

Southern Alberta Rocky Mountain Transect with Emphasis on the Crowsnest Alkaline Volcanic Suite.

Field trip leaders:

Robin Adair (U. New Brunswick) & Michelle DeWolfe (Mount Royal University).

Pre-meeting field trip – 2 days: Saturday May 9th to Sunday May 10th, 2020

A transect through the southern Alberta Rocky Mountains in the Crowsnest Pass area. The trip will examine the eruption and petrogenesis of the unique, Crowsnest Alkaline Volcanic Suite of middle Cretaceous age. This will be in the context of the paleoenvironments that existed during the deposition of the largely terrestrial Blairmore Group (pre-eruption) and the marine Alberta Group (post-eruption). Other alkaline rocks in the region will be discussed in perspective. The examination of these sequences will be couched in context of the Cordilleran foreland fold and thrust belt that developed during the Laramide orogeny (80 to 55 Ma) exposing Precambrian, Paleozoic and Mesozoic strata in the transect area. The field trip goes from Calgary to the Crowsnest Pass, returning to Calgary with an overnight stay. Day 1 will examine the geology of the Rocky Mountains during the drive to region along with a visit to the Frank Slide Interpretive Centre to learn about this catastrophic landslide. The day will include an introduction to the Crowsnest Volcanic Suite and related Cretaceous stratigraphy along with Laramide fold and thrust structures. Day 2 will examine the volcanic rocks in detail at various outcroppings and investigate aspects of the Lewis Thrust that places Precambrian and Paleozoic rocks over the Cretaceous sequences. Additionally, attendees will gain knowledge of the area's coal mining history through visit to a historical mine attraction. Day 2 will involve optional stops on the way back to Calgary.

Enrollment cap for field trip: 13 attendees

Cost of field trip: \$CAD 390 (must be registered for meeting)

What's included:

- hard copy field guide
- transportation in vans/ SUVs
- accommodation (assuming two people per room)

Meals: Lunches and meals are **not** included.

Departure time and location: 08:00 Saturday May 9, 2020; location TBA (near Convention Centre).

Return time and location: 20:00 ±2 hours Sunday May 10, 2020; location same as departure location.