

# e-Edition Plus

A current events feature for teaching with electronic editions.

By Emilia Pastina

## Monarch butterflies battered by a harsh Mexican winter

With their orange-and-black wings, monarch butterflies are among the most familiar insects in the world.

They also are among the most amazing for the distances they will fly to survive.

With a wingspan of just four inches, monarch butterflies travel up to 3,000 miles from the northern United States and Canada to spend winters in warm areas along the California coast or the mountain forests in Mexico.

In spring, they turn around to make a return trip north for the summer.

But this year, as the monarchs fly on their long migration, there are far fewer making the journey.

Thousands of them didn't survive winter hailstorms and rain in Mexico.

"One study already shows that the population flying northward is expected to be the smallest since ... 1975, meaning we could easily have losses of 50 to maybe 60 percent of the monarchs," said Craig Wilson, a senior research associate at Texas A&M University, in a U.S. News and World Report article.

This winter's losses have added to the problems of a monarch population that was already shrinking.

In a USA Today article, Lincoln Brower, a zoologist and monarch specialist at Sweet Briar College in Virginia, said there are three main causes: illegal

logging in Mexico, climate change that is causing severe weather, and a loss of milkweed, a wildflower on which female monarchs deposit their eggs.

Now, scientists and environmental groups are looking for ways to save the species.

### Habitat challenges

On top of harsh weather, monarchs faced habitat changes that made survival difficult in Mexico this winter.

Nearly seven percent of Mexico's forests — an area twice the size of the U.S. state of New Jersey — have

been destroyed because of illegal logging or deforestation.

People who are not loggers are part of the problem, too, cutting down trees to heat homes and cook.

Another problem is the loss of milkweed in both Mexico and the U.S. because farms are using chemical weed killers to protect crops. The weed killers destroy the milkweed.

### Recovery efforts

Two groups working on recovery programs for monarchs are the Ecolife Foundation and Monarch Watch.

Ecolife, a group that works to find ways to balance the needs of conservation and the needs of communities, is building and donating fuel-efficient stoves in one Mexican state, hoping to reduce families' wood use by as much as 75 percent. The group is also planning to plant a million trees over the next three years.

Monarch Watch, a part of the University of Kansas, recently started a milkweed-planting campaign to create Monarch Way-Station Habitats in North America.

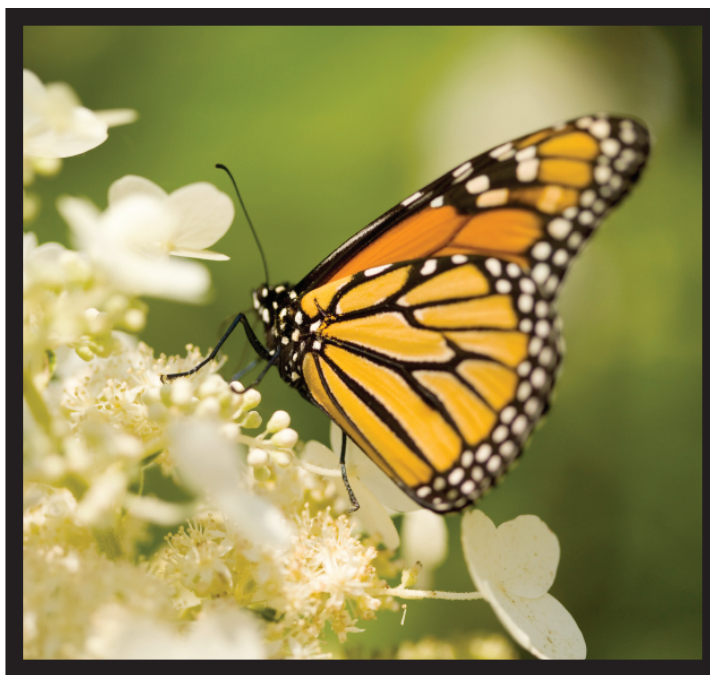
Such way-stations are important for the monarch migration.

The reason?

After leaving Mexico in mid-March, monarch females fly 1,000 miles or more and lay eggs on milkweed leaves. The females then die, leaving it up to the offspring to continue the journey.

Somehow, the next generation of monarchs knows the right direction to go to find their summer home.

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**Illegal logging, climate change and loss of the wild plant milkweed all make survival more difficult for monarch butterflies.**

# Talk About the News

- **Deforestation is making survival more difficult for monarch butterflies in Mexico. Many forests in North America are protected against deforestation, but illegal logging still exists in many places. As a class, talk about the value and roles of living trees in natural habitats and the value and uses of trees after they are cut down. Talk about ways people and communities can balance the needs of conservation and the needs of communities.**

Learning Standard: Engaging peers in constructive conversation about matters of public concern by clarifying issues, considering opposing views, applying democratic values, anticipating consequences and working toward making decisions.

# Explore Your e-Edition



- **Many scientists believe monarch butterflies are a natural wonder. That's why so many people and groups want to protect them. Read today's e-Edition to find another "natural wonder." Make a list of reasons why it's important to preserve it. Make a list of who and what can cause it harm. Draw an editorial cartoon depicting life without it or the people or events that could cause it harm.**

Learning Standards: Explaining ecosystem concepts and processes; engaging peers in constructive conversation about topics of interest or importance; reading and writing fluently, speaking confidently, listening and interacting appropriately, viewing critically and representing creatively.

- **Trees are important to the environment for many reasons. Read today's business section of the e-Edition to find a company that is either saving trees or destroying forests. Or find an example with an Internet search. Write a letter to that business either commending it for its conservation efforts or suggesting ways it could do a better job protecting the environment.**

Learning Standards: Describing positive and negative effects of humans on nature and wildlife; utilizing the persuasive power of text as an instrument of change in the community, the nation and the world.

- **Monarch butterflies are poisonous, making their predators sick if they eat them. Even though the poison doesn't kill the predator, it will often stop a predator from eating another one. The poison is the monarch's natural defense. Read today's e-Edition to find an article that describes a natural defense of a human or animal that is used to protect itself or its offspring. Create a comic strip that shows this natural defense at work.**

Learning Standards: Responding to a variety of visual, written and electronic texts by making connections to students' personal lives and the lives of others; acquiring information from written, visual and electronic texts; using the craft of the illustrator to convey ideas artistically.

# How Well Did You Read?

Understanding what you read is a skill that will help you all through life. Review the story about monarch butterflies by answering the questions below.

1. **According to the story, monarch butterflies travel south for the winter to:**
  - A. Florida beaches and the California coast
  - B. Mexico mountain forests and Florida beaches
  - C. California coast and Mexico mountain forests
  - D. Monarch butterflies don't migrate
2. **According to the story, what killed many monarch butterflies last winter:**
  - A. Snow
  - B. Earthquakes
  - C. Tornadoes
  - D. Hail and rain
3. **In the story, the word "deforestation" means:**
  - A. Cutting down most or all the trees in a forest
  - B. Planting a significant number of trees in a forest
  - C. The act of banning illegal logging
  - D. Protecting a forest
4. **According to the story, milkweed plants are more scarce because of:**
  - A. Weed killers
  - B. Harsh winters
  - C. Fewer monarch butterflies
  - D. Tornadoes in the Midwest
5. **According to the story, groups are helping the recovery of monarch butterflies by:**
  - A. Planting milkweeds
  - B. Planting trees
  - C. Building and donating fuel-efficient stoves
  - D. All of the above