



ENEAS PROJECT | NEW VOLUNTEER INFORMATION

Join us and help make a difference for mule deer and their habitat.

Why do we need you?

We need volunteers, like you, to help us with the Eneas Project. The Eneas Project is a study to determine why there are so many deer killed along this section of highway wildlife fence line and what we can do about it. Our study relies on citizen scientists, like yourself, to volunteer their time and help collect valuable data that will enable us to find a solution to this problem.

A full study description is in the following pages.

Our H4BC volunteers perform a bi-weekly hike in groups of 2 or more to complete the field surveys. All new mortalities are recorded and the wildlife cameras SD cards are swapped out.

We have fanny packs (one pack per section of the hike) that have everything our volunteers may need.

Volunteer Responsibilities:

1. Attend training sessions for camera use, maintenance, and SD card retrieval.
2. Participate in scheduled fence line hikes and perform data collection at deer carcass sites.
3. Collaborate with the Eneas Project team to maintain consistency in fence walks and data collection.
4. Ensure that established guidelines are followed to ensure study integrity

Requirements:

1. Active membership with Hunters for BC (required for insurance purposes). We waive the annual fee for as long as you are a volunteer.
2. Self-motivated individuals with a passion for science and conservation.
3. Possess suitable cold-weather clothing, hiking boots and suitable physical fitness for hiking uneven terrain for 2-3 hours.
4. Proficient in using apps like ihunter or similar to photograph and record waypoints of deer carcasses, camera placements, and other relevant data.
5. Able to maintain open communication within the Eneas Project team regarding attendance for scheduled field sessions.

Benefits:

1. Gain valuable skills in wildlife monitoring and conservation efforts.
2. Contribute to meaningful scientific research and habitat preservation and become a CITIZEN SCIENTIST!
3. Burger & bevy nights guaranteed.

ENEAS PROJECT INFORMATION

Pwalxkn (Mule Deer) Mortality Monitoring Study by H4BC & ONA

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STUDY OBJECTIVE

The project aims to quantify mule deer mortality, ascertain the cause of death whenever feasible, and collaboratively identify suitable mitigation measures to decrease wildlife mortality in the Highway 97 winter range corridor.

BACKGROUND & PROJECT OVERVIEW

The diminishing population of mule deer in Region 8 has raised substantial concerns among hunters, conservationists, First Nations, and local wildlife managers. Recently, members of Hunters for BC (H4BC) observed what seemed to be elevated mortality rates inside a high fence erected to safeguard both people and deer from collisions with vehicles and wildlife along a busy section of Highway 97 south of Peachland. During discussions with the Okanagan Nation Alliance (ONA), their wildlife team confirmed they had observed the same situation.

Therefore, in February '23, H4BC and ONA initiated a monitoring program for an 11 km stretch of the high fence where it appears that sənklip (coyote) are using the fence as a prey trap to hunt pwalxkn (Mule Deer).

In December '23, Okanagan Nation Alliance biologists trained and handed off the bi-weekly monitoring to our initial round of H4BC volunteers. H4BC also set up 10 wildlife cameras along the fence line at specific locations to try and capture photo evidence of the predator/ prey relationship regarding the fenceline and use (or lack thereof) of the wildlife gates. During the bi-weekly field studies, our volunteers record all new ungulate mortalities in the survey app and swap the camera SD cards. All photos and data from the cameras are then uploaded and processed by the Eneas Project team and WildEyes.

PHASE 1 – FEBRUARY TO MAY, 2023

- > In February '23, H4BC and Okanagan Nation Alliance performed a full survey of the study fence line area to establish a baseline and record for any previous mortalities.
- > The team identified 135 carcasses and carcass remnants in this first survey.
- > In the period from Feb 6th to May 29th, 2023, 47 MORE deer mortalities were observed in the study area. Between Feb 6th and the 14th, there was a peak in mortalities, with 14 carcasses identified. Most carcasses were deer, but one s^wλ'i? (mountain goat) carcass was identified as well.

PHASE 2: DECEMBER '23 – DECEMBER '24

- > In December '23, Okanagan Nation Alliance biologists trained and handed off the bi-weekly monitoring to our initial round of H4BC volunteers.
- >
- > December '23 into late Spring '24: Performed bi-weekly monitoring hikes.
- > Summer '24 through to mid-Fall '24: the monitoring hikes changed to monthly as the majority of ungulates were no longer in the Winter range area.
- > Late Fall '24 to December '24: Monitoring hikes once again became bi-weekly. With the help of our partners and sponsors, H4BC increased the wildlife camera count to 21 cameras in December '24.

PHASE 3: JANUARY '25 - ONWARDS

Current Objectives

- Perform bi-weekly monitoring hikes along the fence line to record mortalities along with using the wildlife cameras to capture mortality events and fence line/ wildlife gate interactions
- Continue to partner with Wild Eyes to process images and video from our cameras.
- Determine how we can mitigate the predator advantage.
- Increase the number of wildlife cameras (More data = Better understanding of how to protect wildlife)
- Increase visibility of the fence line and wildlife gates with the use of colours so ungulates can easily see
 - Increased visibility is a coordinated effort with MOTI (Specifically, the Wildlife Program of the Ministry of Transportation and Infrastructure, which is responsible for protecting wildlife along BC's highways)
- Pursue a WMA designation for the Eneas/ Garnett Valley area to help protect wildlife while in their Winter ranges.

STUDY AREA & SPECIES DESCRIPTION

- Location: 11 km of highway wildlife fence line by Peachland, BC
- Species Description: Mule deer and other ungulates that enjoy the Eneas/ Garnett Valley Winter Range

MATERIALS & METHODS

Study Design: Observational

Data Collection Techniques:

- Field surveys via Survey App
 - Any new mortalities are recorded using the study's survey form, inputted into the database and processed by a biologist.
- Camera traps (Wildlife Cameras)
 - Camera SD cards are changed each hike and then uploaded and filtered for the above parameters by H4BC and WildEyes

Variables:

- Human involvement
- Time of year
- Weather Intensity
- Effectiveness of the wildlife gates
- Ungulate density
- Predator density

Ethical Considerations:

- Commitment to the minimal disturbance to all wildlife, especially the predator/ prey dynamic, to ensure data integrity
- Commitment to accurately represent the study results

Timeline:

- Ongoing until conclusive results are obtained and viable solutions are determined.
- MAP EXAMPLE OF SURVEY DATA:

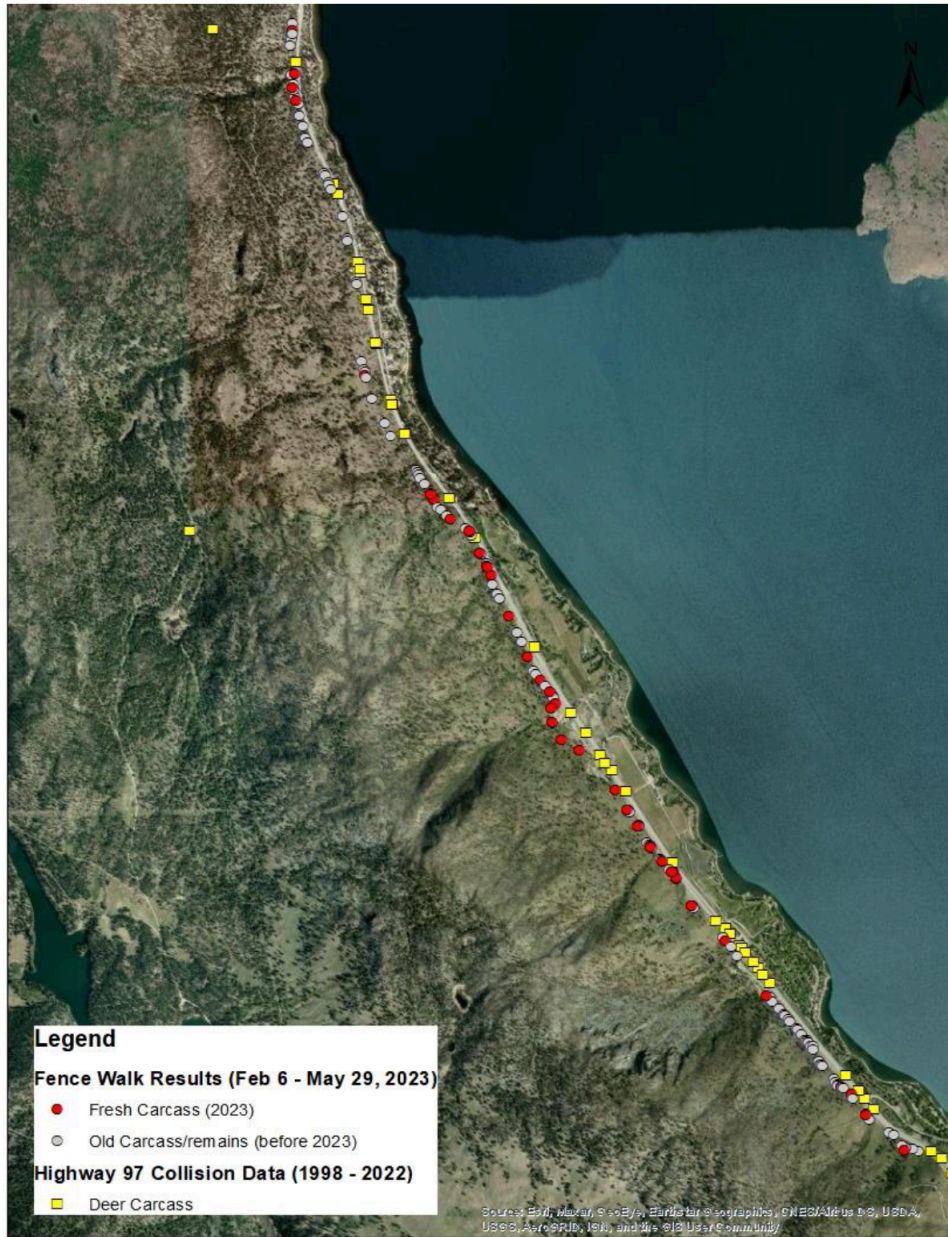


Figure 4 – Fence walk results showing locations of deer carcasses identified between Feb 6–May 29, 2023 and roadkill data from ICBC/MOTI, post 1997.

(2)

Reference 1 and 2: Highway 97- Mule Deer Fence Mortality Project. Prepared by: Kristen Mancuso, RPBio, PhD., Mackenzie Clarke, RPBio, MSc., Marc Steynen, MSc, RPF, Okanagan Nation Alliance - Natural Resources Department. August 2023.