

Lessons From the Monarch Butterfly

After hatching, a monarch caterpillar eats its egg casing. Then, it turns its attention to the milkweed plant on which it was hatched. The caterpillar will grow to 2,700 times its original weight in two weeks.

Process

Five days after hatching, the caterpillar finds the underside of a leaf, takes hold with its back five pairs of legs, and lowers itself headfirst. There, the caterpillar hangs nearly motionless, except for its occasional writhing. If its leaf is disturbed or if the caterpillar senses someone walking past, the caterpillar is visibly affected.



The caterpillar's characteristically bright orange-and-black skin fades, begins to look wrinkled, and works backward as the caterpillar's movements intensify. Finally, the caterpillar breaks free, revealing a new skin, loose and roomy for continued growth.

After resting, the caterpillar starts eating again. In the days following this first molt, the caterpillar's growth increases. The caterpillar will outgrow and shed its skin three more times before it goes through its final transformation.

Change

When a caterpillar enters its chrysalis stage, it weaves a silk mat on the underside of a leaf or twig and anchors itself upside down with a set of special hooks.

Even before this stage, adult wings and legs have begun to form within the caterpillar. As these processes continue, the caterpillar's jaws disappear and are replaced with a butterfly's specialized tongue. The caterpillar's stubby legs are replaced by longer butterfly legs.

About two weeks after a caterpillar enters the chrysalis stage, it will emerge as an adult butterfly.



The exertion required to escape the chrysalis increases circulation to the wings, helping to inflate and harden them into their correct shape. After emerging, the butterfly waits two or three hours while its wings dry out and it eliminates the wastes it accumulated as it developed inside the chrysalis.

Purpose

As days shorten and temperatures fall, the monarchs hatched in late summer wait to reproduce. Instead, they migrate to their ancestral wintering areas in California and Mexico. Some will travel up to 2,500-miles, sometimes flying 650 miles without landing.

They live several months longer than their parents, and they mate and lay eggs the next spring, leaving the repopulation of the continent to their descendants.

The Monarch Butterfly in Action

Begin Where You Are

The monarch begins life as an egg on the underside of a milkweed leaf. It hatches and begins eating voraciously, going to work immediately instead of dreaming about what it will become.



Persevere Through Process

About five days after hatching, the caterpillar hangs upside down as its old skin fades and begins to come off. The caterpillar will outgrow and shed its skin four or five times before entering the chrysalis.

Accept the Wait

The most critical period in a butterfly's life is the first half hour after it emerges. The insect must wait as its wings take shape, and it must shed the wastes it accumulated inside the chrysalis.

Take the Next Step

In spring, each new generation follows the milkweed farther north. When they sense the shortening days of fall, another generation will head south to ensure the survival of the species.

Useful Links:

- http://www.kidzone.ws/animals/monarch_butterfly.htm
- <http://www.monarch-butterfly.com/>
- <http://animals.nationalgeographic.com/animals/bugs/monarch-butterfly/>