

Alberta Bioblitzes in 2022

By Greg Pohl

This past summer, Nature Alberta helped coordinate a series of bioblitzes in Alberta, in spring, summer, and fall. These were part of a loose network of bioblitzes across western Canada and the United States, all run at a grassroots level by volunteer naturalists.

A bioblitz is a coordinated short-term survey of wild living organisms in a particular place, usually involving the public. The objective is to produce an inventory of the biodiversity of a given place and to engage with the public and foster a deeper appreciation of the natural world around us.

One of the regular bioblitzes run in Alberta is the City Nature Challenge, part of a worldwide series of bioblitzes coordinated by the California Academy of Sciences and the Natural History Museum of Los Angeles. This program started in 2016 as a competition between the two cities, and quickly spread to the rest of the world. The bioblitz is run in late April and observations are submitted by uploading photos or sounds on the iNaturalist app. Calgary took part in the City Nature Challenge beginning in 2020, and more municipalities joined in 2021 and 2022.

In practice, Alberta organizers found it was challenging to get people out looking for wild things in nature on the last weekend of April, when we were more likely to be under snow than to see flowers and butterflies. As an alternative, the Alberta Biodiversity Monitoring Institute set up the Biodiversity Challenge bioblitz in mid-June, a much more appropriate time to see wildlife in western Canada. Last year, coordination of this program passed over to Nature Alberta.

2022 in Review

In 2022, the Alberta Biodiversity Challenge ran from June 9-12 in seven major cities in Alberta. There was also an Alberta-wide bioblitz project during the same period. All living organisms were included. These events were part of a grassroots network of bioblitzes in June, with participating municipalities across western Canada and the northwestern USA. There's a bit of friendly competition to see which municipality can log the most species, and the most observations and observers per capita. We allowed until June 19 for observations to be submitted, and then another month for identifications to be made and refined, with final results tabulated on July 31.

The observations made during the bioblitz can be viewed on the iNaturalist project pages:

- [Alberta Biodiversity Challenge](#)
- [Prairie Biodiversity Challenge](#)

Summer 2022 Biodiversity Challenge results:

City	Population	Species	Observations	Observations per capita	Observers	Observers per capita
metro Calgary	1555322	395	1146	0.000737	153	0.000254
metro Edmonton	1491000	841	2915	0.001955	145	0.000564
Fort McMurray	76006	26	31	0.000408	5	0.000342
Grande Prairie	72627	2	2	0.000028	1	0.000028
Lethbridge	101799	44	55	0.000540	24	0.000432
Medicine Hat	65203	23	27	0.000414	6	0.000353
Red Deer	104392	76	93	0.000891	14	0.000728
all Alberta	4543111	1491	7686	0.001692	671	0.000148

Note that numbers in the table above are the official results; the website contains more observations uploaded after the June 19 deadline. Red Deer had the highest participation rate per capita, though metro Edmonton had ten times the number of observers. This was the first year for many of these regional bioblitzes, and promotion was minimal; some of the observers probably didn't even realize that their observations were being collated in bioblitz results. Note that a large number of observations were made outside of these seven major centers. We hope to build on this, do more promotion, and see more people participating in bioblitzes next year.

Some of the more interesting and unusual observations made around Alberta:

[A northern scorpion](#) (*Paruroctonus borealis*), fluorescing under UV light in Lethbridge, posted by iNat user thisisdan:

[A short-horned lizard](#) (*Phrynosoma hernandesi*), seen near Manyberries by ccfisher:

The first-ever iNaturalist observations of the [newly described moth species](#) *Caloreas hyperboreas*, by gpohl:

We also ran a [fall bioblitz](#) for the first time in 2022, in mid-September. Unsurprisingly, far fewer observations were logged, but it included many species not observed in the June event:

Besides providing a fun way for people to observe and appreciate nature, and keep up with what they've seen, all these data points will help researchers determine species ranges and track threatened species, keep track of invasive pests, and note important new records. The Biodiversity Challenge bioblitzes (as well as the City Nature Challenge) will be back in 2023, so plan on taking part!