

Alberta

PlantWatch

Spring 2021 - Annual Newsletter

2020 PlantWatch Records

Many thanks to PlantWatch observers! Our citizen science project helps both observers and scientists understand how plants respond to changes in weather and climate.

This newsletter was designed by students in the visual communications program at NAIT. Thanks very much to the talents of Maileen Mabuyo and Carmina Abanes for their excellent work on this newsletter!

One of the COVID silver linings was that many observers reported to PlantWatch this year with more flowering dates than usual – one of the benefits of having more time at home?

L. Dahl (Wembley) wrote “These are very different times we are living in but nature keeps us grounded!”.

Now many more people are spending their time hiking in parks and other natural areas, and interest in natural history is increasing. Not just in Canada - an Australian friend told me that their bird counts have more volunteers participating, and a friend in the UK said “field guides are flying off the shelves!”

SaskatoonWatch

For the past three years, Alberta PlantWatch has also been monitoring first bloom of saskatoon using the Alberta Biodiversity Monitoring Institute [ABMI] citizen science app, NatureLynx. Participating is easy! Simply download NatureLynx from Google Play or the App Store (or visit naturelynx.ca) and join the Hands on Alberta SaskatoonWatch mission. Share your photos of early flowers on saskatoons throughout the month of May and tag them to the mission.

Join the mission here:

<https://naturelynx.ca/Missions/36/details>

Do you observe saskatoon bloom?

Here is a delightful article by Robin Wall Kimmerer, a professor of plant ecology. Another common name for saskatoon is serviceberry.

Visit <https://emergencemagazine.org/essay/the-serviceberry>

Common Observer Remarks

Swallowtail butterflies were abundant this year. Many locations, including the south and the mountains, had spectacular wildflowers!

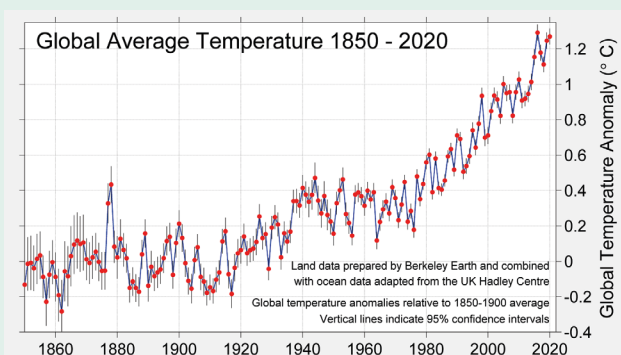


Swallowtail butterfly on lilac. Linda Kershaw.

The crop of saskatoon berries (and apples too) was poor across most of Alberta. On the other hand, parts of central Alberta had an unusually good pin cherry crop. As well, near Edmonton, female balsam poplars produced huge seed catkins that looked like fluffy sheep tails!



Balsam Poplar Seeds. Linda Kershaw.



Global Average Temperature 1850-2020. Berkeley Earth.

The global average temperature hit a record high in 2020. Only 2016 was slightly warmer. A moderate 'La Nina' event emerged in 2020, which may cause cooler temperatures in 2021.

See <http://berkeleyearth.org/global-temperature-report-for-2020/>

Spring 2020 in Alberta was cold and flowering was late. On a CBC radio program, Jasper National Park communications officer Steve Young noted that bears were late leaving their winter shelters. In Jasper, the earliest date to leave hibernation is March 1, and the average time is March 15th. In 2020 the bears emerged March 31!



Black bear and cub. ABMI.

Northern Alberta 2020

Harvey Zieger – Barrhead.

Cold, late spring.

Allan Loose – Cherry Grove.

Aspen seemed to have few catkins.

S. Irwin – Wood Buffalo N.P.

Two plots with prairie crocus bloomed May 14 and 19. Both plots were browsed by bison.



Prairie Crocus. Linda Klassen.

R. Cowie – Manning.

Early growing season cold and dry, and many plants did not blossom or mature. Later, rains helped saskatoons and blueberries produce a good crop. A blight (?) killed many aspen trees.

M. Gelderman – Peace River.

The 2 weeks before crocus bloom were cool and dry. First bloom of crocus (April 24) coincided with first observation of a Ruby-Crowned Kinglet.

T. Hrab – Bluesky.

January had 3 weeks with highs below -20°C . May and June cooler than normal. Lots of rain caused the garden to do well, but lots of slugs. We had a lovely fall.

E. Creelman – Lac La Biche.

Very wet spring and summer. Saskatoons and chokecherries had very little fruit. Only occasional bumblebees seen.

J. & N. Fuller – Athabasca.

Snow on the ground until the third week of April. Spring came with a rush, with days of 20°C in early May. Our crocus patch was completely eaten (likely by white-tailed deer) on the fourth day of observation. For the third year in a row, the saskatoon berry crop was dismal. Blueberries were spotty as well.

Central Alberta 2020

C. Lumley – Elk Point/ Heinsburg.

Strong winds all summer. A few late blueberries in the first week of September. Few lingonberries. Trails in Whitney Lakes Provincial Park flooded due to beaver activity.

G. Richardson – Darwell.

Apple blossoms at full bloom June 2. Heavy crop of fruit. Ice left Sturgeon River April 20. First mosquitoes April 24.

D. Crowe – Stony Plain.

Lots of swallowtail butterflies visiting lilacs. Hummingbirds (4-5 of them) May 25.

C. Pattenden – Tofield.

A cold, wet year, with 14" (355 mm) of rain recorded! No wasps or hornets and very few bees and bumblebees. Lots of swallowtail butterflies but few other butterflies. Aspens were infested with leaf rollers, as soon as the leaves opened. Saskatoons all had some kind of bug in their berries.

DID YOU KNOW?

In the Tofield area east of Edmonton, there was very little wild fruit on pin cherries, saskatoons and chokecherries! In aspen forests in that area, clouds of very small moths, called Early Aspen Leafrollers (*Pseudexentera oregonana*) were seen in early spring, at the time of pollen shed.

<https://bugguide.net/node/view/218048>



Aspen Leafroller: First moth to appear in spring.
Dr. Charles Bird

E. Slatter – Athabasca.

Cold, wet spring. Unsettled weather in June-July, with periods of rain and flooding. Abundant blooming on native plants. Few chokecherries and saskatoons, but Canada buffaloberry had abundant berries. Also, good fruit on raspberry, strawberry and dwarf blueberry, - we left lots for the grouse and coyotes, etc.! Abundant bees, butterflies, mosquitoes, dragonflies etc., so a constant, delightful 'thrum' of nature on the property (much boreal forest, never logged). Many ground-nesting bees in an old pasture being restored to forest.



Buffaloberries. Milena McWatt.

P. Porter – Wainwright.

Mid-late April had seasonal to above average temperatures. Dry start to spring. Lots of plant carryover (good spring fodder) on most rangelands. Wet May and many plants blooming. Good rains so groundwater replenished plus most lakes and sloughs near bank-full (like mid 1970s-early 1980s). A banner year for native grass seed production. Good haying year. Range plants grew into mid-September.

E. Beaubien – Edmonton.

Hawrelak Park ponds frozen and snow everywhere March 29. At least 100 pairs of Canada Geese standing on the snow. By April 16, creeks suddenly running high with crashing ice floes. April 22: male aspens west of the U of Alberta shedding pollen; many small circling moths. May 28 May Species Count in Whitemud Creek - a late spring, with only 38 species in bloom. (In 2019 we had 45 species, the average over the past 30 years). Astotin Lake in Elk Island N.P., lake levels were amazingly high July 5 - great conditions for beavers and dragonflies!

Unfortunately, most of the forest health technicians that work on insect issues for the Ministry of Agriculture and Forestry have been 'let go' by the government fall 2020. I am sad to lose these excellent observers.

<https://www.aupe.org/news/news-and-updates/ucp-clear-cuts-forest-health-program>

Dr. Ezra Moss, author of the initial 1959 version of the Flora of Alberta, tracked phenology of aspen. He said in one of his journal articles: "Once the daily mean temp is above 5° C in spring, then about 6 days with high temperatures above 12° C will start pollen shed on aspen poplars." Is that true for your location?

T. Abbott – Leduc.

Winter was late and then it was mid-summer. More runoff from the snow than we have had for many years. No fruit on saskatoons, cherries and most apples. Abundant fruit on dogwoods and rowans (mountain ash).

D. Murray – Red Deer County.

First mourning cloak and Milbert's tortoise-shell butterflies April 19-21. First swallowtail butterfly May 27 (more plentiful this year than we ever remember). More western red lilies than usual, likely because of abundant rainfall. Dolgo crabapple had NO blossoms (and of course no fruit) this year. Plentiful wild roses.

J. Potter – Delburne.

Almost no fluff (seeds) from aspen or balsam poplar. By far the best crop of 'low bush-cranberries' (*Viburnum edule*) ever. No frost when saskatoon was blooming, but that berry crop mostly poor.



Low Bush-Cranberry. J. Potter.

R. Ernst – Camrose.

Early spring, cool and dry. Saskatoon and chokecherry crops were normal.

P. Jevne – Wetaskiwin.

Late spring; still cross-country skiing in mid-April. Cool May. Saskatoons poor, spotty. Many robins nesting in the yard. Rain during July - very few hot days!

J. Susut – Near Rimbey.

Pin cherries bloomed abundantly (like 2009 and 2017); fruit yielded 9 cups of juice, enough for 3 batches of jelly. The gardens flourished, with an abundance of potatoes, cucumbers, peas, corn and pumpkins.

W. Daley – Olds College.

Spring and summer (until about July) were colder and wetter than normal. Lots of slugs. The flowers, here and in the mountains, bloomed later than most years.

M.A. Predy – Ponoka.

Very few saskatoons or black currants this year. Apple crop also smaller.

T. Krause – Red Deer County.

Winter was rather mild with only 1 harsh week of -30° C temperatures in January. Fruit trees were very slow at leafing out, particularly sour cherries and apples. By end of summer, it was obvious that the more-mature sour cherry trees had died to the base, but a mess of new shoots did come up. Junipers were terrible, and I heard Edmonton had their worst winter on conifers. My buffalo-bean patch is now large and stunning; enough to keep a couple lovely bumble bees very busy.



Buffalo-Bean. Linda Kershaw.

In spring 2020, many observers noted slow leafing, dead branches, and even death of some domestic shrubs (cherries, introduced junipers etc.). Abundant rain in 2019 resulted in flourishing plants that fall, but then temperatures plummeted and the cold stayed. Woody plants did not have time to harden off for winter. Then spring 2020 was cold as well! Gardeners were left wondering whether to keep plants that appeared dead.

See <https://www.cbc.ca/news/canada/calgary/garden-trees-dead-alberta-calgary-shrub-perennials-alive-buds-1.5603489>

With increased weather variability (very warm to very cold etc.) partly due to climate change, it may be safest to select native plants for your garden.

J. Henderson – Red Deer County.

Swallows back May 25 (latest in 30 years) then gone 2 days later. Lots of pin and choke cherries. Sour cherries had winter kill. Wet June and July. Very few lilac blooms.

Foothills and Mountains 2020

H. Anderson – Cardinal Divide.

Snow cover lasted until late May. Early spring temperatures were 3-5 C° colder than the 13-year average. Some very cold temperatures in spring and summer. Flowering started late! Purple saxifrage was 6 days later than usual. White dryad, and moss campion bloomed at the average time and the peak flowering lasted a long time.



Purple Saxifrage. Linda Kershaw.

S. Kinzel – Fire Tower Near Rocky Mountain House.

Still had 4' (122 cm) snowdrifts in sheltered areas until July! First few days in August did not need a jacket, but then more snow arrived on the mountains.

L. Dowling – Banff.

Heavy snow led to an unbelievable amount of vole damage in the garden. Cold, wet spring-early summer. Spectacular alpine spring flowers! August brought unreasonably hot weather and plants that had lagged behind for months suddenly bolted and went to seed.

J. Buchanan-Mappin – Canmore.

Once flowering started, it was another spectacular year from the valley bottom to the alpine meadows. Labrador-tea was especially incredible at the Canmore Nordic Centre. Early blue violet and twinflower bloomed abundantly, after a few years of lower numbers.



Twinflower. Cliff Wallis,

M. Halvorson – Sundre.

Cold, late spring. Leaves very slow, especially balsam poplar. A great year for saskatoon bloom, white all over countryside. Very rainy spring and first half of summer. As a result, wonderful pastures and hay. Hot in late summer, so haying was a success. Due to the high moisture, perennials I forgot I had, bloomed for the first time in years. The apple crop was very small.

A. Bakken – Sundre.

The change from a wet spring and early summer, to hot and dry conditions after, was like a switch being flipped.

E. Slatter – Jasper.

Lots of snow and a 'real' winter at Pocahontas. In Jasper, the vegetation was very lush and green and buffaloberry bushes were heavily laden with maturing berries June 11. Winter snows were beneficial!

L. Frost – Canmore.

The winter was cold with deep snow at higher elevations. First crocus seen on the Benchlands Trail was April 23. May was cool and rainy, so crocuses were in mid-bloom 3 weeks later. In general, the wildflowers have been exceptional this year, probably because of all the moisture.

Southern Alberta 2020

M. J. Davies & Z. Kondra – Carstairs.

Our dates are 5-6 days later than those from Carstairs, just 20 miles (32 km) east! By June 30, 6.5" (166 mm) rain! At first, in the spring, nothing grew, then a day with average temperatures would give the plants 'hope' that a new season was starting. A severe hailstorm June 13 (the same one that hit Calgary, but smaller hailstones) did LOTS of damage to gardens. No above-average temperatures until the end of July. A very odd year!

W. Brideaux – NW Calgary.

Of my 17 years of records, this was the latest for prairie crocus first bloom (April 27). The start of the 'spring explosion' of blooms was about a week later than usual (May 15). Despite the late start and rain, we had the greatest profusion of blooms in the 50+ species I have observed over 2 decades.



Prairie Crocus. David McIntyre.

M. Hall-Beyer – Calgary.

Almost no blooms on early or late apple trees and the leaves on shrubs and trees were very late. We had a beautifully damp summer, with rainfall in small amounts, often at night, but not enough to make a fungus or mold problem. The vegetable garden was very productive – though early plantings didn't come up. I was blaming the squirrels and magpies, but then – whoops – some garden peas planted in April sprouted in ... late July!

D. Darnell – Calgary.

First week of May, some days had sustained high winds - hard to detect first pollen shed in balsam poplar!

M. Hafichuk – Monarch.

A cool spring with 6" (150 mm) of rain at the end of June. Our gardens grew well. It was a good summer with hot dry weather for August, September and part of October. Much different from last year's (2019) huge snowfall at the end of September. Some trees and shrubs in the landscaping were damaged by the 2019 cold and snow.

P. Kroeker – Southwest of Calgary.

Heavy snow all winter. Voles chewed all the bark off my Nanking cherry bushes, and I had to cut the stems right down. Good news, the bushes grew back! Amazingly resilient. Maybe we will get fruit next year.

D. Ramsay – Southwest of Calgary.

Another cold, wet early-May. Every year I find more flowers. Blooms of all plants were lasting and abundant.

L. Sudrich – Calgary.

Calgary had the fourth highest precipitation in its history – 17" (435 mm) from Jan 01-July 24! Unpredictable weather, but my crabapple and saskatoons seem OK.

E. Gillespie – Finnegan.

I couldn't believe the prairie crocus, in full bloom April 26. The hills were blue with crocuses! This was a great year for this part of the country, with rain and the cooler weather. Grass, trees and shrubs had abundant leaves and growth.

L. Sielski – Medicine Hat.

(Reported June 8, 2020).

Overall, flowering times this year have been later by a week or two, both in my yard and on the native prairie. Bird migration is also behind. It did not seem like we had that much snow-fall/melt over the winter compared to last year, but the wetlands were decently full.

J. Deacon-Rogers (Helen Schuler Nature Centre) – Lethbridge.

Prairie crocuses were MUCH more abundant than usual, with 100s of flowers, compared to the usual 10-20 blooms!

DID YOU KNOW?

Voles were abundant in the winter of 2019-2020, and tunnels in the grass were visible the next spring. J. McGregor says "Meadow voles (*Microtus pennsylvanicus*) reproduce abundantly under a thick snow cover. Voles are God's food supply for coyotes, owls, hawks, and foxes. To prevent damage to shrubs like Nanking cherry, just put fine wire mesh around the base of shrubs and trees. The lawn might look a bit tunneled when the snow melts, but it grows quickly with all that mouse-manure fertilizer. At least voles stay outside and don't like to move into human buildings!"



Meadow Vole. Image by Giant Eland.



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