Lessons on the Land: Update on the Adopt a Rancher Program

Shirley Bartz

October is known to be a month of transitions and busy schedules. It can be a chilly and challenging time to sit on a bald prairie, talking about grassland ecology with teenagers. But that is just what Shirley Bartz with Saskatchewan Prairie Conservation Action Plan (SK PCAP) did this fall, with two different classes, on two ranches near Eastend, Saskatchewan—and it was fantastic.

Adopt a Rancher (AAR) is a free science-education program that SK PCAP has delivered to 10th grade students and teachers since 2014. This program pairs ranchers with teachers, and provides each participating classroom with materials designed to cover topics in the Science-10 curriculum.

SK PCAP transports the teacher and students by bus to visit a working ranch with native grass pastures within an hour's bus ride of their school. Since Shirley stepped into the role of Education Coordinator in May 2022, she has organized 12 classes, with a total of 224 students from around Saskatchewan.

The students participating this fall were from Eastend School and Maple Creek Composite School. They visited the ranches of Jocelyn Wasko and Grieta Krisjansons in the Frenchman River Valley, just east of Eastend.

This year, the Frenchman River Valley saw a fair amount of rain and although the pastures were no longer green, the seed heads on every plant were fully visible.

Imagine: four kinds of lichen, three grass species, dragonflies, and porcupine scat full of prickly pear fruit, all within arm's reach! Even with fall in full swing, students were still able to see the diversity of plant and animal species in uplands, coulees, and wetlands of the grassland landscape.

The program begins with one to two weeks of in-class preparation using the Teacher and Student Guides provided by SK PCAP. The ranch visit is a mix of a field ecology lesson and a ranch land management workshop, direct from the ranchers themselves.

The students arrive at the ranch with assignments to collect specific data that will help them answer research questions, build a mind-map, and develop a deeper understanding of the relationship between grazing cattle and maintaining grassland health.

Two students are conducting a vegetation survey. Photo courtesy of Julie Lacey

This fall, many of the students had some background in ranching, and knew the nuts and bolts of running a cow-calf operation.

What makes this program unique is the opportunity for students to make hands-on connections between nutrient cycling, wetland health, soil microbial communities, and cattle grazing. When the day is done, they have connected these dots and understand the necessity of grazing cattle for native prairie conservation.

Bringing teenagers to a cattle ranch is the perfect classroom to learn about these concepts. When the rancher began talking about the prairie landscape, the students were engaged. They could see where the spring flows from a coulee into a year-round water resource, and compared it to wetlands where water is only sometimes available.

They listened to the rancher describe when, where and why the cows are moved throughout the year, and how she selects their winter pasture based on past weather and land use, and conditions that she expects in the coming winter.

The biodiversity of native prairie changed from a school lesson, to something the students could see in the plants at their feet, the insects flying late in the season, the sign of mammals, and the migratory birds feeding on prairie seeds.

As the talk moved into the strengths of some pastures and fragility of certain slopes, the students knelt to see the litter layers, counted different kinds of grass, understood the work of nitrogen-fixing legumes and dug their fingers into the network of club moss and lichens that blanket the soil, holding moisture for the nearby plants.

Eventually, the kids living on ranches began to contribute to the lessons with their own experiences, shifting the learning process from hypothetical concepts to practical applications for themselves and their classmates. Throughout the day, the students built their understanding of native prairie ecology in a landscape that they think of as home.

Each student collected data on the ranch, including photographs, soil samples, species diversity in a metre square, drawings, or stem counts comparing tame pasture and native grassland pastures.

Shirley closed the day with a talk about the power that each of them have in making decisions about the health of these prairies

in their future. She pointed out that their newly-learned knowledge can contribute to the protection and restoration of native prairie that is capable of carbon sequestration, flood control, soil stability, and great hamburgers.

Despite October's chill, these young people were beginning to value the lessons shared during the program; and hopefully, one day, they will participate in supporting the economy and stewardship of cattle ranching as well as the protection of prairie grasslands in Saskatchewan.

If you are interested in having a local class of Grade 10 students on your land, please reach out to Shirley Bartz by email at pcap.education@gmail.com.

A hilltop discussion at the beginning of the field day. Photo courtesy of Julie Lacey