MonarchWatch.org Newsletter information (Spring 2016)

Monarch Population Status - by Chip Taylor

On February 26th, World Wildlife Fund Mexico in collaboration with SEMARNAT and CONANP and the Monarch Butterfly Biosphere Reserve (MBBR) announced the total forest area occupied by overwintering monarch colonies. Nine colonies were located this winter season with a total area of 4.01 hectares (up from 1.13 ha last winter; see our report via http://monarchwatch.org/blog/).

Due to an unprecedented rain/sleet storm at the overwintering sites on 8-9 March, the status of the monarch population is uncertain at this time. The storm was accompanied by strong winds that knocked down many trees and buried large numbers of monarchs beneath several inches of sleet. Many froze in place in the trees. There are no firm estimates of the numbers of monarchs that either died or survived this storm. Observers with various backgrounds and experiences visiting different colonies have estimated the losses at 3-50%. Fortunately, many monarchs had already left the area.

Recolonization of the South Region (Texas, Oklahoma, and Kansas) this spring has been slow. The numbers of first sightings recorded by Journey North to date are similar to the numbers reported in 2013, the spring that produced the all-time low number of overwintering monarchs (0.67 hectares) in Mexico. However, first sightings are an imperfect indicator of what to expect for the rest of the season. The conditions in Texas for reproduction by these returning monarchs are key. Successful reproduction in the South Region depends on the temperatures in March-April, the number and distribution of milkweeds and nectar sources, the abundance of fire ants, and other factors. These conditions vary from year to year but have a significant impact on the number of first generation monarchs that move north from this area in May and early June.

The size of this first generation moving north will largely determine the degree to which the population will be able to recover from the losses incurred during the late-winter storm. Right now, based only on first sightings, the overwintering population is likely to be in the 1-2 hectare range. We will have a better sense of how the population is developing later this month. The long-range forecasts for May and early June favor movement northward by the first generation monarchs. The unknown at this point is the number that will be moving north. If the number is low, the overwintering numbers next winter could be close to 1 hectare again. We will post another population status update via our blog in the coming weeks.

Monarch Conservation Science Partnership

The Monarch Conservation Science Partnership, coordinated by the U.S. Geological Survey, hosted its third meeting in February at the Powell Center in Fort Collins, CO. These meetings are attended by monarch biologists and scientists from several agencies. This group has been tasked with trying to document why the monarch population has declined and to address how the population might be restored. The first paper from these deliberations has been published (http://www.nature.com/articles/srep23265). Two additional papers have been submitted and another is in preparation.

One of the major conclusions of these studies is that the planting of 1.4 billion milkweed stems will be required to to restore the monarch population to an average of 6 hectares during the winter. This figure is based on estimates of the amount of milkweeds lost, the amount of milkweed remaining and the average number of milkweed stems required for each monarch that reaches Mexico. Another analysis indicated that full restoration of the monarch population would require restoration of at least 20 million acres. The analysis also showed that restoration at this scale requires the involvement of nearly all available land resources from private lands ranging from back yards to marginal farmlands to right of ways including roadways, etc. In other words, an all-hands-on-deck, multi-sector effort will be required to save the monarch migration.

For more information about the Monarch Conservation Science Partnership, please visit http://www.umesc.usgs.gov/management/dss/monarch.html

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Monarch Watch's Milkweed Market

The demand for milkweed plants has gone through the roof! We work with five nurseries at present and expect to facilitate the distribution of more than 200,000 milkweed plugs this season. This increase is almost 4 times greater than in 2014. If demand

continues to increase, and it probably will, we will have to partner with five additional nurseries in 2017 to meet the demand for milkweed plugs.

We are excited to announce the launch of a new online shop to facilitate the distribution of milkweed plugs - complete details are available via the Monarch Watch Milkweed Market at: http://monarchwatch.org/milkweedmarket

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Monarch Tag Recoveries in Mexico

We have received reports of more than 1,000 tags recovered at the overwintering sites in Mexico during the 2015 tagging season. We are in the process of adding these recoveries to our recovery database and will have a more complete update this summer. In the meantime, you can see the list of these recoveries online via the link below. The records are ordered by tag code so that you can easily look for tags you may have used.

If you haven't yet returned your 2015 tagging data sheets to us via mail or email please do so as soon as possible to facilitate the lookup of the recovery data. Thanks!

2015 Monarch Watch Tagging Season recoveries: http://monarchwatch.org/tagmig/2015-season-recoveries.html

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Monarch Watch Welcomes New Staff Members

Monarch Watch brought two new staff members into the fold this year: Dena Podrebarac joined us as our Milkweed Grant Coordinator and Matt Tucker is our newly-appointed Monarch Waystation Education Coordinator.

Dena earned her bachelor's and master's degrees in Biology from Emporia State University and has worked as a summer Naturalist for the Kansas Department of Wildlife and Parks, as adjunct faculty for Highland Community College, and in the Public Education Department at the KU Natural History Museum. She is primarily responsible for administering grants which award large quantities of free milkweed plants for habitat restoration projects.

Matt earned a degree in Parks and Recreation Management. After working a variety of natural resource related jobs in Montana, he returned to school for his masters in special education. He will be implementing a Waystation Network, with the goal of connecting and supporting educational and nonprofit institutions who have received milkweed plants from Monarch Watch. Matt will also be developing programs to successfully implement more effective gardens and learning opportunities for youth.

Welcome aboard, Dena and Matt!

About This Monarch Watch List

Monarch Watch (http://monarchwatch.org) is a nonprofit education, conservation, and research program based at the University of Kansas that focuses on the monarch butterfly, its habitat, and its spectacular fall migration.

We rely on private contributions to support the program and we need your help! Please consider making a tax-deductible donation. Complete details are available at http://monarchwatch.org/donate or you can simply call 800-444-4201 (KU Endowment Association) for more information about giving to Monarch Watch.

If you have any questions about this email or any of our programs please feel free to contact us anytime.

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