

Archaeological Society of Alberta Annual Conference

May 1st, 2021



ARCHAEOLOGICAL SOCIETY OF ALBERTA

Self-Guided Field Trips Organized By

ASA Edmonton Centre

ASA Red Deer Centre

ASA Bodo Centre

ASA Calgary Centre

ASA Lethbridge Centre

ASA Southeastern Centre



The six centres of the Archaeological Society of Alberta are pleased to offer you self-guided field trips for the afternoon portion of the 2021 ASA Annual Conference, held virtually this year.

In lieu of the traditional field trip organized by the hosting centre, each centre has organized a self-guided walking or driving tour of local archaeological and historical sites for members to visit.

You are invited to participate in the field trip at your own leisure. If you wish to visit field trips provided by the other centres, they are available for downloading on the Archaeological Society of Alberta website (www.arkyalberta.com). Information on the tours provided by all the centres is provided on the next page.

Happy and safe travels!

The Archaeological Society of Alberta would like to acknowledge the Indigenous Peoples of all the lands that we are on today. We would like to take a moment to acknowledge the importance of the lands we share and call home. We do this to reaffirm our commitment and responsibility in improving relationships between nations and improving our own understanding of local Indigenous peoples and their cultures. This is the ancestral and unceded territory of the people of Treaty 4, 6, 7, 8, and 10 as well as the Métis homeland. Their histories, languages, and cultures have enhanced and continue to enrich our province and our organization. We acknowledge the harms and mistakes of the past and consider how we can move forward in a spirit of truth, reconciliation, and collaboration.



Field Trip Overview by Centre

ASA Edmonton Centre

Walk along the river valley and in downtown Edmonton to explore where archaeological excavations took place and then learn about historic residential and commercial buildings.

ASA Red Deer Centre

Spend the day exploring Dry Island Buffalo Jump Provincial Park, as the area is rich in archaeological and palaeontological materials.

ASA Bodo Centre

Tour geologic sites formed during the last ice age, and the the ‘nose’ of the bison that forms the western extent of the Neutral Hills.

ASA Calgary Centre

Drive between Calgary and Cochrane to experience both archaeological and historical sites, including Big Hill Springs Provincial Park and the Cochrane Ranch Park.

ASA Lethbridge Centre

Take a short hike to see the Sundial Medicine Wheel, and then spend the rest of the time learning about an iconic ghost town, Retlaw.

ASA Southeastern Centre

Visit the Ross Glen site, considered one of the most important stone circle sites in all of Alberta.

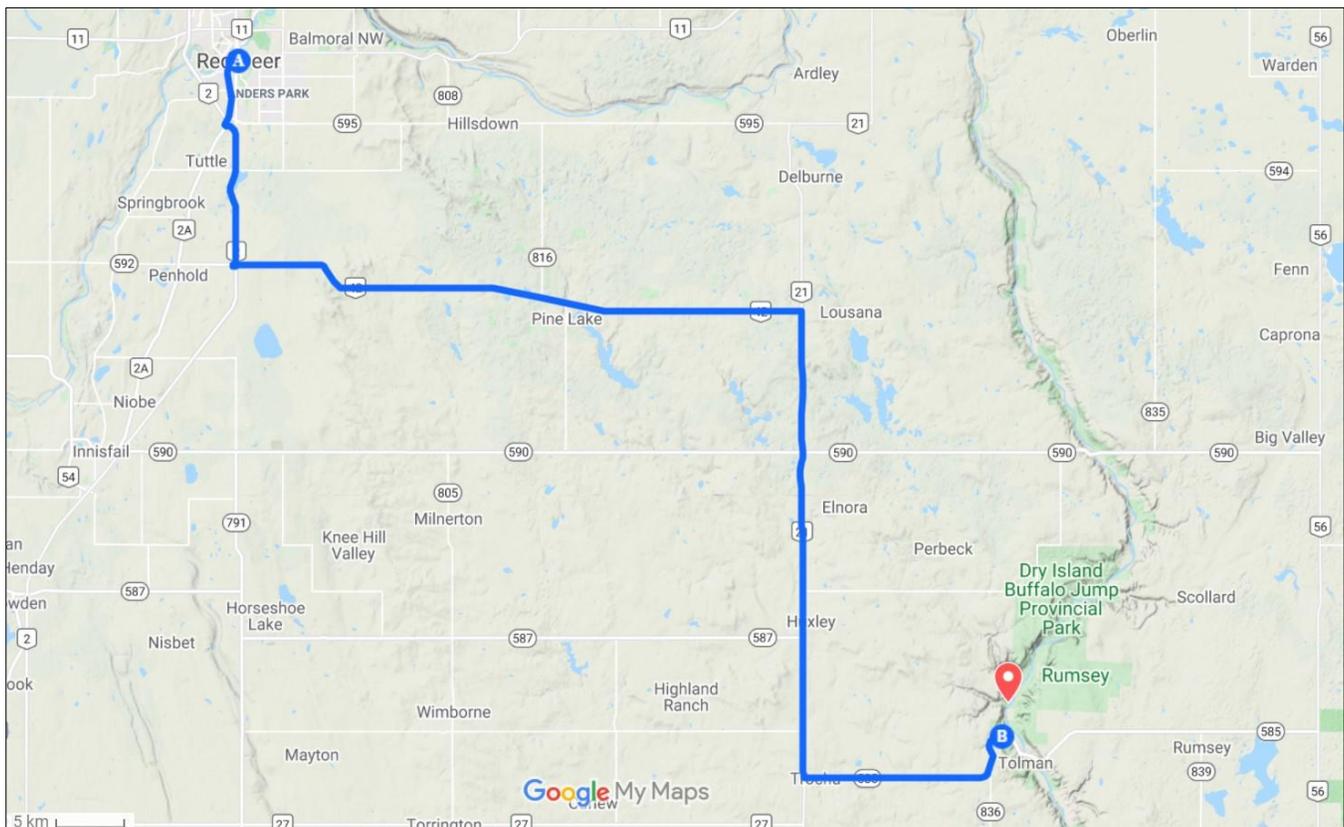
ASA Red Deer Centre Self-Guided Tour of Dry Island Buffalo Jump Provincial Park

The ASA Red Deer Centre invites you to explore the Dry Island Buffalo Jump Provincial Park, an area rich in natural features, palaeontology, and archaeology located in the Red Deer River Valley.

Directions: To reach the park from Red Deer, travel south on Highway 2 for 12 km until turn off for Highway 42. Travel east on Highway 42 for 40 km until junction with Highway 21. Travel south on Highway 21 for 32 km to the town of Trochu. From Trochu drive east on Highway 585 for approximately 17 km till western boundary of Dry Island Buffalo Jump Provincial Park. A parking lot is on the right, before descending the hill. Start your adventure from here!

Note: It is recommended you have sturdy footwear for the walking paths and bring water and snacks for your travels. If the weather is wet and rainy, it is recommended to schedule your trip for another day. The abundance of bentonite clays in the valley swell easily in the rain and make travel dangerous. While there are no designated hiking trails, there is a picnic area near the parking lot, and you can choose your own hiking trail to follow.

Reference Map



Dry Island Buffalo Jump Provincial Park

There are several interpretative signs at the entrance to the park, use these to help plan your walk. The infamous “island” can be seen to the east from the parking lot at the viewing point. The bison jump sites are located on the valley edges to the west, and the major paleontological features are in the eastern portion of the park.

The Red Deer River Valley provides a breathtaking view of iconic Canadian Badlands terrain. The river valley is geologically composed of sands and clays, and the interaction between the two is responsible for the unique formations. Once an ancient shoreline, the area experienced phases of



transgression and regression. Transgression, the rise in sea levels marked by shoreline advancements, deposited mud and clays from the sea. Then regression, a decrease in sea levels marked by receding shorelines deposited sands over millennia. These ancient shore fronts going back and forth between advancing and receding created stratigraphy that is marked by both clay and sand layers. Over time the highly erodible clay layer interspersed between the less erodible sandstone layers are responsible for the small hills and island that make this park famous. The bentonite clay layers found throughout the valley swell easily in the rain, which makes travel both difficult and dangerous.

It is also for this reason the park is rich in palaeontological resources, as one of North America’s most important *Albertosaurus* bone beds was discovered in the eastern edge of the park in 1910. Excavations have continued intermittently since the late 1990s, and some of the fossils are on in display in the Royal Tyrrell Museum in Drumheller, Alberta.

The Dry Island bison jump is one of the most northern jumps found in Alberta. Excavated in 1982 by the Archaeological Survey of Alberta, three discrete bone beds were recovered at the base of the cliff. These bone beds were used as evidence for intermittent use in prehistory as the projectile points associated with them ranged from Avonlea to Plains Side Notched. The cliffs are approximately 48 metres high, which was high enough to ensure the bison were killed almost immediately. These cliffs are much higher than cliffs at other famous bison jumps, including Head-Smashed-In Buffalo Jump where the cliff is 10m high today. There were no drive lanes found associated with the jump, however, it is possible they were disturbed or damaged from agricultural activity above the valley. After the animals were run off the cliff, they were butchered and processed for their meat, marrow, and hides. These resources would provide the Indigenous people with food, clothing, and shelter.

During the archaeological assessment of the park in 1982, two other campsites were discovered. One was located on the upper terrace above the valley, while the other was found on the valley floor. They were not believed to be connected to the jump as their archaeological assemblage reflected different activities, including tool making. The animal remains found at the campsites are dominated by bison but also include bear, elk and shellfish from the nearby Red Deer River. There is currently not a path to the jump due to concerns of looting, instead take the time to appreciate the high cliffs and their use in a bison jump.

Summary

The Dry Island bison jump was used intermittently over the last 3,000 years, creating three distinct bone beds at the base of the cliff. Two other campsites were also discovered during excavations but are not believed to be associated with the jump activities. The jump is a unique archaeological site because it is the most northern jump in Alberta and has a cliff much higher than other well-known bison jumps. The bison jump is only a portion of the significance of the park, as the iconic Badlands topography is home to important palaeontological resources. Take the time explore the park and appreciate the natural beauty that has been made over millennia.