

2025

ER Warden Annual Report for Mount Sabine Ecological Reserve



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For BC Parks

2/14/2025

ER Warden Annual Report for Mount Sabine Ecological Reserve

Table of Contents

- ER Warden Annual Report for Mount Sabine Ecological Reserve 1
- Table of Contents 1
- List of Maps 3
- List of Tables 3
- List of Pictures 3
- 1.0 Basic Information 5
 - 1.1. Full Name of ER Warden: 5
 - 1.2. Ecological Reserve Name: 5
 - 1.3. Number of Times ER Visited in 2025: 5
 - 1.4 Number of Hours spent Volunteering in the Ecological Reserve: 5
- 2.0 Description of Observations in the Ecological Reserve during Visits 5
 - 2.1. Extent of the Ecological Reserve Visited, &/or Tour Route: 5
 - 2.2. Biodiversity (Plant, Animal and Fungi Species Observed): 5
 - 2.3. New Plant and Animal Species Observed: 7
- 3.0 Issues 8
 - 3.1. Public Access Issues: 8
 - 3.2. Signage Issues: 8
 - 3.3. Maintenance Issues: 9
- 4.0. Human Activities 9
 - 4.1. Visitor Activities: 9
 - 4.2. Warden Activities: 9
- 5.0. Wardens’ Proposals or Suggestions (ecological reserve management, research, public presentation, etc.): 10
- APPENDIX A: ER Wardens’ 2025 Travel Routes to/from/in Mt Sabine Ecological Reserve 11
- APPENDIX B: iNaturalist Observations in Mt Sabine Ecological Reserve 15
- iNaturalist Statistics as of February 14, 2026 for Mount Sabine Ecological Reserve include 15
- APPENDIX C: Fauna, Fungi and Flora of Mount Sabine Ecological Reserve (Common Name First) 16

Animals.....	16
Fungi & Lichens	17
Plants.....	19
APPENDIX D: Fauna, Fungi and Flora of Mount Sabine Ecological Reserve (Scientific Name First)	22
<i>Animalia</i>	22
<i>Fungi</i>	23
<i>Plantae</i>	25
APPENDIX E: Warden Activities in 2025.....	28
APPENDIX F: Plans for the 2026 Field Season.....	31
APPENDIX G: Feedback and Guidelines for Taking Pictures of Flora to Facilitate Verification of ER Warden Observations by iNaturalist Identifiers	32
Fungi.....	32
Lichens	33
Flowering Plants.....	34
APPENDIX H: Some of the Pictures Taken in 2025 Field Season.....	36

List of Maps

Map 1: Map of ER Wardens' Travel Route to Get to and from Mount Sabine Ecological Reserve on May 25, 2025	11
Map 2: Map of ER Wardens' Travel Route to Get to and from Mount Sabine Ecological Reserve on June 24, 2025.....	12
Map 3: Map of ER Wardens' Travel Route within Mount Sabine Ecological Reserve on 05/25/25.....	13
Map 4: Map of ER Wardens Travel Route within Mount Sabine Ecological Reserve on 06/24/25.....	14
Map 5: Map of iNaturalist Observations in Mount Sabine Ecological Reserve (as of 18/01/26)	15

List of Tables

Table 1: Status of Tasks Identified in the 2024 ER Warden Report Planned for 2025	28
Table 2: Status of Other Action Items Identified in Previous Warden Reports (2022, 2023 & 2024).....	29

List of Pictures

Picture 1: Ian Hatter leaving our Subaru by the Camp One Access Road below Columbia Lake Ecological Reserve on May 25, 2025.	36
Picture 2: Ian Hatter hiking up the rough game trail through Columbia Lake Ecological Reserve on May 25, 2025.	36
Picture 3: Ian Hatter hiking up the Camp One Access Road above Columbia Lake Ecological Reserve on the way to Mount Sabine Ecological Reserve on May 25, 2025.....	36
Picture 4: Side access Road to Asimov Cliffs climbing area on June 24, 2025. This road crosses the Mount Sabine Ecological Reserve.	36
Picture 5: Canopy view in Mount Sabine Ecological Reserve showing variety of conifer species, May 25, 2025.	37
Picture 6: View of forest floor in Mount Sabine Ecological Reserve, showing extensive moss and downed trees, May 25, 2025.	37
Picture 7: Small flower anemone, a new flowering plant for the reserve, May 25, 2025.....	37
Picture 8: Utah honeysuckle in bloom in the reserve, May 25, 2025.....	37
Picture 9: Nearctic bumble bee seeking nectar from twinflower blossom, June 24, 2025.	37
Picture 10: A thin-legged wolf spider on a dead downed birch log, June 25, 2025.	37
Picture 11: One of the many scats left by deer in Mount Sabine Ecological Reserve, which we suspect is mule deer scat. May 25, 2025.....	38
Picture 12: Coyote scat found along the access road to Mount Sabine Ecological Reserve on June 24, 2025.	38

Picture 13: Common puffball in Mount Sabine Ecological Reserve on June 24, 2025; confirmed as Research Grade.....	38
Picture 14: Ivory bonnet found in Mount Sabine Ecological Reserve in 2024 was confirmed as Research Grade in 2026.	38
Picture 15: Orange jelly fungus, a new fungi species for the reserve found June 24, 2025.....	38
Picture 16: Candy lichen, a new lichen species for the reserve found on June 24, 2025.....	38
Picture 17: Juniper haircap moss, a new bryophyte for the reserve, June 24, 2025.....	39
Picture 18: Horned notchwort, the first liverwort in the reserve; identified in 2026 from a picture taken August 2024.	39
Picture 19: Interior spruce in Mount Sabine Ecological Reserve (note male cones and developing female cones) on June 24, 2025.	39
Picture 20: Northwestern sedge in flower in Mount Sabine Ecological Reserve on May 25, 2025.....	39
Picture 21: Kostiuik's hybrid calypso in Mount Sabine Ecological Reserve, May 25, 2025.	39
Picture 22: Uncommon form of bracted lousewort in the reserve, June 24, 2025.....	39
<i>Picture 23: Quads traversing the Mount Sabine Ecological Reserve on the Asimov Cliffs side access road on May 25, 2025.</i>	<i>40</i>
Picture 24: Trail biker riding through the Mount Sabine Ecological Reserve via the Asimov Cliffs side access road, June 24, 2025.....	40
Picture 25: Correct directional information on sign along Camp One Access Road.....	40
Picture 26: Block boundary sign from May 25, 2005 along the side access road inside Mount Sabine Ecological Reserve, June 25, 2025.	40
Picture 27: Ian Hatter and Jenny Feick, Mount Sabine Ecological Reserve, May 25, 2025.	41
Picture 28: Ian Hatter verifying information on BC Government sign, May 25, 2025.....	41
Picture 29: Ian Hatter collecting logging tape in Mt Sabine Eco-Reserve, June 25, 2025.	41
Picture 30: Ian Hatter bushwhacking through Mt Sabine Ecological Reserve, May 25, 2025.	41
Picture 31: Jenny Feick by ancient fallen Interior spruce in Mount Sabine Ecological Reserve, June 24, 2025.....	41
Picture 32: Jenny Feick pointing out a bird in a conifer in Mount Sabine Ecological Reserve, June 24, 2025.....	41

1.0 Basic Information

1.1. Full Name of ER Warden: Jenny Feick, assisted by ER Warden Ian Hatter

1.2. Ecological Reserve Name: Mount Sabine, ER#19

1.3. Number of Times ER Visited in 2025: Two (May 25 and June 24, 2025)

1.4 Number of Hours spent Volunteering in the Ecological Reserve: **Five hours, 15 minutes** (May 25, 2 hours, 30 minutes and June 25 – 2 hours, 45 minutes). **Travel Time – ten hours** (Vehicle travel time to/from where we park is one hour, so two hours in 2025. From there, travel time on foot to get to the reserve is two hours each way, so four hours times two visits, equals eight hours). **Follow-up Time: ~120 hours** (15 days of 8+-hour days on the computer making iNaturalist observations, communicating with INaturalist Identifiers, preparing and presenting PowerPoint shows on ecological reserves, and compiling the ER Warden annual report).

2.0 Description of Observations in the Ecological Reserve during Visits.

2.1. Extent of the Ecological Reserve Visited, &/or Tour Route:

Ian Hatter and I accessed the Mount Sabine Ecological Reserve on foot. We parked our vehicle along the lower part of the Camp One Access Road ([See Picture 1](#) in Appendix H), then went up the steep slope until we reached a rough game trail that led us through the Columbia Lake Ecological Reserve ([See Picture 2](#) in Appendix H). We walked on top of the rocky bluffs, then down the other side onto the Camp One Access Road. From there, we walked up the Camp One Access Road ([See Picture 3](#) in Appendix H), and taking the Asimov Cliffs side access road (see [Picture 4](#) in Appendix H) until we reached the ER. Round trip is ~12.6 km, with a 489 m elevation gain/loss. This takes a few hours each way. On our two visits, Ian Hatter and I concentrated on visiting parts of the ER that we had not seen in previous years. See Appendix A for maps of our routes on May 25 and June 24, 2026, and Appendix B for location data for all the iNaturalist observations made since 2022.

2.2. Biodiversity (Plant, Animal and Fungi Species Observed):

The biodiversity lists for Mount Sabine Ecological Reserve now contain 197 entries, including: six arachnids, 12 insects, 18 birds, ten mammals, 38 fungi, including rusts, 21 lichens, 13 bryophytes, 12 gymnosperms, and 67 angiosperms. See attached lists in Appendices C and D. We used handwritten notes of our observations (what we saw and/or heard), and took pictures that we later uploaded to iNaturalist. See [iNaturalist Project Mount Sabine Ecological Reserve – <https://inaturalist.ca/projects/mount-sabine-ecological-reserve>](#)). Bird observations were recorded in eBird. See [Ian Hatter’s eBird report for May 25, 2025 - <https://ebird.org/checklist/S243249303>](#) and [Ian Hatter’s eBird report for 24 Jun 2025 - <https://ebird.org/checklist/S254132683>](#).

A few species identified last year were crossed off the list after Identifiers in iNaturalist provided updated identifications. In some cases, they could not verify the species without additional

information, and could only identify the genus or a group within a genus, or a higher-level taxonomic level, e.g., family or order.

As of February 14, 2026, out of the 475 observations posted on the iNaturalist BC Parks Mount Sabine Ecological Reserve Project, 149 species have been identified by four observers (Jenny Feick, Ian Hatter, Ian Adams and Liza Pegura) with verifications made by 104 Identifiers from the iNaturalist community. Of the 475 observations, 324 or 68.21% achieved research grade.¹ These figures will change as additional Identifiers peruse the data in the project, and either assign Research Grade to observations or dispute the initial identification. Several species on the 2024 list were deleted and others added as more Identifiers examined the data. In several cases, Identifiers could not verify a particular species with the pictures provided but were able to confirm to the Genus, Family, Order or other taxonomic level. Certain taxa are extremely difficult to identify without more extensive detailed photographs and in some cases, dissection, microscopy, and even DNA barcoding. In some cases, species in certain taxonomic groups such as many of the insects that cause galls on leaves, and rust fungi that create spots on leaves, have not yet been defined.

Challenging taxonomic groups among the fauna include spiders, insects, deer and chipmunks. There are many species in the thin-legged wolf spider genus *Pandosi* ([See Picture 10](#) in Appendix H) and numerous families in most insect orders. While we have never seen a white-tailed deer on the west side of the Columbia Valley, on the advice of two iNaturalist Identifiers, Max Allen, an iNaturalist Curator from the University of Illinois, and “Odocoileus”,² we left it on the list even though we are quite sure that the deer scat we have seen in the reserve is from mule deer. However, iNaturalist Identifiers cannot positively identify deer scat to the species level just by looking at a picture ([See Picture 11](#) in Appendix H). Mount Sabine Ecological Reserve is in the zone where it’s possible one could see both species of Western chipmunks, the least, which is more common at higher elevations, and the yellow-pine, which is prevalent in the Columbia Valley. Least chipmunks are generally smaller (32–50g), paler, and prefer open shrub-steppe habitats, while yellow-pine chipmunks grow slightly larger (29–62g), have more vivid tawny/reddish fur, and prefer forested or shrubby areas.

The most problematic taxonomic groups include the fungi, lichens, and among the flora, the bryophytes. Even certain conifers can prove difficult to identify due to hybridization. Within the flowering plants, willows, grasses, meadow-rues, snowberry, mahonias, and wild rose are difficult to identify without specific detailed pictures of certain plant parts such as the leaf stem, flowers, fruit or seeds (See Appendix G).

¹ In iNaturalist, "Research Grade" is a designation for observations with a high-quality, community-verified identification, making them suitable for scientific research. To achieve this, an observation must have one or more photos and/or sounds, a valid date, accurate GPS location data, and a 2/3 majority consensus on identification at species level or lower, usually requiring at least two Identifiers to agree on the identification.

² Some iNaturalist Identifiers only use their iNaturalist nickname and do not include details in their profile such as their full name, where they are from, and their research expertise.

Doing field work in May and June in this reserve was very rewarding because of the greater numbers of bird species singing, insect activity, and wildflowers in bloom. We had good-weather days where we could look up to see the array of conifer species in the forest canopy ([See Picture 5](#) in Appendix H) as well as look down to see the mossy, log-covered forest floor ([See Picture 6](#) in Appendix H). We saw many species in bloom³ that when we visited the reserve in the past were already in fruit, including Utah honeysuckle ([See Picture 8](#) in Appendix H). The displays of glacier lilies (See title page) and yellow violets were especially lovely on May 25. We found a tremendous amount of deer scat on both visits ([See Picture 11](#) in Appendix H), indicating a lot of use, and saw mule deer just outside the reserve, plus bear and coyote scat.

2.3. New Plant and Animal Species Observed:

Eighty-one new organism listings⁴ were made (see Appendices C, D, and H).

We recorded 14 new arthropods, including the Nearctic bumble bee ([See Picture 9](#) in Appendix H), and seven new species of birds. We found coyote scat just outside the reserve on the access road and assume it travelled through the reserve via the road ([See Picture 12](#), Appendix H). We also saw American black bear scat on the access roads, but unlike in previous years, not in the reserve itself. A chipmunk expert on iNaturalist (Scott Wilson from Nanaimo, B.C.) noted that we are in an area where it is possible to see both species of Western chipmunks (yellow-pine and least). We included the generic as well as the individual chipmunk species.

We added 19 new fungi, including the orange jelly fungus ([See Picture 15](#) in Appendix H) and 11 new lichens, including the candy lichen ([See Picture 16](#)), to the list in 2025. We learned from iNaturalist Identifiers specializing in fungi and lichens, that in order to get positive identifications to the species level, we need to photograph the underside of a mushroom or foliose lichen, which would require disturbing the organism, i.e., dislodging an example, and turning it over in order to get a high-quality picture. Guidelines from iNaturalist Identifiers for photographing certain organisms appear in Appendix G. Several species identified last year through iNaturalist's computer vision function were questioned by iNaturalist Identifiers and given a less precise identification to a higher taxonomic level. Certain genera, including the puffballs, are extremely difficult to identify to species ([See Picture 13](#), Appendix H). Some species would require collection of an individual organism and microscopy work to identify. Observations made of the ivory bonnet in 2024, a species at risk, were confirmed as research grade in February 2026 ([See Picture 14](#), Appendix H).

³ **Blooming on May 25** – calypso orchids, clematis, glacier lilies, Northwestern sedges, saskatoon, small flower anemone, swamp currant, Utah honeysuckle, Western roundleaf violet, willows, with flower buds on Hooker's creeping mahonia, Oregon grape and pussytoes; **Blooming on June 24** – bunchberry, bronze bells, creeping mahonia, heart-leaved arnica, Hooker's pussytoes, louseworts, Oregon grape, pearly everlasting, swamp currant, twinflowers, Virginia strawberry, wild rose, yellow columbine with flower buds on pipssisiwa, mountain death-camas, rattlesnake plantain, wintergreens and seeds/fruit on dandelion, meadow-rues, saskatoon, Utah honeysuckle and wood lily. Just outside the reserve, hookspur violets, scarlet paintbrush, and thimbleberry bloomed.

⁴ Sometimes these are new species. Others are more generic taxonomic groups, including genera, family, order, etc. Sometimes the iNaturalist name changed, as in the case of prickly wild rose becoming *rosier acicularis*.

We added six new bryophytes to the list, including the juniper haircap moss found on June 24, 2025 ([See Picture 17](#) in Appendix H), and our first liverwort, the horned notchwort. I photographed this species and posted to iNaturalist in August 2024 with a preliminary computer vision ID of bonfire moss. In February 2026, iNaturalist Identifier Randal (rambryum), a bryologist in the Pacific Northwest, noticed the liverwort ([See Picture 18](#) in Appendix H).

iNaturalist Identifiers, Les Freck and Drew Meyer, alerted us to the presence of a new conifer discovery, Interior spruce (*Picea x albertiana*) ([See Picture 19](#), Appendix H). Drew Meyer maintains that “the spruce in this area were properly considered as intermediate between Engelmann spruce and white spruce (*engelmannii x glauca*, sometimes called Interior hybrid spruce). This isn't a classic binary "hybrid" but rather the two species intergrade over a large area of BC.” He noted that soon taxonomists may lump Engelmann and white spruce into a single species with *engelmannii*, *glauca*, and *albertiana* as subspecies.

We identified 20 new species of flowering plants. The most notable floral find in 2025 was the northwestern sedge since the Mount Sabine Ecological Reserve was set aside to protect a vernal moist sedge meadow and this is the first year we found sedges in the ER ([See Picture 20](#) in Appendix H). Other flowering plant highlights included small flower anemone ([See Picture 7](#) in Appendix H), the Eastern fairy-slipper orchid, as well as a hybrid orchid, Kostiuik’s hybrid calypso, and an uncommon form of bracted lousewort⁵ ([See pictures 21](#) and [22](#) in Appendix H). We also found two new alien flowering plant species on the access road that cuts through the ER --- red clover and a dandelion, believed to be the red-seeded dandelion.

3.0 Issues

3.1. Public Access Issues:

Public access continues to be the Camp One Access Road to the side road that cuts through the ecological reserve to access the Asimov Cliffs. Quads and trail bikes have no difficulty reaching the area and we witnessed ORVs drive through the ER on the access road on both visits ([See pictures 23](#) and [24](#) in Appendix H). The only place we have found any alien plant species in this ER is on the access roads.

3.2. Signage Issues:

None of the boundaries of the Mount Sabine ER are marked in any way, nor is there a sign indicating that this is an ecological reserve and what activities are allowed/prohibited. The confusing directional sign and map just off of the Camp One Access Road appears to have been replaced with accurate info ([See Picture 25](#) in Appendix H). Along the side access road inside the

⁵ Peter L. Achuff (plachuff), retired botanist for Parks Canada and the Alberta government, still consulting - “I think this is a form of *Pedicularis bracteosa*. The inflorescence looks typical for this species but the leaves being undivided are different from what is more typical with the leaves divided 1-2 times. However, the *Flora of N America* (vol 17) description says stem leaf "blade lanceolate ... undivided or 1- to 2-pinnatifid." So, this seems to be the undivided condition. The leaves here are somewhat similar to *P. racemosa*, which also occurs in this area, but the inflorescence is quite different. Interesting find.”

reserve, we found a metal sign dated May 25, 2005 nailed to a tree indicating a cut block boundary ([See Picture 26](#) in Appendix H).

3.3. Maintenance Issues:

No maintenance is carried out on the access roads other than what the quad drivers/riders do, e.g., cut and drag any fallen trees out of the way. The Camp One Access Road is reverting to a 4WD trail and is severely rutted (See pictures in previous annual warden reports). On our May 25 visit, some trees had fallen across the Asimov Cliffs side access road, blocking it. These had been cut and moved to the side by the time we visited the reserve again on June 24.

4.0. Human Activities

4.1. Visitor Activities:

People drive quads and trail bikes through the reserve on the Asimov Cliffs side access road (See [picture 23](#) and [picture 24](#)). The vehicles are introducing alien plant species into the ER. So far, these species are just on or beside the road. Hunters might travel through the reserve during hunting season, although we have yet to find evidence of this activity. In late-October, Canal Flats resident, Waltraud Moos, mountain biked up to the reserve boundary and later reported that there was snow on the ground and colourful Western larches.

4.2. Warden Activities:

See Appendix E for the status of tasks that were planned for 2025 field season and other action items identified in previous years. See also [pictures 27, 28, 29, 30, 31 & 32](#) in Appendix H.

In addition to the two site visits, I made two presentations about ecological reserves, highlighting Mount Sabine and Columbia Lake ecological reserves in the East Kootenays. On May 8, 2025, I made a luncheon presentation for the Wings Over the Rockies Nature Festival entitled “The Ecological Reserves of BC, Hidden Gems of BC’s Protected Areas System” to a sold-out audience of 50 people. On the evening of December 16, 2025, I presented a talk called “[Ecological Reserves in the Columbia Headwaters](#)” to the Board of Directors of the Friends of Ecological Reserves via Zoom, and answered questions for nearly an hour afterwards. The FER Board invites ER wardens to their meetings to share natural history information about the ecological reserves where they volunteer, and to discuss the issues they face. A pdf of the latter talk can be seen at – <https://ecoreserves.bc.ca/2025/12/16/presentation-to-the-fer-board-on-columbia-lake-and-mount-sabine-ers-by-jenny-feick/>.

During the 2025 field season, we spoke a Canal Flats resident, Ms. Waltraud Moos, who we saw in previous years mountain biking up the Camp One Access Road to look at the wildflowers in the Columbia Lake Ecological Reserve. When she learned about how we were accessing Mount Sabine Ecological Reserve, she offered to take us there in a quad. She showed such interest in our work as volunteer wardens for BC Parks that we encouraged her to apply to be an ER Warden so she could assist us in 2026 and we could mentor her to take over our role as ER Wardens for Columbia Lake and Mount Sabine ecological reserves. She applied in mid-September 2025, but as of February 12, 2026 had not heard if she had been accepted.

5.0. Wardens' Proposals or Suggestions (ecological reserve management, research, public presentation, etc.):

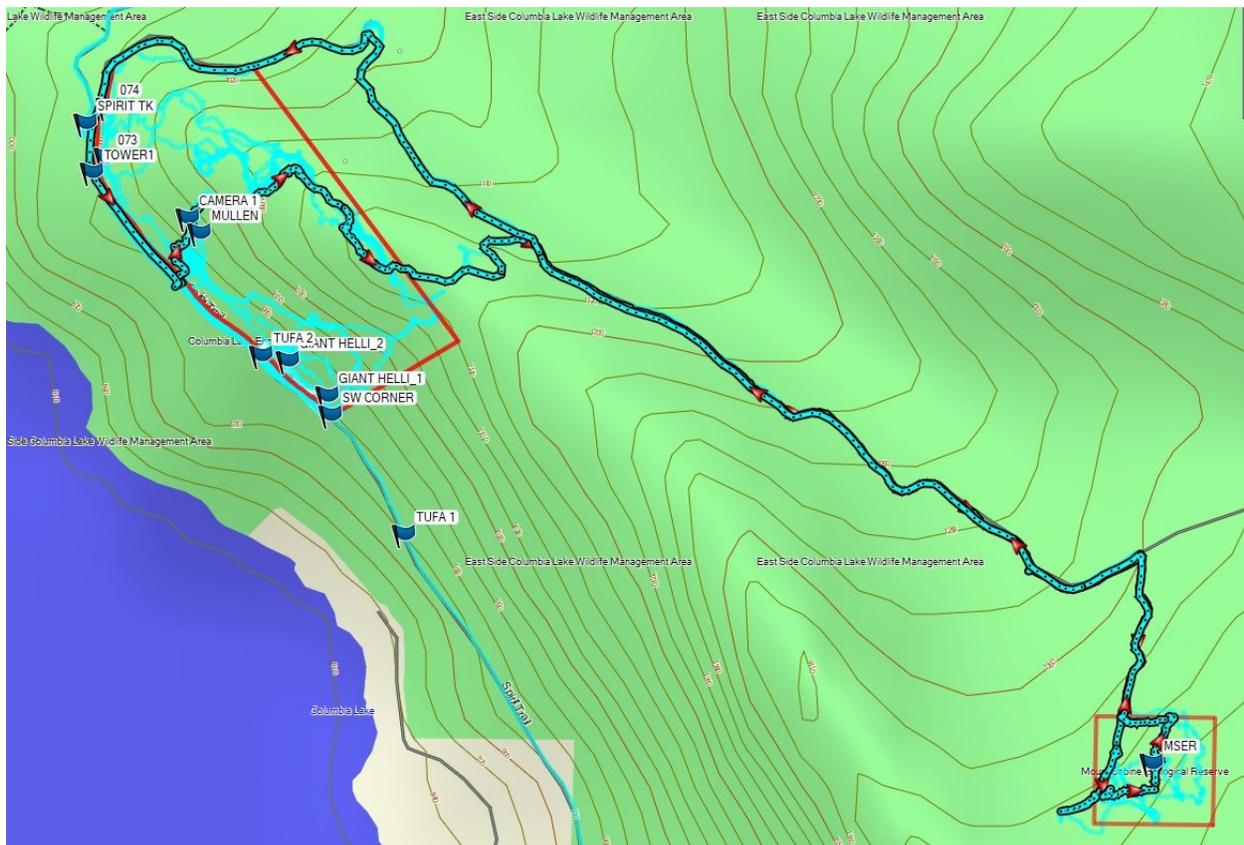
1. **Improve communications between ER Wardens and BC Parks:**
 - a. **Improve email communications between ER Wardens and BC Parks Regional staff.** At a minimum, if an ER Warden sends an email, acknowledge its receipt, indicate when to expect a response, and provide a response, including feedback on plans for the 2026 field season.
 - b. **BC Parks to Provide Updates Previously Identified by ER Wardens:** It would be helpful to obtain an update from BC Parks staff on their thoughts on boundary marking for the Mount Sabine ER, drone use for vegetation monitoring, and a camera trap for wildlife monitoring.
 - c. **Meet:** An ER Warden regional meeting is long overdue.
 - d. **Joint Site Visit:** Ideally, a BC Parks employee should accompany the ER Wardens on a site visit to Mount Sabine Ecological Reserve in 2026.
2. **Carry out specific field work tasks as well as follow up and other actions. See Appendix F for plans for the 2026 field season.**
 - a. **Use ATV to access Mount Sabine Ecological Reserve** - To address ER Wardens' access issues, in 2026, we can make arrangements with Ms. Waltraud Moos in Canal Flats to travel with her in a quad to the Mount Sabine Ecological Reserve. This will help increase the amount of time we can spend in the ER.
 - b. **Make more detailed photographic observations for iNaturalist** - More time is needed per field visit in order to obtain the type and number of pictures required by iNaturalist Identifiers to verify the observations as research grade or get as precise an identification as possible. The organisms requiring additional pictures include: arthropods, chipmunks, fungi, lichens, mosses, grasses, willows, snowberries, meadow-rues, mahonias, and wild roses.
 - c. **Apply for a PEF Grant to Monitor Wildlife Using a Camera Trap** - The only way to verify if there are white-tailed deer as well as mule deer using the reserve is to employ a camera trap. It would also confirm what other wildlife we use the reserve, including elk, American black bear, coyote, and bobcat.
3. **Initiate Succession Planning** – We recommend that BC Parks accept Waltraud Moos' application to become an Ecological Reserve Warden and ensure that she is onboarded by the spring of 2026. This will facilitate her being able to assist us in the 2026 field season. Ian Hatter and I can mentor her so that she can assume the role of ER Warden for the Mount Sabine and Columbia Lake ecological reserves in future.

APPENDIX A: ER Wardens' 2025 Travel Routes to/from/in Mt Sabine Ecological Reserve

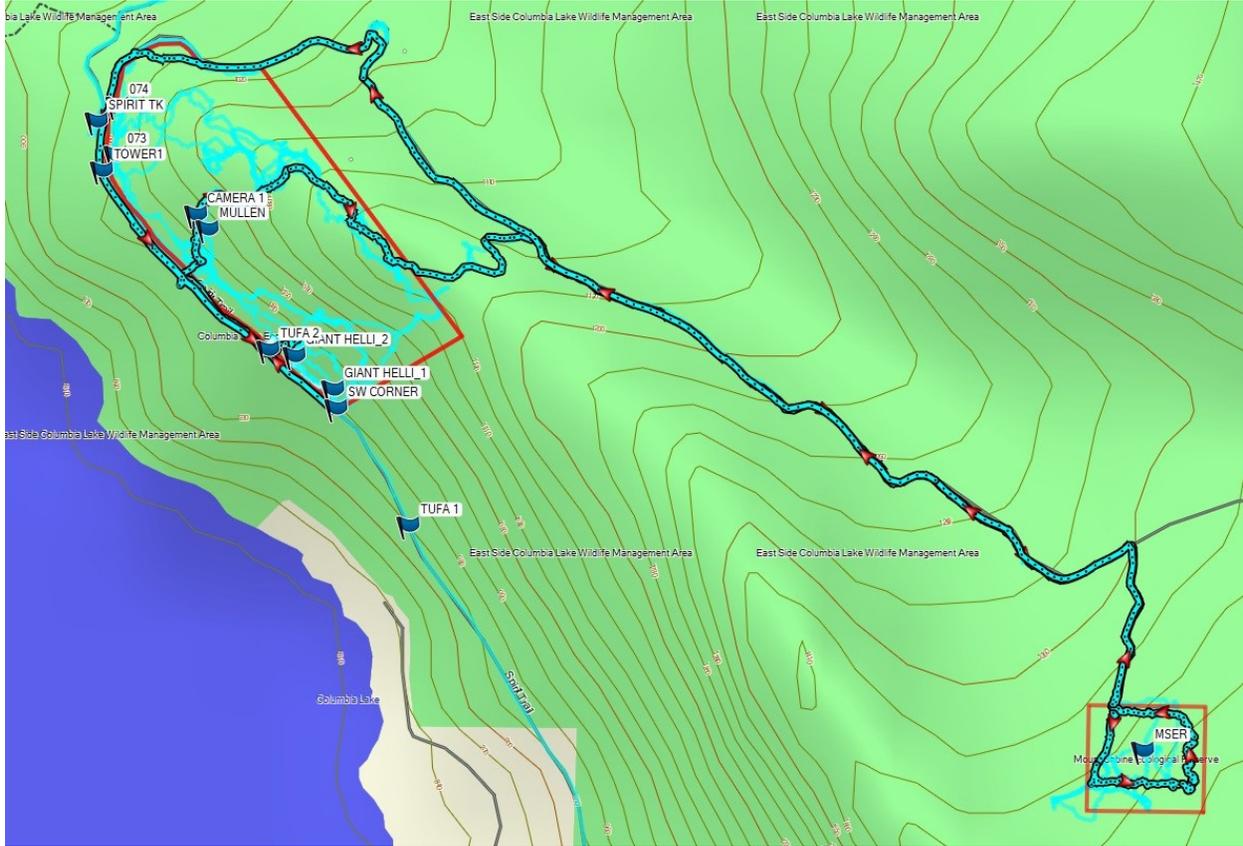
The following four maps show the routes taken by ER Wardens Jenny Feick and Ian Hatter on their two field visits to Mount Sabine Ecological Reserve on May 25 and June 24, 2025.

The first two maps show the routes taken to get to and from the reserve. They walked up through the Columbia Lake Ecological Reserve to the top of the cliffs, then down to the Camp One Access Road. They followed this road to the Asimov Cliffs side access road to the reserve. On the way back, they retraced their steps down the side access road and then travelled downhill the entire way on the Camp One Access Road.

Map 1: Map of ER Wardens' Travel Route to Get to and from Mount Sabine Ecological Reserve on May 25, 2025



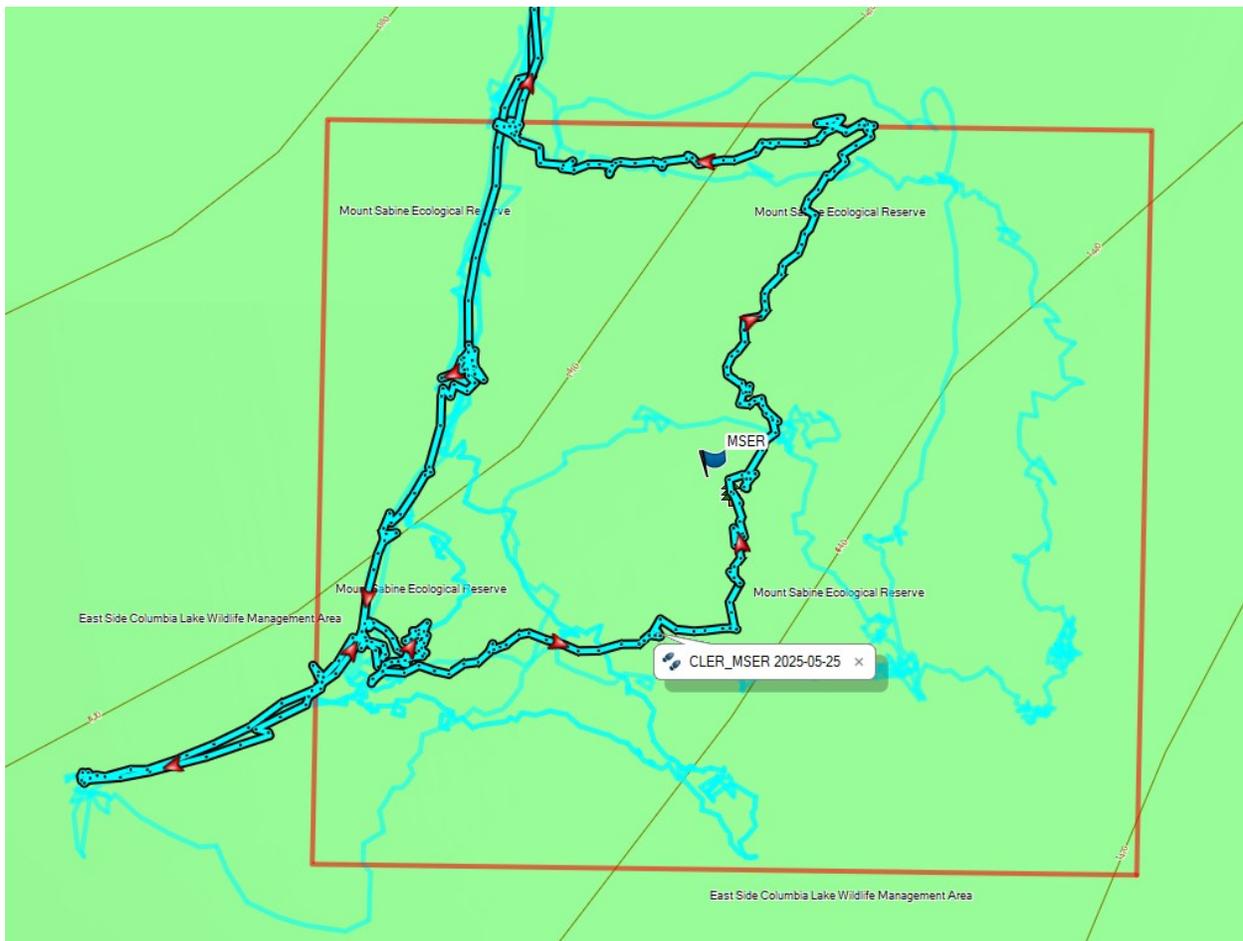
Map 2: Map of ER Wardens' Travel Route to Get to and from Mount Sabine Ecological Reserve on June 24, 2025



The second two maps show the different routes taken while bushwhacking inside the Mount Sabine Ecological Reserve on May 25 and June 24, 2025. The thick turquoise line with red directional arrows shows the route taken on that particular day. Faint turquoise lines indicate routes taken during previous trips.

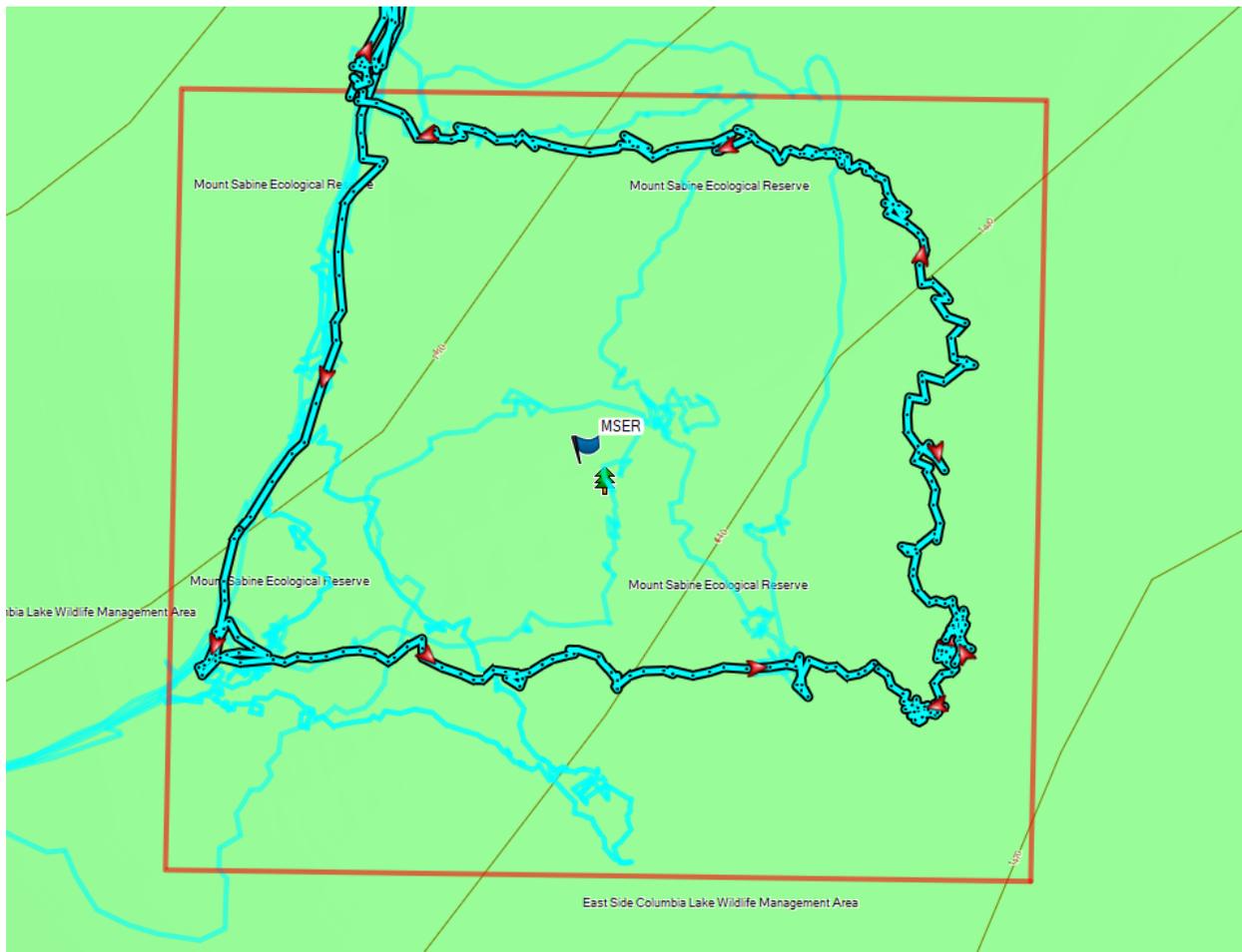
On May 25, the route followed the side access road as it cut through the reserve and for a short distance outside of the reserve. The ER wardens then walked back along the road and then into the reserve, travelling north to the northern perimeter of the reserve. From there, they paralleled the north boundary heading west until they intersected the side access road. They stopped in a few spots to make more thorough investigations of the flora, fungi and fauna and the route shows some back-and-forth movements in these areas. The focus was on the northwestern quadrant.

Map 3: Map of ER Wardens' Travel Route within Mount Sabine Ecological Reserve on 05/25/25



On June 24, the route again followed the side access road as it cut through the reserve. At the point where the road reached the western boundary, the ER wardens bushwhacked into the reserve, travelling east until almost at the eastern perimeter of the reserve. From there, they went north, paralleling the east boundary and then turning west just short of the northern border. They continued heading west until they intersected the side access road. They stopped in a few spots to make more thorough investigations of the flora, fungi and fauna and the route shows some back-and-forth movements in these areas. The focus was on getting observations in the eastern side of the reserve and bit further south than on previous visits.

Map 4: Map of ER Wardens Travel Route within Mount Sabine Ecological Reserve on 06/24/25.

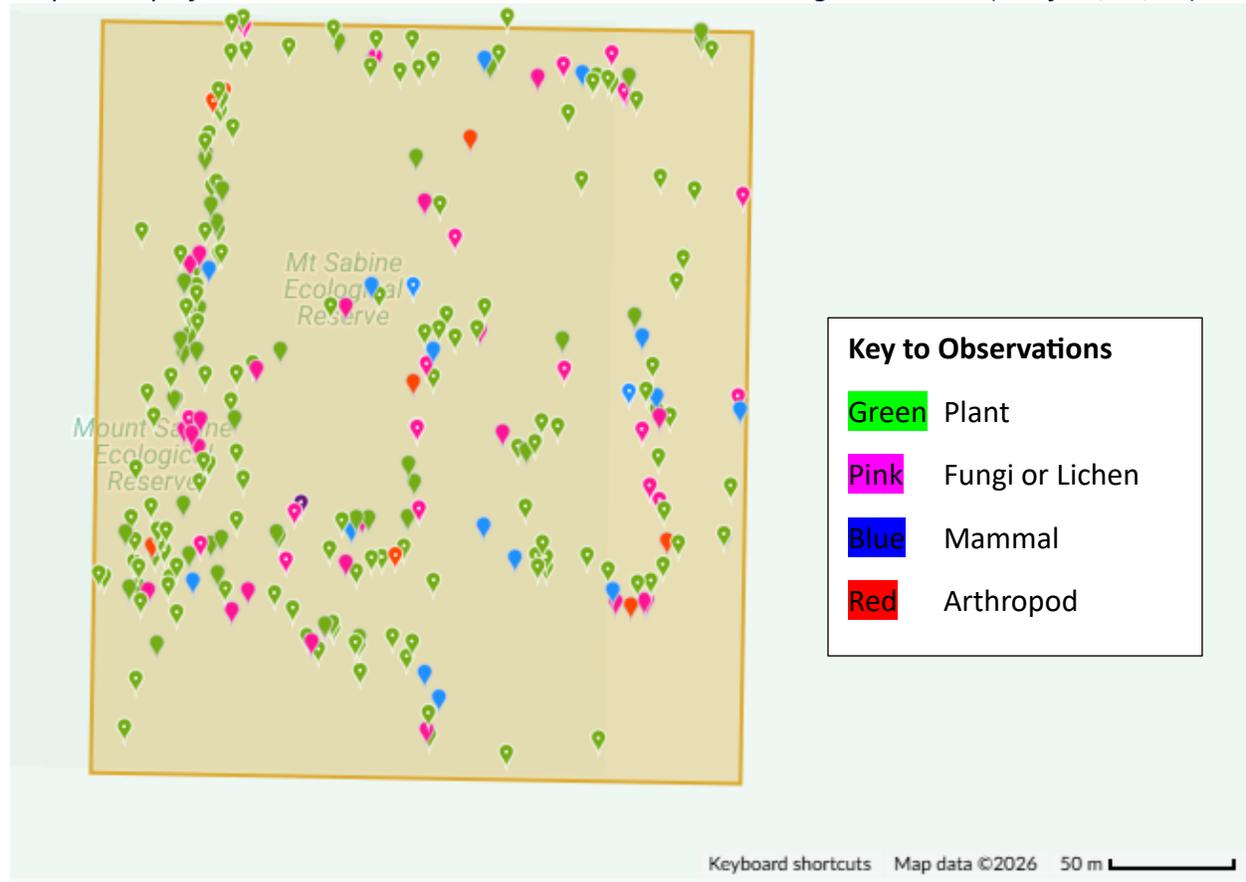


APPENDIX B: iNaturalist Observations in Mt Sabine Ecological Reserve

iNaturalist Statistics as of February 14, 2026 for Mount Sabine Ecological Reserve include

- **Number of Observations:** 475 observations (up from 263 in 2024, an 80% increase).
- **Research Grade:** 325 of the 475 observations or 68.42% of them are classified as research grade⁶ (up from 128 or 48.7% in 2024), which is about a 20% increase in confirmed identifications to the research grade level.
- **Species Numbers:** 149 species confirmed (up from 113 in 2024), a 32% increase.
- **Identifiers:** 104 Identifiers (up from 41 in 2024), a 2.5-fold increase, indicating greater interest in observations made in the Mount Sabine Ecological Reserve.
- **Observers:** The same four observers as last year made observations (Jenny Feick, Ian Hatter, Ian Adams and Liza Pegura).

Map 5: Map of iNaturalist Observations in Mount Sabine Ecological Reserve (as of 18/01/26)



⁶ In iNaturalist, "Research Grade" is a designation for observations with a high-quality, community-verified identification, making them suitable for scientific research. To achieve this, an observation must have one or more photos and/or sounds, a valid date, accurate GPS location data, and a 2/3 majority consensus on identification at species level or lower, usually requiring at least two Identifiers to agree on the identification.

APPENDIX C: Fauna, Fungi and Flora of Mount Sabine Ecological Reserve (Common Name First)

This list includes both the common and scientific names for species observed during site visits on September 10, 2022, June 16, 2023, and August 29, 2024. Names **in bold** refer to new listings in 2024. These could be new species recorded in 2024 or updated identifications of organisms from previous field seasons. Sometimes the latter have been reidentified by iNaturalist Identifiers as a different species or to a more generic taxonomic classification (Genus, Family, Order, etc.). Naming protocols follow iNaturalist and eBird. **Names are listed in alphabetical order according to common name.** Alien species are marked with an asterisk *.

Animals

Arthropods

Arachnids

Birch leaf blister mite	<i>Eriophyes leionotus</i>
Bowl-and-doily spider	<i>Frontinella pyramitela</i>
Filmy dome spider	<i>Neriene radiata</i>
Flower crab spider	<i>Misumena vatia</i>
Rocky Mountain maple felt mite	<i>Aceria calaceris</i>
Thin-legged wolf spider	<i>Pardosa sp.</i>

Insects

Douglas fir adelgid	<i>Adelges cooleyi</i>
Gall midge	Subfamily <i>Cecidomyiinae</i>, Genus <i>Blaesodiplosis</i>
Hercules carpenter ant	<i>Camponotus herculeanus</i>
Nearctic bumble bee	<i>Bombus vancouverensis spp. nearcticus</i>
New world red bearded ant	<i>Formica neorufibarbis</i>
Ruby-tailed cuckoo wasp	Complex <i>Chrysis ignita</i>, Genus <i>Chrysis</i>
Tachinid fly	<i>Thelaira sp.</i>
Tachinid fly	<i>Winthemia sp.</i>
Typical bark beetle	(Tribe <i>Scolytini</i>)
Typical hover fly	Subfamily <i>Syrphinae</i> Genus <i>Meligramma</i>
Western black carpenter ant	<i>Camponotus modoc</i>
Yellow Douglas-fir borer	<i>Centroder spurca</i>

Chordates, Vertebrates

Birds

Black-backed (three-toed) woodpecker	<i>Picoides arcticus</i>
Cassin's vireo	<i>Vireo cassinii</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>

Dark-eyed junco
Golden-crowned kinglet
Mountain chickadee
Northern flicker
Pileated woodpecker
Pine siskin
Red-breasted nuthatch
Red crossbill
Ruby-crowned kinglet
Swainson's thrush
Townsend's solitaire
Townsend's warbler
Western tanager
Williamson sapsucker
Yellow-rumped warbler

Junco hyemalis
Regulus satrapa
Poecile gambeli
Colaptes auratus
Dryocopus pileatus
Spinus pinus
Sitta canadensis
Loxia curvirostra
Cortahylio calendula
Catharus ustulatus
Myadestes townsendi
Setophaga townsendi
Piranga ludoviciana
Sphyrapicus thyroideus
Setophaga coronata

Mammals

American black bear
American red squirrel
Coyote
Least chipmunk
Moose
Rocky Mountain elk
Rocky Mountain mule deer
Western chipmunk
White-tailed deer
Yellow-pine chipmunk

Ursus americanus
Tamiasciurus hudsonicus
Canis latrans
Neotamias minimus
Alces alces
Cervus canadensis ssp. canadensis
Odocoileus hemionus ssp. hemionus
Neotamias sp.
Odocoileus virginianus
Neotamias amoenus

Fungi & Lichens

Fungi/Rust

Bicoloured bracket
Bolete
Bonnet
Bracket fungus
Cinnabar powdercap
Common gilled mushroom
Common gilled mushroom
Common puffball
Conifer roundhead

Gloeoporus dichrous
Family Boletaceae
Mycena sp.
Phellinus sp. (p.igniarius-group)
Cystodermella cinnabarina
Order Agaricales
Hebeloma velutipes
Lycoperdon periatum
Stropharia hornemannii

Corky bark disease
False puffball
 Fool's funnel
Gingertail
Jelly fungus
 Jelly tree ear
 Hoof fungus
 Ivory bonnet
 Multiflora rose rust
Needle bonnet
 Northern red belt
Ochre-banded conk
 Ochre bracket
 Orange jelly spot
Pets-de-Loup, puffball
Pinwheel mushroom
 Pinelitter gingertail
 Pinewood gingertail
Powdercap mushroom
 Rufous milkcap
 Russet scaly tricholoma
 Rust fungi
Saskatoon juniper rust
Small gilled wood-decaying fungi
 Tamarack jack
Tinder polypore
Turkey-tail
 Uterus-shaped club
 Veiled polypore
 Lichens
Blacksaddle pelt lichen
Candy lichen
 Common powderhorn
 Dragon horn lichen
Felt horn lichen
Finger cup lichen
 Freckled pelt lichen
Gray starburst lichen
 Hooded tube lichen
Imshaug's tube lichen
Mealy pixie cup

Diplodia tumefaciens
Reticularia lycoperdon
Collybia rivulosa
***Xeromphalina caudicinalis* Group**
***Exidia* sp.**
Auricularia americana
Fomes fomentarius
Atheniella flavoalba
Phragmidium rosae-multiflorae
Mycena clavicularis
Fomitopsis mounceae
Fomitopsis ochracea
Trametes ochracea
Dacrymyces chrysospermus
Family *Lycoperdaceae* Genus *Lycoperdon*
Suborder *Marasmiineae*
Xeromphalina caudicinalis
Xeromphalina campanella
***Cystodermella* sp.**
Lactarius rufus
Tricholoma vaccinum
Gymnosporangium nelsonii
***Gymnosporangium* sp.**
***Xeromphalina* sp.**
Suillus clintonianus
Fomes excavatus
***Trametes* sp.**
Clavariadelphus sp.
Cryptoporus volvatus

Peltigera neckeri
Icmadophila ericetorum
Cladonia coniocraea
Cladonia squamosal
Cladonia phyllophora
Cladonia digitata
Peltigera aphthosa
Parmeliopsis hyperopta
Hypogymnia physodes
Hypogymnia imshaugii
Cladonia chlorophaea

Mountain wolf lichen
Pelt lichen
Pixie cup and reindeer lichen
Powdered funnel lichen
Powdered sunshine lichen
Powderhorn lichen
Smooth horn lichen
Trumpet lichen
Witch's hair
Yellow map lichen

Letharia lupina
Peltigera sp.
Cladonia sp.
Cladonia cenotea
Vulpicida pinastri
Cladonia sp.
Cladonia gracilis
Cladonia fimbriata
Alectoria sarmentosa
Rhizocarpon geographicum

Plants

Cryptogams (no seeds)

Bryophytes

Austria timmia moss
Brocade moss
Broom forkmoss
Bryum moss
Fragile fork-moss
Horned notchwort
Juniper haircap moss
Nodding thread-moss
Ostrich-plume moss
Redshank
Red-stemmed feather moss
Sickle-leaved hook-moss
Small hairy screw-moss

Timmia austriaca
Clallicaldium imponens
Dicranum scoparium
Ptychostomum sp.
Dicranum tauricum
Lophozia longidens
Polytrichum juniperimum
Pohlia nutans
Ptilium crista-castrensis
Ceratodon purpureus
Pleurozium schreberi
Sanionia uncinata
Syntrichia laevipila

Phanaerogams (has seeds)

Gymnosperms (no flowers)

Common juniper
Douglas fir
Englemann spruce
Interior lodgepole pine
Interior spruce
Lodgepole pine
Rocky Mountains Douglas-fir
Rocky Mountain juniper
Rocky Mountains subalpine fir
Subalpine fir

Juniperus communis
Pseudotsuga menziesii
Picea engelmannii
Pinus contorta latifolia
Picea x albertiana
Pinus contorta
Pseudotsuga menziesii glauca
Juniperus scopulorum
Abies lasiocarpa bifolia
Abies lasiocarpa

Western larch	<i>Larix occidentalis</i>
White spruce	<i>Picea glauca</i>
Angiosperms (has flowers)	
American asters	<i>Symphyotricum sp.</i>
Balsam poplar	<i>Populus balsamifera</i>
Bearberry	<i>Arctostaphylos uva-ursi</i>
Black cottonwood	<i>Populus trichocarpa</i>
Blunt-fruited sweet-cicely	<i>Osmorhiza berteroi</i>
Bracted lousewort	<i>Pedicularis bracteosa</i>
Bronze bells	<i>Anticlea occidentalis</i>
Bunchberry	<i>Cornus canadensis</i>
Canadian Buffalo-berry	<i>Shepherdia canadensis</i>
Common snowberry	<i>Symphoricarpos albus</i>
Creeping mahonia	<i>Berberis repens</i>
Drummond's willow	<i>Salix drummondiana</i>
Eastern fairy-slipper	<i>Calipso bulbosa var americana</i>
Fireweed	<i>Chamaenerion angustifolium</i>
Glacier lily	<i>Erythronium grandiflorum</i>
Green-flowered wintergreen	<i>Pyrola chlorantha</i>
Heartleaf arnica	<i>Arnica cordifolia</i>
Hooker's pusseytoes	<i>Antennaria racemosa</i>
Honeysuckle	<i>Lonicera sp.</i>
Kostiuk's hybrid calypso	<i>Calypso bulbosa x kostiukiae</i>
Leafy aster	<i>Symphyotricum foliaceum</i>
Lindley's aster	<i>Symphyotricum ciliolatum</i>
Meadow-rues	<i>Thalictrum sp.</i>
Mountain deathcamas	<i>Anticlea elegans</i>
Mountain sweet-cicely	<i>Osmorhiza berteroi</i>
Northern bedstraw	<i>Galium boreale</i>
Northern goldenrod	<i>Solidago multiradiata</i>
Northwestern sedge	<i>Carex concinoides</i>
One-sided wintergreen	<i>Orthilia secunda</i>
Oregon grape	<i>Berberis aquifolium</i>
Oxeye daisy*	<i>Leucanthemum vulgare</i>
Paper birch	<i>Betula papyrifera</i>
Parry's aster	<i>Symphyotrichum foliaceum var. parryi</i>
Pearly everlasting	<i>Anaphalis margaritacea</i>
Pine reed grass	<i>Calamagrostis rubescens</i>
Rosier aciculaire	<i>Rosa acicularis</i>
Pipsissewa	<i>Chimaphila umbellata</i>
Pumpelly's bromegrass	<i>Bromus pumpellianus</i>

Purple clematis	<i>Clematis occidentalis</i>
Red clover*	<i>Tridolium pratense</i>
Red osier dogwood	<i>Cornus sericea</i>
Red-seeded dandelion*	<i>Taraxacum erythrospermum</i>
Rocky Mountain maple	<i>Acer glabrum</i>
Rough-fruited fairybells	<i>Prosartes trachycarpa</i>
Saskatoon	<i>Amelanchier alnifolia</i>
Scouler's willow	<i>Salix scouleriana</i>
Shinyleaf meadowsweet	<i>Spiraea lucida</i>
Showy aster	<i>Eurybia conspicua</i>
Sickletop lousewort	<i>Pedicularis racemosa</i>
Small-flower anemone	<i>Anemone parviflora</i>
Snowberry	<i>Symphoricarpos sp.</i>
Swamp currant	<i>Ribes lacustre</i>
Thinleaf huckleberry	<i>Vaccinium membranaceum</i>
Trembling aspen	<i>Populus tremuloides</i>
Twinflower	<i>Linnaea borealis</i>
Utah honeysuckle	<i>Lonicera utahensis</i>
Veiny meadow-rue	<i>Thalictrum venulosum</i>
Virginia strawberry	<i>Fragaria virginiana</i>
Water birch	<i>Betula occidentalis</i>
Western blue clematis	<i>Clematis occidentalis var. grosseserrata</i>
Western meadow-rue	<i>Thalictrum occidentale</i>
Western rattlesnake plantain	<i>Goodyera oblongifolia</i>
Western roundleaf violet	<i>Viola orbiculata</i>
Western snowberry	<i>Symphoricarpos occidentalis</i>
Willow	<i>Salix sp.</i>
Wood lily	<i>Lilium philadelphicum</i>
Yellow columbine	<i>Aquilegia flavescens</i>
Yellow sweet-vetch	<i>Hedysarum sulphurescens</i>

APPENDIX D: Fauna, Fungi and Flora of Mount Sabine Ecological Reserve (Scientific Name First)

This list includes both the scientific and common names for species observed during site visits on September 10, 2022, June 16, 2023, and August 29, 2024. Names **in bold** refer to new listings in 2024. These could be new species recorded in 2024 or updated identifications of organisms from previous field seasons. Sometimes the latter have been reidentified by iNaturalist Identifiers as a different species or to a more generic taxonomic classification (Genus, Family, Order, etc.). Naming protocols follow iNaturalist and eBird. **Names are listed in alphabetical order according to scientific name.** Alien species are marked with an asterisk *.

Animalia

Arthropoda

Arachnida

Aceria calaceris

Rocky Mountain maple felt mite

Eriophyes leionotus

Birch leaf blister mite

Frontinella pyramitela

Bowl-and-doily spider

Misumena vatia

Flower crab spider

Neriene radiata

Filmy dome spider

Pardosa sp.

Thin-legged wolf spider

Insecta

(Tribe *Scolytini*)

Typical bark beetle

Adelges cooleyi

Douglas fir adelgid

Bombus vancouverensis spp. nearcticus

Nearctic bumble bee

Camponotus herculeanus

Hercules carpenter ant

Camponotus modoc

Western black carpenter ant

Centroder spurca

Yellow Douglas-fir borer

Complex *Chrysis ignita*, Genus *Chrysis*

Ruby-tailed cuckoo wasp

Formica neorufibarbis

New world red bearded ant

Subfamily *Cecidomyiinae*, Genus

Blaesodiplosis

Gall midge

Subfamily *Syrphinae* Genus *Meligramma*

Typical hover fly

Thelaira sp.

Tachinid fly

Winthemia sp.

Tachinid fly

Chordata, Vertebrata

Aves

Bombycilla cedrorum

Cedar waxwing

Catharus ustulatus

Swainson's thrush

Colaptes auratus

Northern flicker

Cortahylio calendula
Dryocopus pileatus
Junco hyemalis
Loxia curvirostra
Myadestes townsendi
Picoides arcticus
Piranga ludoviciana
Poecile gambeli
Regulus satrapa
Setophaga coronata
Setophaga townsendi
Sitta canadensis
Sphyrapicus thyroideus
Spinus pinus
Vireo cassinii

Mammalia

Alces alces
Canis latrans
Cervus canadensis ssp. canadensis
Neotamias amoenus
Neotamias minimus
Neotamias sp.
Odocoileus hemionus ssp. hemionus
Odocoileus virginianus
Tamiasciurus hudsonicus
Ursus americanus

Fungi

Fungi (Non-Lecanoromycete Orders)

Atheniella flavoalba
Auricularia americana
Clavariadelphus sp.
Collybia rivulosa
Cryptoporus volvatus
Cystodermella cinnabarina
Cystodermella sp.
Dacrymyces chrysospermus
Diplodia tumefaciens
Exidia sp.
Family Boletaceae

Ruby-crowned kinglet
Pileated woodpecker
Dark-eyed junco
Red crossbill
Townsend's solitaire
Black-backed (three-toed) woodpecker
Western tanager
Mountain chickadee
Golden-crowned kinglet
Yellow-rumped warbler
Townsend's warbler
Red-breasted nuthatch
Williamson sapsucker
Pine siskin
Cassin's vireo

Moose
Coyote
Rocky Mountain elk
Yellow-pine chipmunk
Least chipmunk
Western chipmunk
Rocky Mountain mule deer
White-tailed deer
American red squirrel
American black bear

Ivory bonnet
Jelly tree ear
Uterus-shaped club
Fool's funnel
Veiled polypore
Cinnabar powdercap
Powdercap mushroom
Orange jelly spot
Corky bark disease
Jelly fungus
Bolete

Family Lycoperdaceae Genus Lycoperdon

Fomes excavatus

Fomes fomentarius

Fomitopsis mounceae

Fomitopsis ochracea

Gloeoporus dichrous

Gymnosporangium nelsonii

Gymnosporangium sp.

Hebeloma velutipes

Lactarius rufus

Lycoperdon periatum

Mycena clavicularis

Mycena sp.

Order Agaricales

Phellinus sp. (p.igniarius-group)

Phragmidium rosae-multiflorae

Reticularia lycoperdon

Stropharia hornemannii

Suborder Marasmiineae

Suillus clintonianus

Trametes ochracea

Trametes sp.

Tricholoma vaccinum

Xeromphalina campanella

Xeromphalina caudicinalis

Xeromphalina caudicinalis Group

Xeromphalina sp.

[*Lecanoromycetes*](#)

Alectoria sarmentosa

Cladonia cenotea

Cladonia chlorophaea

Cladonia coniocraea

Cladonia digitata

Cladonia fimbriata

Cladonia gracilis

Cladonia phyllophora

Cladonia sp.

Cladonia sp.

Cladonia squamosal

Hypogymnia imshaugii

Hypogymnia physodes

Pets-de-Loup, puffball

Tinder polypore

Hoof fungus

Northern red belt

Ochre-banded conk

Bicoloured bracket

Rust fungi

Saskatoon juniper rust

Common gilled mushroom

Rufous milkcap

Common puffball

Needle bonnet

Bonnet

Common gilled mushroom

Bracket fungus

Multiflora rose rust

False puffball

Conifer roundhead

Pinwheel mushroom

Tamarack jack

Ochre bracket

Turkey-tail

Russet scaly tricholoma

Pinewood gingertail

Pinelitter gingertail

Gingertail

Small gilled wood-decaying fungi

Witch's hair

Powdered funnel lichen

Mealy pixie cup

Common powderhorn

Finger cup lichen

Trumpet lichen

Smooth horn lichen

Felt horn lichen

Pixie cup and reindeer lichen

Powderhorn lichen

Dragon horn lichen

Imshaug's tube lichen

Hooded tube lichen

Icmadophila ericetorum

Letharia lupina

Parmeliopsis hyperopta

Peltigera aphthosa

Peltigera neckeri

Peltigera sp.

Rhizocarpon geographicum

Vulpicida pinastri

Candy lichen

Mountain wolf lichen

Gray starburst lichen

Freckled pelt lichen

Blacksaddle pelt lichen

Pelt lichen

Yellow map lichen

Powdered sunshine lichen

Plantae

Cryptogams (no seeds)

Bryophyta

Ceratodon purpureus

Clallicaldium imponens

Dicranum scoparium

Dicranum tauricum

Lophozia longidens

Pleurozium schreberi

Pohlia nutans

Polytrichum juniperinum

Ptilium crista-castrensis

Ptychostomum sp.

Sanionia uncinata

Syntrichia laevipila

Timmia austriaca

Redshank

Brocade moss

Broom forkmoss

Fragile fork-moss

Horned notchwort

Red-stemmed feather moss

Nodding thread-moss

Juniper haircap moss

Ostrich-plume moss

Bryum moss

Sickle-leaved hook-moss

Small hairy screw-moss

Austria timmia moss

Phanaerogams (has seeds)

Gymnosperma (no flowers)

Abies lasiocarpa

Abies lasiocarpa bifolia

Juniperus communis

Juniperus scopulorum

Larix occidentalis

Picea engelmannii

Picea glauca

Picea x albertiana

Pinus contorta

Pinus contorta latifolia

Pseudotsuga menziesii

Pseudotsuga menziesii glauca

Subalpine fir

Rocky Mountains subalpine fir

Common juniper

Rocky Mountain juniper

Western larch

Englemann spruce

White spruce

Interior spruce

Lodgepole pine

Interior lodgepole pine

Douglas fir

Rocky Mountains Douglas-fir

Angiosperma (has flowers)

Acer glabrum

Amelanchier alnifolia

Anaphalis margaritacea

Anemone parviflora

Antennaria racemosa

Anticlea elegans

Anticlea occidentalis

Aquilegia flavescens

Arctostaphylos uva-ursi

Arnica cordifolia

Berberis aquifolium

Berberis repens

Betula occidentalis

Betula papyrifera

Bromus pumpellianus

Calamagrostis rubescens

Calipso bulbosa var americana

Calypso bulbosa x kostiukiae

Carex concinnoides

Chamaenerion angustifolium

Chimaphila umbellata

Clematis occidentalis

Clematis occidentalis var. grosseserrata

Cornus canadensis

Cornus sericea

Erythronium grandiflorum

Eurybia conspicua

Fragaria virginiana

Galium boreale

Goodyera oblongifolia

Hedysarum sulphurescens

Leucanthemum vulgare

Lilium philadelphicum

Linnaea borealis

Lonicera sp.

Lonicera utahensis

Orthilia secunda

Osmorhiza berteroi

Osmorhiza berteroi

Rocky Mountain maple

Saskatoon

Pearly everlasting

Small-flower anemone

Hooker's pusseytoes

Mountain deathcamas

Bronze bells

Yellow columbine

Bearberry

Heartleaf arnica

Oregon grape

Creeping mahonia

Water birch

Paper birch

Pumpelly's brome grass

Pine reed grass

Eastern fairy-slipper

Kostiuk's hybrid calypso

Northwestern sedge

Fireweed

Pipsissewa

Purple clematis

Western blue clematis

Bunchberry

Red osier dogwood

Glacier lily

Showy aster

Virginia strawberry

Northern bedstraw

Western rattlesnake plantain

Yellow sweet-vetch

Oxeye daisy

Wood lily

Twinflower

Honeysuckle

Utah honeysuckle

One-sided wintergreen

Blunt-fruited sweet-cicely

Mountain sweet-cicely

<i>Pedicularis bracteosa</i>	Bracted lousewort
<i>Pedicularis racemosa</i>	Sickle-top lousewort
<i>Populus balsamifera</i>	Balsam poplar
<i>Populus tremuloides</i>	Trembling aspen
<i>Populus trichocarpa</i>	Black cottonwood
<i>Prosartes trachycarpa</i>	Rough-fruited fairybells
<i>Pyrola chlorantha</i>	Green-flowered wintergreen
<i>Ribes lacustre</i>	Swamp currant
<i>Rosa acicularis</i>	Rosier aciculaire
<i>Salix drummondiana</i>	Drummond's willow
<i>Salix scouleriana</i>	Scouler's willow
<i>Salix sp.</i>	Willow
<i>Shepherdia canadensis</i>	Canadian Buffalo-berry
<i>Solidago multiradiata</i>	Northern goldenrod
<i>Spiraea lucida</i>	Shinyleaf meadowsweet
<i>Symphoricarpos albus</i>	Common snowberry
<i>Symphoricarpos occidentalis</i>	Western snowberry
<i>Symphoricarpos sp.</i>	Snowberry
<i>Symphyotrichum foliaceum var. parryi</i>	Parry's aster
<i>Symphyotrichum ciliolatum</i>	Lindley's aster
<i>Symphyotrichum foliaceum</i>	Leafy aster
<i>Symphyotrichum sp.</i>	American asters
<i>Taraxacum erythrospermum</i>	Red-seeded dandelion
<i>Thalictrum occidentale</i>	Western meadow-rue
<i>Thalictrum sp.</i>	Meadow-rues
<i>Thalictrum venulosum</i>	Veiny meadow-rue
<i>Tridolium pratense</i>	Red clover
<i>Vaccinium membranaceum</i>	Thinleaf huckleberry
<i>Viola orbiculata</i>	Western roundleaf violet

APPENDIX E: Warden Activities in 2025

Table 1: Status of Tasks Planned for 2025 that were Identified in the 2024 ER Warden Report

Task	Done	In Progress	Comments
Schedule a site visit to Mt Sabine ER early in the field season during the time when birds breed/nest and before forest fires get going.	✓		May 25 & June 24, 2025
Contact BC Parks Regional staff about site visit in 2025, boundary signs and marking, Park Enhancement Fund (PEF) project to install wildlife camera.		✓	No warden meeting held in 2025. Periodic productive and positive communication with Navaranda Smith once she started work in March 2025.
Contact the BC Parks iNaturalist team and encourage them to schedule a site visit to Mount Sabine ER.	✓		Email sent Oct. 24. Received a positive response from Arianne Nichols on Oct. 27. N. Smith spoke to me on Nov. 4 to affirm that BC Parks makes the decisions re: where the BC Parks iNaturalist team goes each year.
Apply for PEF grant to purchase and install a wildlife camera in Mt. Sabine ER.	✓		Application completed & submitted on time but was unsuccessful.
Make natural history observations, especially in areas of the ER not yet visited. Post observations to iNaturalist and eBird.	✓		See Appendices B, C & D. Also see iNaturalist Project Mount Sabine Ecological Reserve – https://inaturalist.ca/projects/mount-sabine-ecological-reserve and Ian Hatter's eBird report for May 25, 2025 - https://ebird.org/checklist/S243249303 and Ian Hatter's eBird report for 24 Jun 2025 - https://ebird.org/checklist/S254132683
Remove all other logging company flagging tape and timber cruising markers inside Mt. Sabine ER, as well as any other litter found.		✓	Removed any logging tape found during field visits and litter beside access road

Contact Trevor Kinley to discuss options to follow up on his suggestions to investigate two areas outside of the Mt Sabine ER for the presence of a sedge meadow surrounded by spruce forest.		✓	Met with Trevor Kinley on June 14 & Nov. 1, 2025 to discuss options but had no time to follow up in 2026 (due to extra time spent on wildlife camera project in Columbia Lake ER).
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Table 2: Status of Other Action Items Identified in Previous Warden Reports (2022, 2023 & 2024)

Task (Proponent)	Done	In Progress	Comments
Explore Use of Wildlife Camera for Monitoring (Jenny Feick)	✓	✓	Encouraged to submit application to PEF in May 2025. Submitted one but it was unsuccessful due to access concerns. Told to reapply in 2026.
Explore Use of Permitted Drone for Monitoring (Jenny Feick)		✓	Discussed use of drones to monitor other protected areas and use of LIDAR with Parks Canada staff at Mt Revelstoke and Glacier national parks and a professor at Selkirk College.
Determine Jurisdiction of Camp One Access Road (Darin Welch)			No update provided (sign at start of road refers to the Village of Canal Flats)
Monitor Biodiversity Inside the ER (Jenny Feick & Ian Hatter)		✓	Instead of setting up formal Biodiversity Plots inside the ER, wardens try to visit different parts of the ER on each visit
Try to Find the Sedge Meadow inside the ER (Jenny Feick & Ian Hatter)		✓	Found Northwestern sedge plants in a part of the ER not yet visited.
Mark the Boundary of Mt Sabine ER (BC Parks)			No update provided.
Find or Conduct an Official Survey of Mt Sabine ER (BC Parks Area Manager)			No update provided

Search for Sedge Meadow Adjacent to Mt Sabine ER's Current Boundaries (Jenny Feick & Ian Hatter)			No time available in 2025 to pursue this.
Discuss Feasibility of Boundary Adjustments to ERs (ER Wardens & BC Parks)			No ER Warden meeting held in 2025. Put on agenda for any future ER Warden meeting.

APPENDIX F: Plans for the 2026 Field Season

In 2026, the ER Wardens plan to:

1. In concert with Waltraud Moos, schedule a site visit (or visits) to Mt Sabine ER early in the field season during the time when birds breed/nest and before forest fires get going. If possible, schedule one in the fall when the Western larch turn gold and more fungi are out.
2. Aim to spend more than two hours in the reserve per site visit in order to take more detailed pictures for iNaturalist Identifiers to use to verify observations to the species level. Focus on getting suitable pictures of arthropods, chipmunks, fungi, lichens, mosses, grasses, willows, snowberry, meadow-rue and wild rose. See guidelines in Appendix G.
3. Communicate with Navaranda Smith in BC Parks about status of action items identified in this and previous warden reports for the Mount Sabine Ecological Reserve, as well as other issues, including the need to disturb some fungi and lichens in order to get pictures that will aid iNaturalist Identifiers in verifying the species.
4. Apply to BC Parks for Parks Enhancement Fund (PEF) grant to purchase and install a wildlife camera in Mt. Sabine Ecological Reserve (May 2026).
5. Contact iNaturalist Identifiers to encourage them to assist with identifications of observations made in the BC Parks iNaturalist Project.
6. Make natural history observations, especially in areas of the ER not yet visited. Post observations to iNaturalist and eBird.
7. Continue to remove logging company flagging tape and timber cruising markers inside Mt. Sabine Ecological Reserve, as well as any other litter found.
8. Monitor location of alien invasive plant species to determine if any are found beyond the access road. Remove any found off the road.
9. Follow up on Trevor Kinley's suggestion to investigate using Google Earth two areas outside of the Mt Sabine Ecological Reserve for the presence of a sedge meadow surrounded by spruce forest.

APPENDIX G: Feedback and Guidelines for Taking Pictures of Flora to Facilitate Verification of ER Warden Observations by iNaturalist Identifiers

Fungi

Guidelines for Taking Pictures to Help Identify Fungi

Need pictures of the underside of the fruiting body as well as the top, sides, substrate, habitat, and something to give an indication of the size of the mushroom.

Feedback on Boletes - From Caiden Calderwood (galaxyfungi), a citizen scientist from Montana, specializing in fungi – “Not a Polypore. Any idea what was on the underside? If no gills, then probably a bolete of some sort.”

Feedback on Pinelitter Gingertail, Bonnets, and Other Common Gilled Mushrooms and Allies – From Caiden Calderwood (galaxyfungi), a citizen scientist from Montana, specializing in fungi – “It is hard to get this mushroom to species, especially because descriptive habitat notes are needed. Moss is covering up the substrate it is growing in.” “Not *Cystodermella granulosa*, but something in this genus [*Cystodermella*]. It is hard to get a mushroom like this to species.” From Alan Rockefeller – “Not Pinelitter Gingertail but is genus *Xeromphalina*. Maybe *X. caucinialis* group - needs DNA barcoding though. “Not Dripping Bonnet (*Roridomyces roridus*). Perhaps *Mycena clavicularis*, but may not be possible to ID with certainty from a photo.” From Drew Parker (mycotrope) from mycologist from the Pacific Northwest – “Don't know, but confident it's not *Tricoloma vaccinum*. Seeing the underside is important for ID.

Feedback on Ochre-banded Conk, Hoof Fungus, and other Conks - From M. Goth (Gwark) from Sitka, Alaska – “It could be *Fomitopsis ochracea*, I suppose, but it looks different than I'm used to seeing. Perhaps it's a climate/habitat variation (I live in Southeast Alaska, so very maritime), or maybe this is something different.” From Alan Rockefeller (alan_rockefeller), mycologist from California - Or maybe an old *Ganoderma*? It would help to see a close-up photo of the underside. [*Ganoderma* is a genus of polypore fungi in the family *Ganodermataceae*. *Ganoderma* are characterized by basidiocarps, which are large, perennial, woody brackets also called "conks". They are woody and leathery either with or without a stem. The fruit bodies typically grow in a fan-like or hoof-like form on the trunks of living or dead trees. Another name is shelf fungi or bracket fungi.] From Juha Kinnunen (bodhiheera) from Europe – “With *Phellinus*, **the information on the host tree species is usually useful for making an ID.**” [*Phellinus* is a genus of fungi in the family *Hymenochaetaceae*. Many species cause white rot [in trees]. Fruit bodies, which are found growing on wood, are resupinate, sessile, and perennial. The flesh is tough and woody or cork-like, and brown in color. Clamp connections are absent, and the skeletal hyphae are yellowish-brown.]

Feedback on Club Fungi - From Caiden Calderwood (galaxyfungi), “Possibly *Clavariadelphus ligula* [ochre club], but *C. occidentalis* is almost identical... There are multiple look-alikes in this genus, some that have to be differentiated by microscopy. I say this is probably the highest identification we are going to get.

Feedback on Puffballs and Allies – From Caiden Calderwood (galaxyfungi) – “Hard to get a mushroom to species in this genus [*Lycoperdon*].”

Feedback on Rusts – From Alan Rockefeller, mycologist from California – “Identifying the host plant is very important if you want to start identifying rusts. ... It's often not possible to ID the cause of leaf spots with certainty.”

Lichens

General Advice From Tannar Barnharst (tannar-lichens-shrooms):

“Here are the best types of photos for lichen observations:

1. A picture of the lichen top-down filling the frame of the image with as much of the lichen in focus as possible. Looking for color and habit of the thallus (body, non reproductive structures)
2. Close up pictures of reproductive structures, e.g., apothecia (cups), soredia (granular bits), isidia (finger like projections), or other unique features.
3. A picture of the underside for color, veination, and rhizines.
4. A picture to understand the substrate, e.g., rock type, tree genus or species, soil habitat, e.g., sandy, loamy, base of tree, etc.

I would recommend *Macrolichens of the Pacific Northwest* as the best regional guide for your Eco Reserve -https://www.goodreads.com/book/show/123844690-macrolichens-of-the-pacific-northwest?ac=1&from_search=true&qid=Kr3UNpap9C&rank=1

Lichens of North America by Brodo is the bible for the continent. It is expensive and can take a lot of time to wade through the keys, though it is well written and includes good photographs. https://www.goodreads.com/book/show/1322757.Lichens_of_North_America?from_search=true&from_srp=true&qid=IRLqAlCn4u&rank=2

This is the other resource for lichens in BC - *The Lichens of British Columbia: Illustrated Keys by Goward and McCune*. The two-volume set was published in 1994 and 1999 and I had a hard time finding them for sale. Maybe through a library system you can check out a copy. <https://ibis.geog.ubc.ca/biodiversity/eflora/LichensofBCGoward.html>”

Feedback on Freckled Pelt Lichen and other Pelt Lichens - From Paul R Foth (paulrfoth) from the BC Cariboo area – For pelt lichens, the lower surface view is needed to confirm species. From Jurga Motiejūnaitė (jurga_li), a European lichenologist specializing in cold climate lichens – “it is one of the aphthosae group, but it is impossible to tell which without seeing underside of thallus and close up of cephalodia.”

Feedback on Trumpet Lichen, Split Peg Lichen and other Pixie Cup and Reindeer lichens (Genus Cladonia) – From Paul Foth (paulrfoth) - Potentially one of the "sulfur cup" species, but not *Cladonia cariosa*. From Zorille – “not *Cladonia fimbriata* IMO, but I'm not familiar with the other options in your area.” From jurga-li - Not Trumpet Lichen (*Cladonia fimbriata*). It is Finger Cup Lichen (*C. digitata*) because Apothecia are red, basal squamules are rounded and abundantly sorediose.”

Flowering Plants

Feedback on Taking Pictures to Identify Grasses

From Barbara L. Wilson (sedgequeen), botanist with a special interest in sedges and grasses from western Oregon – “I identify this species in the field by the hairy collars – the top of the leaf sheath, right below where the leaf blade attaches. Note that some leaves don't have hairy collars in this species. I can't see the collar areas well on these plants. There are a couple collars right near the bottom in the center. I can't tell if that's hairy collars or something else going on. If you have the original photo, you may be able to enlarge it enough to see what's going on there.” And “For next year: grasses are hard to identify, especially when they lack flowers/fruits. For sterile grasses, get a picture that shows the growth form (which this does well) and also a close-up of the area where the leaf blade meets the leaf sheath. Think about things like the ligule (a whitish flap or line of hairs that extends up from the base of the blade, lying against the stem. Also, the leaf sheath; are margins overlapping or fused most of the way up to form a tube. Also, are there hairs there? In a few grasses that turn the leaf over, it's good to have a photo of both the upper and lower surface of the leaf blade. A photo of the very lowest part of a shoot sometimes helps. You can't photo it easily, but is the leaf sheath rough or smooth?” From Margaret Krichbaum (margaret_eaglecap), a retired biologist from Western Canada – “to make a confident ID I would rely on seeing the inflorescences and the florets, lemmas, glumes in clear close views, and also the ligules.”

Feedback on Taking Pictures to Identify Willows in iNaturalist

From Margaret Krichbaum (margaret_eaglecap), a retired botanist from Western Canada specializing in *Salix*, *Potentilla*, *Oxytropis*, *Selaginella*, *Artemisia*, and graminoids – “It is likely *Salix scouleriana*, but for willow ID to be correct we need to see closer, clear views of both sides of the leaves including petioles, for a start :-)” ...”I understand the lack of time in a field day, I run into that all the time! Maybe if you could just pick one good willow per hike to photograph well, that might provide an observation that could be IDd and in the end be more efficient and effective for your purpose :-) A "good" *Scoulers* for ID would be a larger, more mature plant, that has a few lower branches you can reach with mature leaves; take one photo of whole plant, one of branch with multiple leaves, one of upper leaf surface including petiole, and one of lower leaf surface as clear and close as you can manage. If you train yourself to do a particular set in a particular order that can help make things quick and efficient :-) I made this set in about a minute's time: <https://inaturalist.ca/observations/306840274>”

Feedback on Identifying Snowberry – Western vs Common

From Lori Skulski (je9h) – “I'd tend to think this is *Symphoricarpos albus* not *S. occidentalis* due to the leaf pairs all in one plane (vs. successive leaf pairs at right angles to one another). From Stewart Wechsler ([stewartwechsler](#)) from Seattle – “While it looks like *Symphoricarpos albus*, without the flowers, I'm not sure I can rule out *S. occidentalis*.”

Feedback on Identifying Meadow-rues – Western or Veiny

From Doug Brown (dougbrown), an experienced Western Canadian naturalist - *Thalictrum* is a tough genera. All the identification keys refer to the seed morphology and as this is only in bud we can't be sure if this is *T. occidentale* or *T. venulosum*. And "I'm afraid we need the seeds to be sure if this is *occidentalis* or *venulosum*."

Feedback on Identifying Mahonias - Oregon grape vs creeping mahonia

Alex Wright (ajwright), a curator with iNaturalist from Seattle, WA, USA says: These plants get lumped into *Berberis aquifolium*, but I'll offer three caveats:

1. You're near the northern extent of *Berberis repens*, which comfortably gets north at least to Cranbrook and maybe farther. It will have many teeth per leaflet, and a whitish underside. I don't think this is it, but look out for it.
2. These interior populations have been marked as something slightly different, *Berberis aquifolium* var. *lyallii*, which is not generally accepted. (See Brayshaw 1989, *Royal BC Museum Memoir 1, Buttercups, Waterlilies and their relatives in British Columbia*, who thinks these are transitional between *B. aquifolium* in the strict sense and *B. repens*). The whole species group is a mess so I don't have a good opinion currently.

Feedback on Identifying Wild Roses

From Bruce Bennet (brucebennet), retired coordinator of the Yukon Conservation Data Centre – "One of my first contracts was identifying rare plants of the [B.C.] ecological reserves (in 1992)." "Photos of the prickles and the leaves are needed, and sometimes the shape of the rose hip is used. The flowers look correct and the leaves look likely but there are several similar species in the region." And "It looks correct, but I need flowers or fruit to confirm because there are similar species in the area. It is easier in Yukon where there are few options."

APPENDIX H: Some of the Pictures Taken in 2025 Field Season

For additional pictures of the fauna, fungi and flora in Mount Sabine Ecological Reserve, see the [BC Parks iNaturalist Project Mount Sabine Ecological Reserve](https://inaturalist.ca/projects/mount-sabine-ecological-reserve) - <https://inaturalist.ca/projects/mount-sabine-ecological-reserve>



Picture 1: Ian Hatter leaving our Subaru by the Camp One Access Road below Columbia Lake Ecological Reserve on May 25, 2025.



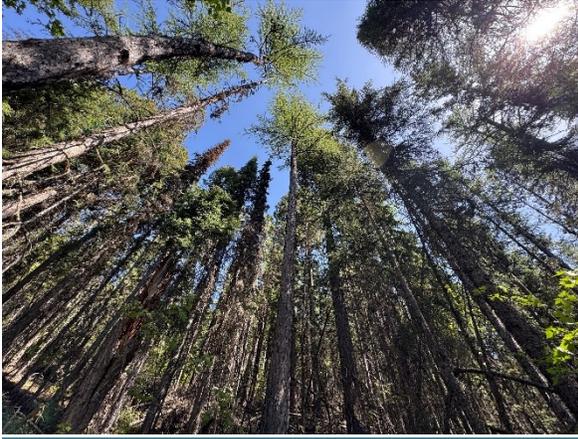
Picture 2: Ian Hatter hiking up the rough game trail through Columbia Lake Ecological Reserve on May 25, 2025.



Picture 3: Ian Hatter hiking up the Camp One Access Road above Columbia Lake Ecological Reserve on the way to Mount Sabine Ecological Reserve on May 25, 2025.



Picture 4: Side access Road to Asimov Cliffs climbing area on June 24, 2025. This road crosses the Mount Sabine Ecological Reserve.



Picture 5: Canopy view in Mount Sabine Ecological Reserve showing variety of conifer species, May 25, 2025.



Picture 6: View of forest floor in Mount Sabine Ecological Reserve, showing extensive moss and downed trees, May 25, 2025.



Picture 7: Small flower anemone, a new flowering plant for the reserve, May 25, 2025.



Picture 8: Utah honeysuckle in bloom in the reserve, May 25, 2025.



Picture 9: Nearctic bumble bee seeking nectar from twinflower blossom, June 24, 2025.



Picture 10: A thin-legged wolf spider on a dead downed birch log, June 25, 2025.



Picture 11: One of the many scats left by deer in Mount Sabine Ecological Reserve, which we suspect is mule deer scat. May 25, 2025.



Picture 12: Coyote scat found along the access road to Mount Sabine Ecological Reserve on June 24, 2025.



Picture 13: Common puffball in Mount Sabine Ecological Reserve on June 24, 2025; confirmed as Research Grade.



Picture 14: Ivory bonnet found in Mount Sabine Ecological Reserve in 2024 was confirmed as Research Grade in 2026.



Picture 15: Orange jelly fungus, a new fungi species for the reserve found June 24, 2025.



Picture 16: Candy lichen, a new lichen species for the reserve found on June 24, 2025.



Picture 17: Juniper haircap moss, a new bryophyte for the reserve, June 24, 2025.



Picture 18: Horned notchwort, the first liverwort in the reserve; identified in 2026 from a picture taken August 2024.



Picture 19: Interior spruce in Mount Sabine Ecological Reserve (note male cones and developing female cones) on June 24, 2025.



Picture 20: Northwestern sedge in flower in Mount Sabine Ecological Reserve on May 25, 2025.



Picture 21: Kostiuk's hybrid calypso in Mount Sabine Ecological Reserve, May 25, 2025.



Picture 22: Uncommon form of bracted lousewort in the reserve, June 24, 2025.



Picture 23: Quads traversing the Mount Sabine Ecological Reserve on the Asimov Cliffs side access road on May 25, 2025.



Picture 24: Trail biker riding through the Mount Sabine Ecological Reserve via the Asimov Cliffs side access road, June 24, 2025.



Picture 24: Correct directional information on sign along Camp One Access Road.



Picture 25: Block boundary sign from May 25, 2005 along the side access road inside Mount Sabine Ecological Reserve, June 25, 2025.



Picture 26: Ian Hatter and Jenny Feick, Mount Sabine Ecological Reserve, May 25, 2025.



Picture 27: Ian Hatter verifying information on BC Government sign, May 25, 2025.



Picture 28: Ian Hatter collecting logging tape in Mt Sabine Eco-Reserve, June 25, 2025.



Picture 29: Ian Hatter bushwhacking through Mt Sabine Ecological Reserve, May 25, 2025.



Picture 30: Jenny Feick by ancient fallen Interior spruce in Mount Sabine Ecological Reserve, June 24, 2025.



Picture 31: Jenny Feick pointing out a bird in a conifer in Mount Sabine Ecological Reserve, June 24, 2025.