

## 2025 Progress Report Cascades Wolverine Project

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*Photo 1. A wolverine, nick-named Batty for the distinctly bat-shaped chest blaze pattern, was the first to visit Early Winters stations since 2019—a six year gap in photo-detections within the Methow Watershed across all monitoring efforts. Four days later, Batty was back near Holden Village, twentyfour miles south.*

### Introduction

Based in the Methow Valley of North Central Washington State, Cascades Wolverine Project (CWP) supports wolverine recovery in the Washington Cascades connecting science, storytelling, and recreation for the benefit of people and wildlife. The team includes Claire Waichler, David Moskowitz, Anna Machowicz, Nyn Tomkins, Drew Lovell, and Steph Williams, along with many skilled volunteers including a dedicated crew: Katharine Bill, Nick March, Jan Sodt, Brian McConnell, Jesse Snyder, Leo Kleine, Forest McBrian, Adam Ü, Trevor Kostanich, and many generous Holden Village staff.

We work in collaboration with Conservation Northwest (CNW), Home Range Wildlife Research (HRWR), Wildlife Conservation Society Canada (WCS), University of Utah (UU), Laboratoire des Sciences du Climat et l'Environnement, France (LSCE), Woodland Park Zoo (WPZ), Pacific Northwest Research Station (PNW), U. S. Forest Service (USFS), Washington Department of Fish & Wildlife (WDFW), and Rivershed SPC. Cascades Wolverine Project is an active member of the Washington Wolverine Research and Monitoring Group (WWRMG), a collaborative working group composed of state, federal, tribal, and nonprofit non-governmental entities. We also contribute to the Cascades

Carnivore Monitoring Program (CCMP). Funding has been provided by Patagonia's Environmental Grants Program in partnership with Goats Beard Mountain Supplies, the Charlotte Martin Foundation, the Keta Legacy Foundation, the Weeden Foundation, and private donations. The project's primary fiscal sponsor is Conservation Northwest, a 501c3 nonprofit organization.

## **Project Objectives**

### ***1. Multi-year monitoring in the North Cascades***

**Study area** – This ten year study aims to track changes in wolverine occurrence, as well as collect genetic samples and chest blaze images of individual wolverines. Since December 2017 we have maintained winter monitoring stations within wolverine habitat, as defined by Copeland, et al. (2010), across five distinct watersheds within the North Cascades Ecoregion, specifically in the Chelan and Methow watersheds of Okanogan-Wenatchee National Forest, and the North Fork Nooksack watershed of Mt. Baker National Forest. Our study area in the North Cascades falls within the traditional territories of several indigenous peoples, most prominently the Methow, Chelan, and Nooksack Tribes.

We chose specific drainages within each watershed based on findings of the USFS North Cascades Wolverine Study (2005-2015), the North Cascades Wolverine Project (2013-2018) and the Cascades Carnivore Monitoring Project (2024 - current) of Woodland Park Zoo. We have modified or added stations according to the [Terradapt.org](https://www.terradapt.org) wolverine suitability map, and where clusters of wolverine sightings or tracks from CWP's community science observations indicate regular wolverine activity. Each drainage within our study area exhibits different types and intensities of human land-use. All sites are accessible within a day by ski-touring or snowmobile-accessed ski-touring from the Methow Valley, the village of Holden, or the Mt. Baker Highway.

**Methods** – We utilized six baited run-pole stations in addition to six camera-trap stations without run-poles that were equipped with hair-sampling straps and bait attached directly to trees. Eleven stations were baited with Gusto scent lure (a skunk and beaver castor-based attractant) and roadkill deer. One more additional station (gusto scent lure with cattle femur food bait) was installed during fall of 2024 and remained unmaintained over winter due to access issues.

We maintained stations every three to four weeks between January and March, removing cameras from several stations by early summer while leaving unbaited cameras continuously running at most sites. We submitted wolverine detections and hair samples to WPZ which maintains a comprehensive database of verifiable detections of wolverines across the state. Genetic samples were shipped to the National

Genomics Center for Wildlife and Fish Conservation at Rocky Mountain Research Station. Photographic data from our monitoring stations was uploaded to Wildlife Insights, a cloud-based platform designed to catalogue remote camera trap research data, and makes these data available to researchers worldwide.

This year we developed a comprehensive catalog of all wolverine images collected over eight years of monitoring. We used Adobe Lightroom photo editing software to organize and review photographs. Two reviewers independently reviewed photos, identified distinct chest blaze patterns, then reached consensus to determine identifiable individual wolverines.

## **Results**

In previous progress reports we defined a wolverine detection as a single event whenever photo-captures occurred within one hour, so long as the wolverine appeared to be the same individual. However, this year to more precisely and consistently describe the number of events, and to align with Conservation Northwest's Community Wildlife Monitoring Project, we are reporting a wolverine detection as a camera triggering event where a sequence of one or more images or videos of a wolverine(s) are taken, with a maximum time gap between images or videos of five minutes, after which a new detection is delineated.

In 2025 we detected wolverines at three stations across two watershed drainages, Railroad Creek near Holden Village, and Early Winters creek near Mazama (Table 1). This was the first verifiable evidence of a wolverine in the Methow watershed since March 2021 (tracks only) and the first photo-capture of a wolverine since January 2019, a four and six year gap, respectively, that coincided with the COVID pandemic winter recreation boom.

The number of detections near Holden Village in 2025 was higher than previous years, with twenty-two detection events and more than twenty hair samples collected. We identified three individuals using chest blaze patterns: two wolverines new to CWP stations, and one genetically sampled male wolverine CWP-8 Copper (WAGU-40 M) whom we first detected in 2023 (Photos 2-5).

One of the two new wolverines, CWP-11 Batty (Photo 3 & 5), appeared at three stations across two watersheds. Initially Batty was detected in the Chelan watershed in January, then again two weeks later approximately 24 linear miles to the north in Early Winters drainage, and then again near Holden Village four days later, reappearing each month in the Chelan watershed as recently as May 2025.

Over the course of the 2025 field season we did not detect wolverines at stations near Harts Pass, Twisp River, or in the Nooksack drainage near Mt. Baker (Table 1).



*Photo 2. CWP-8 Copper (WAGU-40 M), Chelan watershed*



*Photo 3. CWP-11 Batty in the Chelan watershed*



*Photo 4. CWP-9 Quad*



*Photo 5. CWP-11 Batty in the Methow watershed*

Following a comprehensive review of wolverine chest blaze images collected since our monitoring program began in 2018, we have identified 11 individual wolverines (Appendix 1). Three of these individuals are linked with hair samples, one female and two males. Genetic samples from 2025 are currently being processed including a genetic sample for the male wolverine labeled CWP-11 Batty.

In addition to the CWP ten-year monitoring effort, we maintained four scent-dispenser stations within our study area as part of the collaborative long-term population study of the Cascades Carnivore Monitoring Program initiated in 2024.

Table 1. 2025 CWP Wolverine Detection Events

	Camera Station ID	*Number of events	Wolverine ID
1	Ptarmigan-2021-1	0	
2	Holden-2019-1	7	CWP-8 (WAGU-40 M) CWP-9 CWP-11
3	Holden-2019-2	15	CWP-8 (WAGU-40 M) CWP-11 Unidentifiable
4	Twisp River 2020-1	0	
5	Twisp River-2022-1	0	
6	Early Winters-2017-2	1	CWP-11
7	Early Winters-2017-3	1	CWP-11
8	Silver Star-2019-1	0	
9	Harts Pass-2020-2	0	
10	Harts Pass-2020-1	0	
11	West Fork-2019-1	0	
12	**Cedar Creek-2024-1	0	

Note: \*Multiple camera triggers are listed as a single detection event whenever triggers occurred continuously with a lapse of no more than five minutes. \*\*Unmaintained over winter.

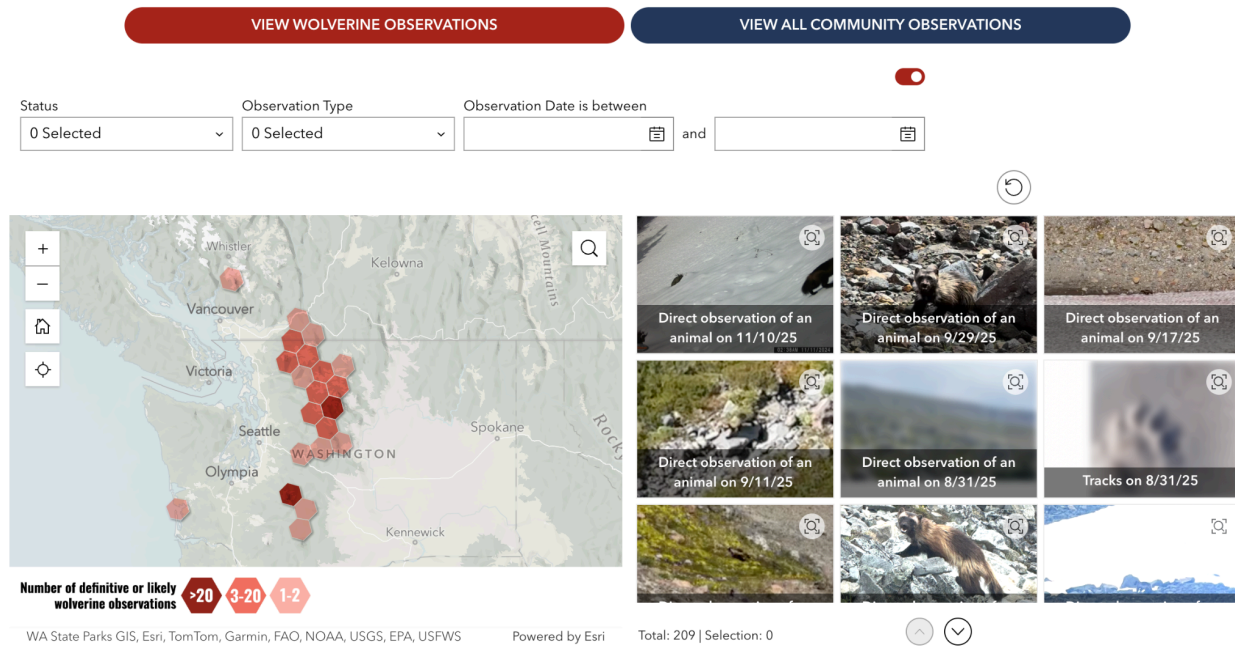
## 2. Community Science Wildlife Observations

**Methods** – Through the Cascades Wolverine Project online portal (<https://www.observations.cascadeswolverineproject.org/>) we gathered public incidental observations of wolverines and other rare wildlife, and wildlife tracks. This information was evaluated for accuracy and cataloged along with track observations made directly by project members over the course of winter field work. All observations were reviewed by a minimum of two experts in wolverine identification, and all track observations were reviewed by two Track and Sign Specialists certified in wildlife tracking through Cybertracker Conservation International (<https://trackercertification.com/track-and-sign-certifications/>).

In February 2025 we launched a public-facing Wolverine Observations Map (Figure 1) designed by Rivershed SPC (<https://www.rivershedspc.com/>) a social purpose corporation based on the west side of the North Cascades. The purpose of the map is to report back to observers and further engage community scientists by displaying their observations across the Cascades, with photos of tracks and sightings available as an educational tool. In order to protect both the animals observed and the privacy of observers, our public-facing map obscures precise locations within a grid of 350 square mile hexagons, an area roughly equivalent to a male wolverine’s home range. The internal-facing map allows researchers to analyze community science data, and enhances our ability to collaborate with research partners. As of

2025, CWP acts as a portal for statewide incidental wolverine observations on behalf of the Washington Wolverine Research and Monitoring Group (<https://zoo.org/wolverine/>).

Figure 1. Community Wolverine Observations Map  
<https://cascadeswolverineproject.org/community-observations/>

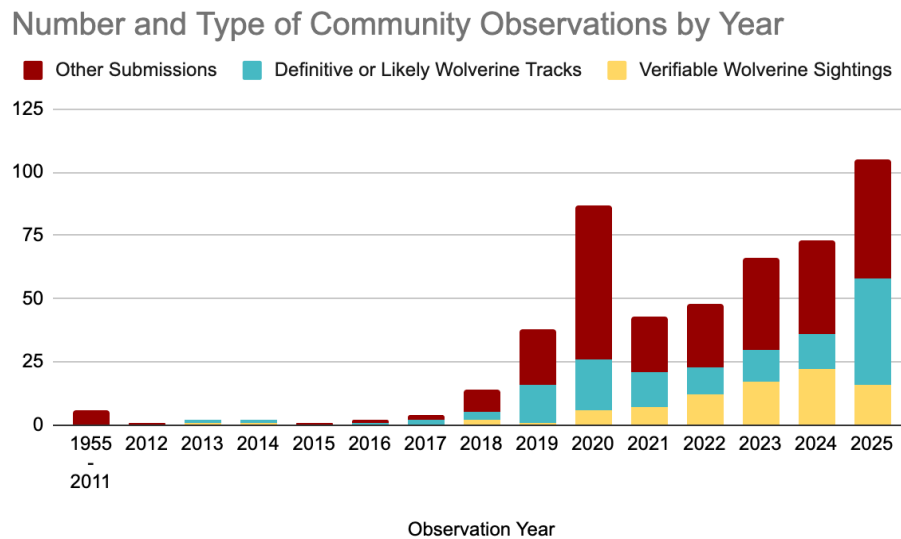


**Results** – 2025 marks the highest number of community science observations submitted to CWP in a single year, with a total of 105 submissions including 16 verifiable sightings and 42 definitive or likely wolverine tracks. A few additional verifiable observations that were submitted in 2025 occurred in previous years. Figures 2 & 3 summarize community science observations per year, including verifiable sightings and likely or definitive wolverine tracks.

Figure 2. Community Wildlife Observations: number of observations made per year

Observation Year	Observations	Verifiable Wolverine Sightings	Definitive or Likely Wolverine Tracks
1955 - 2011	6	0	0
2012	1	0	0
2013	2	1	1
2014	2	1	1
2015	1	0	0
2016	2	0	1
2017	4	0	2
2018	14	2	3
2019	38	1	15
2020	87	6	20
2021	43	7	14
2022	48	12	11
2023	66	17	13
2024	73	22	14
2025	105	16	42
<b>Total</b>	<b>492</b>	<b>85</b>	<b>137</b>

Figure 3. Graph of community wildlife observations made per year





*Photo 6. Photo by Goldie Goerlich, Mt. Rainier National Park, South Cascades*



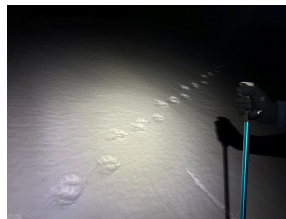
*Photo 7. Photo by Teri Gage, Mt. Rainier National Park, South Cascades*



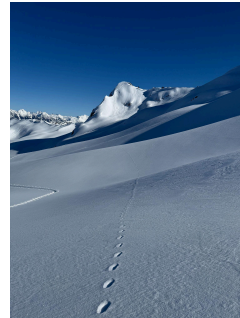
*Photo 8. Photo by Fiona Rand, Mt. Rainier National Park, South Cascades*



*Photo 9. Photo by Cal Waichler and Kiera Magrane, Glacier Peak Wilderness, North Cascades*



*Photo 10. Photo by Katie Hovind, Baker Backcountry, North Cascades*



*Photo 11. Photo by Zack McGill, Baker Backcountry, North Cascades*



*Photo 12. Photo by Phil Hull, Chinook Pass, South Cascades*

We published “Evaluating the accuracy of wolverine identification from photographs of snow tracks by expert observers in North America” in the peer-reviewed journal *Wildlife Biology* (<https://nsojournals.onlinelibrary.wiley.com/doi/10.1002/wlb3.01466>) based on a study we conducted in 2021. We found that high-quality photographs of wolverine snow tracks can provide reliable, definitive evidence of the presence of wolverine when identification is made by the appropriate observer or set of observers. For this research we collaborated with Dr. Jeff Rose (University of Utah), Dr. Matthew Scraftford (Wildlife Conservation Society of Canada), and Dr. Philippe Naveau (Laboratoire des Sciences du Climat et de l’Environnement, France). Co-author Anna Machowitz presented at The Wildlife Society 32nd Annual Conference poster session in Edmonton, Canada (Appendix 2).

### ***3. Storytelling & Outreach***

A third objective of the Cascades Wolverine Project is to create and share visual content and narratives that engage and educate people about wolverine conservation regionally and nationally. Photographs and “stories from the field” are shared through social media, e-newsletters, and partner organizations. Additionally, CWP contributes visual assets to scientific reports, journalistic pieces, and other media coverage related to wolverine conservation.

In February we were featured in and assisted with the production of a segment of NBC’s Mutual of Omaha’s Wild Kingdom episode “Trailing Wolverines” which aired nationwide November 30, 2025. Wild Kingdom is America’s most viewed weekend wildlife show with over one million weekly viewers, serving as one of the longest running and most influential promoters of wildlife conservation American television.



*Photo 13. Dr. Rae Wynn-Grant and Peter Gros, hosts of the television show Mutual of Omaha’s Wild Kingdom, in the field with CWP (Photo credit NBC)*

Also during February, we launched a Community Wolverine Observations Map with an event at the Twisp River Tap House in Twisp, WA which was attended by more than 150 people. Several months later in November 2025, we were invited back to the Tap House to speak about wolverine research for the Methow Conservancy’s First Tuesday event with more than 170 attendees.

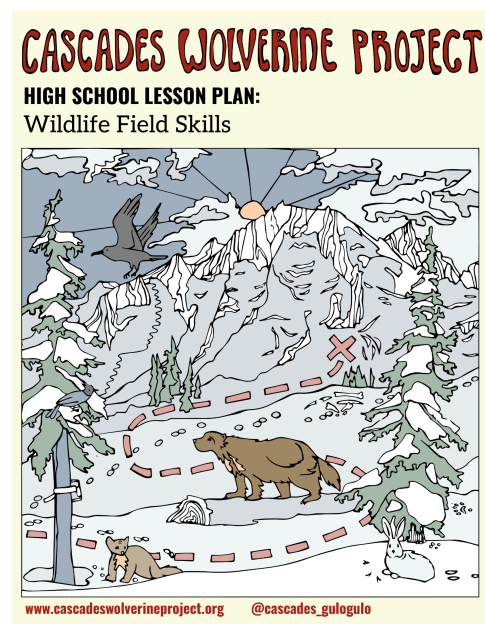
Our ski ambassador program completed three ambassador day trips in the Methow watershed, one multiday ski expedition into the Glacier Peak wilderness, and the production of a track observation training video with professional skiers Ingrid Backstrom and Michelle Parker. Professional ski guide and CWP ambassador Trevor Kostanich represented the project at two public events, one at Volition Brewery

in North Bend, as well as in Seattle at the 2025 Northwest Snow and Avalanche Workshop breakout session “Wildlife on Winter’s Edge” in collaboration with Kurt Hellman of Conservation Northwest. Trevor’s pub talk highlighted wolverine awareness within the winter recreation community, bringing in a standing-room-only crowd, while the well attended NSAW breakout sessions reached approximately 90 people.

This year we teamed up with Lighthawk Conservation Flying (<https://www.lighthawk.org/>) and volunteer pilot Lane Gormley, as part of our effort to document wolverine habitat in the North Cascades at various times of year. Flights were scheduled to capture the mountains at peak snowpack and the end of the water year, when snowpack and glacier mass is at its lowest. The condition of the glaciers that we observed from Lane’s plane are emblematic impacts of climate change in this ecosystem and are of great concern for the alpine environment. A selection of project photography from 2025 is available in Appendix 3.

We engaged with the outdoor recreation industry during September with project coordinator Cal Waichler as a panelist and attendee of the 11th Biennial Grassroots Advocacy Conference presented by the Winter Wildlands Alliance, in Eatonville, WA. She spoke on the panel entitled “Big Enough for the Both of Us? Balancing Recreation & Wildlife Habitat.” The conference was an uplifting opportunity to share inspiration, strategies and contacts with other wildlife, recreation and conservation organizations from the American West.

Thanks to a grant from the Keta Legacy Foundation and the support of the Methow Valley School District, Cal Waichler and educator Katharine Bill developed curriculum on wolverines and the mountain ecosystem for second grade and high school students including five new wolverine science lessons that align with Next Generation Science Standards (NGSS), available freely online at our website (<https://cascadeswolverineproject.org/wolverine-centered-science-lessons/>). The lessons contain diverse activities that draw from CWP’s wolverine monitoring and community science data and photography. The curricula were tested and refined in five different classrooms at the Methow Valley school district, reaching 80 students.



Other outreach work included the project’s website overhaul during 2025 including several new pages : the community wolverine observation map, media, resources, curricula, and a revamped wolverine species account. See Figure 4 for a chronological list of outreach highlights during 2025.

Figure 4. Outreach highlights 2025

<p style="text-align: center;"><b>Presentations &amp; Events</b></p>	<ol style="list-style-type: none"> <li>1. February 18, 2025: Wolverine Map Launch, Twisp River Tap House, Twisp, WA</li> <li>2. April 2025: 8 classroom visits to five classrooms of Methow Valley Elementary, Methow Valley High School and Methow Valley Interpretive Learning Center, Winthrop, WA</li> <li>3. September 2025: Winter Wildlands Alliance, Grassroots Advocacy Conference. Panel discussion “Big Enough for the Both of Us? Balancing Recreation and Wildlife Habitat,” future podcast in production</li> <li>4. October 2025: The Wildlife Society 32nd Annual Conference, Edmonton, Canada, poster presentation by Anna Machowicz</li> <li>5. October 25, 2025: Northwest Snow and Avalanche workshop, breakout session with CWP Ambassador Trevor Kostanich</li> <li>6. November 4, 2025: Methow Conservancy First Tuesday Talk, Twisp River Tap House, Twisp, WA</li> <li>7. November 17, 2025: Pro Ski &amp; Mountain Service Movie Night with CWP Ambassador Trevor Kostanich, Volition Brewery, North Bend, WA.</li> </ol>
<p style="text-align: center;"><b>Media</b></p>	<ol style="list-style-type: none"> <li>8. April 22, 2025: Tools to Save Our Home Planet, A Changemaker’s Guidebook, featured in Chapter 2: Clarifying the Cause, published by Patagonia</li> <li>9. April 22, 2025: Mountaineer Magazine, The Wolverine’s Return to the North Cascades <a href="https://www.mountaineers.org/blog/the-wolverines-return-to-the-north-cascades">https://www.mountaineers.org/blog/the-wolverines-return-to-the-north-cascades</a></li> <li>10. September 2025: These Activists Track Wolverines and the Impact of Climate Change, Patagonia Action Works feature <a href="https://www.youtube.com/watch?v=c2X1ef_paR0">https://www.youtube.com/watch?v=c2X1ef_paR0</a></li> <li>11. September 19, 2025: Tracking Wolverines on Skis: See How Activists Study These Ferocious Fur Balls &amp; Climate Change. Gear Junkie Website. <a href="https://gearjunkie.com/winter/tracking-wolverines-on-skis-patagonia-video">https://gearjunkie.com/winter/tracking-wolverines-on-skis-patagonia-video</a></li> <li>12. October 2025: Wolverine Research Underway in Cascade Mountains, Fox 13 news, Seattle, WA</li> <li>13. November 30, 2025: Trailing Wolverines Episode, Mutual of Omaha's Wild Kingdom</li> </ol>

## Reflections

2025 held several milestones for the project including publishing our first scientific paper, cataloging and identifying at least eleven wolverines within eight years of monitoring data, launching an ArcGIS mapping tool for community wolverine observations, and producing standardized science education

curriculum. We reached our largest audiences yet with potentially millions of viewers via NBC television and Patagonia social media, and expanded the ambassador program to include ski industry pros. It seems as if we're punching above our weight as a small grassroots effort yet CWP's growth has primarily been incremental with occasional leaps in learning, productivity and support.

We have several questions to address moving forward: why was there a multi-year gap in wolverine detections in our local watershed? Where are female wolverines denning, and can we monitor them using non-invasive methods? How can we improve social acceptance of wolverines in multi-use landscapes?

As the political landscape shifts towards environmental deregulation, we find this work to be a bright ray of hope. Small-scale local wildlife conservation is the beating heart of broader structural change necessary to establish a sustainable relationship with the natural world. Understanding wolverines requires our attention to what is happening on the ground, in the mountains, within an ecosystem that deserves our respect and care.

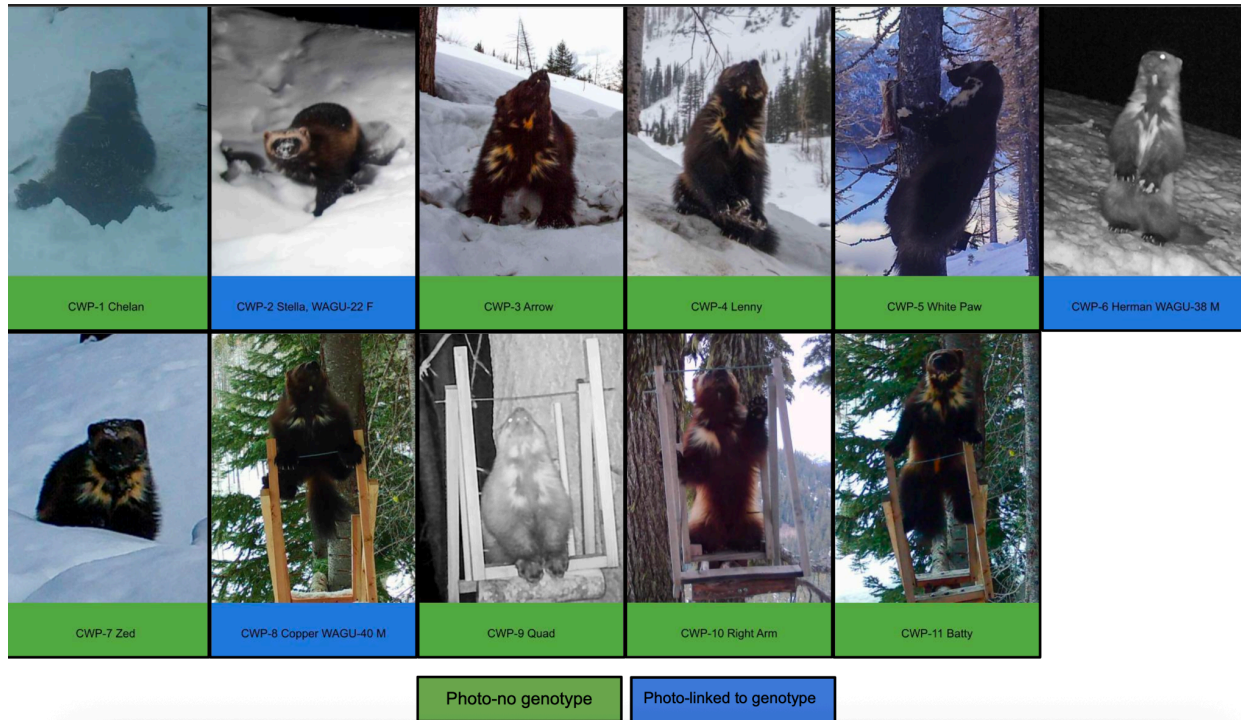
### **Acknowledgments**

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We leaned heavily on the expertise and generosity of volunteers Katharine Bill, Nick March, Jane Hosman, Peter Lambert, Jan Sodt, Jesse Snyder, Jason Paulsen, Leo Kleine, Brian McConnell, Adam Ü, Trevor Kostanich, Ella Hall, Forest McBrian, Lane Gormley, Michael Hutchins, Morgan Schubring, Alyssa Lovell, Nick Holden, Erik Aagaard, Leslie Hall, Wendy Sims, Mark Bach, Jake Ehlers, Jack Fiorillo, Martina Keil, Robert Nielsen, Ingrid Backstrom, and Michelle Parker. Many thanks to the incredible staff at Holden Village. To all the community scientists who offered their wildlife observations we offer our sincere appreciation—stay stoked and send it, and keep sending us your wolverine reports!

To CWP's donors we offer heartfelt thanks, particularly to Kevin and Cassy McGowan, Tom Campbell, Jack Stanford and Bonnie Ellis, Tom Campion, Joe and Bernice Schick, Warren and Linda Holmes, the Sinopoulos-Lloyd Household, the Ratcliffe Household, the Hall Family, Janet Parker, Kathy Lovell, the Caskey Family, Christine Roux, Sheila Pera, Jennifer Fisher, Chuck McQuinn, and many more supporters that make this work not only possible but meaningful.

Appendix 1: 2018-2025 Individual Wolverine ID compilation



# Expert Observers can Identify Wolverine Tracks from Photographs in Snow

David Moskowitz<sup>1</sup>, Anna Machowicz<sup>1,2</sup>, Matthew A. Scraftford<sup>3</sup>, Philippe Naveau<sup>4</sup>, Jeffrey N. Rose<sup>5</sup>, Stephanie Williams<sup>1</sup>  
<sup>1</sup>Cascades Wolverine Project, <sup>2</sup>Home Range Wildlife Research, <sup>3</sup>Wildlife Conservation Society Canada, <sup>4</sup>Laboratoire des Sciences du Climat et de l'Environnement, <sup>5</sup>University of Utah



**Introduction**  
**Wolverines (*Gulo gulo*)** are a species of conservation concern across much of their range. They occupy remote rugged terrain that is not easily surveyed, leading to the use of various methods for detection including remote cameras, genetic sampling and track identification. Track identification has recently been considered less reliable than other remote identification methods (McKelvey et al. 2006), however this assumption has not been thoroughly tested. Cascades Wolverine Project (CWP) solicits track photographs from the public for wolverine monitoring across the North Cascades, which are subsequently identified by multiple expert reviewers.

**Objectives**

- Assess the validity of the identification method used by CWP.
- Test the reliability of observers to identify wolverine tracks in snow from photographs.
- Determine how 1) experience and demographics and 2) amount and type of detail in tracks effect observer performance.



Figure 1. A North Cascades wolverine. Photo: Home Range Wildlife Research.

PSTO Rating	Description	Demographic	Description
1	Individual track details clear and track pattern clearly identifiable (no observations).	Highest level of academic education	B.S. or less (no degree)
2	Individual track details clear but track pattern obscured.	Waste tracking experience	Graduate degree (M.S. or Ph.D.)
3	Track details obscured but track pattern clear.	Waste tracking experience	Professional: regularly apply wildlife tracking experience
4	Individual track details obscured.	Observer verification	Expert: regularly apply expertise in specific expertise in wildlife tracking

Table 1. Categories for classifying photographic tracks into PSTO ratings, as amended from Halliwell et al. (2005).

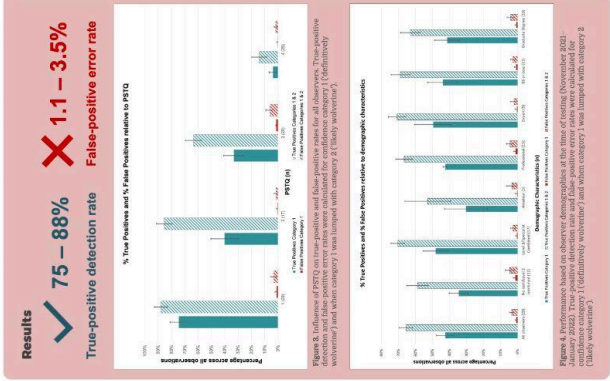
**Methods**

**Testing**  
 Observers (n=29) were presented with a set of 99 verified photographic observations of wildlife tracks in snow (Fig. 2) and asked to identify each observation to a species with a category of confidence: 1) "Definitively wolverine"; 2) "Likely wolverine"; 3) "Unknown"; or 4) "Definitively not wolverine".

**Variables**

- Photographic snow track quality (PSTO); observations were rated based on the amount of detail present in the photographs (Table 1).
- Demographics: observers were selected based on 1) expertise in wildlife track identification skill and 2) academic training and field experience working with wolverine (Table 2).

**Analysis**  
 Descriptive statistics were used to produce overall false-positive error and true-positive detection rates and determine the influence of demographics and PSTO on reliability.



**Conclusion**  
 High-quality photographs of wolverine snow tracks can provide reliable, definitive evidence of the presence of wolverine when identification is made by the appropriate observer or set of observers. Studies using track evidence should provide clear instructions for photograph submissions (i.e. when possible, include track details and track pattern) and ensure that observers interpreting observations have the appropriate expertise. Snow track evidence combined with community science data collection methods can substantially increase the power of monitoring efforts, with numerous other benefits including community engagement, transparency in research methods, and long-term monitoring. Replication of this track identification method for other species besides wolverine could expand the use of this inexpensive and accessible technique for a variety of other wide-ranging species of conservation concern.

**References**  
 McKinley, K. S., Van Kowal, J. V., Aubry, K. B., Kowalski, G. M., Madelon, B. T., Spaten, J. R., Lindquist, E. L., Lutz, S. and Schmidt, M. K. 2009. DNA analysis of trail and scat collected along snow tracks to document the presence of Canada lynx. *Wildl. Soc. B.* 34: 491-495.  
 Halliwell, J. C., Thompson, R. W., Kowal, S. C., Nelson, T. and Reynolds, P. 1995. Snowtracking. In: Ziswiler, W. J. and Kowal, T. E. (eds). *Wolverine status, behavior and wolverine survey methods for the western United States*. *Northwest Research Station Forest Service, US Department of Agriculture*, pp. 9-175.

**Acknowledgements**  
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### Appendix 3: Photography from the 2025 Field Season

All images by [David Moskowitz](#). [More images from the project can be viewed on the project's Instagram feed and website.](#)

#### Images taken during a flight with Lighthawk Conservation Fliers:



Photo 1. The North Cascades in early May 2025 near the end of wolverine denning season showing extent of snowpack on high elevations in the range, an apparent requirement for wolverine natal dens.



Photo 2. Silver Star Peak with midwinter snowpack.



Photo 3. Silver Star peak with late spring snowpack.

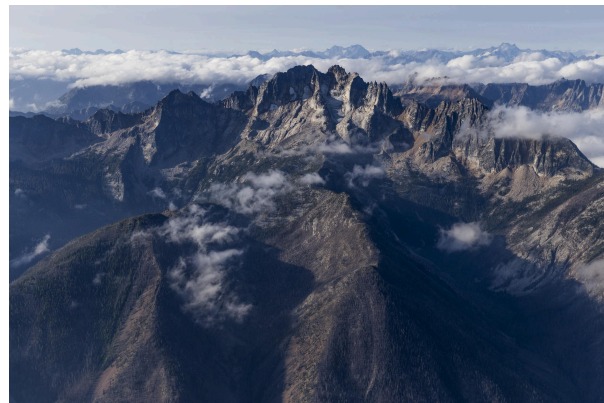


Photo 4. Silver Star Peak at the end of the water year in late September showing a complete lack of snowpack and the remnant Silver Star glacier completely devoid of covering snow.

**Other images from field work in 2025**



Photo 5. Cal Waichler collecting a hair sample from a run pole station in the Lake Chelan watershed.



Photo 6. Steph Williams examining the snowpack during a field day in the Methow River watershed.



Photo 7. Cal Waichler skiing powder during a track survey in the Lake Chelan watershed.



Photo 8. Volunteer pilot Lane Gormley taking off with the CWP research team from an airstrip in the Methow Valley.

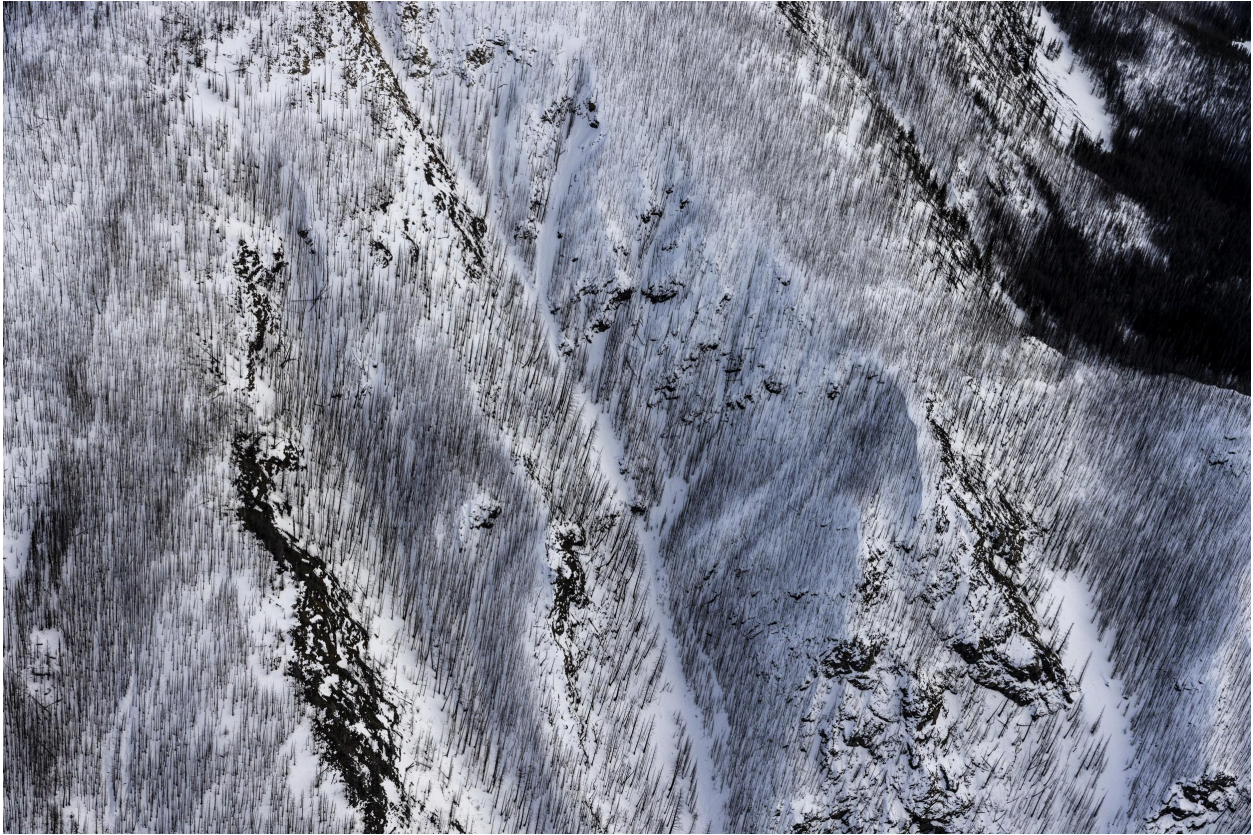


Photo 9. Wildfire burn scar in the Methow River watershed. The impacts of large wildfires on wolverines in the North Cascades is currently unknown. From a flight with Lighthawk Conservation Fliers.