

## **Monitoring Nature Conservancy of Canada projects throughout southern Alberta** **(Marta Sudyk - Shell Conservation Intern, Alberta Region)**



Photo 1. Marta Sudyk (taken by Nicole Wills)

The Shell Conservation Internship was a great learning experience for me, and an awesome way to spend the summer. I had an opportunity to conduct extensive fieldwork, visit many beautiful areas in Alberta and gain valuable practical experience.

As a Shell Conservation Intern, based in Calgary, I was responsible for monitoring Nature Conservancy of Canada projects throughout southern Alberta. Along with other interns, I visited properties that Nature Conservancy of Canada protects through both conservation easements and direct ownership. There were 5 of us on the team and we monitored 52 properties in Southern Alberta; totaling 54,269 acres of land. I monitored the properties for compliance with the terms of the conservation easements and identified

management concerns; such as the presence of invasive species, weeds, grazing pressure, erosion, etc. I inventoried the vegetation and wildlife on the lands, and worked with landowners doing an incredible job of stewarding their extraordinary properties. I learned how to improve and conserve habitat for rare species and how to control the spread of non-native plants such as hound's-tongue and Canada thistle. Furthermore, the landowners taught me a lot about their land and their specific environmental issues. I was fortunate enough to find rare species on the properties, which include mariposa lily and stiff yellow paintbrush. As well, I had many opportunities to observe wild animals in their natural habitat.

During the summer I traveled to many places: Horseshoe Canyon, Milk River Ridge, Cypress Hills Uplands, Sage Creek Uplands, Rocky Mountain Front, Crowsnest Pass. All of the regions I traveled to this summer were very interesting and unique in their beauty. For example, Milk River Ridge area is located in southern Alberta, southeast of Cardston, and it is the last large remaining area with native grassland in Alberta. There are numerous archaeological features found on the properties, such as stone circles/teepee rings. The area is important to the aboriginal peoples, as it is their fall hunting area. This was my first time in this part of Alberta.

Crowsnest Pass was my favourite place. It is located in southwestern Alberta in a beautiful valley surrounded by the Rocky Mountains. I spent 3 weeks in Crowsnest Pass monitoring properties and I was truly impressed with its beauty and richness. Crowsnest Pass is composed of 5 towns along Highway 3: Frank, Hillcrest, Blairmore, Bellevue and Coleman. The area was initially developed as a mining community in the late 1800's and early 1900's, which has had a profound effect on the landscape. There are still a few mining operations around as well as some oil and gas development.



Photo 2. Views onto Crowsnest Pass valley (taken by Marta Sudyk).

Crowsnest Pass provides important wildlife movement corridors for both diurnal and seasonal migrations. The area acts as a connector for meta-populations of various species up and down the Rocky Mountain cordillera; it is a part of Yellowstone to Yukon wildlife passage. Furthermore, Crowsnest Pass has the highest concentration of rare plants occurring in Alberta (Rare Vascular Plants of Alberta. University of Alberta Press 2001). Rare species that I identified in the area included: mariposa lily, creeping mahonia,

yellow monkey flower, linear leaved scorpion weed, silver plant, fuzzy tongued penstemon and big sagebrush.



Photo 3. Deer on one NCC property (taken by Marta Sudyk).

A full range of large carnivores and ungulates can also be found in this region, including: cougars, wolves, grizzly bears, black bears, bobcats, lynx, coyotes, bighorn sheep, elk, mountain goats, moose, white tailed and mule deer. Many smaller mammals, birds, reptiles and amphibians of ecological importance are also found in this area; for example: wandering garter snake, plains garter snake, and long-toed salamander. This is a very important habitat for bird species like osprey, bald and golden eagles, red-tailed hawks, Swainson's hawks, woodpeckers, great blue herons, ruffed grouse, flycatchers, etc.

The biggest threat to the Crowsnest Pass is habitat fragmentation due to the development in the valley. Recently there has been an increase in residential and commercial development having a detrimental effect on this important corridor. Highway 3 and a railway run through the valley. In addition, Alberta Transportation proposed a highway upgrade from two to four lanes, which will further divide the valley. There is a high wildlife mortality level already as a result of collisions with highway traffic. Furthermore, there are regular grain spills along the railway that attract wildlife resulting in even more wildlife mortality. It is important that carnivores are able to move freely across Highway 3 to prevent genetic isolation.

My experience as a Shell Conservation intern and the Alberta Region of the Nature Conservancy of Canada, has been very rewarding and fulfilling; it also provided me with an invaluable learning experience. I am very pleased that I was able to apply the skills I learned at university in real life settings. During the summer, I learned air photo reading and interpretation, map interpretation and calibration, plants and wildlife identification, recognition of environmental issues such as invasive species control, grazing

management techniques, preparation of monitoring reports and experienced wind and water erosion to soils. Also, I gained a more well-rounded perspective of different management approaches to current environmental issues. Communication with landowners and industry representatives enhanced my public relations skills. Because of the experiences I had as a Shell Conservation intern, I now have the skills to help me obtain future employment in the environmental area. During the 4 months of work, I learned more than during a year in the university! I would love to work in the environmental field, and I think that the Shell internship program gave me a wonderful start for the future. I would like to thank Shell Canada Limited for sponsoring this program and giving this opportunity to young people.