The Migration and Tagging of the Monarch Butterfly

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he Discovery Center at Deep Creek Lake has been busy with Monarch butterfly programs and activities this past summer. Visitors and residents have been able to observe the butterfly develop from tiny eggs, to a caterpillar, to a chrysalis and finally to a beautiful full grown adult when released. The released insects will migrate from Garrett County on a long southward journey that in many ways remains mysterious. The Discovery Center, a Maryland Department of Natural Resources interpretive environmental center, has become part of an educational outreach program designed to help unlock the mysteries of the beautiful Monarch butterfly.

Monarchs are cold blooded insects and cannot survive winter weather. Those butterflies located east of the Rocky Mountains fly southward in late summer and early fall to forests in the mountains of Mexico to roost during the winter season. Monarch butterflies west of the Rockies roost in eucalyptus, pine, and cypress trees on the California

Caroline Blizzard, Director of Deep Creek Lake Discovery Center, initiated a program in 2004 to raise public awareness of the Monarch butterfly and to have local elementary school students become involved in a course of study that will increase their knowledge and appreciation of the insect. Ms. Blizzard became interested in the Monarch butterfly several years ago and decided the best approach to creating a course would be to follow the recommendations of Monarch Watch, an outreach program based at the University of Kansas that focuses on engaging citizens in meaningful, large scale research projects. The university organization also encourages students to become involved in science and to develop their interests into research projects at school. Swan Meadow and Yough Glades Schools in Garrett County will be part of the program for 2005 by raising, capturing, and tagging their own butterflies.

While student courses were introduced for the upcoming academic year at local schools, the Discovery Center



coast. Monarchs are unique because they travel further on their migratory routes than all other tropical insects, yet manage to roost in the same spot. This amazing migration cycle is complex and becomes even more fascinating when one realizes that individual Monarchs only travel one way. Great-great-great grandchildren make the return trip to Mexico the following fall. How they know where to go and the precise migratory routes remains shrouded in mystery.

provided a continuous summer program for residents and visitors. Monarch butterflies were displayed in a glass enclosure beginning in mid July so most of their life cycle could be observed, including the first migrant's hatch. Visitors were provided with information about the butterfly display, followed by a walk to observe and possibly catch the elusive insect. Additional information included the importance of certain plants to the Monarch's feeding habits.



Milkweed is crucial to the Monarch's survival because it is the only place where they lay eggs and is the sole food source for caterpillars. Consequently the milkweed plant, and other late flowering nectar plants, should be part of any waystation program to assist the insect along its migratory path. According to Ms. Blizzard, the best way to attract the beautiful insects is to increase the number of milkweed plants. Nectar sources are declining because of suburban development and use of insecticides for agricultural purposes. Another problem for the Monarch butterfly is the common perception by many property owners that milkweed is an undesirable plant to be eliminated from suburban landscapes.

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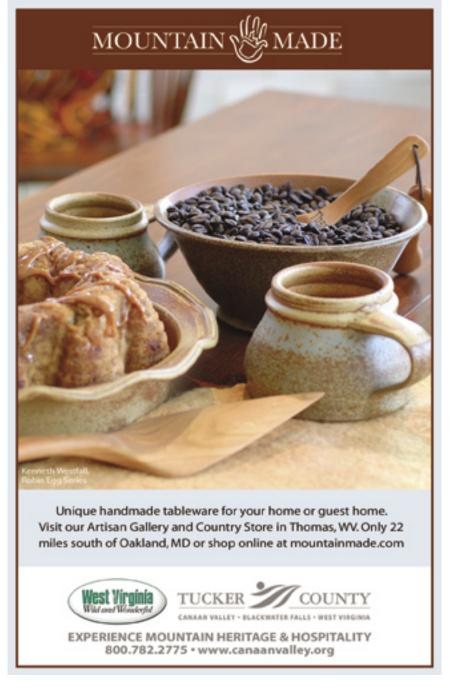
Facing page: A Monarch cacoon (far left); a Monarch caterpillar after emerging from its cacoon (center); Caroline Blizzard demonstrates taging the butterfly (right).

Above: Full grown Monarch ready for flight.

Right: Caroline holds tags for photo (top); A tagged Monarch ready for release (bottom).







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Last year was not a good one for butterfly watchers in Garrett County as numbers were low; however, numbers increased significantly for the 2005 season and encouraging reports from local enthusiasts were numerous. Ms. Blizzard noted that last year, 125 butterflies were tagged and released, most of them raised at the Discovery Center. This season the number of captured Monarchs increased, as well as the numbers observed in the wild, and will add to the total number released from Garrett County.

The tagging process is a critical component of the Discovery Center program. Each butterfly that is released receives a 9 mm round tag made from all weather polypropylene material. Tag centers receive specific information for their locations. Each butterfly is tagged on the large mitten shaped cell found on the underside of the hind wing. Gentle pressure safely secures the tag. A log book is provided to record the date, Monarch Watch Number, sex, and whether the insect was reared or captured. Should Monarch watchers be fortunate enough to capture one, they should use the phone number provided on the tag to relay the information that will be recorded in a Monarch Watch data base. It is hoped that tagging will enable scientists to learn whether the migratory route is repeated in a precise pattern.

The Discovery Center at Deep Creek Lake is hoping to build on its successful 2005 summer butterfly program next season. Stop by the center, near Deep Creek State Park, to learn more about Monarch butterflies, forestry, wildlife, and natural resource management. Rangers and Naturalists are on staff to assist visitors. Call 301-387-7067.