

The Foothills



By Nissa Petterson, *AWA Conservation Specialist*

What's the best way to describe Alberta's foothills to someone who has never seen them? They are a unique geographical feature in Canada, found only within parts of western and central Alberta and a small northeastern segment in British Columbia. One could think of the foothills as lands where two different Natural Regions meet or collide; a place where the Rockies and the boreal forests of Alberta abut.

Consequently, the Foothills Natural Region is a transitional ecosystem. It begins at the eastern edge of the Rocky Mountains, or *piedmont* (the French word for "at the foot of the mountain"), and fades northward into the boreal forest. The region is characterized by both steeply sloping and gently undulating hills. The rocky outcrops and rolling fields of the foothills are generally cloaked with a mix of coniferous and deciduous trees, like a royal carpet of green laid at the feet of the majestic Rockies.

The Foothills Natural Region is further divided into two subregions: the Upper and Lower Foothills. These subregions are distinguished according to criteria such as climate and vegetation.

The topography of the Upper Foothills Natural Subregion ranges from steeply sloping to rolling hills, covered by coniferous forests. Thick stands of lodgepole pine dominate the southern forest, while a typical northern forest is composed of black spruce and white spruce. Tree stands in the Upper Foothills generally have a less diverse shrub understory. That understory's common species include Labrador tea, green alder, and juniper as well as a ground

cover of feathermosses.

As you descend in elevation, the terrain becomes much gentler and a broader range of vegetation begins to appear on the landscape. The Lower Foothills Natural Subregion is the most diverse in Alberta in regards to forest types and tree species; white birch, balsam poplar, lodgepole pine, black spruce, white spruce, and aspen appear as pure or mixedwood stands on various hills and slopes. The understory is a mix of shrubs and many wetlands constitute approximately 20 percent of this area.

The fact that the Foothills Natural Region is a transitional zone may help to explain why it covers only approximately 10 percent of our land base. However, what it lacks in size it makes up for in biodiversity. The foothills are home to many animal species native to the Rocky Mountain or Bore-

al Forest Natural Regions. Ungulates, such as elk, moose, deer, mountain sheep, and even threatened woodland caribou trickle into these hills, supporting populations of large predators such as grizzly bears, black bears, wolves, and cougars. The Foothills are a dream come true for anyone who loves wildlife.

The Foothills' waters do not lack in species richness either. The rivers, streams, and creeks are fresh and cool providing important spawning habitat for bull trout, arctic grayling, mountain whitefish, Athabasca rainbow trout, eastern brook trout, and westslope cutthroat trout.

The Foothills promise to surprise you when it comes to wildlife encounters. They were the first place I ever saw a grizzly bear. I remember one summer weekend when I witnessed a close encounter between my



Flyover showing the level of surface disturbance in the foothills of AWA's Bighorn Area of Concern.
PHOTO: © H. UNGER

dad and a black bear. Dad was making lunch outside on a portable stove when he turned to shoo away what he thought was a pesky black lab that had wandered into our campsite. Needless to say he was mistaken. We cleared out of the area pretty fast, but still managed to enjoy our lunch while watching the black bear roam around.

As this anecdote and the paragraphs preceding it suggest, the Foothills are clearly a prime area for recreation. The landscape offers some of the best hiking, rafting, fishing, hunting and camping in Alberta. Most of my outdoor adventures as a youth took place in Alberta's foothills. Growing up, I always remember my family spending hours of our all-too-short summer weekends trying to find that perfect camping spot. And when we found that spot, I felt like I was slipping back into a pleasant reoccurring dream – so familiar and welcoming. It was marked by the calming silence and smells of the growing forest or by the rush from the cool mountain water flowing by me as

I waded further into the stream for a better cast. My dreams were made of this and Alberta's foothills never disappointed. Today, these idyllic settings still exist but they're becoming rarer every day.

Over the past few decades, the foothills have become increasingly fragmented, altered, due to a surge in industrial exploration, development, and industrial scale clear cut logging.

According to the World Wildlife Fund (WWF), "there is virtually no completely undisturbed habitat in this ecoregion," nor do any "unaltered large habitat blocks" remain. These circumstances translate into habitat loss and degradation for many wildlife species. Sensitive wildlife species such as woodland caribou are a prime example of how Alberta's current lack of cumulative effects management in areas of intensive industrial development such as the foothills contributes to the decline of caribou populations and likely accelerates the loss of biodiversity within our province. The Little

Smoky and A La Peche woodland caribou herds, whose entire ranges exist within AWA's Little Smoky Area of Concern, have 100 percent of their range tenured for forestry, while petroleum and natural gas tenures cover 95 percent and 97 percent of the A La Peche herd's winter range and the Little Smoky caribou range respectively. Within these ranges, woodland caribou select for old growth forest and wetlands as their primary habitat which, once destroyed, are very difficult to restore. The loss of this habitat also eliminates a significant amount of genetic diversity found within old growth tree stands in addition to reducing the environment's capacity to store carbon through wetlands. By failing to protect critical habitat for a visible umbrella species such as woodland caribou, we also compromise the futures of other sensitive wildlife species, such as our native trout.

Although grizzly bears are considered to slightly more tolerant of human activity than woodland caribou, Alberta's grizzlies are also



Jarvis Lake in the southern foothills of AWA's Little Smoky Area of Concern.
PHOTO: © C. CAMPBELL

facing great risks to their future place on this land. The rates of human/bear conflicts and subsequent bear mortalities continue to be a problem within the foothills and there are serious weaknesses in the latest version of the province's draft recovery strategy. Our seemingly ever-growing network of routes in bear country continues to threaten the security they have found in the refuges of the foothills and Rockies. Human access into previously inaccessible wilderness has been aided by industrial linear disturbances such as access roads and seismic lines throughout the foothills, further compounding the negative impacts of these industrial activities on the environment and wildlife. The latest version of a draft recovery strategy for grizzly bears measures motorized access according to "open roads" rather than the far more inclusive standard "open routes" which further legitimizes our increased access.

So, with less than two percent of the foothills protected, how do we save this natural region? Well, we took one step in the right direction towards the end of November; the provincial government announced its intention to create a Bighorn Wildland Park, a park that will offer some much needed additional official protection to the foothills. With an increase of 400,000 hectares of land, the government says protecting the Bighorn will boost Alberta's protected areas total to 15.2 percent from 14.6

percent. While maps suggest much of these new lands are in the Rocky Mountain Natural Region, some of the anticipated new and expanded parks and recreation areas will be found in the foothills. Although, even with a protected Bighorn, the level of protection within the foothills will still remain remarkably lower than other natural regions, and will not meet the ambitions of natural region representativeness for Canada's 2020 protected areas goal.

In reflecting on the history and the current status of the foothills, there are three recommendations AWA would like government to follow:

- 1) Increase the number of protected areas within the foothills. Constituting 10 percent of provincial lands, at least 10 percent of the foothills should enjoy protected status. This would realize the representativeness goals of Canada's 2020 protected areas target. Protecting river valleys, which are plentiful in Alberta's foothills, could also make a significant contribution to increasing our protected areas network and enable wildlife movement. These river corridors are not only important for water quality and wildlife habitat, but they also serve as animal highways that connect wildlife populations in adjoining regions.
- 2) Create stricter limits for linear disturbances and the level of access into

wilderness areas. While having more protected areas within the foothills is important, how we manage these areas will define the success of our conservation objectives. If we do not limit the level of linear disturbance from industry and recreation activities, it becomes far more difficult to achieve conservation goals for at risk species such as woodland caribou or grizzly bears.

- 3) Lastly, when considering the level of disturbance that has already taken place in the foothills, Alberta needs better restoration efforts. Restoration programs should help return the landscape as close as possible to its previous state. This would encourage displaced wildlife to return. Extensive restoration efforts may also have economic benefits by creating long term employment opportunities for nearby communities once projects have ceased.

I want to continue to enjoy the foothills. I believe we have a duty to conserve it for generations to come. It's not only important to the economy, but I truly believe it is also important for our overall well-being – both our body and spirit need the wilderness to thrive. I wish for others to have the same opportunities as I had growing up, but in order to guarantee this, protecting the foothills and other valuable wilderness needs to be more of a pressing issue for our communities now.

In hopes to start a dialogue and to increase awareness of underrepresented natural areas, such as the foothills, AWA has recently launched the Wilderness Roadshow to provide a learning opportunity about Alberta's public lands and the need to increase our protected areas network. To date, we have visited schools and interested groups across Alberta hoping to engage with people about the importance of conservation in Alberta and create a greater momentum towards achieving and surpassing Canada's 2020 protected areas target. We plan to continue the conversation well into the New Year, and to present local communities avenues to become more involved as active agents for change. 🐾



AWA conservation specialists Grace Wark and Nissa Petterson presenting as a segment of the Wilderness Roadshow: "Caribou and You!". A total of 75 children from École Camille J. Lerouge participated in AWA's presentation.