March 2012—Monarch Updates

MLMP data link butterfly decline to milkweed habitat loss

Milkweed is disappearing from its prime habitat: Midwestern farm fields. A new study by Karen Oberhauser and her Iowa State colleague John Pleasants ties a decade-long decline in monarch populations to the loss of milkweed from the corn and soybean fields that blanket the region. Read the full article posted in the Start Tribune: [Study ties GMO corn, soybeans to butterfly losses](#).

Volunteers spread the word

MLMP volunteer Denny Brooks will host a viewing of the PBS Nova Program the “Incredible Journey of the Butterflies” March 27th for the Saginaw Valley Audubon Society. The documentary follows monarchs through their incredible migration from their breeding grounds to their overwintering locations. [Watch the program](http://www.pbs.org) (52 minutes) online at www.pbs.org.

Overwintering population size—2.89 hectares

The numbers have been reported! This year’s overwintering population has been measured and is estimated to cover 2.89 hectares, down 28% from last year. This number is much lower than the 18 year average of 7.2 hectares—let’s hope for a great monarch year that will help them recover—they are on the move! ABC news posted an article on the status of the Mexico overwintering population: [Monarch Butterflies Drop 28 Percent in Mexico](#).

Breaking news from MLMP monitor Kip Kiphart in Bergheim, TX:

Last evening (March 14th) I checked my milkweed patch, Rocky Flats II (50.4 sq.m) and found an egg on the first antelope horns that I checked. WOW, pretty neat, I thought...then I looked up and there was a faded but not tattered monarch flitting about no more than a foot to two feet off the ground, dipping to check vegetation. She was definitely in an egg laying mood. I never saw her land on anything but I felt sure that she was the one who laid the egg. Then BINGO, I checked the remaining 12 milkweeds in the patch and found a total of 27 eggs! One plant had 7 eggs on it and only 5 plants had just 1 egg. Twelve of the 13 milkweeds that I found had eggs on them.

The first milkweed in my patch was found nearly 2 weeks earlier (February 22) than previous years. In 2011 milkweed was found March 7th, and in 2009 the first milkweed was found March 8th.

Milkweed emergence in the north:

Denise Gibbs from central Maryland reported swamp milkweed (Asclepias incarnata) 1/2” tall from well-established plants in her yard on March 22—that is the earliest she has ever witnessed milkweed emergence there.

MLMP in 2012

Nine MLMP monitoring sites have already reported data for 2012. Have you been keeping an eye out for the first sign of milkweed emergence? Follow [Journey North’s interactive maps](#) to track the migration for a better idea of when the monarchs will reach your region or when the milkweed will start emerging.
Monarch vs. Canadian Tiger Swallowtail
MLMP volunteer Dallas Hudson reports an interesting observation linking the timing of monarch arrival with emergence of Canadian tiger swallowtail butterflies in Minnesota. The table illustrates the timing of the two very different butterflies. In Minnesota, Canadian tiger swallowtails overwinter as pupae, whereas monarchs migrate back to the state from Central Mexico.

Date of first sighting: Red = Canadian tiger swallowtail, Blue= monarch, Purple= both.

Since I started collecting data about these beautiful butterflies, I have noticed that the first arriving monarch and the first emerging Canadian tiger swallowtail occur on just about the same day after year. During 10 of the past 14 years, the first sighting of these two species occurred within three days of each other and occurred on the same day during three of those years as well. This coincidental day, however, varied by nearly three weeks over those 14 years. —Dallas Clell Hudson

The Monarch Joint Venture
The Monarch Joint Venture (MJV) is a partnership of federal and state agencies, non-governmental organizations, and academic programs working together across the U.S. to protect monarchs and their migration. MJV partners are working on a variety of habitat conservation, education, and monitoring projects to achieve this goal. A few of these projects include:

**Iowa Prairie Habitat Restoration** (Iowa DNR): The Prairie Resource Center of the Iowa DNR is partnering with the MJV to include milkweed seeds along with other native forbs and grasses in 1200-1500 acres of prairie restoration in 2012. By incorporating seeds of butterfly milkweed, swamp milkweed, prairie milkweed and whorled milkweed in their prairie plantings, together with the many other wildflowers that they plant annually, they are creating valuable monarch habitat in the Iowa landscape, an important state for both breeding and migration of monarchs.

**Overwintering Site Assessment** (Xerces Society): The Xerces Society has conducted an extensive effort to inventory and catalogue knowledge of all recorded western monarch overwintering sites. The information that they have gathered will be used to learn more about monarch overwintering habitat needs. Using these data, Xerces Society staff were able to select and visit 53 high priority sites to conduct visual surveys and further habitat assessments this past winter. They have also developed an overwintering habitat assessment protocol, which will facilitate threat assessment and inform site management and restoration.

**Bring Back the Monarchs Campaign** (Monarch Watch): Monarch Watch launched the ‘Bring Back the Monarchs Campaign’ to restore 20 priority milkweed species to their native ranges throughout the U.S. A dedicated group of volunteers has teamed up with Monarch Watch to collect seeds of priority milkweed species to provide to native plant producers, who are in turn encouraged to make milkweed plants available for distribution. This work will improve the availability of milkweed plants for use in butterfly gardens, such as Monarch Waystations. When available, Monarch Watch is also supplying regionally-sourced milkweed seeds for larger restoration projects, to increase breeding habitat for monarchs in a wide variety of landscape settings.

**Other ongoing work:** Numerous other projects include: encouraging monarch-friendly habitat management in utility right-of-ways and corporate landscapes (Pollinator Partnership); increasing commercial availability of milkweed seeds in five key states (Xerces Society & Natural Resources Conservation Service); outreach to promote planting of milkweed in agricultural buffers (Xerces Society and NRCS); pollinator garden plantings (US Forest Service, Monarch Watch); extensive habitat restorations that also benefit monarchs (US Forest Service); monarch monitoring data analyses (MonarchNet, Monarch Watch), monarch monitoring trainings (Cibolo Nature Center), and more. Visit the MJV website to learn more about projects to protect, promote, and better understand monarchs, their migration, and conservation needs. Read more MJV project descriptions...
Volunteer Spotlight:

John and Marlene Weber
Nevis, MN

John and Marlene Weber have been monitoring for the MLMP since 1998, and they’re getting ready for year 14! In addition to their weekly monitoring for the MLMP, John and Marlene do a series of NABA butterfly counts each season and record data on EVERY species of butterfly that they find. They monitor a few sites within about 400 acres of prairie and field that they call Wolfsong (named for a wolf heard howling in the area). In all of his years monitoring, John has noticed a few trends from analyzing the data that he and Marlene collect. They have noticed over the years of monitoring that monarchs are showing up earlier and earlier. John has also calculated a few statistics to provide support for his idea that the more eggs that occupy a plant, the lower the survival rate. According to John’s calculations, years in which the egg per plant density was 2, the survival rate was about 10% and when the egg density was higher, the survival rate was even lower. The graph shows data for the first monarch eggs found at one of the Wolfsong sites each year. There is variance from one year to the next, so you can see how long-term data from volunteers help us to understand monarch breeding patterns on a national level.

Monitoring Tip: Start looking for milkweed, so you don’t miss the first emergence at your site. As soon as the milkweed is up, you can start monitoring! Remember that monarch absence data are equally as important as presence data!

Monarch Fun Fact: In Nahuatl, an indigenous language of Mexico, butterflies are called 'papalotl'. From this word comes the Spanish word for kite: 'papalote'. Monarchs are known as kites of the mountains.

Interesting Link: Check out this site to see how all things relate in the Scale of the Universe!

Reader Feedback: Please email us with any interesting findings or unique events that you would like to share in future e-newsletters. We would love feedback and suggestions for things you would like to read about. If you have questions about monarchs, Ask The Expert. Email: info@mlmp.org or call 612-625-8304

Monarch egg on new milkweed by Cindy Hedin

One late April day the students and teachers were outside school waiting for the "all clear" during a fire drill. One of the students said "Look! There’s a monarch!" We watched as the butterfly flitted across the lawn and lighted in our butterfly garden. It made several stops. The photo shows 2 of the 11 eggs I found that day. —Cindy Hedin