



MONARCH BUTTERFLY LIFE CYCLE

The monarch butterfly is an insect and all insects change in form as they grow. This process is called metamorphosis. There are two types of metamorphosis, incomplete and complete. A grasshopper is an example of incomplete metamorphosis. The young grasshoppers referred to as nymphs look very much like wingless adults, only smaller. The nymph's wings develop externally without an immobile pupal stage. Butterflies and moths undergo complete metamorphosis in which there are four very distinct stages; egg, larva (caterpillar), pupa and adult.

In order for the monarch butterfly life cycle to start, they must lay their eggs on a milkweed plant (see [Monarch Habitat Needs](#) for more information). After the female monarch lays an egg on a milkweed plant, the egg will hatch into a caterpillar in about four days. The caterpillar eats milkweed leaves, grows and sheds its skin (called molting) four times for about another 14 days. At this time it looks for a place to spin a silk button to attach to a leaf where it will hang upside down and molt one last time. When the caterpillar molts for the last time, it becomes a pupa. The pupa or chrysalis is soft at first, but in about an hour it hardens to protect the growing butterfly inside.



photo: Bruce Schuette

A caterpillar feeds on milkweed leaves



photo: Bruce Schuette

Metamorphosis occurs inside of the chrysalis

There are many changes going on inside the chrysalis. The caterpillar's chewing mouth parts change into a straw-like tongue to sip nectar from flowers and it grows wings all in about two weeks. At last the shell of the chrysalis breaks open and an adult monarch butterfly emerges. It can't fly immediately because the wings are wet and wrinkly. The butterfly pumps body fluid through the wings to fill them out. After a couple of hours the wings harden and the butterfly can take off and search for its first meal of nectar from flowers, thus becoming a pollinator. The entire life cycle of an individual adult monarch butterfly lasts from six to eight weeks.



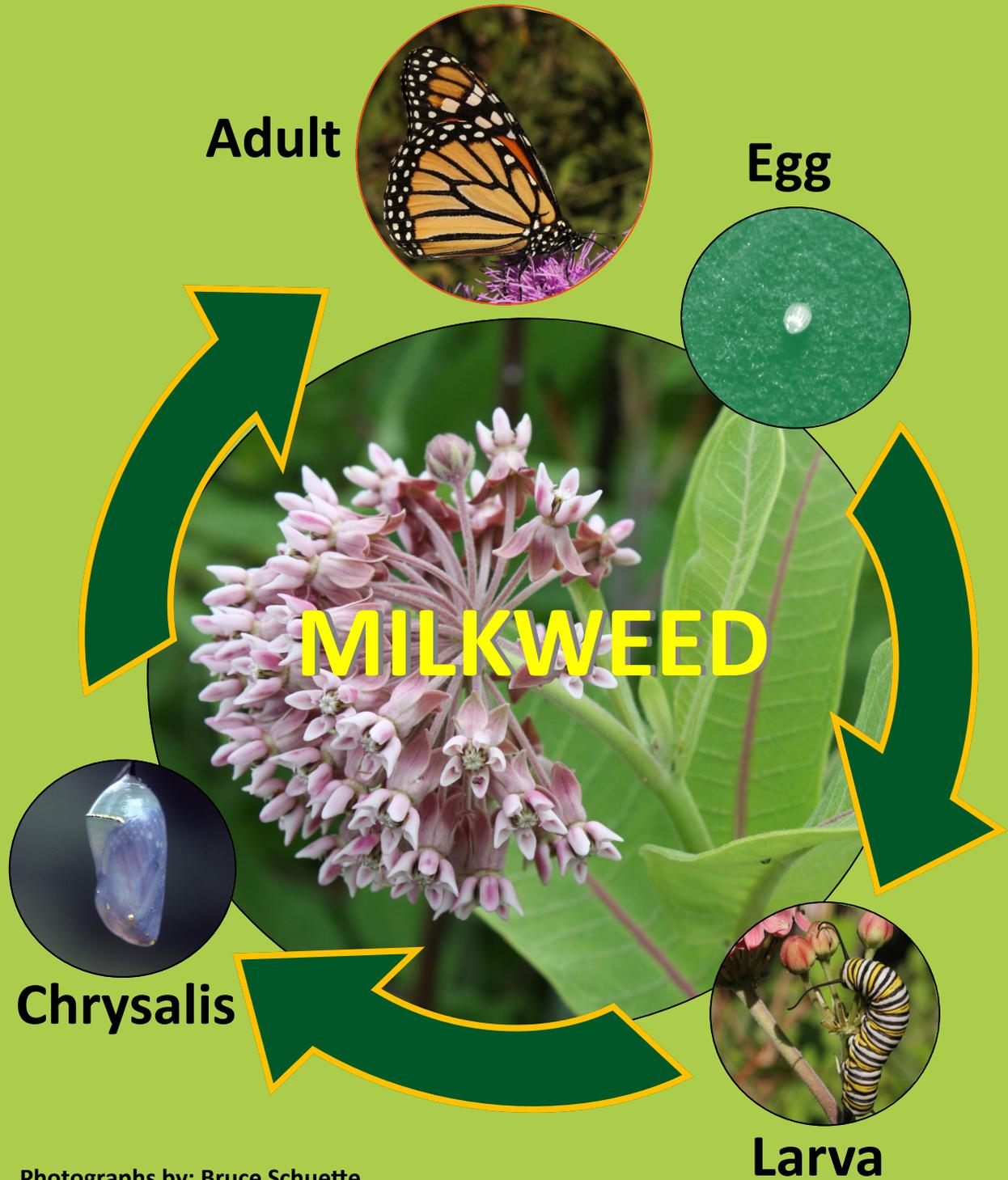
A fully developed Monarch Butterfly

photo: Bruce Schuette

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