

Your Own Monarch Butterfly Habitat Garden

By Jobanna Cutts and Joan Harvey

Every spring, millions of monarch butterflies that have overwintered in the Oyamel Pine trees in isolated areas of the Sierra Madre Mountains in Mexico, wake up and make their way to Texas, where they lay their eggs on milkweed plants. This is the first of several generations of monarch butterflies that gradually migrate north through the United States and southern Canada. Ottawa sees the third to fifth of these generations. In the fall, the last generation of butterflies makes the 3,000 km journey back to Mexico to begin the cycle again.

Because of changing agricultural needs, the availability of milkweed in the United States and Canada has been drastically reduced, threatening this remarkable migration. Would you like to help the migrating monarch?

You can do this by creating a monarch habitat garden that provides milkweed to feed the monarch caterpillar and nectar plants to sustain the adult butterfly.

Creating a successful garden

Here are some helpful tips on creating such a garden:

- Start small. Even a ten foot by ten foot garden is enough. However you will need a location with at least six hours of sunlight a day. It should be in a quiet area away from noise and busy streets;
- In addition to milkweed, plan to plant a variety of annual and perennial flowers so that there will be blooms available for the adults through spring, summer and fall;
- Plant multiples of each plant, to better attract the attention of the butterflies. Grouping plants together also provides butterflies with shelter from the elements;
- Include a muddy spot for "mud puddling" so butterflies can get essential nutrients from the mud. This is particularly important for mating;
- Provide a shallow dish to catch water



Monarch caterpillar



Nectar plant *Liatris ligulistylis* 'Meadow Blazing Star' is a monarch magnet

for the butterfly to drink. The butterfly will rest on the edge of the dish. Provide sheltered areas and rocks for protection and resting; and

- Above all, maintain a pesticide free garden.

Plants for your garden

You will need host plants for the caterpillars and nectar plants for the adults.

Host plants:

Milkweed is the only host plant that the monarch caterpillar can eat. Monarch caterpillars have evolved to eat only milkweed because its sap contains a chemical that is poisonous to most birds. The caterpillars store this poison in their bodies, which deters birds from eating them both as caterpillars and as adults.

There are 14 varieties of milkweed in Canada and four that grow well in Ontario.

It is helpful to have more than one variety of milkweed in the garden to ensure fresh leaves are available over the growing season. A single milkweed plant will sustain only one caterpillar, so a garden should contain several milkweed plants (a minimum of 10 is a good number).

Common milkweed (*Asclepias syriaca*) is found along roadsides and in the country. As of May 2014, this variety was taken off the noxious plant list and can now be grown in home and community gardens. This cultivar should be planted in a separate area of the garden where you won't mind it spreading.

Other less invasive, cultivated perennial varieties of milkweed such as swamp milkweed (*Asclepias incarnata*), butterfly weed (*Asclepias tuberosa*) and annual tropical milkweed (*Asclepias curassavica*) can be purchased from local nurseries.

Nectar plants:

Monarchs start arriving in Ottawa in mid-June and remain until early October. In order to provide nectar plants for the adults, you should arrange to have



Monarch chrysalis

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Monarch waystation sign and Joe-Pye Weed in Joan Harvey's garden

different varieties of flowers blooming in your garden from late spring to early fall. The fall migrating monarch is dependent upon the blossoms as a food source to fuel up for the long journey south. This is why so many monarchs are seen on flowers in September.

Although adult monarch butterflies will drink nectar from milkweed flowers, they will also feed from the flowers of a wide variety of other plants. Did you know butterflies taste with the bottom of their feet? They look for a flat, colourful surface so they can perch while they nectar. They uncurl their proboscis (long tongue) to sip the nectar from the blossom.

Most urban gardens already contain many of the nectar flowers that the monarch feeds on. These include the following perennials (see chart, Page 7, for summer and fall bloomers): Butterfly Bush (*Buddleia*), Anise hyssop (*Hyssop foeniculum*), Coneflower (*Echinacea purpurea*), Bee balm (*Monarda*), Joe-Pye Weed (*Eupatorium purpureum*), Blazingstar or Gay-feather (*Liatris*), Coreopsis, Goldenrod, Catmint, Fall Sedum and New England Aster (*Symphotrichum navae-angliae*).

Certifying your garden

You can have your garden certified as a monarch waystation by Monarch Watch, a conservation program at the University of Kansas. Go to their website www.monarchwatch.org/waystations to obtain the application form. If your garden meets the requirements, for a small fee you will receive a sign that can be displayed in your garden. The sign serves to make people aware of the plight of the monarch and of steps being taken to help establish and preserve monarch habitats.

A Canadian Certification version will be available from the Monarch Teacher Network of Canada in the near future.

The Monarch Teacher Network

The Monarch Teacher Network of Canada (MTN-C) is a network of educators who bring nature to the classroom and connect students in an authentic way to the natural world. Their professional development workshops train and certify teachers to use monarch butterflies in the classroom, and their community outreach programs assist the public in creating monarch butterfly habitats and gardens.

Fletcher Wildlife Garden and Maplelawn Gardens have created their own monarch waystations using perennial and annual flowers. Marius-Barbeau and Blossom Park elementary schools along with a dozen or more other schools in Ottawa have established monarch waystations. As well, Nature Canada is working with schools in Ottawa to develop monarch habitats.

A goal of the Ottawa branch of MTN-C, along with Nature Canada, is to create a "milkweed corridor" across Ottawa by encouraging Ottawans to plant milkweed in their gardens. This will help replace milkweed habitat lost through urbanization and changing agricultural techniques and to raise awareness of the plight of the migrating monarchs.

MTN-C and Nature Canada will be distributing milkweed seeds and plants in the Ottawa area this spring at various plant sales.

How governments and individuals can help

Similar to NAFTA, the monarch butterfly connects Mexico, the United States and Canada. The three leaders of these countries met last spring to develop a plan to promote butterfly habitat along roadsides, in open fields from Mexico, through the American Corn Belt and into Canada. Also needed are individuals and



Monarch Teacher
Network of Canada
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community groups to plant milkweed and nectar plants in their gardens and to encourage governments to plant milkweed in open fields. If you plant it, the monarchs will come.

Money and Milkweed

Views and attitudes are changing on the value of milkweed and its many economic uses. François Simard, a chemist and creator of Protec-Style, recently signed a contract with Parks Canada to supply national parks with oil-spill kits. According to Simard, "Milkweed has a unique ability to repel water, which makes it perfect for oil spills on land or water."

Currently, farmers in Quebec are growing milkweed and harvesting the floss found in the pods for insulation in outdoor clothing and quilts. The first 2014 harvest was 20 hectares of milkweed. In 2015 they hope to harvest 160 hectares and to continue multiplying this hectareage each year.

If this concept works and more fields of milkweed are planted for industrial purposes in the United States and Canada, it will have a positive effect on raising the numbers of monarch butterflies. Milkweed is harvested in the fall when the seed pods and floss mature, while the monarch lays her eggs in the spring and summer.

So when you plant your garden this spring, consider adding milkweed. The elegant orange and black butterflies will be a beautiful sight to watch and enjoy. You can feel proud that you are helping a species at risk, the migrating monarch butterfly.

Jobanna Cutts and Joan Harvey are both retired elementary teachers and active members of the Monarch Teacher Network-Canada.

