

# Local plant watchers detect changes in arrival of spring

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The first wild strawberries and saskatoon bushes should be flowering any day now, then watch for the chokecherry bushes followed by the lilacs, says Elisabeth Beaubien, a plant researcher at the University of Alberta.

Plant your potatoes when the leaves emerge on the lilac. When the deep purple clusters of sweet-smelling flowers reach full bloom, it's time to put your tomatoes outside.

A conversation with Beaubien is full of nuggets like this, wisdom gained from 26 years of studying the first emergence of green in the spring. Through Alberta PlantWatch, she organizes volunteers across the province who keep watch, documenting the arrival of spring from the first prairie crocus to the leafing out of the paper birch.

More clearly than anyone, Beaubien can say spring was definitely late this year, and her data reveal other trends, the adaptations of each species reacting to a slowly warming winter climate.

She will be presenting her research to the public Wednesday in the main atrium at City Hall at noon.

Looking first at climate data for central Alberta for the last 70 years, Beaubien says our winters are definitely warmer. Temperatures in February changed the most; minimum temperature increased by an average 6 C.

Others have documented the warming trend's effect on trees as they dry out more and become susceptible to the insects that survive and shift north in the warmer winters.

Baubien sees the timing of the flowers changing, too.

The first plants in Beaubien's Alberta PlantWatch program are the aspen trees and the prairie crocus, the



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Elisabeth Beaubien has been working with Alberta PlantWatch, recording species, since 1987.

## UPCOMING

Public lecture by Elisabeth Beaubien  
Wednesday at noon, City Hall

purple flowers found low to the ground on sunny hillsides. "In this area of central Alberta ... they are now coming two weeks earlier," she said.

The aspen trees, too, are starting to shed their pollen sooner, causing those with allergies to suffer. Beaubien's 100 volunteers watch the male trees, with their fuzzy, drooping pink catkins hanging from the ends of each twig. They have pink pollen sacks, which grow long before they drop the pollen into the wind, turn grey and eventually fall off.

The PlantWatch volunteers watch the trees outside their homes, waiting for this to happen. Then they record the date and either mail in the data or submit it online.

Aspen trees are the ones with

small heart-shaped leaves that seem to shimmer or tremble at the slightest breeze. This year, they started to shed pollen about April 25, nine days later than the recent average Alberta bloom time, Beaubien said.

The cooler weather and snow slowed down their progress until April 30, but by May 2 most had shed their pollen and their leaves started to emerge May 5. Now most are green all over.

The later plants have not shifted as much, she said, likely because temperatures in late spring have stayed fairly constant over the last 70 years.

This type of science is called phenology, the study of appearances, and it has been used extensively to document and predict effects of the changing climate. Various efforts throughout the century have given local scientists a long-running picture of these subtle shifts here, and Beaubien's effort has been ongoing since 1987.

"More than half of the information I've received has come from people who have observed for a decade or longer. There's pretty good evidence that people get addicted to having fun while outside and feeling useful at the same time," Beaubien said. "They find they are learning so much from watching closely every spring. They discover plants that were around their feet for years."

Baubien published papers on the data in the *International Journal of Biometeorology* and *BioScience*, and finished her PhD analyzing these trends this spring. She's now working as a research associate with the wildland fire group at the U of A, using the data to help Alberta forestry officials predict the wildfire season and starting a new recruitment campaign for more volunteers.

Anyone interested can get involved by contacting her or going to [www.plantwatch.ca](http://www.plantwatch.ca). [estolte@edmontonjournal.com](mailto:estolte@edmontonjournal.com) [twitter.com/estolte](https://twitter.com/estolte)