

ENVIRONMENT AND CLIMATE CHANGE CANADA: EARLY ENGAGEMENT ON THE DEVELOPMENT OF A RECOVERY STRATEGY FOR MONARCH

Victoria Leck and Elisabeth Shapiro
Canadian Wildlife Service – ON Region
March 9, 2022



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Interactive activity: Word Cloud

- What comes to mind when you think of Monarch?



Agenda

TIME	ITEM
9:00-9:15	Welcoming and polling question Acknowledgements, Agenda and Housekeeping Items
9:15 – 9:45	ECCC to provide Species at Risk introduction and overview, with discussion and Q&A
9:45 – 10:20	CIER to introduce polling questions Monarch presentation with discussion and Q&A
10:20 – 10:30	BREAK
10:30 – 11:10	Indigenous-led conservation of Monarch Butterfly – Presentations with discussion and Q&A: <ul style="list-style-type: none">• Theodore Flamand, Wikwemikong Unceded Indian Reserve• Judith Jones, Neniisaanak Wii Ngooshkaak
11:10-11:25	Break out rooms (discussions and networking session)
11:25-11:40	Participants back to main room for discussions, Q & A and wrap-up with ECCC.
11:40 – 11:45	Review of Graphic recording
11:45-12:00	Closing and Wrap-up



Why Are We Here Today?

- Species at Risk Act Consultation, Cooperation and Accommodation Project
- Context: The *Species at Risk Act* (SARA) Process
- Monarch species information
- Recovery actions and implementation
 - Judith Jones and Theodore Flamand, Wiikwemkoong Unceded Territory
 - Darryl van Oirschot, Caldwell First Nation
- Discussion on current recovery work and future recovery planning



SARA Consultation, Cooperation and Accommodation Project:

- Partnership between Environment and Climate Change Canada (ECCC) and the Centre for Indigenous Environmental Resources (CIER) on a National Species At Risk Act (SARA) Consultation, Cooperation, and Accommodation Project
- Goal: facilitate Indigenous communities' and organizations' participation in meaningful consultation and cooperation in support of the listing, recovery and protection provisions of SARA.



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SARA Consultation Project: Overview

CIER will:

- Provide support to Indigenous communities and organizations and ECCC in our collaborative nation-to-nation work, including:
 - recovery document development
 - knowledge and language sharing
 - land relationship planning for species at risk on reserve lands and within traditional territories
- Provide of funds on behalf of ECCC, through:
 - participant fees and Elder honoraria to attend species-specific workshops
 - modest capacity funding requests
 - Expression of Interest (EOI) call for proposals



SARA Consultation Project Workshops

Workshop	Date/Time
Introduction to the Species at Risk Act (SARA)	Feb 3, 2022; 9am-12pm EST
Information session on the EOI call for proposals and Consultation on amending the list of species under SARA	Feb 9, 2022; 12:30-1:30pm EST (30 min break) 2-4pm EST
Consultation on the addition of Black Ash to Schedule 1 of SARA	Feb 17, 2022; 2-4pm EST
Early engagement on the development of a recovery strategy for Monarch	Mar 9, 2022; 9am-12pm EST
An introduction to the Land Relationship Visioning Tool	Mar 23, 2022; 9am-12pm EST This is the 3 rd session in the series for participants to bring their learnings back and discuss/evaluate the utility of the tool and progress to date



The *Species at Risk Act*

SARA is designed to:

- Protect individuals and habitat;
- Allow for recovery of species; and
- Work in a complimentary fashion with provincial legislation



The *Species at Risk Act*

Recognizes that:

“the roles of the Aboriginal peoples of Canada and of wildlife management boards established under land claims agreements in the conservation of wildlife in this country are essential,”

and that:

“the traditional knowledge of the Aboriginal peoples of Canada should be considered in the assessment of which species may be at risk and in developing and implementing recovery measures”



The *Species at Risk Act* Process

Species are re-assessed every 10 years

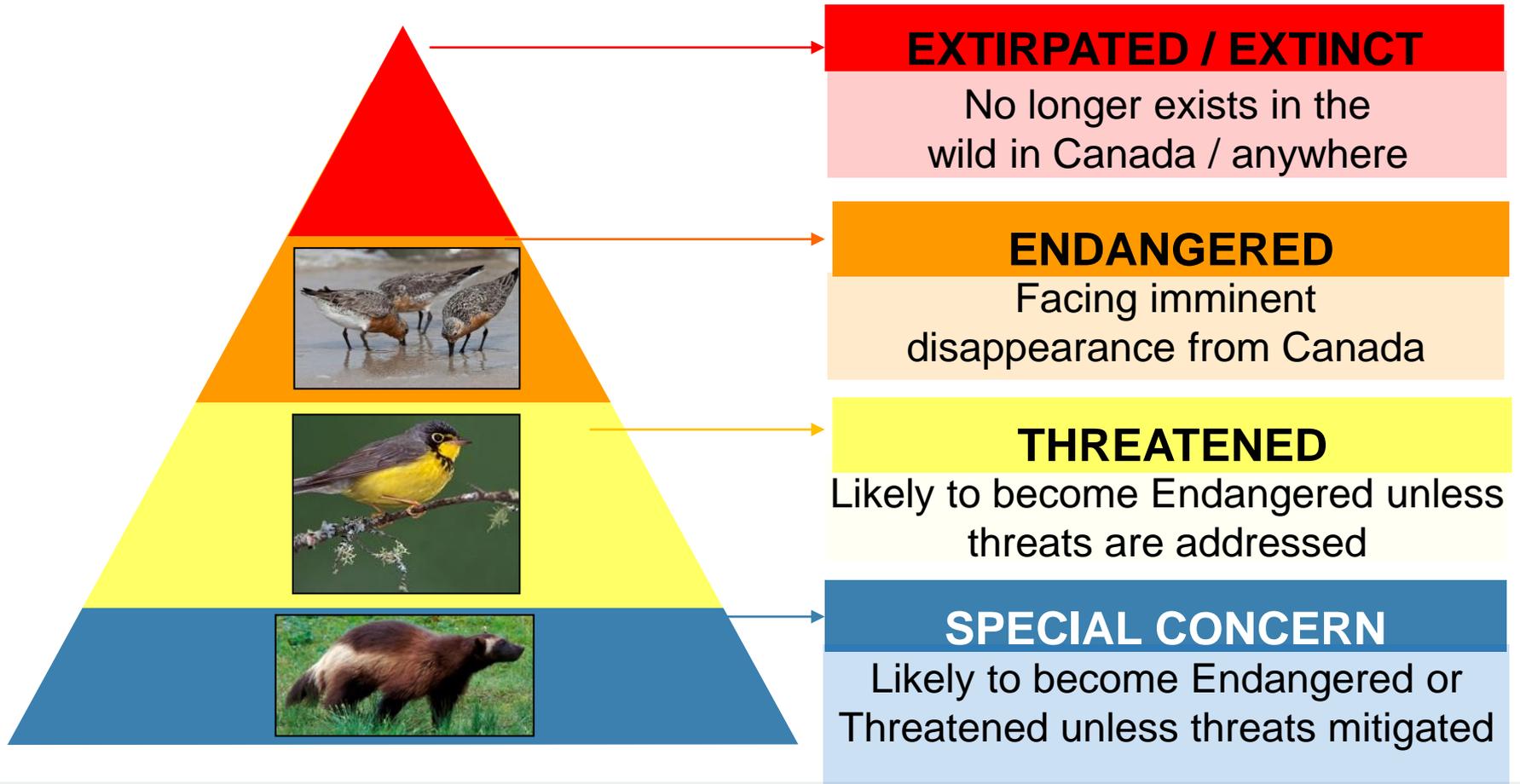


Assessment: Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

- Independent group of experts who assess the risk of species' extinction in Canada
- COSEWIC assessments are based on:
 - Status of wildlife in Canada
 - International Union for Conservation of Nature (IUCN) quantitative criteria
 - Scientific knowledge, Aboriginal Traditional Knowledge (ATK) and community knowledge
 - ATK subcommittee provides ATK to COSEWIC during assessment process



Assessment – Species Status



Monarch (*Danaus plexippus*)

Reassessed as Endangered by COSEWIC in 2016

- Currently listed as **Special Concern** under SARA. First assessed as Special Concern in 1997; listed under SARA in 2003
- Management Plan published in 2016
- Migratory species with collaborative tri-national science and conservation approach between Canada, United States and Mexico

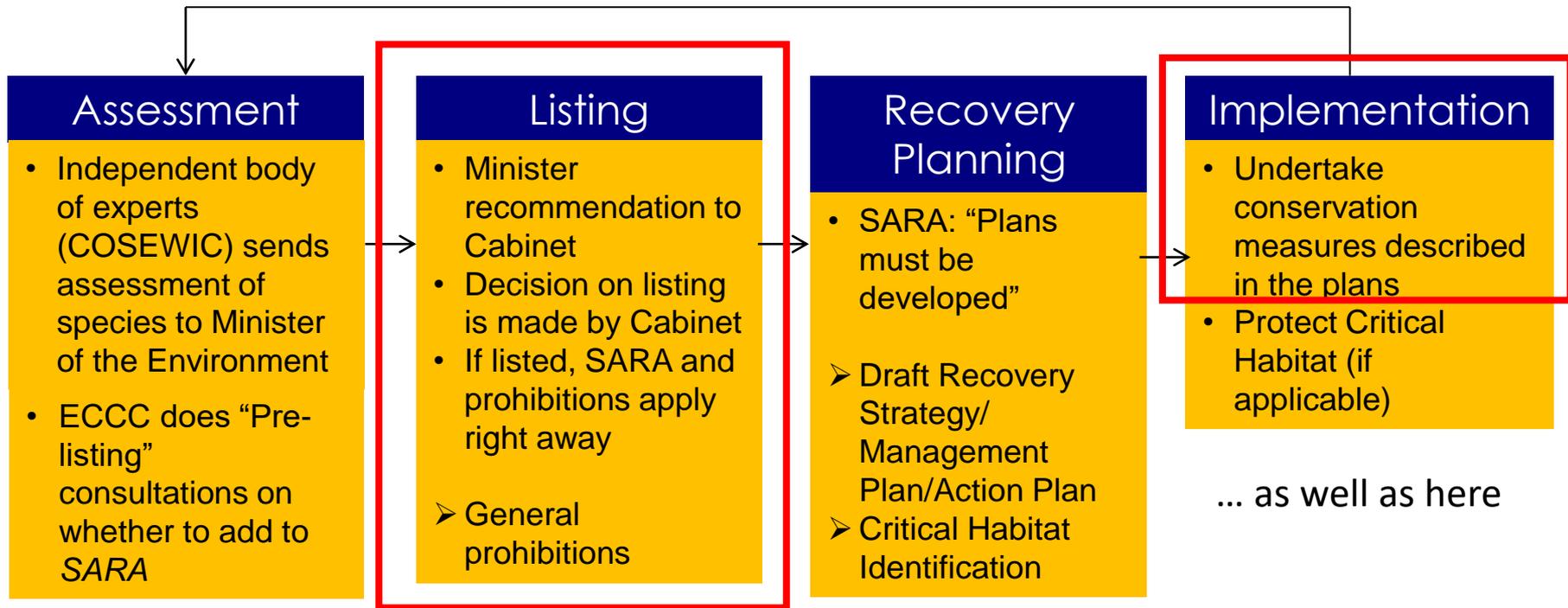


Photo/image: Bob Graham, Point Pelee National Park



The *Species at Risk Act* Process

Species are re-assessed every 10 years



... as well as here

Monarch is here



Recovery Planning: Requirements

- For species of *special concern*, a **management plan** is prepared
 - No critical habitat is identified
- For *extirpated, endangered and threatened* species, a **recovery strategy** is prepared within a mandated timeframe:
 - Within 1 year for endangered; 2 years for threatened/ extirpated
 - Must include identification of critical habitat where possible
- Recovery Documents must be prepared in consultation and cooperation with those directly affected
- Purpose of cooperating with Indigenous communities and organizations:
 - To gather information to inform strategies/ plans for recovery
 - To engage Indigenous peoples in recovery implementation
 - To avoid or minimize impact on Aboriginal rights



Recovery Planning: Areas of Focus

Consultation & Cooperation on recovery documents

Information to inform the recovery documents, focusing on:

- Where the species and its habitat have **been found**
- What the **species needs** to survive and/or recover
- **Threats** (current and historical) and which activities might destroy **their habitat**
- **What could be done** to recover/manage the species and **what actions** are already underway
- Population and distribution **objectives** for recovery/management
- **Indigenous Knowledge** that knowledge holders would like to see included in a recovery document
- Anything else that may **aid in the survival and recovery** of the species



Funding Opportunities

- **Indigenous leadership is key to implementation of the Species at Risk Act**
- The Federal government's funding programs focus on improving partnerships with Indigenous people that support continued Indigenous leadership and engagement in nature protection, wildlife management and sustainable resource practices, including:
 - **Aboriginal Fund for Species at Risk**
 - **Habitat Stewardship Program**
 - **Canada Nature Fund**
 - **CIER funding**
 - **EOI Proposals due March 11 - <https://yourcier.org/sara/ontario/>**



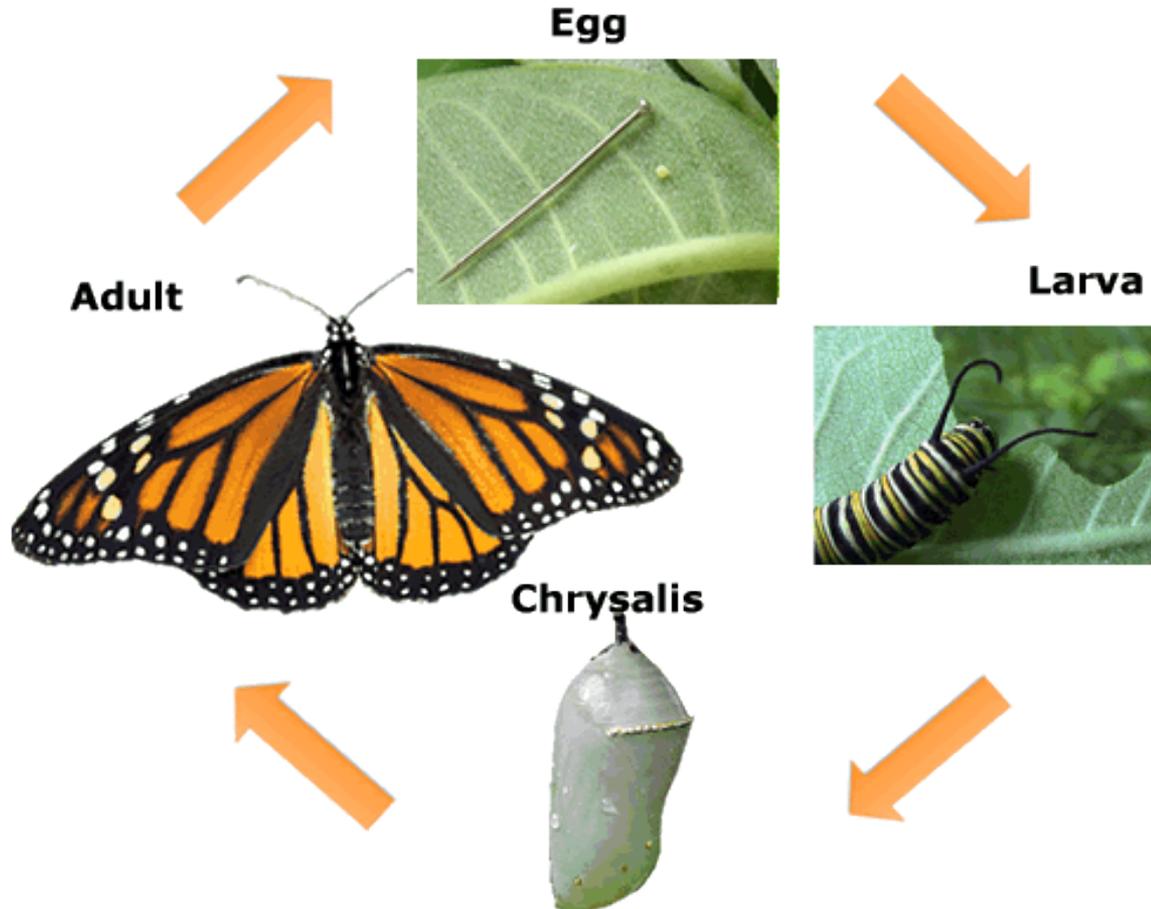
Recovery Planning: Poll Questions

Have you/your community been involved in:

1. Participating in surveys for Monarch?
2. Creating or improving Monarch habitat?



Monarch (*Danaus plexippus*)



Monarch Habitat

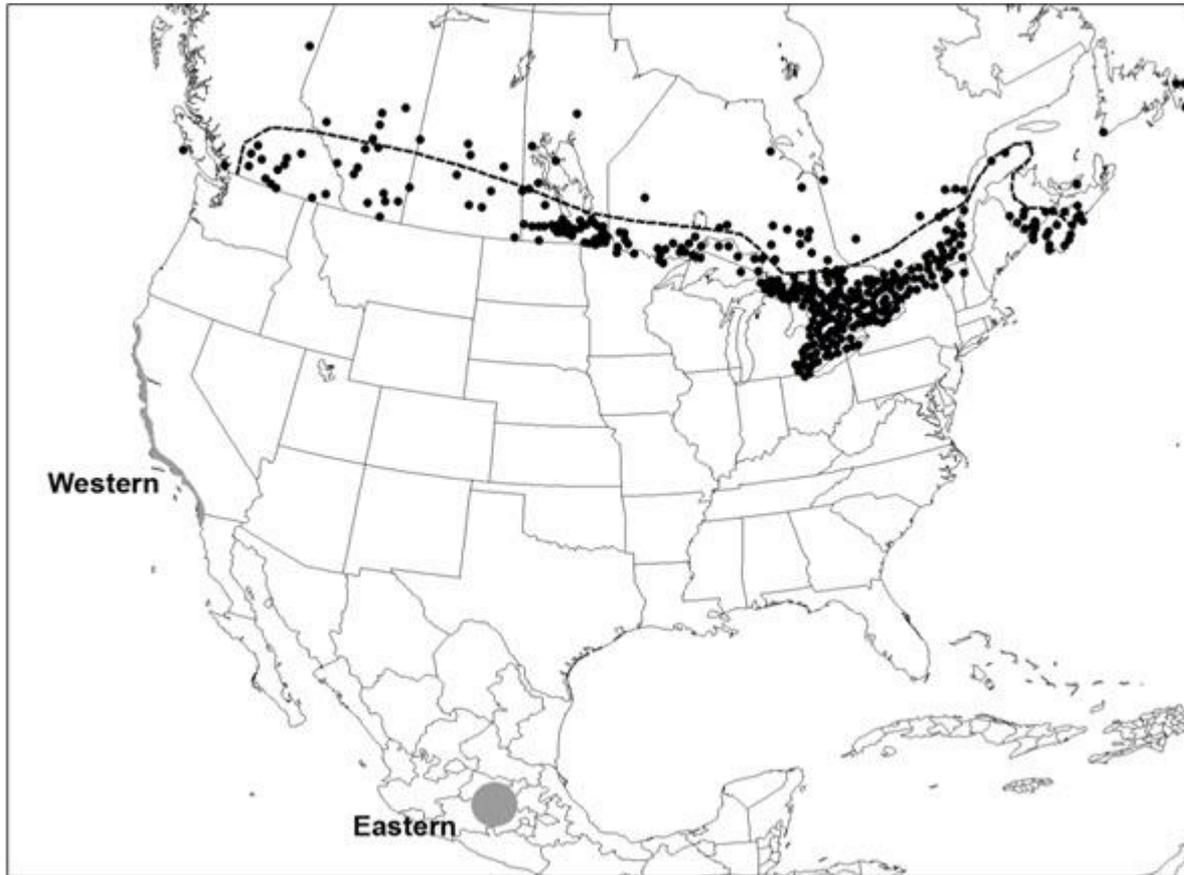
- Monarch is a habitat generalist- it is found wherever its host plant milkweed grows;
- Milkweed grows in a wide variety of habitats including prairies, wetlands, fields, agricultural lands, and roadsides;
- There are 14 species of milkweed native to Canada
- In Ontario, Common Milkweed and Swamp Milkweed are the most abundant;
- Monarchs also need a wide variety of nectaring plants to feed upon throughout the active season
- During migration, Monarchs need staging areas to rest, feed, and avoid bad weather.



Common Milkweed by Homer Edward Price, CC BY 2.0



Monarch Range



COSEWIC 2016



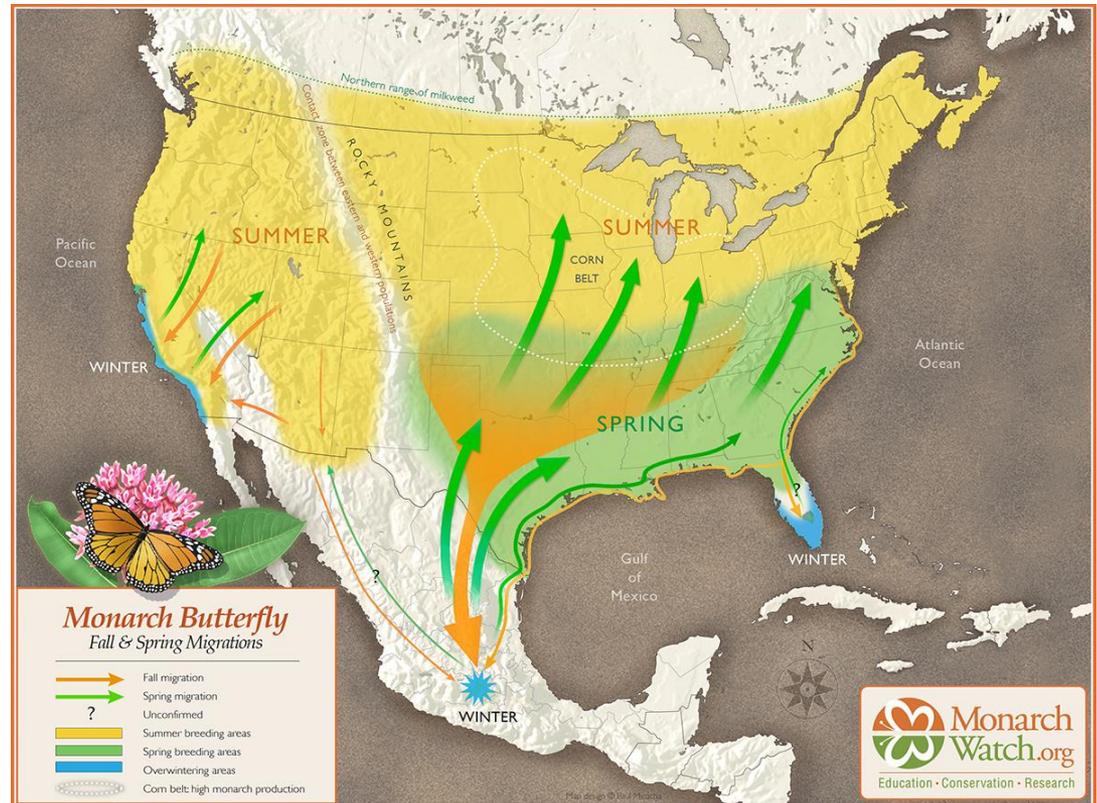
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Monarch: The Migratory Phenomenon

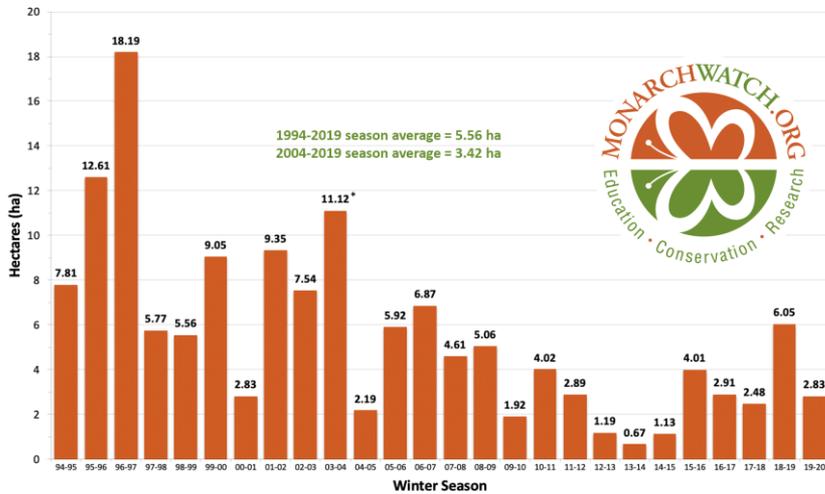
- Adults in Mexico begin to migrate north in the late winter
- Successive generations travel north like a relay race
- Typically takes 3 generations to reach Canada
- 2-3 generations produced in Ontario between June and October
- In late summer “super-generation” adults migrate 4000 km to Mexico.



Monarch Population Status

Declines of >50% have occurred from 2006 to 2016

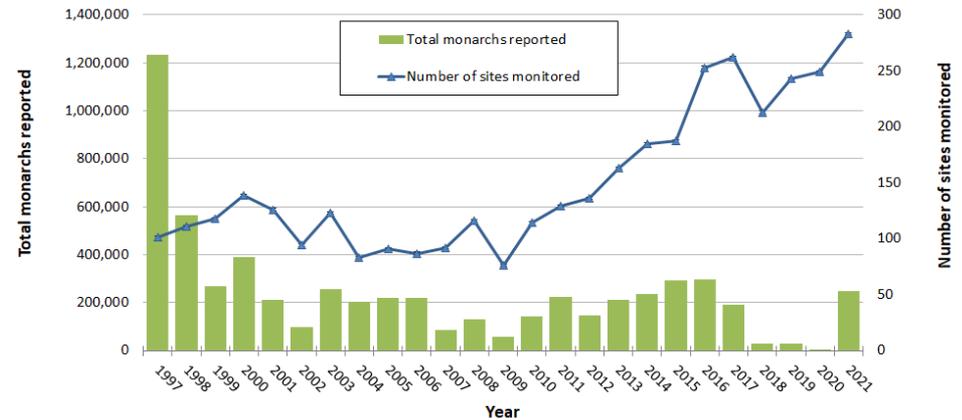
Total Area Occupied by Monarch Colonies at Overwintering Sites in Mexico



Data for 1994-2003 collected by personnel of the Monarch Butterfly Biosphere Reserve (MBBR) of the National Commission of Natural Protected Areas (CONANP) in Mexico. Data for 2004-2019 collected by World Wildlife Fund Mexico in coordination with the Directorate of the MBBR.
* Represents colony sizes measured in November of 2003 before the colonies consolidated. Measures obtained in January 2004 indicated the population was much smaller, possibly 8-9 hectares. CT

Western Monarch Thanksgiving Count
Total monarchs reported and number of sites monitored from 1997-2021

© The Xerces Society for Invertebrate Conservation 2022
www.westernmonarchcount.org



Threats to Monarch

- Loss of milkweed due to:
 - Herbicide use
 - Changes to agricultural practices
 - Shifts from hay or fallow to crops
- Habitat loss due to land conversion
- Detrimental management practices
- Pesticides and pollutants
- Invasive plant species
- Mortality during migration
- Threats at overwintering grounds



Conservation Actions

- Promote and participate in community science programs to improve knowledge of Monarch in Canada;
- Encourage habitat creation & restoration;
- Encourage the planting of regionally sourced native milkweed and flowering plants;
- Incorporate Monarch conservation needs into monitoring projects and multi-species conservation initiatives;
- Implement best management practices to reduce threats to Monarch associated land and vegetation management;
- Education & outreach activities to raise awareness about Monarch and the threats it faces.



Habitat Creation & Restoration

- Multiple habitat types:
Breeding, nectaring, staging;
- Restoration of native ecosystems or planting of butterfly/pollinator gardens;
- Ensure flowers are in bloom throughout the entire growing season;
- There is a need for commercial access to regionally specific native seed sources



Community Science

Tracking a widespread, migratory species

mission monarch

Journey North



iNaturalist

eButterfly



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Indigenous-led conservation of Monarch

Joining us to highlight their projects:

- Theodore Flamand, Wikwemikong Unceded Indian Reserve
- Judith Jones, Neniisaanak Wii Ngooshkaak



Networking/ Discussion

Recovery Planning & Implementation:

- Are there any specific threats to Monarchs in your community/territory?
- What conservation actions do you think are necessary in order to recover Monarchs?
- Are there any current conservation actions or any actions that could be implemented on your lands that would benefit Monarch?
- How would you like to be involved or consulted on the development of a potential future recovery strategy for Monarch?



For More Information...

Species at Risk Public Registry: <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>

Community Science: www.Mission-monarch.org
www.monarchwatch.org
www.jorneynorth.org

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