranch, Mud Lake Feedlot, Forest Service Allotments, and BLM Allotment comes from:

Hutchison, Stasia. 2003. Letter to Robin Smith, Forest Guardians, from Stasia Hutchison, Freedom of Information Act Coordinator, U.S. Department of Agriculture. May 20, 2003.

Data on Centennial Mountains comes from:

Hutchison, Stasia. 2003. Letter to Robin Smith, Forest Guardians, from Stasia Hutchison, Freedom of Information Act Coordinator, U.S. Department of Agriculture. January 13, 2003.

³⁰ Hutchison, Stasia. 2003. Letter to Robin Smith, Forest Guardians, from Stasia Hutchison, Freedom of Information Act Coordinator, U.S. Department of Agriculture. May 20, 2003.

³¹ Animal Unit Months. An AUM is defined as the amount of forage and/or browse required to feed a cow and her calf, a horse, or five sheep or goats for one month, or about 800 pounds. This also equates to the amount of forage required to support 1 moose, 2 elk, 8 deer, 7 bighorn sheep, or 11 pronghorn antelope for one month.

³² (7,761 sheep ÷ 5 sheep per AUM) X 9 months = 13,970 AUMs

³³ 13,970 AUMs X 800 lbs/AUM = 11,176,000 lbs

³⁴ Hutchison, Stasia. 2003. Letter to Robin Smith, Forest Guardians, from Stasia Hutchison, Freedom of Information Act Coordinator, U.S. Department of Agriculture. January 13, 2003.

News, the average cost of an AUM on private land in the western states is \$11.10.³⁵ Consequently, by failing to charge grazing fees at the average going rate on private land, the U.S. Treasury incurs an annual loss of \$155,067 in revenue.³⁶

In addition to being subjects of research, USSES sheep are raised for wool and food production, and are ultimately sold. The income from the sale of these sheep goes to pay the salary of the two University of Idaho employees that work at USSES and provide for needs of the sheep, such as veterinary care.³⁷

In 2002, USSES's budget was \$2,225,446.³⁸ Small amounts of this funding comes from research grants from other federal agencies such as the National Institute of Health and, occasionally, directly from the livestock industry through organizations such as the National Livestock Producers Association or American Farm Bureau Federation. However, USSES's primary source of income is from Congressional appropriations.³⁹

When the \$155,067 in lost revenue resulting from failure to collect grazing fees is added to the USSES's \$2,225,446 annual budget, the total tax payer subsidy provided by USSES to the sheep industry is \$2,380,513 per year.

According to the Cato Institute, a conservative Washington, D.C.-based think-tank, federal programs to enhance the profitability of one specific private industry, such as the sheep industry, are nothing more than corporate welfare.⁴⁰ The costs of grazing sheep on publicly owned lands are borne by the public, but the profits are enjoyed privately by the 4,502 ranchers who hold federal sheep-grazing permits in the eleven western states.⁴¹

Interestingly, ranchers who graze publicly owned lands tout themselves as "rugged individualists." For the most part, they hold a conservative political philosophy that supports free enterprise, tax cuts, reducing the size of the federal government, and getting government off the backs of people. Yet, the very nature of their existence is anti-free enterprise; they stave off bankruptcy only as a result of federal handouts derived from public tax dollars; and could not exist without the federal land and agencies they rail against. The USSES is just one more example of the federal handouts provided to the livestock industry.

³⁵ Rogers, Paul and Jennifer LaFleur. 1999. Cash Cows. San Jose Mercury News. November 7, 1999.

³⁶ $13,970 \text{ AUMs} \times \$11.10/\text{AUM} = \$155,067$

³⁷ Lewis, Greg. 2003. Personal communication, phone interview with Greg Lewis, Research Leader, U.S. Sheep Experiment Station. March 10, 2003.

³⁸ National Finance Center. 2002. CRIS Figures Report. Unpublished document obtained by Forest Guardians from U.S. Sheep Experiment Station through a December 12, 2002, Freedom of Information Act request. November 5, 2002.

³⁹ Lewis, Greg. 2003. Personal communication, phone interview with Greg Lewis, Research Leader, U.S. Sheep Experiment Station. March 10, 2003.

⁴⁰ Stansel, Dean. Undated. Cato Handbook for Congress, 105th Congress: #9. Corporate Welfare. Viewed at the website of the Cato Institute, found at: www.cato.org/pubs/handbook/hb105-9.html, on December 18, 2003.

⁴¹ U.S. Department of Interior. 1994. Rangeland Reform '94: Draft Environmental Impact Statement. Pages 3 – 66. Published by Bureau of Land Management, Washington, D.C.

NEGATIVE IMPACTS ON WILDLIFE

The Greater Yellowstone Ecosystem is truly an extraordinary place—one of the few places in our country where, with the exception of the black-footed ferret, all the species of plants and animals that were here prior to the arrival of Europeans to North America still survive. Wildlife abounds here like nowhere else in the contiguous U.S. primarily because 75 percent of the GYE, or 15 million acres, consists of publicly owned lands.

Yet, despite the rich array of wildlife that exists in the Greater Yellowstone Ecosystem, the populations of many species are considerably lower than they were prior to the arrival of Europeans. The long-term survival of some, such as the wolf, grizzly bear, lynx, prairie dog, and bighorn sheep, is tenuous. While multiple factors caused the past decline of these species and continue to suppress their populations today, over the past century a common thread running through the near elimination of each of these is livestock grazing.

As stated previously, 11.2 million pounds of forage is eaten annually by the USSES's 7,800 sheep. At this rate of consumption, the 200,000 domestic sheep grazing throughout the Greater Yellowstone Ecosystem eat an estimated 288,000,000 pounds of vegetation,⁴² or 360,000 AUMs,⁴³ each year. By removing this forage, native wildlife populations—such as bighorn sheep, pronghorn, elk, and deer—suffer. When it comes to the harm that sheep grazing has on wildlife, it really is a simple concept: the amount of forage eaten by domestic livestock is not available to wildlife as food or cover, therefore, reducing their populations below optimum levels. How much are wildlife populations reduced by domestic sheep grazing on publicly owned lands in the Greater Yellowstone Ecosystem? It is impossible to know with certainty; however, if the 200,000 domestic sheep were removed from publicly owned lands, then the 288 million pounds of vegetation they eat annually would become available to other species of ungulates. This increase in food availability provides the potential for an increase in the elk population by an additional 60,000 elk.⁴⁴

An additional negative impact of livestock grazing on wildlife results from the intolerance of predators by many ranchers. Apparently, some employees of USSES have similar attitudes. Shortly before wolves were restored to Yellowstone National Park in 1995, Clair Terrill, former Director of the USSES, wrote:

Now that predators will be taking food, and money also, from people, it seems the time has come to legalize the use of single lethal dose baits to quickly reduce coyote predation and thus loss of human food to predators. In addition, no predator species which might reduce the future human food supply should be protected as an endangered species. Family farmers should organize to reduce the loss of human food to predators by supplementing control efforts of APHIS [Animal and Plant Health Inspection Service] with winter hunting and denning, especially denning.⁴⁵ Support of predator control by APHIS should be greatly

⁴² $[(200,000 \text{ sheep} \div 5 \text{ sheep/AUM}) \times 9 \text{ months}] \times 800 \text{ lbs/AUM} = 288,000,000 \text{ lbs of vegetation eaten/yr}$

⁴³ $288,000,000 \text{ lbs} \div 800 \text{ lbs/AUM} = 360,000 \text{ AUMs}$

⁴⁴ $(360,000 \text{ AUMs} \div 12 \text{ months/yr}) \times 2 \text{ elk/AUM} = 60,000 \text{ elk}$

⁴⁵ Denning is the killing of coyote pups by digging them out of their den or by placing a poison gas cartridge inside the den.

increased to provide more effective control in all of the 50 states... **Now is the time to give the people precedence over nonessential or useless wildlife.** [Emphasis added.]

... Predator losses should be quickly reduced by greatly increasing lethal control. All wildlife species preying on goats or sheep should be removed from endangered species lists and there should be no attempts to increase their numbers or to encourage their production in new areas....⁴⁶

These are radical statements coming from the former Director of a federal agency. Not only is Mr. Terrill lobbying for wolves and grizzly bears to be removed from the Endangered and Threatened Species List because they are nonessential, useless wildlife, but he is also calling for increased use of tax dollars to pay federal agents to kill them and push them closer to the edge of extinction.

It is hard to imagine increasing spending or killing more predators. Wildlife Services, the federal government's predator control agency, already spends nearly \$8 million each year to kill 100,000 predators in the 11 westernmost states.⁴⁷ The vast majority of those killed are coyotes (90,000), primarily to protect sheep.

Most Americans disagree with Mr. Terrill's statement that predators are nonessential, useless wildlife. In fact, more than three million people visit Yellowstone National Park each year for the primary purpose of observing wildlife. Which species do they most hope to see? Wolves and grizzly bears!

Most Americans believe wolves and grizzly bears *are* essential *and* useful wildlife. They also believe it is our duty to restore and protect their populations until they have recovered to levels where they no longer need the protections offered by the Endangered Species Act.

To put Mr. Terrill's statement into perspective, imagine if the Director of the U.S. Fish and Wildlife Service said that sheep and cows grazing on publicly owned land were nonessential, useless animals and tax dollars should be used to hire federal agents to kill cows to make room for wildlife. Can you imagine the uproar that would take place? Ranchers' outrage would lead to the firing of the Fish and Wildlife Service Director faster than you could say, "Don't let the door hit your backside on the way out!" Who would fall in line behind ranchers offering their support? Our elected officials, from county commissioners all the way up the political food chain to Congress, with the media promoting their message for them.

Yet, rather than distancing itself from Mr. Terrill and his extremist views, the Agricultural

⁴⁶ Terrill, Clair, E. 1993. Goat Meat in Our Future? The Status of Meat Goats in the United States. Live Animal Trade & Transport Magazine. Pages 36–39. December 1993. Viewed at: <http://www.boergoats.com/clean/articles/terrill.htm>, on March 8, 2005.

⁴⁷ Predator Conservation Alliance. 2002. A Presentation and Analysis of the USDA Wildlife Services Program's Expenditures and Kill Figures for Fiscal Year 2000. Viewed at the website of the Predator Conservation Alliance, found at: http://www.predatorconservation.org/about_us/research/wildlifeservicesreport2002.html, on March 30, 2005.

Research Service has hung his portrait at its Science Hall of Fame in Beltsville, Maryland!⁴⁸

How does this hateful attitude toward predators by some ranchers, and presumably at least some USSES employees, affect the day-to-day operations of USSES? Near the end of May 2001, predators killed nine sheep at the Humphrey Ranch. Tracks and other evidence pointed to wolves as the culprit. Wildlife Services was called in to investigate. They set four foothold traps to capture a wolf, place a radio collar on it, and release it to serve as a “Judas” to betray the location of other wolves in the area.⁴⁹

After an additional 22 sheep were killed on June 12, Wildlife Services then authorized its agents to kill, rather than capture, a wolf. They conducted radio telemetry flights over the area scanning known frequencies of missing wolves from a list received from the U.S. Fish and Wildlife Service.⁵⁰ No wolves were observed visually or by telemetry during these flights. By the end of June, wolves had killed a total of 36 of the University’s sheep on USSES-managed public property. To protect the sheep they were moved to a new pasture, a herder’s camp was positioned nearby, and livestock guard dogs were posted. Wolf tracks were subsequently found in the area on several occasions, and four additional traps were set out.⁵¹

In this particular case, the wolves were not seen, captured, or killed. In too many other cases, however, publicly owned wildlife (such as coyotes, mountain lions, wolves, or bears) living on publicly owned lands are killed by public employees to protect the private profit of a handful of ranchers.

Another negative impact of livestock grazing is fencing. Fences interfere with the daily movement of wildlife as well as their seasonal migration routes. This is particularly true of species such as pronghorn, which are often unwilling to jump over a fence. To partition off pastures and control the movement of sheep, the USSES has constructed approximately 150 miles of fence on the 48,330 acres they manage. At an average cost of \$3,000 per linear mile for barbed wire fence construction,⁵² U.S. taxpayers have paid \$450,000 over the past twenty years,⁵³ or \$22,500 per year, to construct fences on USSES’s property.

OBSTACLES TO BIGHORN SHEEP RESTORATION

Few large mammals are under greater assault than bighorn sheep. Long-term fire suppression has allowed timber to invade the meadows that once supported native herds of sheep and provided migration corridors. Many crucial wintering grounds are now occupied by housing

⁴⁸ Terrill, Clair, E. 1993. Goat Meat in Our Future? The Status of Meat Goats in the United States. *Live Animal Trade & Transport Magazine*. Pages 36–39. December 1993. Viewed at: <http://www.boergoats.com/clean/articles/terrill.htm>, on March 8, 2005.

⁴⁹ Farr, Jonathan H. 2001. Wildlife Services Depredation Investigation Report. Report Numbers 1914 and 1915, and Chronology of the Humphrey Wolf. Wildlife Services. June 20, 2001; July 31, 2001; and July 3, 2001.

⁵⁰ The U.S. Fish and Wildlife Services attempts to place a radio collar on at least one wolf from every pack so they can track their whereabouts.

⁵¹ Farr, Jonathan H. 2001. Wildlife Services Depredation Investigation Report. Report Numbers 1914 and 1915, and Chronology of the Humphrey Wolf. Wildlife Services. June 20, 2001; July 31, 2001; and July 3, 2001.

⁵² Dehmer, Greg M. 2004. Personal communication, email message to Robin Smith, Forest Guardians, from Greg M. Dehmer, Acting Refuge Manager, Red Rock Lakes National Wildlife Refuge. January 28, 2004.

⁵³ Twenty years is the life expectancy of a barbed wire fence.

developments.⁵⁴ Nevertheless, the single, largest obstacle preventing the restoration of bighorn sheep populations to publicly owned lands is domestic sheep grazing on these same lands.

Much of the nation's native sheep habitat is so degraded from decades of overgrazing by domestic sheep that it will no longer support bighorns. Where bighorn sheep still survive, they face competition from other wildlife and domestic livestock on high summer habitat and on winter range. Moreover, bighorns are highly sensitive to certain strains of bacterial pneumonia carried by domestic sheep.⁵⁵

When domestic sheep and bighorn sheep intermingle, it almost always results in the death of bighorns, primarily from pneumonia, without affecting the domestic sheep. Major bighorn sheep die-offs have occurred in every western state and have been reported from the mid 1800s to the present. In recent years, biologists and veterinarians have shown that even casual contact between bighorn and domestic sheep may lead to respiratory disease and fatal pneumonia in bighorns.⁵⁶ For instance, in 1988, a thriving herd of 65 bighorn in the Warner Mountains in northeastern California was wiped out by contact with a single domestic sheep.⁵⁷ Further, not a single study reports any bighorn sheep herds, fenced or free ranging, that have come into contact with domestic sheep and remained healthy.⁵⁸

Simply put, bighorn and domestic sheep cannot utilize the same habitat; they must be kept separate from one another. Herein lies the crux of the problem. With 200,000 domestic sheep grazing in the Greater Yellowstone Ecosystem, much of the prime bighorn sheep habitat is either off limits to bighorns or, unbeknownst to them, they face certain death if they go there.

The current strategy for managing bighorn sheep—keeping them separated and isolated from domestic sheep—is designed to keep bighorn populations suppressed. When bighorn sheep leave their home range to expand into nearby suitable habitat they are killed to ensure they do not mingle with domestic sheep grazing on publicly owned land. This is to prevent the transmission of disease from domestic sheep to bighorns and to prevent native bighorns from competing for forage many ranchers believe belongs to their domestic sheep. In their view, every blade of grass eaten by wildlife is stolen from the mouths of their livestock, even when that grass comes from publicly owned lands.

As would be expected, domestic sheep ranchers usually oppose bighorn restoration projects. When they do go forward, it is usually due to concessions by wildlife enthusiasts to strictly limit where the bighorn sheep can go.

⁵⁴ Madson, Chris. 2001. A Quiet Crisis: What Does the Future Hold for Our Wildlife. Page 23 in a report reprinted from Wyoming Wildlife magazine. Published September 2001.

⁵⁵ Ibid.

⁵⁶ Schommer, Tim, and Melanie Woolever. 2001. A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep. Page 1. August 2001.

⁵⁷ Rauber, Paul. 2001. The Lion and the Lamb—What happens When a Protected Predator Eats an Endangered Species? Sierra Magazine. Viewed at the website of the Sierra Club, found at: www.sierraclub.org/sierra/200103/sheep.asp, on March 22, 2005.

⁵⁸ Schommer, Tim, and Melanie Woolever. 2001. A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep. Page 1 - 4. August 2001.

As an example of this strategy of separation, in 2003 and 2004, 68 bighorn sheep were introduced into the Greenhorn Mountains approximately 40 miles north of USSES's Centennial Mountain summer range. An agreement between Montana Fish, Wildlife, and Parks and the livestock industry calls for domestic and wild sheep to be separated by 10 miles and for bighorns to be removed if they leave the Greenhorns. If the bighorn sheep leave the Greenhorn Mountains, they will be tracked down and killed by government agents. Individual ranchers have also been given permits to kill bighorns that mix with their sheep on grazing allotments on publicly owned lands.

Glenn Hockett, president of the Gallatin Wildlife Association and Montana Director for Western Watersheds Project, calls the plan a "preemptive strike" and compares it to the policy on bison that wander out of Yellowstone National Park. As in Yellowstone, Hockett said, "wildlife are not allowed to leave the Greenhorns." Much of the land they're entering is designated as the Robb Ledford Wildlife Management Area. "If they go to a wildlife management area they're going to get killed," Hockett said. "It makes no sense."⁵⁹

In 2003, a couple of bighorn sheep that left their Greenhorn Mountains "enclosure" were captured and returned to the Greenhorns. Another that evaded capture was shot.⁶⁰

Over a long time-scale, the strategy of keeping bighorn sheep in small, isolated populations is doomed to failure. Sixty-four percent of 166 populations in the western United States contain fewer than 100 individuals. The negative effects of small population size on bighorn are well documented. Research has shown that no indigenous populations of fewer than 50 bighorn sheep survived for five decades, whereas all populations numbering more than 100 animals survived for the same period.⁶¹

Most wildlife biologists and veterinarians have concluded that bighorn and domestic sheep should not occupy the same ranges or be allowed in close proximity to each other.⁶² This strategy of allowing only small, isolated herds of bighorn sheep to protect domestic sheep grazing on publicly owned lands will likely result in the winking out of most of bighorn populations over the next century. This is all the more reason why domestic sheep, including those at the USSES, should be removed from the Greater Yellowstone Ecosystem.

⁵⁹ McMillion, Scott. 2004. Bighorn Sheep to be Killed as Disease-Prevention Measure. The Bozeman Daily Chronicle. March 26, 2004. Viewed at the website of The Bozeman Daily, found at: www.bozemandailychronicle.com/articles/2004/03/26/news/02bighornsbzbigs.txt, on March 22, 2005.

⁶⁰ French, Brett. 2004. Agents May Shoot Wandering Bighorns. Billings Gazette. March 26, 2004. Viewed at the website of the Billings Gazette, found at: www.billingsgazette.com/index.php?display=rednews/2004/03/26/build/wyoming/70-bighorns-shootable.inc, on March 22, 2005

⁶¹ Singer, Francis. 1995. Bighorn Sheep in the Rocky Mountain National Parks. Pages 332 – 333 in: Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals, and Ecosystems. Edited by LaRoe, E.T., G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac. 1995. U.S. Department of the Interior, National Biological Service.

⁶² Schommer, Tim, and Melanie Woolever. 2001. A Process for Finding Management Solutions to the Incompatibility Between Domestic and Bighorn Sheep. Page 4. August 2001.

CONCLUSION

The USSES is one of many tax payer-funded programs that prop up a small number of sheep ranchers who operate on publicly owned lands in the west. The total taxpayer subsidy provided by USSES to the sheep industry is nearly \$2.4 million a year.

What do taxpayers get in return? Publicly owned wildlife such as bighorn sheep, coyotes, wolves, and grizzly bears risk being captured, relocated, or killed if they step foot on the 104,000 acres of publicly owned lands controlled by the USSES. The amount of food available to deer, elk, and pronghorn is reduced each year by the 11 million pounds of forage the University of Idaho's sheep eat. Livestock fences interfere with daily movements and seasonal migration of pronghorn. Even bird and small mammal populations are reduced due to the loss of cover resulting from sheep stripping away the vegetation.

The bottom line is this—the USSES benefits only a few sheep ranchers at the expense of harming the public's land and wildlife. It is time for the public—hunters, anglers, hikers, outdoor enthusiasts, and conservationists—to demand the U.S. Sheep Experiment Station be closed and its \$2.25 million annual budget used instead to remove fences, restore wildlife habitat, reintroduce bighorn sheep, and allow wolves and grizzly bears to recolonize the public's property.