

The Miracle of Life *Observing metamorphosis*

By Lori Ellis



A newly released Painted Lady butterfly rests on a leaf in Greenland School's Garden before taking its first flight. (Lori Ellis)

I doubt I've ever sat at this desk and this computer before sunrise until today... although I have seen Dick here in the wee hours countless times over the past 25 years of our marriage. He never misses a story for this outdoor column. But this time is different.

Today at 4:00 a.m. he is snuggled in the recliner 20 feet from me with Sir-Koff-a-Lot, his stuffed hospital bear, resting and beginning

the process of recovering from open heart surgery. Next to him on the table is the breathing exerciser which is helping him gain his strength back. "There's no place like home," when it comes to real healing. After eight days in St. Luke's Hospital in Milwaukee, he is finally home, thoracic aortic aneurysm repaired and patched and heart valve stitched back into place. I thank God every day for the

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miracle of modern medicine, the good fortune of doctors finding this hereditary structural "flaw" in his aorta, and Dick having the opportunity for a second chance at a long and healthy life.

Equally important to resting in the recovery process is a somewhat rigorous exercise program for a heart surgery patient. Daily upper body exercises and a walking schedule are already well underway. Dick's first week begins with leisurely five or ten minute walks every hour or two for strengthening weak muscles and building lung capacity.

While walking, we've both mentioned how we see things now through "differ-

ent lenses" and have already stumbled onto a more minor miracle. As we rounded the corner of our home past my perennial garden we stopped to just enjoy our sizable cluster of milkweed that had shocked and surprised me early in spring. Talk about good fortune! I've been admiring and babying this milkweed patch since the first green stalks showed through the dirt. Believe me, I know where most every milkweed patch exists in this neighborhood, on nearby roadsides and fields especially on my daily route north on Highway 16 to Oconomowoc where I have been teaching for 20 years at Greenland School. And Dick



A Monarch caterpillar spins its silk pad in preparation of pupa stage near chrysalises in various stages of development. (Robin Heitman)



A Monarch butterfly hatches from its chrysalis and pumps fluid from its abdomen into its crumpled wings. (Robin Heitman)

knows too, because when you begin a new school year by raising Monarch caterpillars into butterflies, you need fresh milkweed every day. “There’s some milkweed! Pull over!” is often a common last minute request, not really appreciated when speeding down the highway at 60 mph with Dick at the wheel.

Dick and our teenage daughter Taylor have learned a lot about the Monarch Butterfly and come to appreciate my fascination with its life cycle. Actually, a typical “Taylor comment” might be, “Seriously mom, it’s a caterpillar...”. It begins with finding the elusive yellow, black and white striped caterpillar on a milkweed plant, it’s only food source, likely the underside of the leaf. Signs of caterpillars are holes in the milkweed leaves, a result of constant chewing, and “frass” or droppings still resting on leaves below. After finding the tiny larva, the leaf or stem section where it’s been

eating can be broken off and placed in a clear container for observing. We cover it and add plenty of small holes, keeping it indoors or away from extreme heat. The caterpillars need fresh milkweed free from pesticides, everyday. When we’re lucky we’ll see tiny “bonus” caterpillars newly hatched from eggs laid on the milkweed placed inside as food. They’ll be less than ¼ inch long, and will need small tender leaves at first. A caterpillar’s job is to eat and eat. When exceeding an inch in length and plump, it will stop eating, crawl to the top of the container and spin a small silk pad to attach its “caboose” from. Eventually, it will hang in J-shape with its head down. When ready, sometimes even 12 hours later, the caterpillar will begin to wriggle and twist. Its skin will split and slowly bunch upward leaving the caterpillar’s last molt behind. Green lumpy innards will eventually become smooth and shiny during this magical

transformation of caterpillar into chrysalis. Adorned with metallic golden markings, this miracle is complete in a matter of minutes. After 12 days or more, the outer shell becomes transparent, showing the orange and black of the monarch wings when the butterfly is ready to emerge. It will crawl out of its shell still hanging on with wings crumpled and wet, expelling liquid waste and pumping its wings until flat and dry. In about 24 hours the butterfly will be ready for release.

I am always excited to share with my brand new first graders my fascination of the Monarch and appreciation of nature with the chance to observe metamorphosis up close. Better yet, is when I inform them that in spring, we as a class will raise Painted Lady butterflies, much in the same manner as the Monarch butterfly. The Painted Lady although smaller and less colorful, is a heartier caterpillar, more conducive to whole class

study. The tiny caterpillars, one for every child, arrive from Carolina Biological Supply with its own processed food source although common here eating mallow, hollyhock and thistle. All first graders at Greenland study its entire life cycle during a six week science unit that culminates with a butterfly release in our Greenland School Garden.

When this column is printed Dick will be on day four of his R & R. I’m going to make absolutely sure the Outdoorsman follows his doctor’s orders for rest, exercise and walks so he can get back on the keyboard. Although I enjoyed getting up before dawn, I certainly don’t want to make a habit of it. I’m a teacher and it’s summer and tomorrow I’m sacking in. ☺

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