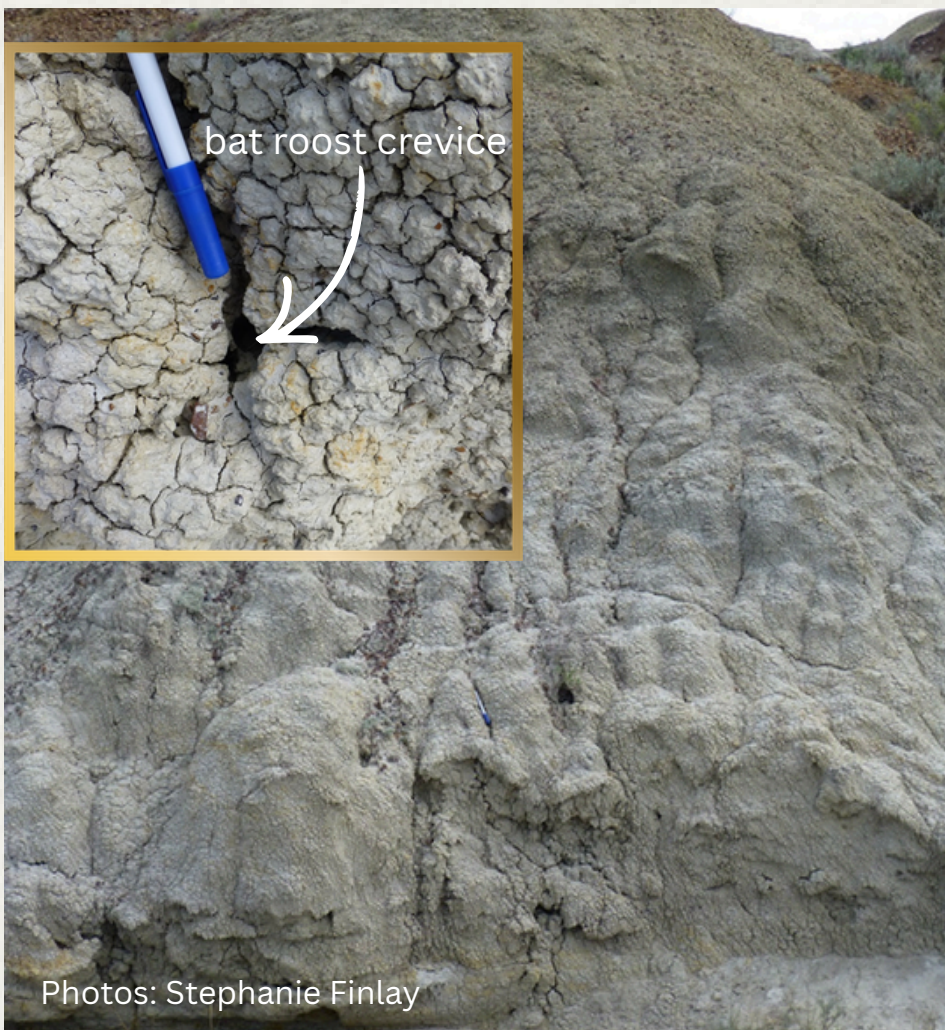


THE ROOST REPORT

HIBERNATION

Rock Crevices are Used by Hibernating Bats

In western North America, there are **few known bat hibernation sites**. Typically we think of bats using large, limestone caves or mines for hibernation. And if those exist - they are often used! But in many areas in western Canada, the geology does not support large caves. There are cave features - and we have been searching them for bats but with little luck. **So, where do the bats go in winter** in these areas? Our research and those of others have found them using deep crevices in rock and mudstone.



Photos: Stephanie Finlay

We know bats roost in deep crevices in riverbanks - like this site in Alberta.



WHERE DO THE BATS GO IN WINTER?



How do we find hibernation sites?

It's challenging, but we use winter bat detectors to listen for bat activity - any mid-winter bat activity is indicative of a nearby hibernation site. We use habitat maps that show the kinds of places bats like to live, which helps us decide where to look.

Bats do **not** hibernate in bat houses in areas with harsh winters. These structures don't provide the stable temperatures or high humidity that bats need in winter to avoid freezing and dehydrating. In some parts of Canada, Big Brown Bats and Myotis Bats have been found to hibernate in buildings where they tend to nestle into insulation.

Protecting bats means protecting key habitats like winter hibernation sites. Finding these sites is critical.

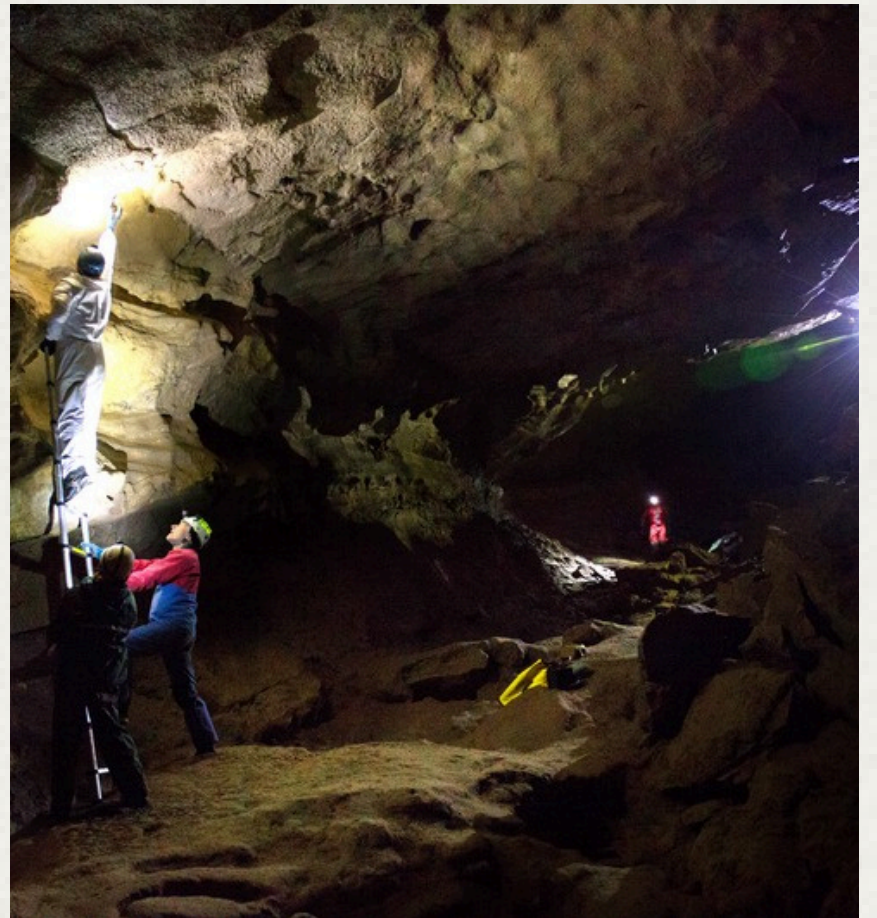
THE ROOST REPORT

BatCaver Project

“BatCaver” was set up specifically to search caves and mines for signs of bat use. Many Alberta and BC cavers, and other volunteers, have installed “roost-loggers” to find hibernacula: These bat detectors are left for months or years to record the ultrasound produced by bats in these underground locations.



Above - the BatCaver logo. Below - D.Critchley deploys a roost-logger (by Greg Horne).



The Alberta bat team with AB Environment and volunteers, checking Cadomin Cave, AB. Photo:Jason Headley/Myotis Lens

In Alberta, we have identified 16 caves as being used by bats. Of these, we consider five to be “substantial” sites with the biggest housing approximately 1,500 wintering bats. The next biggest hibernation site is in the Red Deer River drainage where bats are roosting overwinter in deep rock crevices in the banks along the river valleys.

Some of the sites visited by the BatCaver crew require highly technical caving skills, using ropes and climbing through difficult spaces. Many sites are difficult to access and require long, steep hikes and climbs. We really appreciate their dedication! (See [this article](#) in Canadian Geographic to read more on the work by the Alberta BatCaver team).

<https://canadiangeographic.ca/articles/seven-amazing-things-rcgs-fellows-are-up-to-this-year/>

CRITICAL HABITAT FOR BATS

How do we protect wintering bats?

- Avoid entering bat hibernation sites in winter.
- Do not disturb wintering bats (loud noises, smoke, excavation, vibrations, and the presence of people are all potential sources of disturbance).
- Protect hibernation sites - no substantial activity within 100 metres of a hibernation site. Resource extraction, or landscape changes may need to be a kilometer away.
- Avoid publicizing locations of bat hibernation sites to minimize potential harm.



Our “Winter Bats” Project is switching focus from caves to underground crevice habitat – and early indications suggest that this is the key type of wintering habitat used by western bats in winter!