

David Suzuki: Day of the Dead is a time to celebrate life and monarch butterflies

By David Suzuki and Faisal Moola Publish Date: November 2, 2010

Every autumn, tens of millions of monarch butterflies take wing in southern Ontario, embarking on a miraculous <u>3,000-kilometre</u>, two-month journey, arriving in central Mexico in late October and early November. The indigenous people of Mexico believe the returning butterflies carry the souls of ancestors, and November 1 and 2 are celebrated there as the Days of the Dead. Catholic tradition has been syncretized with indigenous observance, so November 1 is All Saints' Day, when the spirits of children return, and November 2 is All Souls' Day, the main Day of the Dead, when the spirits of adults return.

It's a time of celebration, as many Mexicans share a belief with people around the world that a veil is lifted between the living and the dead at this time of year, allowing ancestors to visit for a brief time. We see the origins of Halloween in this belief. It's also a time to celebrate the bounty of the harvest. In fact, the Purépecha indigenous word for the monarch can be translated as "harvest butterfly". The monarch's scientific name, *Danaus plexippus*, means "sleepy transformation", because the butterflies hibernate and metamorphose, from egg to caterpillar to chrysalis to butterfly.

There's also much to celebrate about the <u>monarch butterfly</u>, even though these fragile insects have flown close to the plane of death in recent times. Populations have been reduced by as much as 90 per cent in the past, but there's still hope. That these delicate creatures can make such an arduous journey is in itself a wonderful story of survival and the mysterious workings of nature.

Adult monarchs normally live for just a few weeks. On their northern migration from Mexico, in March and April, they stop along the Gulf Coast of the United States to lay eggs on milkweed, the only source of food for the caterpillars. Over several generations, the butterflies make their way northward, landing on milkweed to lay more eggs along the way. Toward the end of summer, a "Methuselah" generation is born. These butterflies survive for seven or eight months, and it is they who make the incredible journey south.

Even though they have never been to the volcanic mountains of Mexico, the butterflies are guided by internal compasses and the movement of the sun to the oyamel fir forests where their ancestors spent the winter hibernating before renewing the cycle with their journey northward.

During their southward migration, monarchs feed on nectar and help pollinate plants. They let rising columns of air carry them, helping them conserve energy from the nectar. The Methuselah monarchs do not reproduce during migration.

The monarch's relationship with milkweed is interesting. The plant contains a poison that doesn't harm the feeding caterpillars. They store this poison throughout their lives, which makes them toxic to many, but not all, predators. These predators have learned that the monarch's unique bright orange wings with black veins and white spots signal danger. But this evolutionary artistry isn't enough to protect the monarchs from threats such as logging —legal and illegal—in the forests where they

winter, pesticides and herbicides, pollution, storms, parasites and disease, and development and agriculture that eradicate milkweed and nectar-containing flowers.

If we don't protect the forests in Mexico and the milkweed habitat and nectar sources along their migration routes, the eastern monarch may not survive. Thanks to the efforts of conservation groups, including the World Wildlife Fund and the Mexican Fund for the Conservation of Nature, much of the monarch's winter habitat has been protected as the <u>UNESCO Monarch Butterfly Biosphere Reserve</u>. Even in the reserve, though, illegal logging and storms threaten the monarchs.

We can all help these fascinating creatures, the eastern populations and those that migrate between other parts of Canada to the U.S. and Mexico. To start, we can support conservation efforts and encourage governments to create and protect places where the monarchs feed and breed. Creating pesticide-free monarch way stations or "<u>butterfly gardens</u>" with milkweed and flowers that offer nectar, water, and shelter, in parks, gardens, and schoolyards, is another great way to help the butterflies.

The monarch offers a vivid illustration of the complexity of nature and of the way all of nature is interconnected. And who knows? It may also offer a glimpse of the connection between the worlds of the living and the dead.

Learn more at <u>www.davidsuzuki.org</u>.

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