

The Butterfly Effect

SMALL EVENTS CAN HAVE BIG OUTCOMES

BENEFITS OF BUTTERFLIES

There are about 18000 different species of butterflies worldwide. Butterflies provide a wealth of benefits to any ecosystem.

- Natural pest control
- Barometers-indicate the state of that area
- Strong pollinators
- Contribute to biodiversity
- Forces a no-pesticide zone
- Assist with the cycle of life
- Support Native plant species

SUPPORT

Some tips for creating the Butterfly effect

- Provide shade/shelter -think of things like trellis, pergola, shrubs
- Rocks-large and small rocks provide cool areas to rest and shelter from the heat
- Pathways-rock pathways with creeping plants provide cool places and nectar in the heat of summer
- Native plants-providing a surplus and variety of native plants support pollination and food
- Have a source of water nearby

COMMON BUTTERFLIES

- Red Admiral range-*Vanessa Atalanta*
- Painted Lady-*Vanessa Cardui*
- Monarch-*Danaus Plexippus*
- Viceroy-*Limenitis Archippus*
- Mourning Cloak-*Nymphalis Antiopa*

These are just a few of the species we see around North America



RED ADMIRAL RANGE

- ARE FOUND THROUGHOUT NORTH AMERICA
- HAVE A WING SPAN OF 4.5-6.5 CM
- DARK BROWN COLOURING WITH REDISH BANDS AND WHITE SPOTS
- FOUND AT THE EDGE OF FORESTS IN MOIST SPOTS
- LOVES FERMENTED FRUITS
- THEY FLY SOUTH IN THE WINTER



PAINTED LADY

- ARE FOUND THROUGHOUT NORTH AMERICA
- HAVE A WING SPAN OF 4.5-6.5 CM
- PINKISH/ORANGE WITH DARK BROWN TO BLACK MARKINGS NEAR THE WING TIPS
- FOUND IN UNDISTURBED AREAS OF OPEN PASTURES, GARDENS AND ROADSIDES
- ONLY BUTTERFLY THAT MATES YEAR ROUND
- THEY FLY SOUTH TO MEXICO IN THE WINTER
- PREFER TO FEED ON CLUSTERED PURPLE, RED OR YELLOW FLOWERS



MONARCH

- ARE FOUND THROUGHOUT NORTH AMERICA AS A WESTERN POPULATION AND EASTERN POPULATION (SEE MAP)
- HAVE A WING SPAN OF 8-10 CM
- RECOGNIZED FOR THE STAINED GLASS PATTERN OF ORANGE AND BLACK VEIN
- MOST WELL KNOWN SPECIES IN THE WORLD.
- IS NOW CONSIDERED ENDANGERED
- THE LARVAE AND CATERPILLAR FEED SOLELY ON THE MILKWEED PLANT
- THE MILKWEED PLANT IS THE ONLY PLACE THEY CAN SUCCESSFULLY LAY THEIR EGGS
- THE USE OF HERBICIDES AND INSECTICIDES ARE LINKED TO THE DECLINE OF THE MONARCH BUTTERFLY



VICEROY

- ARE FOUND THROUGHOUT NORTH AMERICA
- HAVE A WINGSPAN OF 6.5-9CM
- COLOURING IS DEEP ORANGE WITH BLACK EDGES AND WHITE SPOTS. THEY ALSO HAVE A BLACK LINE AT THE BOTTOM OF THE WING
- LOOK ALMOST IDENTICAL TO THE MONARCH BUTTERFLY EXCEPT FOR THE BLACK LINE
- VICEROY CATERPILLAR HAS HORNS AND LOOKS VERY DIFFERENT FROM THE MONARCH.
- VICEROY BUTTERFLY DOES NOT MIGRATE





MOURNING CLOAK

- ARE FOUND THROUGHOUT NORTH AMERICA
- WINGSPAN 7.5-10CM
- THEY ARE BLACK WITH YELLOW BORDER AND PURPLE SPOTS
- ARE OFTEN FOUND NEAR DECIDUOUS TREES BUT THEIR HABITAT ALSO INCLUDES PARKS, SUBURBAN AREAS
- THIS BUTTERFLY IS HARD TO SPOT AND HAS A PREFERENCE FOR COLDER WEATHER. THEY ARE THE FIRST TO EMERGE AFTER THE WINTER
- THEY ARE ONE OF THE LONGEST LIVING BUTTERFLY'S AT 10 MONTHS



BUTTERFLY NATIVE PLANTS

Some of the most loved native plants and flowers of butterfly's and moths include:

- Yarrow
- Hyssop
- Hollyhock
- Columbine
- Milkweed
- Asters
- Joe bye weed
- Blanket flower
- Lupine
- Speedwell
- Bachelor buttons
- Bee Balm
- Catmint
- Lilies
- Phlox
- Coneflower
- Ironweed
- Willow
- Oaks
- Black-eyed Susan
- Dogwoods
- Spicebush
- Passionflower vine
- False blue indigo
- High bush/low bush Blueberry
- Blue Vervain
- Blazing Star

CALL TO ACTION

Join Serendipity Permaculture's BUTTERFLY EFFECT MONARCH MISSION

www.serendipitypermaculture.com

BUTTERFLY EFFECT MONARCH MISSION

JOIN US FOR A MONTH OF PLANTING MILKWEED.

- **FROM May 1st-May 31st**
 - **YOU ARE CHALLENGED TO PLANT AS MANY MILKWEED AS POSSIBLE. THIS CAN BE SEEDS, LARGE POTS OR SMALL SEEDLINGS.**
 - **YOU CAN GIVE THEM AWAY OR PLANT IN YOUR LOCAL COMMUNITY OR SCHOOL WITH PERMISSION.**
 - **TAKE PICTURES AND POST ON INSTAGRAM/TELEGRAM IN STORIES OR REELS TAGGING @SERENDIPITYPERMACULTURE AND @NATIVEPLANT_SOCIETY**
 - **ANYONE WHO POSTS WILL BE ELIGIBLE FOR A DRAW TO WIN A BOOK ABOUT NATIVE PLANTS IN THEIR RESIDING AREA!**

Monarch butterfly's are the among the most recognized and known in the world. They are an imperative part of the ecosystem and provide a large number of benefits. Some include;

- **Natural pest control**
- **Strong pollinators for our food systems**
- **Contribute to biodiversity**
- **Assist with the cycle of life**
- **Supports Native plant species which provides ecological, restoration, rewilding or renaturalization benefits**

They are also the most endangered species of butterfly. Some of the reasons for this include the increase in herbicides and pesticides being sprayed on pasture land, forests, roadsides and private land. Other reasons include fire, agriculture, logging and thinning/over logging areas of forests. This includes where they migrate to, as well as in Canada.

Each fall, Monarch butterflies from Canada travel approximately 4,000 kilometers to Mexico. They will fly to the Oyamel Fir Forests of Central Mexico where they will live for about six months. The Monarch population in southern British Columbia migrates to coastal California.

In the spring, when the Monarch migrates back to Canada, the migration is multi-generational. This means that the Monarchs leaving Canada in the fall are not the same Monarchs that return in the spring. In some cases, it is the great-great-grandchildren of the Monarchs from the previous summer that are arriving in Canada. It is extremely important to preserve and cultivate areas for the butterfly to eat and lay eggs in the areas that they migrate to as well as where they may return to.

CALL TO ACTION

Monarch butterfly's rely on Milkweed as their main source of food and to lay their eggs. They will actually only lay their eggs on Milkweed and this is the only place their eggs will survive. Currently there is a plant called Dog-strangling vine that is a look a like.

When monarch's cannot find Milkweed to lay their eggs in, they can mistake this plant for Milkweed.

When this happens, their eggs will not survive.

There are 73 different species of Milkweed in North America. Some of the most known are Common Milkweed, Swamp milkweed and Butterfly weed.

The most important aspect is that we plant Native species of Milkweed not a Nativar that are not indigenous to the area and do not contain all the benefits of Native Milkweed.

A Nativar is a plant that has been taken from a Native species but then cross bred to contain a specific trait. When this happens, it will result in a loss of genetics and often times the flowers can be sterile and eventually produce no seeds.

In order to prevent this issue, only source your Milkweed or Native plants from a Native plant society, nursery or someone you trust.

RESOURCES FOR FURTHER STUDY AND CONNECTION

**ONTARIO BUTTERFLY MONITORING PROGRAM*

**www.onbutterflymonitoring.wordpress.com*

**NORTH AMERICAN BUTTERFLY ASSOCIATION*

**www.naba.org*

**Butterfly garden certification program*

**NATIONAL BUTTERFLY CENTRE*

**www.nationalbutterflycenter.org*

**Douglas Tallamy*

**www.homegrownnationalpark.org*

**ONTARIO INSECTS*

**www.ontarioinsects.org*

**NATURE CONSERVANCY*

**www.natureconservancy.ca*

**MONARCH NATION*

**www.monarchnation.ca*