

# Wyoming Cooperative Fish and Wildlife Research Unit

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## REPORT

**Title of Project:** Bighorn Sheep / Teton Range\_\_\_\_\_

**UW Grant #:** WHFW40364\_\_\_\_\_

**Agency:** Wildlife Heritage Foundation of Wyoming / Wyoming Governor's  
Big Game License Coalition\_\_\_\_\_

**Agency #:** \_\_\_\_\_

**Type of Report:** Annual Report\_\_\_\_\_



**WYOMING GOVERNOR'S BIG GAME LICENSE COALITION (WGBGLC)  
ADMINISTERED BY THE WILDLIFE HERITAGE FOUNDATION OF WYOMING (WHFW)  
AUTHORIZATION TO DISBURSE FUNDS (ADF)  
AND PROJECT SUMMARY/CLOSEOUT REPORT**

Date:	6/30/2011			
Project Title:	Seasonal habitat selection, movement, recruitment, and impact of winter backcountry recreation on bighorn sheep in the Teton Range			
WGBGLC Account Amount	\$ 15,000			
<b>Sheep</b>	<b>Moose</b>	<b>Elk</b>	<b>Deer</b>	<b>All Wildlife</b>
\$ 15,000	\$	\$	\$	\$
Final Payment Request (mark one)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
If this is the final payment request, unused project funds will be rolled back to the applicable Species Account. If this is the final payment request, a project summary/closeout report (bottom of page) must be completed and accompany this request for payment.				
Name of Contact Person/Project Lead:	Matthew Kauffman		Phone:	307-766-6404
<b>FOR COMPLETED OR ONGOING PROJECTS:</b>				
Amount Requested:	\$			
<b>Receipts are mandatory for payment.</b> If receipts don't match the amount requested from WGBGLC, additional explanation is required, including listing of sources where differential invoiced amount(s) will be submitted for payment. Payments will be made up the amounts approved by the WGBGLC Species Project Committees.				
Explanation (if applicable):				
Payable To:				
Address:				
City:		State:		Zip Code:
<b>WGBGLC Project Lead Signature Authorization:</b>				
I, the undersigned, certify, under penalty of perjury, that the items/tasks included herein for payment were received on behalf of the Wyoming Governor's Big Game License Coalition (WGBGLC) administered by the Wildlife Heritage Foundation of Wyoming (WHFW) and are correct and just in all receipts.				
Project Lead Signature:		Printed Name:		Date:
<b>WGBGLC Species Committee Chair Signature Authorization Required:</b>				
I acknowledge the above requested payment conforms with the project activities indicated by the Project Lead's signature above, and is authorized by the WGBGLC Species Project Committee.				

Species Project Committee Chair Signature: (above)		Printed Name:		Date:	
<b>FOR ADVANCE PAYMENTS:</b> (Provide detailed explanation) Include itemized estimates of expenditures of WGBGLC funds. Upon completion, itemized receipts are required:					
Explanation:					
Payable To:					
Address:					
City:		State:		Zip Code:	
<b>WGBGLC Project Lead Signature Authorization:</b>					
I, the undersigned, certify, under penalty of perjury, that the explanation above, for which advance payment is requested from the Wyoming Governor's Big Game License Coalition (WGBGLC) administered by the Wildlife Heritage Foundation of Wyoming (WHFW), Conforms with the project approved by the WGBGLC.					
Project Lead Signature:		Printed Name:		Date:	
<b>WGBGLC Species Committee Chair Signature Authorization Required:</b>					
I acknowledge the above requested payment confirms with the project activities indicated by the Project Lead's signature above, and is authorized by the WGBGLC Species Project Committee.					
Species Project Committee Chair Signature: (above)		Printed Name:		Date:	
<b>PROJECT SUMMARY/CLOSEOUT REPORT:</b> (To be completed by the WGBGLC Project Lead. For use in press releases, other WGBGLC summaries, informational/promotional materials. Briefly describe the project; also include 1 or 2 suitable digital photos, maximum of 500 words. <b>Summarize attainment of original project goals/objectives.</b> ) Closeout Report should be submitted by the end of the calendar year final payment was made.					
Note: We are currently in the process of requesting an extension on these funds, so please regard this as a project update, not a close-out report.					
<p>The Teton Range in northwest Wyoming supports a remnant native population of approximately 100-150 bighorn sheep. Due to human influence on the landscape (development, domestic sheep grazing, fire suppression, etc.), this sheep population has lost access to its historic winter range and migration routes, and is now restricted to high elevation range in the Tetons year-round. The herd's persistence is uncertain due to its small size, genetic isolation from surrounding herds, and the combined effects of loss of historic winter range, habitat alteration due to fire suppression, and threats posed by increasing winter recreation in and near important seasonal ranges.</p> <p>This study aims to: (1) map historic bighorn sheep distribution in the Teton Range using historical data sources, (2) document current locations and characteristics of bighorn sheep seasonal habitats and movement corridors using GPS data from 28 GPS-collared ewes over 2.5 years, (3) quantitatively assess the seasonal habitat selection patterns of bighorn sheep using a resource selection function, and apply this model to a GIS to delineate high-quality occupied and potential bighorn sheep habitat, (4) quantitatively assess avoidance of winter habitats by bighorn sheep due to human recreation by mapping winter recreation routes, timing, and intensity of use in the southern Teton Range, (5) evaluate the effects of retiring domestic sheep allotments on bighorn sheep, and (6) evaluate population recruitment by determining lamb production and survival to mid-summer for GPS-collared ewes.</p> <p>Project Progress:</p> <ul style="list-style-type: none"> <li>Field work was completed in September 2010. GPS collars detached from the sheep on July 15, 2010 and were retrieved for downloaded, providing over 61,000 relocations.</li> <li>During fall 2010, collar data was organized into a Microsoft Access database, along with over 1 million GPS points of backcountry skier/snowboarder movements collected during winters 2008/09 and 2009/10.</li> </ul>					

- Preliminary work has been completed on the winter and summer habitat selection models; work will continue in summer 2011 on further developing these models to account for collar fix bias caused by steep slopes in the Tetons. We are currently attempting to resolve the fix bias problem by utilizing a model developed by Ryan Nielson at WEST, Inc.
- We documented bighorn sheep use on the former domestic sheep allotments in the southern Teton Range, particularly in the areas of Moose Creek and Fox Creek during late winter, summer, and fall.
- Analyses will be completed by the end of the year.

Photos attached (2).

Date Submitted:		Date Project Closed:	
Project Title:			
Project Contact Name:			
Project Type (Please indicate all that apply):			
<input type="checkbox"/>	Habitat Management	<input type="checkbox"/>	Research
<input type="checkbox"/>	Disease	<input type="checkbox"/>	Land Conserv/Easements
<input type="checkbox"/>	Population/Management	<input type="checkbox"/>	Conservation Education
<input type="checkbox"/>	Other:		
Total Project Costs:			
	\$		
WGBGLC Contribution:			
	\$		
WGFD Contribution:			
	\$		
Partners Contribution:			
	\$		
Partner Name:			