Monarch Migration Update

The Midwest monarch population size is observed in the winter months while the butterflies aggregate in oyamel fir trees on south-southwest facing mountain slopes in Mexico. These locations provide cool temperatures, water, and adequate shelter to protect them from predators. The specialized conditions found in the Mexican mountains allow monarchs to conserve enough energy to survive winter before they migrate north in the spring. With the Midwest population in a concentrated area—calculating the size of the population is easier. Scientists are currently collecting monarch population data and we anticipate hearing the official count later in January or February.

Our Largest Number of Garden Grant Applications!

This year we had the greatest number of applicants for our garden grants to date! We are very excited about this
because it means more schoolyard gardens and more monarch habitat! Successful applicants will be notified very soon. Didn't apply this year? Consider applying next December for funds the following year. As a NAMI participant, you may be eligible for up to $1000 in funding to plant a diverse natural habitat. Funds can be used to plant a new garden, enhance an existing one, or purchase of equipment, plants, or curriculum. If you have questions, feel free to email Sarah Weaver (weave048@umn.edu).

**Ideas for the classroom...**

- Many birds, such as chickadees and cardinals, stay in northern climates and survive the winter months. Discuss the adaptations that birds have to survive cold weather. Go outdoors and listen for birds. How many different calls can you hear? How many can you see and identify? Keep a log on what time of day birds are most active. Look around for food sources that birds can eat in winter.
- Try placing bird feeders by a window and observe birds from indoors. Have students learn to identify common birds using a field guide.
- Your garden continues to be a habitat for wildlife through the winter months- look for animal signs with students.
- Cornell's Lab of Ornithology has resources such as [http://www.allaboutbirds.org/guide/search](http://www.allaboutbirds.org/guide/search) for more information on birds and their habitat. Cornell also has citizen science programs for documenting what birds visit your schoolyard (eBird, Feeder Watch, Birdslleuth).

**Math in the Garden** by J.M. White and K.D. Barrett

This curriculum has 36 hands-on activities that utilize your garden/schoolyard space! You will find math and science based lessons that have already been 'field-tested' by professional educators (Grades K-8). If you didn't pick one up at your NAMI workshop- it's worth finding a copy!