

## Alberta Plantwatch Annual Newsletter: Spring 2008



Since 1987, up to 200 Alberta naturalists, gardeners, and other plant lovers have observed flowering times every year, reporting their findings to the Plantwatch program. From a list of 21 possible plants, observers select one or more species which occur near their home, school, or work. Then they watch carefully and write down the date when the plants' first flowers open, and then when the plants reach mid-bloom. Spring flowers bloom in response to temperature, and changes in bloom time are one way to track how climate change affects the land around us. Plantwatch observers are 'eyes of science', keeping their fingers on nature's pulse!

As coordinator of Plantwatch, I am delighted to be working on a PhD thesis analyzing 20 years of spring seasonality data (over 49,000 records from almost 1,000 observers) gathered through this program. A preliminary analysis of the Alberta data (see <http://www.ualberta.ca/~ebeaubie/>, scroll to bottom of pages for links) shows a high degree of consistency in flowering pattern. In central Alberta, Plantwatch shrubs bloom in the following order each year: first saskatoon, then chokecherry, and finally wolf willow. Analysis of flowering times can help to predict the best times for activities in forestry, organic farming, health care (allergy season) and other sectors.

### Notes from Alberta Plantwatch Observers on the 2007 growing season:

HIGH LEVEL: W. Askin wrote "poplars came out slow and patchily as it was quite cool end of April. Some tent caterpillar damage in June but not much. Poplar tree leaves in fall were very beautiful - full yellow and no brown." Though wild strawberries were abundant, there were no wild saskatoons.

KEG RIVER area north of Manning: C. Reese said "even though there was plenty of precipitation, this spring and summer every wildflower was sparse and of poor quality.

GRANDE PRAIRIE: V. Demuth at Nose Mountain Fire tower said "early June was hotter than usual and trees leafed and needled earlier than average." Demuth also noted the presence of mountain pine beetle. She sent this endorsement of Plantwatch: "With the changes in climate, I think it's important to help scientists document what's happening in the local plant communities. It's a small contribution plus it's easy and enjoyable. It helps



Parks Canada Waterton Nat PK

Saskatoon berries *Amelanchier alnifolia*

to keep me attuned to the bio-community and I feel connected to a virtual world of other plant observers. Also, the Plantwatch website and information we receive back from the researchers is fascinating. I'm always learning something new. (See [www.plantwatch.ca](http://www.plantwatch.ca) - Vivian is featured as 'observer of the month'.)

WEMBLEY: H. Hrychiw said "the saskatoons were very uneven! Some bushes being ready and others 2 weeks later. Still some berries as of Sept 3."

LAC LA BICHE: R. Creelman noted July was hotter than normal, and dry - plants went to seed faster than normal.

BON ACCORD: B. Collier noted "in general, a cold spring. What a great year for dandelions though! Dandelion wine anyone?"

East of WAINWRIGHT: V. Tondu wrote "a cool wet spring, leaves have taken forever to come out!"

TOFIELD: I. Crosland reported "a very hot, dry mid July rendering poor Saskatoon crop. Mosquitoes very plentiful (first noted May 12, by June 2 big clouds). Lots of dragonflies. Beaverhill bird observatory reported almost 100% hatching of eggs of tree swallows."

EDMONTON: E. Beaubien recorded "White spruce had a bumper year again for pollen-shedding male cones in spring (peak shed around May 21) and seed cones this fall. Are these 'masting' years getting more frequent?" D. Clandfield wrote "May 27: many aspens have a large number of rolled up leaves, hosting larvae. The season was remarkable for prolific growth of leaves and flowers (at least in wet periods)."

CAMROSE: L. Woods noted abundant apple blooms, violets, ants and dragonflies and that vegetable gardens and flowers were profuse.

Various reporters noted that abundant flowers included dandelions, twinflowers, and especially early blue violets! Wild fruits were limited.



Early blue violet  
*Viola adunca*  
Photo Credit: Lorna Allen

ELK POINT: C. Lumley reported no saskatoons, pinchberries, or blueberries. Only a modest crop of chokecherries and lingonberries.

East of RED DEER: S. Bargholz recorded no saskatoons but great chokecherries. He and J. Campbell both noted huge growth on trees and other vegetation.

SUNDRE: M. Halvorson noted "spring snow and rain made mudholes in the pastures that never did dry up. Three very hot weeks in July, moisture in August and September damaged the late hay ... no wild cranberries, but prolific wild raspberries and domestic apples. The woods were full of small non-descript moths." M. Sishlis (same area) also noted lots of damage to aspen poplar leaves (see photo of healthy new leaves).



Elisabeth Beaubien

CAROLINE: K. Edwards noted "a second leaf-out of poplars but the leaves were much smaller and the colour seemed to change earlier." [note: forest health officer Christie Ward says that some of the pests in that area this summer were large aspen tortrix, linden looper, forest tent caterpillar and a big player was Bruce spanworm. See the website at [www.albertaforesthealth.com](http://www.albertaforesthealth.com) to identify tree insects.]

BOWDEN: S. Paton noted “very wet spring (especially every weekend!) interspersed with a few unusually hot days. Set a record in 40 years of gardening, this is the latest ever planted - June 4 and 5.” INNISFAIL: J. Henderson wrote “No planting done until 2<sup>nd</sup> week in July. Only fruit was pin cherry.”

CALGARY: W. Brideaux noted that by May 9<sup>th</sup> dandelion leaves were scarcely beginning to develop. He said this seems to happen in years when snow arrives late in the fall (exposed ground freezes more deeply) and late spring snow prevents ground thawing. He observed, however, that violets and golden bean were in exceptional abundance. D. Choy (Weasel Head area, Fish Creek, and Cross Conservation area) said “plants bloomed much later this year compared with the past few years.”

TWIN BUTTE: M. Winkler noted “after starting the season with adequate moisture, season was very dry.”

In the MOUNTAINS : COLEMAN: M. Primrose noted “the mountains had the heaviest snowpack I have seen in many years. May 24 we had a foot of snow and then heavy frosts every night to May 29. From late June to late August: hot and no rain. No fruit on saskatoons or apple trees.” CROWSNEST PASS: D. McIntyre reported that in mid November, despite the continuing drought, a few fall-blooming prairie crocus could still be found. KANANASKIS: J. Buchanan-Mappin said “the early flowering dates seemed to be later than normal, but there were incredible numbers of most flowers, particularly violets and twinflowers. Very few buffaloberry berries so the grizzly and black bears had to find alternate food sources.”



JASPER: In the Pocahontas area, E. Slatter wrote “excellent growing conditions. Native plants lush, generally blossoms and fruit abundant. Saskatoons produced bumper crop of large luscious berries - consumed rapidly by myriad wildlife species (furred and feathered!). Mosquito numbers were right up there with Fort Smith (Northwest Territories) or equatorial Africa...voracious!!. Even the ducks were scratching their heads then diving to escape!”

More on INSECTS:

R. Creelman of Lac LaBiche noted that there were few bumblebees in 2007. In Clive, just east of Lacombe, B. Walters wrote on May 23 “just realized I saw bees in the garden for the first time this year: bumblebees I think. Usually have a great many.”

Are you interested in pollinating insects? A new project called “Pollination Canada” is looking for volunteers to report on butterflies, bees, etc. <http://www.pollinationcanada.ca/>

### PREDICTIONS FOR 2008

Environment Canada's weather office predicts that the period March to May 2008 will be cooler than normal in Alberta

[http://www.weatheroffice.gc.ca/saisons/index\\_e.html](http://www.weatheroffice.gc.ca/saisons/index_e.html) . The USA'S National Oceanic and Atmospheric Administration says that as of mid March moderate to strong La Niña conditions are present across the tropical Pacific Ocean, and

should continue through the spring. This could mean cool conditions for Alberta. The United Nations International Panel on Climate Change (IPCC) issued a report in 2007 ( <http://www.ipcc-wg2.org/> ) in which Alberta Plantwatch data was cited (Group II, Chapter 14, Figure 1). The report says that the atmospheric levels of gases such as carbon dioxide now far exceed the natural range of the past 650,000 years, due mainly to human activity. Temperatures are increasing globally (especially in the north), arctic and glacier ice is melting and sea levels are rising. The prediction is for continued extreme weather, with more intense heat waves and more heavy rain/snowfalls. (Our 2007 observers reported highly variable spring temperatures and unusual heat in July). The report says that we have the technology to reduce greenhouse-gas emissions, and now need to promote this.

JOIN US! Plantwatch welcomes observers of all ages. Full information is available from the Alberta coordinator (address below) and from our websites: [www.plantwatch.ca](http://www.plantwatch.ca) and <http://plantwatch.sunsite.ualberta.ca>. The ualberta site is being updated and will soon be moved to the Federation of Alberta Naturalists website at [www.plantwatch.fanweb.ca](http://www.plantwatch.fanweb.ca).

ALBERTA PLANTWATCH WALLCHARTS featuring 21 beautiful Alberta plants are now available! Measuring 60 cm (2 feet) by 90 cm (3 feet), they are ideal for brightening the walls of nature centres, schools, park offices, community parks, or your home. You can order one for only the cost of mailing.

**1-2 copies:** folded: \$2; rolled in a tube: \$12

**3-5 copies:** folded: \$6; rolled: \$16

**6-10 copies:** rolled: \$18

Please send a cheque to the Federation of Alberta Naturalists (11759 Groat Rd., Edmonton, AB, T5M 3K6), and be sure to include your name and mailing address.

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Here's to the flowers of 2008!

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