

## The Western Red Lily

The Western Red Lily is Saskatchewan's provincial floral emblem. The lily's natural habitat is in a prairie meadow, in the grasslands or a ditch. You will be able to identify it because it looks like this.

Notice that its flowers turn up. It has six reddish-orange petals with dark purple spots towards the center. The lily flowers appear between June and July and often grow as high as your knee. Since it is the provincial flower, it is protected and should not be picked.

Every fall the lily starts to make its flower buds grow, but they have to wait to bloom until spring. The plant is very sensitive to the moisture available in the soil. Sometimes it does not rain very much on the prairies. If it is too dry in the spring, the lilies will not flower because they need to conserve their energy.

Lily plants are **primary producers**. With energy from the sun, they create their own food, grow and become a food source



Photo courtesy of Bonnie Lawrence

for some prairie animals. The lily has very little protection from predators. The lily bulbs taste delicious to many animals and they do not have thorns or poisonous toxins to deter the animals from eating them. Voles and gophers like to eat the bulbs. They like to steal the bulbs and hide them in caches that they can visit for a snack later. But they are messy and try to carry too many bulbs in their cheeks at one time. Some of the scales on the sides of the bulbs tend to fall off as the little animals hide them. This is good for the Western Red Lily because under the right conditions, new lilies will grow from the dropped scales and the hidden bulbs. The animals do not know it, but they are like prairie gardeners planting new lilies along their travels. Deer prefer to eat the tender lily shoots and tasty flower buds. Voles, gophers, and deer are **herbivores** and depend on plants for food. These

animals then become a food source for larger **carnivores** that depend on smaller animals for food. Hawks, eagles, and owls eat the voles and gophers, while coyotes and humans eat the deer. In the prairie ecosystem, everyone is food for something else. Since humans eat both plants and animals, they are considered **omnivores**. Losing one part of this fragile **foodweb** can have an effect on many other living plants and animals.

In the years before human development of the area, natural **prairie fires** would often burn off all the old grasses. Fire is nature's way of starting over. Fire was started naturally by lightning strikes. The Plains Indians sometimes started fires to attract game to new grass areas. The Western Red Lily bulbs are low in the ground and so were protected from the fire. After the fire, there is little grass shading the lily plants so their flowers bloom a lot more. Because the ground is bare after the fire, the voles and gophers do not eat the lilies so easily. They like to hide in the long grasses where their predators will not see them.

For the past two hundred years, people have been disturbing the prairie and making it more difficult for lilies to survive. People do not let prairie fires burn the meadows anymore. The lilies do not grow well where the grasses block the sun. People have planted smooth brome, a type of grass that has become a weed. It is choking the lily out of the meadow. The biggest change to the prairies is the change from native grasslands to cultivated crops. People prefer to use the land for farming, community settlement, and roads. This results in **fragmentation** and breaks up the areas most suited for the Western Red Lily habitat. It also has bad effects on water and soil quality.

Another problem the Western Red Lily faces is **climate change**. Humans produce many greenhouse gases and are causing our climate to get drier and hotter. The lilies will not flower if it is too dry. If it does not flower, it will not produce seeds to make more lilies.

These are significant challenges to the survival of Western Red Lilies. Because of these human activities, our lily populations are declining. What will happen to Saskatchewan's provincial flower if no more lilies can be found? What will happen to the animals that eat the lilies for food? How will our prairie ecosystem change? Is there anything you can do to protect and save the Western Red Lily and natural prairie where they live?