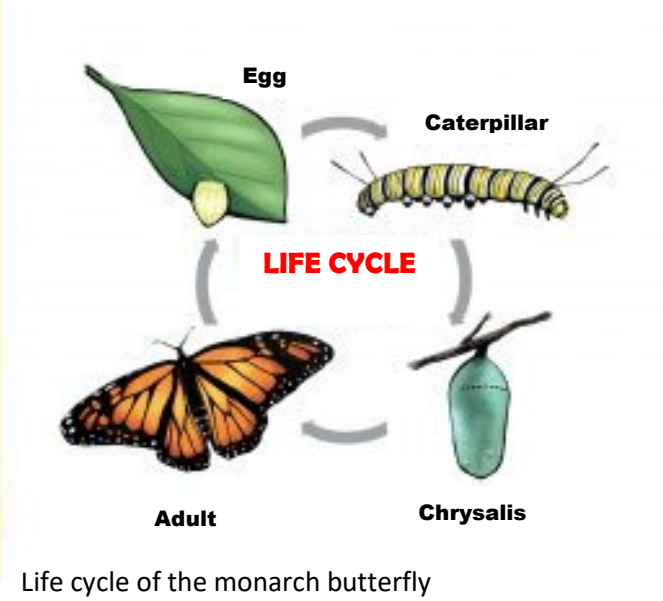
MONARCH

Danaus plexippus



Life cycle of the monarch butterfly

Illustration taken from Mission Monarch

Physical characteristics

The life cycle of the monarch butterfly is divided into four very different physical stages:

Stage I – The monarch egg is pale yellow and somewhat oval. Monarchs lay their eggs on a plant called milkweed. They hatch after 3 to 8 days.

Stage II – The caterpillar is distinguished by white, yellow, and black bands. It feeds exclusively on milkweed for a period of 9 to 13 days.

Stage III – The caterpillar forms a green-and-gold chrysalis, usually some distance away from the milkweed.

Stage IV – The adult monarch has a wingspan of 9 to 11 cm. Its wings feature black veins and a black border with white spots.

Diet

Monarch caterpillars eat only the leaves, fruit, and flowers of the milkweed plant. The adult butterfly feeds on the nectar of a wide variety of wildflowers, though primarily common milkweed, swamp milkweed, butterfly milkweed, and showy milkweed. Fall-flowering species are an especially important food source because they provide the monarch with the energy it needs for migration.

Habitat

The monarch is a migratory butterfly that can be found in Quebec from spring to summer. In the fall, it leaves to find overwintering sites in the warmer climate of Mexico. In Quebec, the monarch favours herbaceous areas with abundant milkweed. Of all the habitats in which it is found, it prefers the open spaces of abandoned farmland and riparian buffers.

Periods of vulnerability

- The monarch is present in southern Quebec from June to September. During this period, it mates two or three times. It is therefore sensitive to mowing throughout the summer.
- In September, the monarch begins its southward migration. At this time, it must feed on flowering plants like asters and goldenrods to get the energy it needs for the journey.

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Threats

- Reduced reproduction and food supply due to use of herbicides and pesticides in its habitat.
- Reduced reproduction and food supply due to conversion of herbaceous grasslands to annual crops like corn and soy.
- Decline in milkweed quality and nectar availability due to climate change (cool, wet summers or, conversely, drought).

Sustainable practices

- As much as possible, avoid mowing fields where milkweed and monarchs are present between June and September.
- Plant and protect native milkweed varieties in landscaping projects. Monarch caterpillars eat this plant exclusively, making it crucial to the species' survival.
- Create pollinator gardens by planting nectar-producing vegetation such as milkweed, common milkweed, common yarrow, blue giant hyssop, boneset, spotted Joe-Pye weed, wild bergamot, Canada goldenrod, and asters.
- Limit the use of pesticides/herbicides that are toxic to monarchs and other pollinators.

The difference between monarch and viceroy butterflies

The viceroy is distinguished by a black horizontal line that crosses its hindwings. The monarch lacks this marking.

- As of 2023, **endangered** species listed on Schedule 1 of the *Species at Risk Act*, but likely to change
- Management Plan for the Monarch (*Danaus plexippus*) in Canada: www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/mp_monarch_e_proposed.pdf

Sources

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