

LIVING

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Saving monarchs

If milkweed plants are not restored in as many locations as possible, the monarch population is certain to decline to extremely low levels



OUR CHANGING SEASONS

Drew Monkman

If weather conditions co-operate, the first monarch butterflies should arrive back in the Kawarthas either this week or next. As of May 8, monarchs had been sighted in all of the states bordering the Great Lakes, and the first northward-bound monarch had also reached Point Pelee National Park near Windsor. Based on trends seen in past years, the number of sightings increases greatly after the second week of May, when the spring generation appears in full

force. The monarchs arriving back in Ontario in May are not the generation that flew to Mexico last fall, but rather their "children or grandchildren."

Most of us are now painfully aware that because of habitat loss both on their summer breeding range and in overwintering sites in the mountains of Mexico, monarch numbers are far lower than what they used to be. Throughout North America, urban sprawl, agricultural expansion, roadside management practices and increased use of herbicides in croplands are all taking a toll on this iconic insect. The result is a net loss in milkweed plants, the only species monarchs will lay their eggs on and which the caterpillars will eat. Because 90 per cent of all milkweeds grow within the agricultural landscape, what happens on farms strongly influences monarch populations. The planting of genetically modified corn and soybeans, which are herbicide resistant, is a major contributor to the problem. It has resulted in the loss of more than 80 million acres of monarch habitat in recent years.

Instead of tilling to control weeds as they used to do, many farmers are now able to spray their fields with herbicides such as glyphosate (Roundup). Milkweeds survive tilling but not the repeated use of glyphosate. Unfortunately, the remaining milkweed habitats such as forest edges, grasslands and pastures are not sufficient to sustain the large monarch populations seen in the 1990s. The bottom line is that monarchs need our help.

There are ways in which individuals can contribute to monarch butterfly conservation. First and foremost, we need to elect politicians with enlightened environmental policies. It is also vitally important to give financial support to conservation groups that are fighting to protect monarchs. Finally, we can also plant our own small pockets of monarch habitat. Through a project known as Monarch Waystations, individuals and organizations across the continent are now providing butterfly gardens designed specifically for monarchs. The project is organized by Monarch Watch, a co-operative network of students, teachers, volunteers and researchers dedicated to the study of the monarch butterfly. Visit their website at www.monarchwatch.org/.



Monarch taking nectar from a purple coneflower.

Drew Monkman, special to The Examiner

Monarch Watch hopes to see the creation of at least 10,000 monarch waystations over the next few years. Presently, about 1,800 have been registered. The goal is to add another 1,000 waystations to the registry in 2008. However, they need your help! Currently, about 100 waystations are registered in Ontario, but only one in the Peterborough area.

Waystations can be thought of as refuelling and breeding sites along the monarchs' migration routes. They offer two types of resources. First of all, waystations provide milkweed plants for the insects to lay eggs on as they migrate northward in the spring and continue to breed during the summer. Secondly, they contain nectar plants to satisfy the energy requirements of the adults themselves. Nectar plants are especially important in the late summer and fall when the insects must travel thousands of kilometres to the mountains of Mexico.

Waystations can be located in home gardens, at schools, businesses, parks, zoos, along roadsides, or anywhere else suitable land is available. The minimum size for an effective waystation is 100 square feet. It can be any shape, including plants clustered around a fence row. It can also be easily integrated with an existing

garden. An essential requirement, however, is that the site receive at least six hours of sunlight a day.

According to the Monarch Watch website, your waystation should have at least 10 milkweeds in total, of at least two different species. In this way the plants will flower at different times, and the monarchs will use your property for a longer period. Nectar sources, too, should be chosen so that they will bloom sequentially or continuously during the season. This means providing a number of different species. The milkweed and nectar plants should be planted fairly close together with about six to 10 plants per square metre. As far as maintenance is concerned, try to use natural compost for fertilization and stay away from any insecticides.

Milkweeds

Belonging to the genus *Asclepias*, most milkweeds are sun-loving perennials. They are also excellent nectar plants and will attract many different species of butterflies. Choose among the following species.

■ Butterfly weed (*Asclepias tuberosa*) — Height: one to two feet; blooms in July and August; a drought-tolerant prairie plant with attractive clusters of orange flowers. It is a superb nectar plant.

■ Common milkweed (*Asclepias*

syriaca) — Height: three to five feet; blooms mostly in July; a drought tolerant roadside species with dull purple flower clusters and a nice fragrance

■ Showy milkweed (*Asclepias speciosa*) Height: three to five feet; blooms in July and August; also drought-tolerant, it has beautiful pale pink flowers

■ Swamp milkweed (*Asclepias incarnata*) Two subspecies are available, *incarnata*, which grows four to five feet tall, and *puchra*, which is only two to three feet; blooms in July and early August; prefers dampish areas; bright pink to red flowers

■ Tropical milkweed (*Asclepias curassavica*) — Height: three to 3.5 feet; an annual; blooms in summer and early fall; glossy leaves and brilliant red-orange flowers; excellent plant for windy areas.

Nectar plants

The following species are the ones you definitely want to include

■ Butterfly bush (*Buddleia davidii*) — A must-have shrub, Height five to 10 feet; blooms July through to frost; blue, purple and white varieties; attractive to hummingbirds and many insects.

■ Purple coneflower (*Echinacea purpurea*) — Perennial; height: two to three feet; blooms July and

August; beautiful, large purple flowers with bronze, dome-shaped centers on long stems; drought resistant, but can tolerate moist soil.

■ Mexican sunflower (*Tithonia*) Annual — Height: four to six feet; Blooms summer/fall. Vivid orange-scarlet single flowers; also attracts hummingbirds

■ Verbena (*Verbena bonairiensis*) — Perennial and annual available; height: three to six feet; blooms summer/fall; clusters of tiny lilac purple flowers; very fragrant.

■ Joe Pye weed (*Eupatorium purpureum*) — perennial; height: five to seven feet; blooms July-August; small pink flowers in large dome shaped clusters. Prefers moist soil.

Other good choices in perennials include asters (*Aster*), goldenrods (*Solidago*), pincushion flower (*Scabiosa caucasica*), showy stonecrop (*Sedum spectabile*), hollyhock (*Althaea rosea*), and lantana (*Lantana camara*). As for annuals, you might wish to include zinnia (*Zinnia elegans*), French marigold (*Tagetes patula*) and cosmos (*Cosmos sulphureus*). Late-blooming varieties of lilacs are a good choice for providing spring nectar.

Nearly all of the plants can be purchased from local garden centres and sources such as Ecology Park. Common milkweed can also be transplanted from the wild.

Once you've finished planting your monarch habitat, confirm that Monarch Waystation criteria have been met and complete the certification application. The application can be mailed, faxed or completed online. A \$12 application processing fee is required for each monarch waystation to be registered and certified. You will receive a certificate with your name and monarch waystation ID for your site. You can also order a nine-by-12-inch weatherproof sign for display and even submit photos of your monarch waystation that will appear in your section of the online registry. You should definitely read the descriptions of existing Canadian waystations such as Anne Power's garden in Kingston. Go to www.monarch-watch.org/waystations/ and click on Registry.

It's also important to try to spread the word. One participant has a sidewalk garden where he displays the monarch waystation sign to which he has attached a "take" box containing brochures describing the value of creating habitats for monarchs.

If milkweed plants are not restored in as many locations as possible, the monarch population is certain to decline to extremely low levels. Creating a monarch waystation is one small way you can contribute to the conservation of this beautiful insect and, at that same time, enjoy hours of entertainment watching the butterfly activity in your garden.

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