

# Nature's Notebook Phenophase Photo Guide



## Danaus plexippus Monarch



#### Why Observe?

Monarchs are pollinators whose populations have been declining due to reduced habitats of milkweed, which are required for their caterpillars to grow and develop. Habitat reductions that affect monarchs affect other pollinator species as well, so increasing habitat available for monarchs will also help those species.

In addition to their value as pollinators and umbrella species, monarchs have unique migration patterns that provide important educational and scientific value in helping people to learn about the natural world.



TexasEagle via Flickr. CC BY-NC 2.0 (cropped)

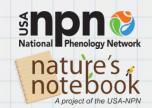
#### **Tips for Identification**

Monarchs have lighter hind wings than fore wings. White spots are only found within black borders. There is no line that goes across the back of the hind wings. Bold black lines in hind and fore wings. Monarch caterpillars only have two sets of filaments, and the yellow, white, and black bands are mostly uniform.

Be aware there is variation from individual to individual within a species, so your animal may not look exactly like the one pictured. If you are uncertain whether or not a phenophase is occurring, report a "?" for its status until it becomes clear what you are observing after subsequent visits.



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Danaus plexippus

Monarch





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#### **Adults**

One or more adults are seen moving about or at rest.



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#### **Adults feeding**

One or more adults are seen feeding with their straw-like tongue (proboscis). If possible, record the substance and species on which they are feeding (for example, nectar, sap, dung, or moist soil) in the comments field. For *Danaus plexippus*, adults feed on the flower nectar of many different plant species.



USFWS via Flickr.
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#### Mating

A male and female are seen coupled in a mating position, usually end to end. This can occur at rest or in flight.



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#### Egg laying

A female is seen laying eggs on a plant or other surface. If possible, record the name of the plant or describe it in the comments field. For *Danaus plexippus*, eggs are typically deposited on the leaves of milkweed plants.



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#### **Eggs**

One or more eggs are seen on a plant or other surface. If possible, record the name of the plant or describe it in the comments field. For *Danaus plexippus*, the tiny, ribbed, dome-shaped eggs are offwhite to yellow in color, and are typically found on the underside of the leaves of milkweed plants.



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#### **Caterpillars**

One or more caterpillars (larvae) are seen moving about or at rest. When seen on a plant, if possible, record the name of the plant or describe it in the comments field. For *Danaus plexippus*, young caterpillars are pale green with a black head. Older caterpillars have two pairs of black tentacles and black, yellow and white stripes around their body.



<u>TexasEagle via Flickr.</u> <u>CC BY-NC 2.0 (cropped)</u>

#### Caterpillars feeding

One or more caterpillars are seen feeding. If possible, record the name of the species or substance being eaten or describe it in the comments field. For *Danaus plexippus*, caterpillars typically feed on the leaves of milkweed plants.



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#### **Pupae**

One or more pupae are seen in a cocoon or shell (puparium). For *Danaus plexippus*, pupae are enclosed in a pale green, translucent shell (chrysalis) that appears darker as the butterfly develops, and hang from plants or other outdoor surfaces. Do not include empty pupal shells after the adult has emerged from them.

Phenophases not pictured: Flower visitation, Migrating adults, Dead adults, Dead caterpillars