



RECREATION AND CONSERVATION (Part II)

GRADE Grade 7

PART 2 of 3

TOPICS Conservation, recreation, values, stewardship

CURRICULAR CONNECTIONS

Grade 7 Science

Unit A – Interactions and Ecosystems

1. Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
 - Identify examples of human impacts on ecosystems, and investigate and analyze the link between these impacts and the human wants and needs that give rise to them
 - Analyze personal and public decisions that involve consideration of environmental impacts, and identify needs for scientific knowledge that can inform those decisions
4. Describe the relationship among knowledge, decisions and actions in maintaining life-supporting environments
 - Identify intended and unintended consequences of human activities within local and global environments
 - Analyze a local environmental issue or problem based on evidence from a variety of sources, and identify possible actions and consequences

OVERVIEW

After learning in Part 1 about the possible impacts that nature-based recreation may have on wildlife, we turn our attention towards people. Though it may seem strange to focus on people in a lesson about wildlife, it is widely agreed upon that a key to success for achieving conservation goals in human-dominated landscapes like the Bow Valley is working closely with different user groups. In this lesson students will explore the importance of understanding values and how we might begin to balance different groups' wants and needs, including wildlife.

OBJECTIVES

- Students will understand that people's behaviours are influenced by their values
- Students will be able to describe strategies that are used to prevent human-wildlife conflict in developed and protected areas
- Students will understand that stakeholder values contribute to their opinions on wildlife-related issues

KEY TERMS

- **Attitude** – a settled way of thinking or feeling about someone or something
- **Attractant** – any substance that could attract dangerous wildlife, such as garbage, pet food, or berry bushes. Attractants can be both natural and unnatural
- **Compliance** – to adapt to a regulation as requested
- **Mitigate** – reduce the severity of seriousness of something
- **Stakeholder** – people or organizations who affect or are directly affected by a decision
- **Values** – a person's principles or standards of behaviour

GUIDING QUESTIONS

- What are some values that might guide people's behaviours with respect to their interactions with wildlife?
- How can we adjust our recreational activities to make more space for wildlife?

BACKGROUND ESSAY

Communities in the Bow Valley have come a long way towards successfully living near wildlife. Successes including improved garbage management, reductions of human use in corridors, highway mitigations like fencing and crossing structures and pro-active education have all contributed to improved coexistence. Ongoing education initiatives by organizations such as Bow Valley WildSmart reach out to diverse audience including new Canadians, children and visitors to ensure that they are well informed about how to coexist safely with wildlife. However despite these successes, many challenges



for coexistence remain due to the wide appeal of the Bow Valley as a place for people to visit, live and recreate.

People have varying **attitudes** towards wildlife. They may see wildlife as something to be exploited and collected, perhaps to feed their families or to be shown-off in their home. They may view wildlife from an ecological or cultural perspective, seeing the complex relationships that wildlife play in the ecosystem. People may regard wildlife for their physical appeal and beauty. Or they may see wildlife as something to be feared and avoided at all costs. These different attitudes – or **values** – inform the way that people interact with the landscape and they can be incredibly difficult to change.

Even among people who might agree that we should share the landscape with wildlife or even prioritise the needs of wildlife by creating protected areas, the approach that we adopt to get there might not be universally agreed upon. As discussed in Part 1, many people view forms of nature-based recreation as compatible with wildlife conservation though this might not necessarily be the case. Differences in values and opinions often lead to heated debates related to wildlife issues, such as excluding humans from certain wilderness areas or limited access to off-highway vehicles (OHVs). Other human needs that are met through access to employment can further complicate people's opinions.

We all share this landscape. Through a broader understanding of others' values we can begin to understand different motivations for valuing nature and subsequently work to care for it as environmental stewards.

DURATION 10-15 minutes

MATERIALS

- Scrap paper or Post-It Notes

ACTIVITY – WALK ABOUT

This activity is useful for getting students to start thinking about a topic, as an icebreaker or for dividing students into different groups. In the variation described here, students will begin thinking about values and needs of diverse groups of people.

1. Ask students to think silently about what people value about the place where they live. Encourage students to consider the values of different groups of people and how these might be different from their own.
2. Instruct students to write down one thing that people value on a Post-It note.
3. When everyone in the class has written something down, give the students two minutes to mingle with each other. They must display what they have written by holding up their Post-It note in front of them. Ask the students to group together with anyone who has written the same (or a similar) word on their note. *This portion of the activity can be done in silence.*



4. Invite the group to share the words that they wrote down and why they think that this is something that people value. What would it mean to people to be without that thing?
5. *Variation: Instead of asking students to write-down something that they value about the place where they live, ask them to write down something that they enjoy doing outside in that place. Run through Step 3 of the activity. Then ask students to brainstorm how the activity that they enjoy might negatively harm the environment, including wildlife. How could it benefit the environment? How can we **mitigate** the negative impact?*

BACKGROUND ESSAY

Coexisting with wildlife requires that we make trade-offs with respect to which spaces we can access, when we can access them and what we can do in those spaces. There are a several different strategies that are used to in the Bow Valley to ensure that wildlife have the space that they need to meet their needs and to avoid conflict with humans. All of the strategies highlighted below require buy-in and **compliance** from humans in order to be successful.

Attractant Management

A variety of wildlife travel through the towns and communities in the Bow Valley. This may be because these towns are the quickest or safest way to move from Point A to Point B or they may be drawn in by natural (e.g. berry bushes, prey species) or unnatural **attractants** (e.g. garbage, pet food, fruit trees). Wildlife that use these developed areas can become habituated, potentially resulting in increased conflict with humans, and the possible translocation or destruction of those animals. Attractant bylaws such as fruit tree and bird feeder removal can help prevent wildlife entering into developed areas. This can be challenging for people who enjoy seeing wildlife in their backyard and view these species as their neighbours.

Dog On-Leash Bylaws

We love being outside with our four-legged friends, however off-leash dogs may harass wildlife, provoke defensive encounters or bring aggressive wildlife back to their owner. Within Banff, Canmore and Exshaw town limits as well as Provincial and National Parks, dogs are required to be on-leash at all times (with the exception of designated off-leash dog parks). Despite these bylaws, compliance with these bylaws remains low. An estimated 94% of use in the wildlife corridors surrounding Canmore is by humans (as opposed to wildlife). About 61% of those people are recreating with a dog and of that number approximately 60% of the dogs are off-leash.

Trail and Area Closures

There are a range of different types of trail and area warnings and closures that are put in place for public safety or when wildlife are



most sensitive to people. For example, seasonal closures are frequently put in place during early spring when bears are emerging from their dens, during berry season, or during the elk calving season. In some cases (e.g. the Middle Springs wildlife closure in Banff National Park) areas of wilderness will be permanently closed to humans. In other cases trail access is restricted to groups of 4 or more people and dogs and bikes are not allowed. Despite clear signage and education there is plenty of evidence of recreationalists ignoring these warnings and entering closed areas. This places people and wildlife at risk.

DURATION 30-45 minutes

MATERIALS

- Stakeholder descriptions
- Laminated topographical map
- Dry-erase markers (4 colours)

ACTIVITY – LAND-USE PLANNING

Students will be responsible for assigning different land-use designations to parts of a map based on a **stakeholder** role that they have been assigned.

1. Introduce students to the different stakeholders. Lead a discussion about the needs of the different stakeholders. How might the needs of these stakeholders impact the environment? How could you see them potentially clashing with other stakeholders' needs?
2. Divide the students into small groups (2-3 students per group) and assign each group a stakeholder description. Ask the groups to reflect on the discussion about the needs of their group.
3. Provide each group with a laminated topographical map. Explain to the students that they will be responsible for assigning different land-use designations to the map. Each land-use type corresponds to a different coloured dry-erase marker:
 - **Settlement, including roads (humans only)**
 - **Industry (humans only)**
 - **Recreation (humans and wildlife)**
 - **Restricted areas (wildlife only)**
4. Remind students that they are dividing the area up based on the needs of their stakeholder. For this exercise, students will only assign a land-use designation to the area in the valley bottom that is bound by the black line (see map). Remind students that that these are the areas that are favoured by both humans and wildlife. Very few species live entirely above the treeline, or even on steep, treed slopes.
5. Students must meet the following criteria:
 - a. *There must be an uninterrupted path to allow animals to travel from one end of the valley to the other.*
 - b. *There must be an uninterrupted path to allow humans to travel from one end of the valley to the other.*
 - c. *All of the different land-uses must be represented on the map.*



6. Other things for the students to consider: How will topography affect the way that humans and animals will use the land? How will waterbodies affect the way that humans and animals use the land? What compromises will you make to ensure that other stakeholders have their needs met?
7. Pair two stakeholder groups with different interests together (e.g. a developer and an elk). Ask each group to explain to the other who they are, what their needs are and how they chose to assign areas on the map. Then have the groups erase their map and create a single map that best reflects both of their needs combined.
8. Once the groups have assigned a land-use to all the area on the map bound by the black line, invite them to share with the class who they are and why they made the assignments that they did. Discuss with the students whether it was easier to make decisions as a single stakeholder or by collaborating with other stakeholders. How does this compare with real-world decision making? How important was habitat security for wildlife in your decisions? Are there voices that were not included that should have been?

REFERENCES

- Peters, J. et al. (2018). Human-Wildlife Coexistence: Recommendations for Improving Human-Wildlife Coexistence in the Bow Valley. Bow Valley Human-Wildlife Coexistence Technical Working Group.
- Thomas, S.E. & Reed, S.L. (2019). Entrenched ties between outdoor recreation and conservation pose challenges for sustainable land management. *Environmental Research Letters*, 14(11), 115009.