



Mysteries of nature explored in Spanish

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By ROBERT KOPACZ

BERKELEY HEIGHTS -- Studying the life cycle of the monarch butterfly in elementary school would not seem so unusual. But at William Woodruff Elementary School in Berkeley Heights, the subject comes with a twist.

The students are studying the monarchs in a Spanish class, not a science class. Oh, yes, there is one other twist: Approximately 200 butterflies attend the class, as well.

Two plastic tents filled with milkweed (the only food the monarch butterfly eats) house dozens of larvae, caterpillars, chrysalises and, here and there, the odd monarch butterfly or two, just a day or two old, waiting to be released into the wild.

Raising the butterflies would seem educational enough, but there is an extra treat in store for these young butterfly experts. The larvae were obtained from a project at the University of Kansas called Monarch Watch, which is studying the monarch butterfly's rather mysterious migration patterns. Each butterfly that spreads its wings upon emerging is tagged with a sticker that includes a serial number for tracking the butterfly on its migration path.

The butterfly idea was the brainstorm in Berkeley Heights of Woodruff Elementary School Spanish teacher Wendi Goldstein. "I didn't want my program getting old or stale," said Ms. Goldstein. "My principal likes for us to have new ideas, so I presented this one to her."

The migration path of the monarch butterfly provides the connection to the Spanish language. Each fall, the monarchs start off on a several thousand mile journey to the same mountainous region of Mexico.

That presentation led to considerable research on Ms. Goldstein's part to select a program. After reviewing several, she chose Monarch Watch. The program requires a financial contribution to cover the cost of shipping the fragile monarch butterfly larvae, which historically have a mortality rate of 50%. To cover the costs of the project, Ms. Goldstein applied for and obtained a grant from the Berkeley Heights Education Foundation.

The costs cover not only the shipment of the larvae, supplies and teaching materials, but also the cost of recovering the tagged monarchs in Mexico. Monarch Watch pays Mexicans \$5 for every tagged butterfly they recover and return to the program (the equivalent of a half day's wage for many working class Mexicans). So the class will get a report back on which butterflies were found, as well as where and when they were found.

Anyone who can't imagine what could possibly be interesting about a butterfly has forgotten what it is like to be a child. Upon entering the class, the children surge toward the butterfly tents to observe progress.

"Look at that!" "Wow!" The sense of wonder and amazement at the beauty of nature is palpable as they all jostle for a peek inside the tent. After the excitement dies down, there is a lecture on butterfly vocabulary.

In the midst of all these butterflies, students learn every possible Spanish word connected with the butterfly: The word for the color orange (anaranjado), the word for spring (primavera) and of course, the word for butterfly (mariposa).

Ms. Goldstein says the project has generated a burst of curiosity and questions from the students. The children ask why the butterfly has to die after returning from its migration to Mexico (the average life span of a monarch is nine months). They marvel at the fact that the monarch caterpillar eats approximately 20 inches of milkweed leaf per day.

What the children can't learn from the butterfly project is almost as important as what they can learn. For all the science and study surrounding the migration path of the monarch butterfly, scientists still cannot figure out how a newly born monarch can find its way to the same transvolcanic mountain region in Mexico, at an elevation of 10,000 feet.

Children aren't the only ones learning. Ms. Goldstein has received several emails from parents who have heard about the project and are equally curious. "I've never seen anything like it," says Ms. Goldstein.

After the lecture and vocabulary drill, the students are led outside by Ms. Goldstein, where the butterflies are released into the wild, and immediately fly in a southern direction, as the fifth graders chase after them and point, completing the learning experience for these students. Once all the butterflies are released, they will wait for news on their butterflies from Monarch Watch.

As part of the project, the schools organize a symbolic migration of colored paper monarchs prepared by the students to be sent to Mexican school children with messages in Spanish. The Mexican children will return them in the spring, completing the symbolic migration cycle.

Those wishing to see the butterflies may contact William Woodruff School in Berkeley Heights for information.

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