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Grant Application Cover Sheet

Please complete the following coversheet. See the grant application guidelines on our website www.myowf.org/grants to complete your application. Volunteer organizations without nonprofit status must have a tax-exempt fiscal sponsor. You may scan and email this cover sheet and your application.

About You

Project Title: **Wolverine Persistence in Northeast Oregon**

Organization: **Wallowa Wolverine Project**

volunteer organizations without nonprofit status, list your fiscal sponsor:

Tax id number (not required for governmental applicants):

Project Manager Name: **Kayla Dreher** Title: **Project Co-Lead**

City: **Naches, Wa** Address: **13640 Old Naches Hwy** Zip Code: **98937**

Phone (mobile): **(563)-349-9329** email: **kayla.dreher7@gmail.com**

Tell us about yourself (brief biographical statement): **Montane carnivore biologist and current MS student who has studied wolverines in the Northwest for the previous six years.**

Have you applied for a grant from Oregon Wildlife Foundation before? Yes No

If "yes", what was the name of the project? **Wolverine Persistence in Northeast Oregon**

About Your Proposed Project

What type of project are you proposing? Fish Wildlife Other

Will it address an Oregon Conservation Strategy habitat or species? Yes X No

If "yes", please name the habitat and/or species addressed: **Wolverine**

Proposed start date: **October 2020** Anticipated end date: **August 2021**

Project Location (attach map): **Wallowa mountains** Nearest town or city: **Enterprise** County: **Wallowa/Union/Baker**

Has a local, state, or federal biologist reviewed this project? Yes No

If "yes", what is their name? **Shane Talley** Phone: **(541)-426-3279** email:

shane.m.talley@state.or.us

If "no", what is your plan for an external review of the project?

Estimated project cost: **\$9996** Funding you are requesting: **\$9996**

How will you use the requested funds? **Primarily field labor with several days of field prep and data analysis, as well as mileage reimbursement, and misc. supplies like scent lure ingredients, hard drive, camera batteries, sd cards. and hardware.**

What will you accomplish (ex., stream miles enhanced, acres planted)? **Track the presence and demographic of wolverine populations in Northeast Oregon.**

Check the following box to be added to our email distribution list:

Project Abstract/Summary

Limited to 750 characters. *Do not begin your narrative here or link to other pages:* **attached**

Certifications

Check here to certify that you have already or will obtain necessary permits from all requisite agencies *as applicable to the proposed project.*

I have included pre-project pictures or video as well as a picture or video entry of myself.

I understand that I'm required to submit a Project Completion Report, copies of any publications or social media posts crediting the Foundation's support, and post-project pictures at the completion of my project.

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I warrant that I am the legal owner of all pictures and video submitted in application and grant permission for the Foundation to reproduce, exhibit, or publish them for all general purposes in relation to Oregon Wildlife Foundation's work.

Signature of Applicant or Authorizing Official:



Project Budget			
Project Revenue	Cash	In-Kind	Committed/Pending
<i>OWF Additional Fundraising request</i> →	\$9,905.00		Pending
Oregon Wildlife Foundation seed funding (Funding for field and support/analysis labor, mileage reimbursements, project supplies)		\$9,996.00	Pending
A. Magoun (Cameras loaned, runpoles, lodging)		\$7,000.00	Committed
ODFW Baker (Cameras loaned, trailer use)		\$2,000.00	Committed
ODFW Baker (Stock support)		\$1,500.00	Committed
ODFW Enterprise (Cameras loaned, snowmobile use)		\$3,000.00	Committed
ODFW Enterprise (Snowmobile fuel)		\$300.00	Pending
USFS WMO (Cameras loaned, field support)		\$4,400.00	Pending
revenues	\$9,905.00	\$28,196.00	
Total Project Support			\$ 38,101.00
Project Expenses			Amount
16 Field Days (fundraising)			\$2,800.00
4 Support/Analysis Days (fundraising)			\$700.00
8 Reconyx Hyperfire 2 motion-cameras w/ cable locks (fundraising)			\$4,000.00
Mileage reimbursement up to 1,800mi (fundraising)			\$1,035.00
Stipend for volunteer field assistant (fundraising)			\$1,000.00
AA lithium batteries (fundraising)			\$175.00
12 SD cards 32gb (fundraising)			\$120.00
Station hardware- eye lags/quick links/cable wire etc (fundraising)			\$75.00
32 Field Days (OWF)			\$5,600.00
12 Support/Analysis Days (OWF)			\$2,100.00
Mileage reimbursements up to 2,915mi (OWF)			\$1,676.00
Batteries (OWF)			\$275.00
Hard-drive/SD card reader/SD cards (OWF)			\$270.00
Scent supplies (OWF)			\$75.00
Camera Equipment loans (AJM/ODFW/USFS)			\$11,000.00
Stock Support (ODFW)			\$1,500.00
Lodging (AJM)			\$2,000.00
Field Support (USFS)			\$2,400.00
Snowmobile use/fuel (ODFW)			\$1,300.00
Total Project Expenses			\$38,101.00
<i>d budget? This cell should read "\$0.00" →</i>			\$0.00



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Project Title: Wolverine Persistence in Northeastern Oregon

Project Start Date: 10/01/2020

Duration: 1 year

Total funding requested: \$9,996

Project Co-Lead: Kayla Dreher

Project Co-Lead: Scott Shively

Senior Advisor: Audrey Magoun

Project Summary:

We are tracking the continuous presence of wolverines in Northeast Oregon through long-term, non-invasive camera monitoring. Wolverines are a wide-ranging species that occupy a circumpolar distribution globally. The contiguous United States lies at the southern periphery of the wolverine's range, therefore wolverine habitat in the lower-48 states is restricted to high-elevations with persistent spring snowpack. While multiple wolverines were documented in the Wallowa Range of Northeast Oregon in 2011, limited monitoring by ODFW (1-3 cameras) only detected a single individual. This prompted our 2019/2020 effort to thoroughly reevaluate wolverine presence in the Wallowa Range, during which we verified the presence of the single male wolverine, who was first detected in 2010 and is estimated to be over 12 years old. Through long-term monitoring of wolverine presence in the Wallowa Range, we gain critical insights on the dispersal dynamics of wolverines from nearby populations and we better understand the conservation needs of wolverines in Northeast Oregon. Beginning in fall 2020, we intend to set 12 runpole monitoring stations in the Eagle Cap Wilderness and surrounding forestland in the Wallowa Range to determine wolverine presence, identify individuals through photos and DNA, and identify sympatric carnivore species to better understand the dynamics of these carnivores on their shared landscape.

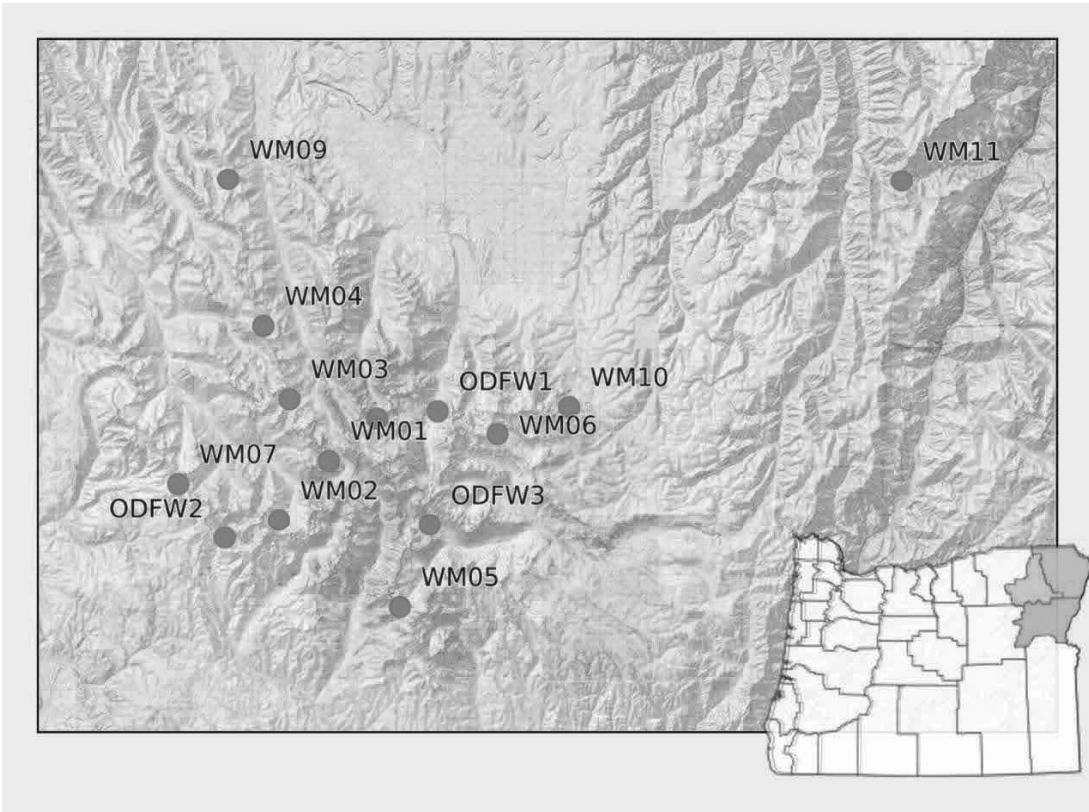
Additionally, we propose to pilot winter backtracking as a method of documenting fine-scale movements of wolverines in the Wallowas, informed by remote cell cameras that deliver real-time detection data through email alerts. No continuous tracking data has ever been collected on wolverines in Oregon, creating a significant knowledge gap. By utilizing cell-cameras at two locations, we will know as soon as a wolverine has visited the station, and our opportunity to follow fresh tracks will be optimized. This method will provide a means of collecting winter scats, documenting hunting and scavenging behavior, understanding important landscape features, and providing detailed information about wolverine travel routes.

We request OWF funds to cover field prep and labor, some data analysis, mileage reimbursement, batteries for remote cameras, photo management supplies like a hard-drive, sd cards, and an sd card reader, and scent lure supplies.

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Study Area with 2019/2020 monitoring sites:



Youtube link to Stormy video compilation:

<https://www.youtube.com/watch?v=NVqamA1Vk0o&t=11s>



Scott Shively

13640 Old Naches Hwy
Naches, WA 98937
Scottcshively@gmail.com
(509) 833-0099

Certifications and Trainings

- **Wildlife Handling & Chemical Immobilization** Global Wildlife Resources - 16hr - 2019
- **Licensed 4WD, Snowmobile, ATV, Trailer Operator** U.S. Forest Service - 24hr - 2016
- **Search & Rescue Academy** Yakima County Sheriff - 72hr - 2017
- **AIARE Level 1 Avalanche Training** International Mountain Guides - 24hr - 2019
- **First Aid & CPR** Firepoint - 4hr- biennially 2013-2018

Experience

Project Co-Lead, Wallowa Wolverine Project

Enterprise, Oregon - 20hrs/wk - Fall 2019- Summer 2020

- Managed and led field surveys to document and assess the presence, abundance, and reproductive status of wolverine in the Wallowa Mountains.
- Deployed 15 'run-pole' camera monitoring stations and serviced accessible stations monthly.
- Closely coordinated with non-profit, state, and federal partners such as the Oregon Wildlife Foundation, Oregon Department of Fish and Wildlife, and Wallowa-Whitman National Forest.

Field Coordinator, South Cascade Wolverine Project, and Cascade Red Fox Monitoring

Cascades Carnivore Project / US Forest Service, Okanogan-Wenatchee National Forest

Naches, Washington - 40hrs/wk - Winter 2015-16 (crew lead), Winter 2016-17, Winter 2017-18, Winter 2018-19, Fall 2019- Summer 2020 (15hrs/wk)

- Led field surveys to document and assess the presence, abundance, reproduction, and population dynamics of Cascade red fox and wolverine in Washington's south Cascades.
- Deployed over 120 baited camera and hair snag stations over five winters, including 20 wolverine-specific 'run-pole' stations and serviced accessible stations monthly.
- Extensively snow-tracked putative red fox and wolverine tracks to collect movement and genetic information. Collected 800+ genetic samples including hair, scat, urine, and prey remains.
- Trained and coordinated volunteer crews, procured project supplies, maintained vehicles and snow machines, and harvested bait from road-kill and nuisance wildlife trappers.
- Assessed habitat environments to identify and select survey locations, compiled field and photo data, logged and prepared genetic samples for analysis.

- Coordinated project efforts between non-profit, federal, and state agencies. Built partnerships with local groups, developed educational materials, and delivered presentations to the public.
- Discovered a lactating female wolverine and tracked her to a natal den, ultimately capturing photos of her with two kits in 2018-- the first documented in the southern Cascades in modern times.

Field and Lab Researcher, American Kestrel Full-Cycle Phenology Project

Boise State University

Boise, Idaho - 40hrs/wk - Spring, Summer 2019

- Monitored American kestrels nest boxes on Department of Defense installations across the country, coordinating with DoD contacts and adhering to strict protocols unique to various installations
- Trapped, banded, and processed adult and nestling American kestrels during the breeding season, personally handling 75+ birds.
- Deployed and maintained approximately 100 remote, cell cameras in nest boxes
- Collected and prepared genetic samples for lab analysis, and processed photo and field data.

Site Coordinator and Crew Lead, Raptor Migration Monitoring

Hawkwatch International

Mount Hood, Oregon - 60hrs/wk - Fall 2015 (crew member), Fall 2016 Goshute Mountains, Nevada - 60hrs/wk - Fall 2017, Fall 2018

- Trained and led 5-person crews in safe capture/handling methods as well as in-flight identification and data collection of migrating raptors.
- Oversaw trapping and banding operations, and delivered education to visitors at high elevation research sites.
- Held a banding sub-permit from USGS in 2017 and 2018 utilizing mist, bow, and dho gaza nets for capture. Personally banded and processed 400+ raptors in four seasons.
- Lived on site in a primitive research camp for the 3-month duration of the season in close proximity to crew members and visiting public, maintaining a respectful and positive work and living environment throughout.

Crew Lead, Hoary Marmot and Carnivore Predation Survey

Cascades Carnivore Project

Winthrop, Washington - 50hrs/wk - Summer 2018

- Led a volunteer crew to conduct hoary marmot and carnivore surveys throughout the North Cascades National Park Complex and the Pasayten Wilderness.
- Coordinated with National Park Service and Washington State University partners and followed strict field and data collection protocols.
- Deployed 40 remote camera stations, hiked 350+ miles of trails to access sites and collect genetic samples (scat) from target species.

Field Crew Lead, Western States Wolverine Baseline Survey

Cascades Carnivore Project

Naches, Washington - 10hrs/wk - Winter 2016-17

- Led a 2-person crew to set and service monthly 5 remote camera and hair snag stations targeting wolverine and lynx.
- As a collaborative effort by many agencies and organizations, it required strict adherence to an established protocol.

Biological Science Technician (GS-04), Multi-Species Monitoring

US Forest Service, Okanogan-Wenatchee National Forest

Naches, Washington - 40hrs/wk - Spring 2014, Spring 2015, Spring 2016

- Surveyed for Northern spotted owl occupancy, survival, reproduction, and recruitment through call-back surveys, nest visits and fledgling banding.
- Collected biological data on various owl and raptor species, forest carnivores, woodpeckers, and mollusks.
- Conducted two weeks of small mammal trapping and ear tagging using live traps

Wilderness Trail Crew Technician

US Forest Service, Okanogan-Wenatchee National Forest

Naches, Washington - 40hrs/wk - Summer 2013 (OHV/Trails), Summer 2014, Summer 2015, Summer 2016

- Conducted routine and deferred maintenance on wilderness trails using primitive tools on backpacking hitches up to 8 days long.
- Carried out backcountry patrols for regulation compliance and trained and led volunteers covering 250+ miles of trail each season

Skills

- Strong and intuitive leadership and communication skills in a field setting.
- Aptitude in creating partnerships and coordinating with individuals and interest groups to meet project goals and raise awareness of conservation needs.
- Skilled at assessing habitat environments to identify and select survey locations for a variety of wildlife species.
- Proficient in a variety of field techniques and data collection methods and protocols with a high attention to detail.
- Proven navigational and route-finding skills using GPS, map, and compass both on and off trail and in all seasons.
- Expertise in identifying wildlife track and sign.
- Enthusiastic working and living in remote environments.
- Experienced in several modes of motorized and non-motorized mountain travel including 4WD, snowmobile, ATV, backcountry skiing, backpacking, and climbing with a high level of physical fitness and endurance

Education

Point Loma Nazarene University

San Diego, CA - Fall 2011 - Spring 2013

32 sh. General Coursework

Northwest Nazarene University

Nampa, ID - Winter 2014, Summer 2014

4 sh. Birds of Prey Biology Course

4 sh. Birds of Prey Biology Teaching Assistant

References

Jocelyn Akins, Ph.D., Cascades Carnivore Project, Research Director

541.399.6348 - cascadescarnivore@gmail.com

Jesse Watson, M.S., Hawkwatch International, Research Biologist/ Migration Manager

385.222.1715 - jwatson@hawkwatch.org

Audrey Magoun, Ph.D., Wallowa Wolverine Persistence Project, Senior Advisor

541.577.3183 - 222wsheridan@gmail.com

Kayla Dreher

kayla.dreher7@gmail.com

563-349-9329

Naches, WA

Education

Oregon State University - Corvallis, OR

Graduate Certificate in *Wildlife Management* - 4.0 GPA

University of Iowa - Iowa City, IA

Bachelors of Arts in *Sociology* - 3.0 GPA

Certificate in *Sustainability Studies*

Minor in *Environmental Sciences*

Certifications and Training

Wildlife Handling & Chemical Immobilization - Global Wildlife Resources - 2019

Wilderness First Responder - NOLS Wilderness Medicine Institute - Renewed 2019

Search & Rescue Training - Yakima County - 2018

Professional Experience

Wallowa Wolverine Project - *Project Co-Lead*

Joseph, OR

September 2019 to present

- Planned and implemented a wolverine survey to track the recovery of the species in NE Oregon over time.
 - Set 15 "run-pole" monitoring stations at high elevations in the Eagle Cap Wilderness area to collect demographic, reproductive, and genetic information on the wolverines present.
 - Closely coordinated with non-profit, state, and federal partners such as the Oregon Wildlife Foundation, Oregon Department of Fish and Wildlife, and Wallowa-Whitman National Forest.
 - Prepared roadkill and scent lure throughout the season for use at camera trap sites.
 - Prepared grant applications to acquire funding.
 - Provided updates to partners and produced a report after the pilot year.
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National Park Service - *GS-05 Biological Science Technician (Wildlife)*

Mount Rainier National Park, WA

April 2020 to present

- Conducted off-trail surveys for Northern spotted owls occupancy, survival, reproduction, and recruitment through call surveys, baiting, and banding.
- Coordinated volunteers and collaboration with non-profit partners
- Assisted in the hazing and relocation of food-conditioned black bears
- Surveyed for montane species including wolverine, Cascade red fox, and American pika.
- Managed the cataloging of biological samples.

Cascades Carnivore Project - *Field Crew Lead*

Washington Cascade Range

Nov to May 2015/2016. 2016/2017. 2017/2018. 2018/2019

Sept to Dec 2019

Jan to April 2020

- Set and serviced baited, remote camera stations to document Cascade red fox throughout their historic range in the Cascades.
- Installed, serviced, and maintained 20 “run-pole” monitoring stations to collect demographic and reproductive information on wolverines in the South Cascades.
- Collected, processed, skinned, and stored roadkill while directly coordinating with WaDOT, WDFW, elk/deer hunters, and beaver trappers.
- Conducted extensive snow tracking surveys to collect genetic samples.
- Directly coordinated with U.S. Forest Service and National Park Service partners.
- Conducted outreach to recruit volunteers, as well as trained and led volunteers.
- Processed high volumes of photo data and prepared genetic samples.
- Required daily utilization of snowmobiles, backcountry skis, snowshoes, and avalanche protection equipment and frequent multi-day winter camping trips.
- Conducted summer and fall red fox scat survey transects on hiking trails.
- Set and serviced wolverine monitoring stations for the Western States Wolverine Project, which required strict adherence to an established protocol.

Boise State, Full Cycle Phenology - *American Kestrel Research Technician*

Boise, ID

April to September 2019

- Monitored American kestrel nest-boxes on military bases throughout the country for the American Kestrel Genoscape Project.
- Trapped, banded, and measured adult and nestling American kestrels during the breeding season, personally processing 75+ birds.
- Coordinated with military partners, strictly adhering to unique protocols.
- Spent significant time processing data and preparing feather and claw samples for genetic and isotopic analysis.

USFS Biological Science Technician (Wildlife) GS-04/05 - *Multi-Species Monitoring*

Okanogan-Wenatchee National Forest, Naches, WA

April to June 2016 (GS-04)

November to April 2019 (GS-05)

- Collected field data on forest carnivore occupancy through remote camera and tracking surveys.
- Collected data on Northern Spotted Owl occupancy, survival, reproduction, and recruitment through call surveys and baiting.
- Conducted additional mollusk surveys and Harlequin duck trapping for GPS implants.
- Assessed habitat quality and species conditions.
- Processed large quantities of data and compiled reports.

Hawkwatch International - *Eagle Vehicle Strike Field Technician*

Bend, OR

January 2016

- Surveyed 1,200 miles of roads in southeast OR to record Golden and Bald Eagle presence, roadkill feeding activity, and vehicle-related mortalities.
- Deployed remote camera traps on roadkill carcasses to record flushing behavior.

Hawkwatch International - *Raptor Migration Surveyor* Salt Lake City, Utah

Exploratory Ridge Raptor Migration Surveys

August to November 2017

- Surveyed ridges in SE Utah to determine use by raptors as migration corridors.
- Required excellent navigation skills and sound judgment.

Fall Migration Counter/Bander

September thru October 2018

- Conducted raptor migration surveys and trapping/banding operations at the Goshutes, NV field camp.
- Required advanced skill in identifying raptor species, age, sex, morph, etc.
- Utilized mist, bow, and dho-gaza nets for capture.
- Safely handled and processed large volumes of raptors of varying species.

USFS Forestry Technician (Wilderness) GS-04/05 - *Wilderness Ranger*

Stanislaus National Forest, Pinecrest, CA

June to September 2014 (Internship)

Okanogan-Wenatchee National Forest, Naches, WA

June to November 2015, 2016 (GS-04)

Wallowa-Whitman National Forest, Joseph, OR

June to September 2018 (GS-05)

- Conducted wilderness patrols on solo backpacking hitches up to 9 days in length.
- Collected human use data using ArcGIS software
- Completed wilderness stewardship projects such as habitat restoration, threatened species monitoring, and invasive plant removal.
- Created management plans, inventories, and year-end reports.
- Provided education and enforcement on wilderness regulations and ethics.
- Responded to medical emergencies, providing guidance and evacuation to parties needing assistance.

USFS Forestry Technician (Snow Ranger) GS-04

Okanogan-Wenatchee National Forest, Naches, WA

December to March 2018

- Groomed and maintained cross-country ski and snowshoe trails
- Required the daily utilization of large trailers, snowmobiles, grooming equipment, and avalanche protection gear

Skills and Interests

- Confidence training and leading crews
- Experience using ArcGIS, AGOL, S1, Esri Collector, and R
- Strong scientific writing skills
- Skill operating snow-machines and ATVs, and towing trailers
- Reliable navigation skills
- Aptitude for discussing sensitive conservation topics/project goals with the public
- Skilled and experienced identifying the track and sign of North American fauna
- Long-distance trail runner
- Avid backpacker and backcountry skier