

Field Notes

Oak Hammock Marsh Interpretive Centre

March 2003

Sign of Spring!



Whether it be melting snow, the first Canada goose winging its way north or the song of a robin we are all eagerly awaiting the first sign of spring. One sure sign of spring is a crocus peaking through the snow. This pretty pale blue or mauve flower has a bright yellow centre and is found through out the prairies.

Prairie crocus seems to be generally limited to unbroken prairie. It forms a partnership with fungi in the soil, exchanging nutrients. These fungi are important for its success in dry prairie soils. Occasional fires seem to greatly improve growing conditions for prairie crocus, by boosting the supply of nutrients and sunlight when dry grass cover is removed. Two years after a fire, prairie crocuses bloom in much greater abundance.




Surely one important "use" of the prairie crocus is to "decorate" the prairies in celebration of the arrival of spring! Early settlers called this native anemone the "prairie crocus" because it reminded them of their early crocuses back in Europe. The plant is also called pasque flower because in some areas it tends to bloom at Easter-time.


The poisonous properties of the prairie crocus were used to advantage by First Nations Peoples. A poultice made from the plant was used as a counter-irritant to treat rheumatism or other muscular pains. Prairie crocus was also used to stop nosebleeds and draw out infection in cuts and boils. First Peoples knew the plant was dangerous if taken internally.

According to legend the furry coat was given to the flower to protect it on chilly spring nights. The Blackfoot word "Napi," the "old man" central to the Blackfoot creation story, also refers to the grayish seed heads of prairie crocus, which appear in early summer and are carried on the wind like little parachutes.


Did you know?

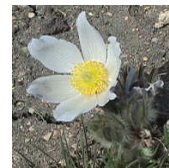
 That the Prairie Crocus is Manitoba's provincial flower.



 That the leaves appear after the flower disappears.



 That on a sunny day the temperature inside a crocus flower can be as much as 10°C (18°F) warmer than the temperature of the surrounding air.



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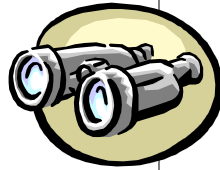
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lantwatch is a program that asks students and the general public to observe flowering times for "key indicator" plant species and to report these dates electronically (over the Internet) or by mail. These indicator plants flower largely in response to heat accumulation (degree-days), so after warm winters and springs they flower earlier than average.



The phenology (study of the seasonal timing of life cycle events) data, collected over many years, provide information on average spring development time for different areas, and also show how much earlier or later each succeeding season is. They help seeing how the biota is responding to climate change. By participating, observers can have fun and learn about the natural environment and biodiversity.



Why observe flowering of plants?

Tracking flowering times will help determine what trends can be seen in the biotic effects of climate change and weather variability. Analysis has shown that early flowering years are linked to El Nino events, and a trend has been observed towards earlier plant development over the last 40 years in the Edmonton, Alberta area. This matches trends to warmer January to June temperatures in Western Canada.

Spring development of plants and insects is linked such that the best predictor of one organism's development timing is an earlier event for another organism. Knowing valuable seasonality information such as timing of spring flowering helps decision-making for farmers and foresters i.e. to correctly time operations such as planting, fertilizing, crop protection and to predict harvest timing. It also is useful in wildlife management (e.g. the survival of deer fawns is greater in years with early spring arrival); human health (pollen-warnings for allergy-sufferers), and tourism (best times to photograph flowers or animals, or to go fly-fishing).

Where to observe?

It is important, where possible, to observe plants growing in a relatively flat area as plants on hills will get more or less sun depending on which way their slope faces. Plants on south-facing slopes receive more warmth from the sun and flower earlier than the same species in a cooler location. Plants on colder north-facing slopes flower later than the rest of the population.

For the native plants, select a relatively flat, natural setting away from buildings and other heat sources. Lilacs should be no closer than 3 meters from a south-facing wall of a building and away from buried steam pipes.

Plants - "key indicator" species

Common purple lilac — a cultivar common in gardens

Aspen poplar — continent-wide

Prairie crocus — west: prairies, and north

Saskatoon / Serviceberry — continent-wide

Western trillium — western forest

White trillium — eastern deciduous forest

Purple saxifrage — arctic, mountains

White dryad — arctic, mountains

Common dandelion — internationally

Bunchberry — Canada-wide

Common bearberry — Canada-wide except for far north

Labrador tea — Canada-wide, northern tundra

Tamarack — Canada-wide boreal forests

If you have access to at least one of the following species, and would like get involved in observing its flowering times please visit <http://www.devonian.ualberta.ca/pwatch/index.htm> to sign up.



Oak Hammock Marsh Interpretive Centre is a joint project of
Ducks Unlimited Canada and the Province of Manitoba

