Bird Friendly Gardening

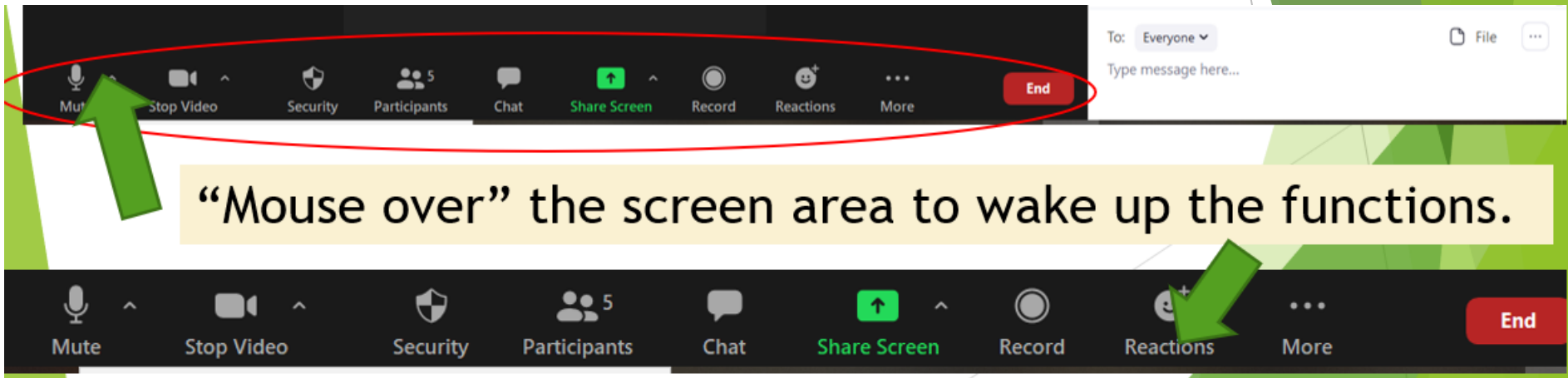
Prepared by:
Etobicoke Master Gardeners

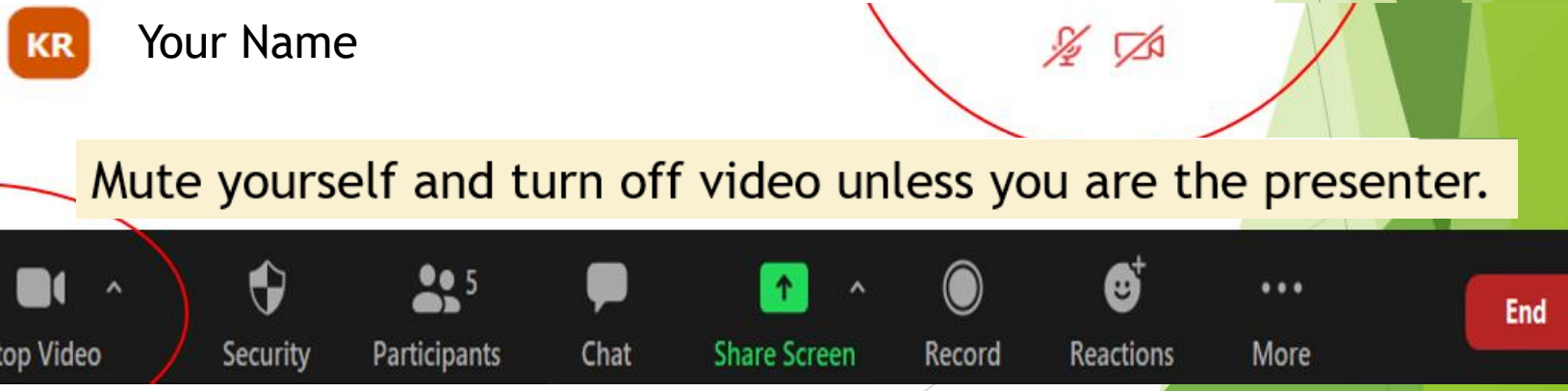
Presented with:
Humber Arboretum

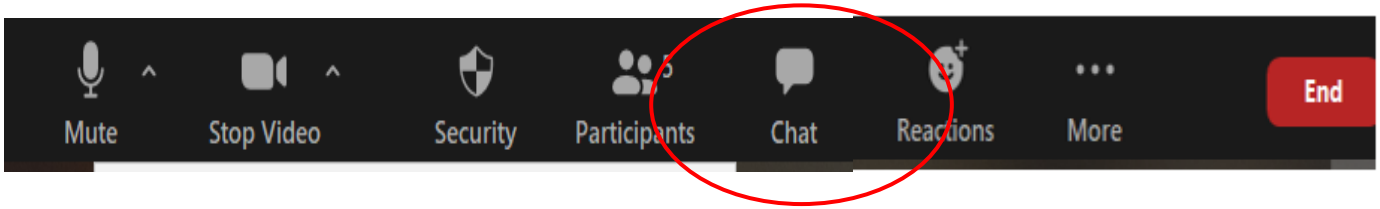
Etobicoke Master Gardeners
www.etobicokemastergardeners.ca

Humber Arboretum
www.humberarboretum.on.ca

Welcome to the virtual world
Zoom Tips & Tricks

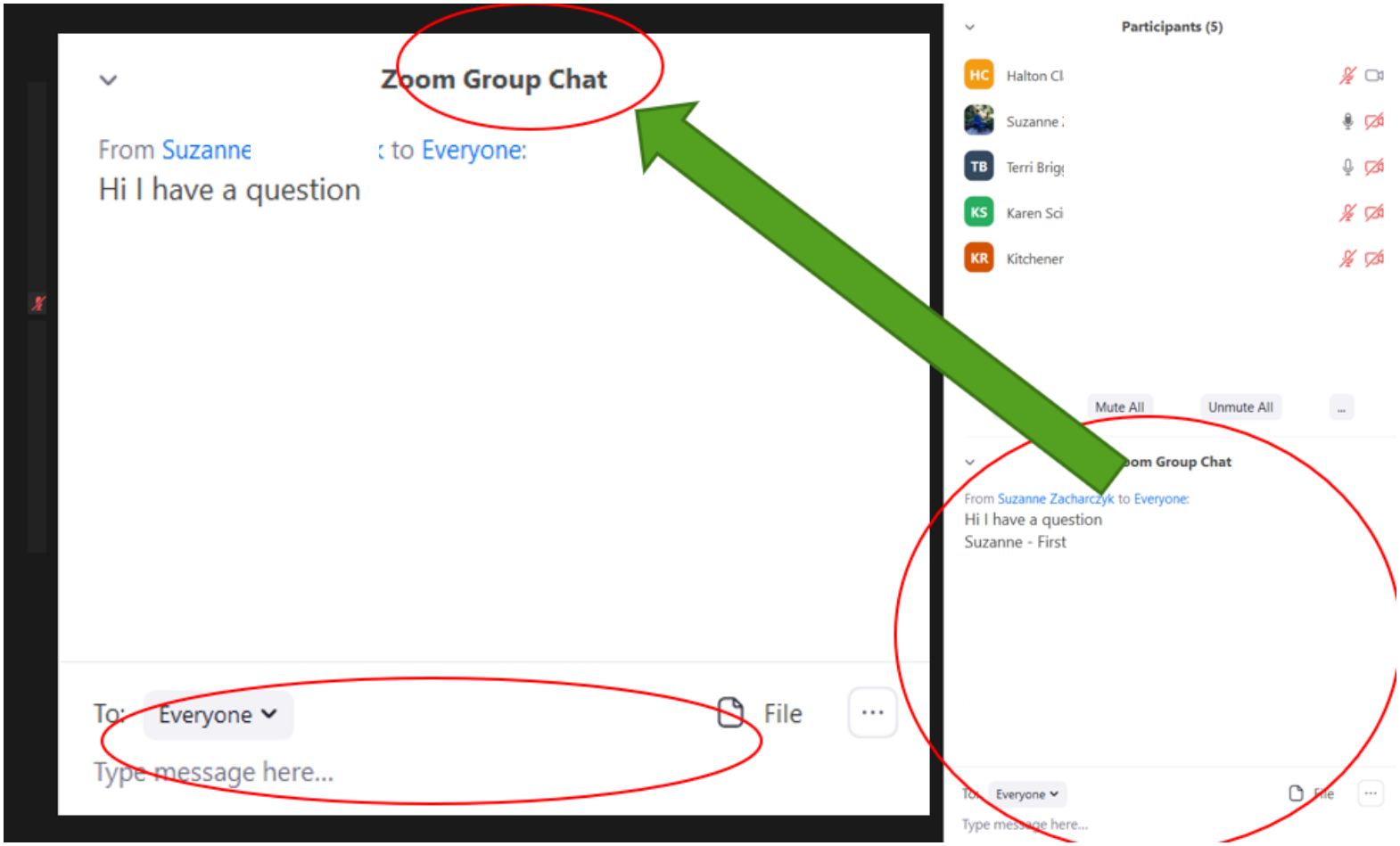






How to ask a question:

- ✓ Click on “Chat” in the functions
- ✓ Type in your question. A moderator will read it.



Master Gardeners of Ontario

Etobicoke Master Gardeners

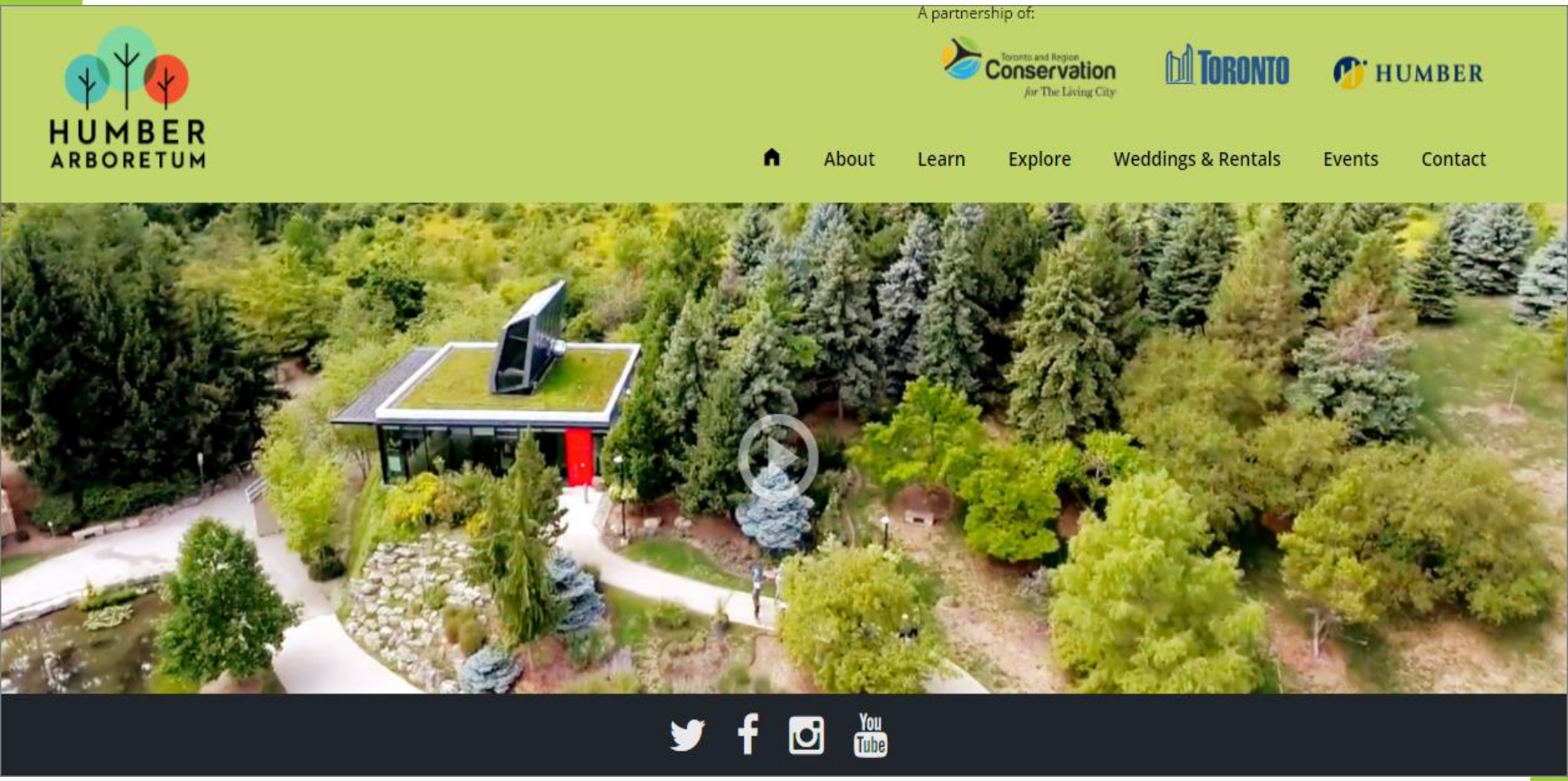
ABOUT US CONTACT US CALENDAR OF EVENTS COMMUNITY ACTIVITIES

Etobicoke Master Gardeners (EMG) was formed in January 2005 and is meant to cover the west side of Toronto and take in those people who want to study for the Master Gardener (MG) designation.

Meetings are held at the Montgomery Inn on the fourth Wednesday of most months from 7 to 10 p.m.

EMG comprises 36 active members: 26 Master Gardeners (MG) and 10 Master Gardeners in Training (MGIT) who are in the process of studying for Master Gardener Certification. We welcome inquiries from enthusiastic and interested individuals wishing to learn more about joining our

Humber Arboretum



LAND ACKNOWLEDGEMENT

Humber Arboretum and Humber College are located within the traditional and treaty lands of the Mississaugas of the Credit.

Known as Adoobiigok [A-doe-bee-goke], the "Place of the Alders" in Michi Saagiig [Mi-Chee Saw-Geeg] language, the region is uniquely situated along the Humber River Watershed, which historically provided an integral connection for Anishinaabe [Ah-nish-nah-bay], Haudenosaunee [Hoeden-no-shownee], and Wendat [Wine-Dot] peoples between the Ontario Lakeshore and the Lake Simcoe/Georgian Bay regions.

Now home to people of numerous nations, Adoobiigok continues to provide a vital source of interconnection for all.

HUMBER ARBORETUM

Session Topics

- ✓ Ecology in your backyard
- ✓ Importance of Pollinators
- ✓ What is Pollination
- ✓ Meet the Pollinators
- ✓ Threats to birds & pollinators in backyards
- ✓ Create a bird friendly garden
- ✓ Plants for birds (and pollinators)
- ✓ Birds of Ontario

Ecology in your backyard

Ecology in your backyard

- ✓ Birds play an important part
- ✓ Can be responsible for pollinating plants
- ✓ Birds ingest and spread seeds
- ✓ Control insect populations

Photo by EMG

Photo by EMG - Ray

Importance of Pollinators

Importance of Pollinators

Worldwide it is estimated that …

- ✓1 of 3 mouthfuls of food we eat, and beverages we drink
- ✓Over ½ the world's diet of fats/oils from oilseed crops
- ✓1,000 of the 1,330 crops grown for beverages, fibres, condiments, spices and medicines

…are dependent on Pollinators

Importance of Pollinators

- ~ 90% of flowering plants rely on pollinators to move their pollen
- ~ 25% of birds diet include fruit or seeds
- Pollinators ensure
  - the reproductive success of plants
  - the survival of the wildlife that depend on those plants
- Tunnelling activities of ground nesting pollinators

What is Pollination?

What is “Pollination” ?

- The process by which pollen grains, the male components that carry a plant’s genetic information, reach the female reproductive parts of another flower of the same species

The bee is dusted with pollen while moving along the blossom

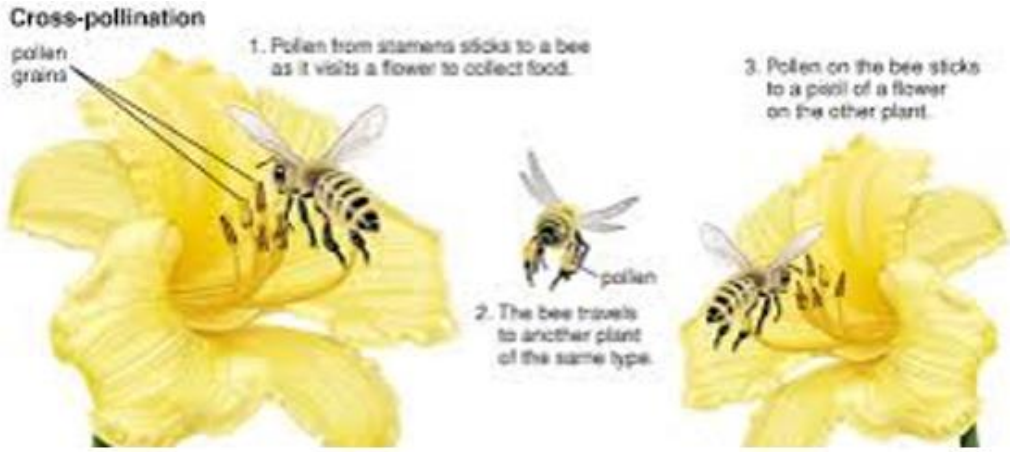
The bee flies to another blossom, while carrying pollen in the her hairs

When the bee lands, pollen is transferred to the new blossoms stigma

Plants can be…

- ‘**self-pollination**’
  - Plants can fertilize themselves

- ‘**cross-pollination**’
  - Required a pollinator or the wind to get the pollen to another flower of the same species



Meet the Pollinators

Pollinators

Bees
(*Hymenoptera* order)

Butterflies and Moths
(*Lepidoptera* order)

Birds

Flies
(*Diptera* order)

Beetles
(*Coleoptera* order)

http://www.pollinationcanada.ca

Bees *(Apoidea or Apiformers)*

Bumble Bee

Leafcutter bee

Mason bee

Carder bee

Honey Bee

Carpenter Bee

Butterflies and Moths (*Lepidoptera* order)

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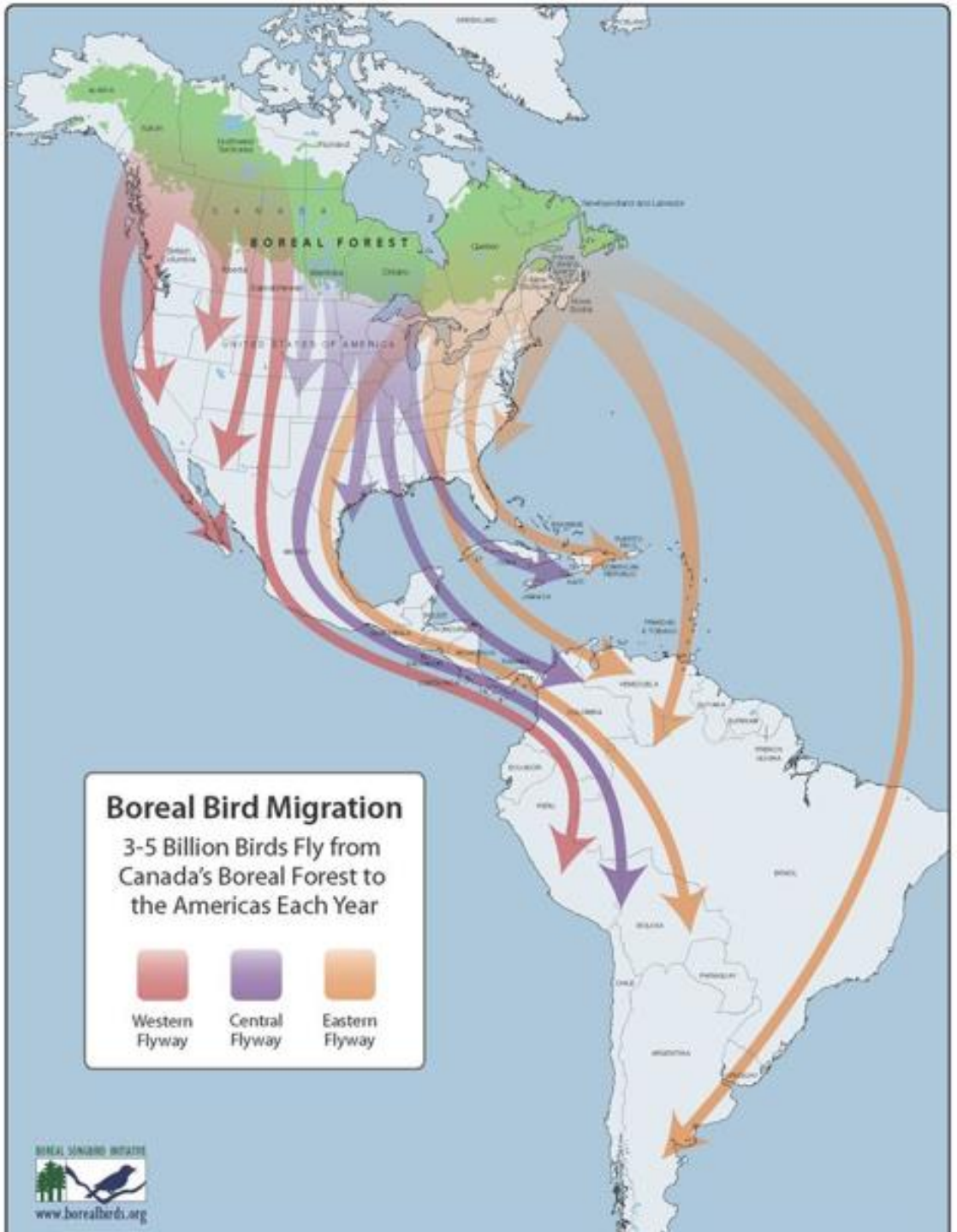
Beetles (*Coleoptera* order)

Flies (*Diptera* order)

Flower Fly / Hover Fly

Birds


BOREAL FOREST
UNITED STATES OF AMERICA
Boreal Bird Migration
3-5 Billion Birds Fly from Canada's Boreal Forest to the Americas Each Year
Western Flyway
Central Flyway
Eastern Flyway
www.borealbirds.org

Winter

Photo by EMG

Photo by EMG

Summer

- ✓ Nesting
- ✓ Territories
- ✓ Singing

Project NestWatch

- ✓ Done from yard or buildings
- ✓ Easy and fun
- ✓ Emphasis on common birds

TOP-10 LIST: 16,296 NESTS REPORTED FOR ALL SPECIES

Rank	*Species*	*2020 Total nests reported*	*2020 Average clutch size*	*2020 Average fledglings*	*2020 Average nesting success (%)*	*Previous 10-year average success (%)*	*Change from previous*
1	Eastern Bluebird	5,234	4.3	3.8	75.1	77.1	
2	Tree Swallow	4,058	5.0	4.5	80.6	75.7	
3	House Wren	2,037	5.4	4.9	78.7	76.0	
4	House Sparrow	1,202	3.6	3.6	4.8	5.0	
5	Purple Martin	641	4.8	4.4	87.1	83.4	
6	American Robin	532	3.3	2.9	55.6	63.6	↓
7	Black-capped Chickadee	298	5.8	5.3	65.5	67.4	
8	Carolina Chickadee	215	5.5	4.8	54.7	63.3	↓
9	American Kestrel	197	4.7	4.2	71.7	81.6	↓
10	Carolina Wren	191	4.3	3.8	77.9	75.9	

Threats to birds and pollinators

Threats to pollinators

- ✓ Pollinators are in decline in North America

- ✓ **Primary reasons for the decline:**
  - ✓ Habitat destruction from human development and agriculture
  - ✓ Overuse of pesticides
  - ✓ Competition from invasive exotic species
  - ✓ Lack of awareness on the role they play
  - ✓ Climate change

www.bing.com/images

Photo by EMG

Main Threats to Birds

- ✓ Outdoor Cats are the single largest threat
- ✓ Window strikes

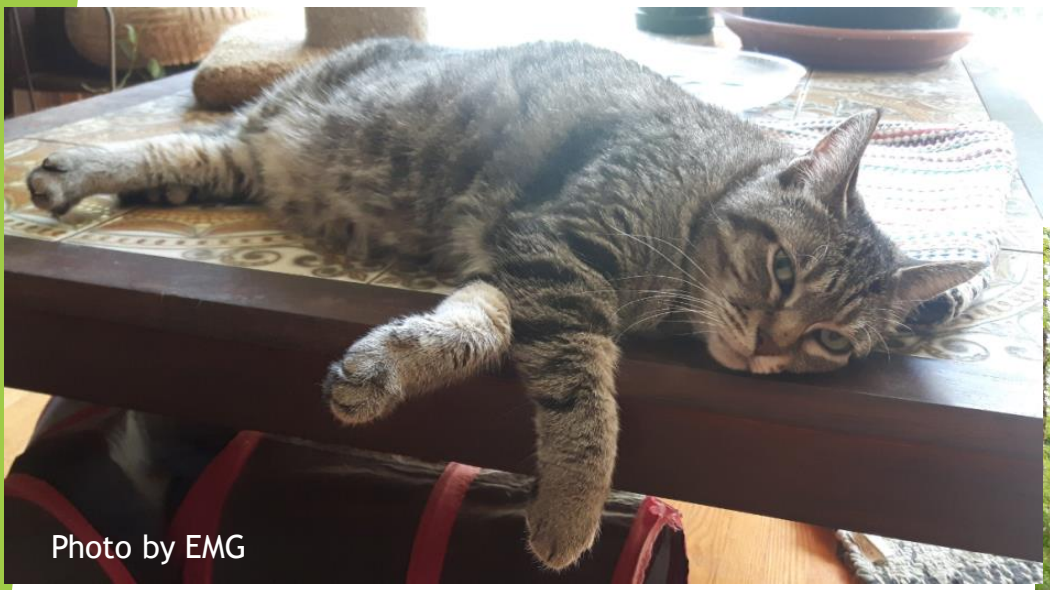


Photo by EMG

Photo by EMG

Create a bird friendly garden

What is a Bird Garden?

- ✓ A place that attracts and sustains birds
- ✓ Contains native plants that provide & attract food sources
- ✓ Where birds feel safe
- ✓ Offers a variety of structures

Elements of Pollinator Garden Success

- ✓ Plant Natives
- ✓ Provide a succession of flowers
- ✓ Plant flowers in clumps
- ✓ Provide a variety of
  - ✓ Colours
  - ✓ Scents
  - ✓ Shapes
  - ✓ Types/species
- ✓ Reduce Your Lawn

Elements of Pollinator Garden Success

- ✓ Keep it Natural
- ✓ Don’t Use Pesticides
- ✓ Provide fresh Water & nesting sites
- ✓ Plant where pollinators will visit

Elements of Bird Garden ‘Tweet’ Success

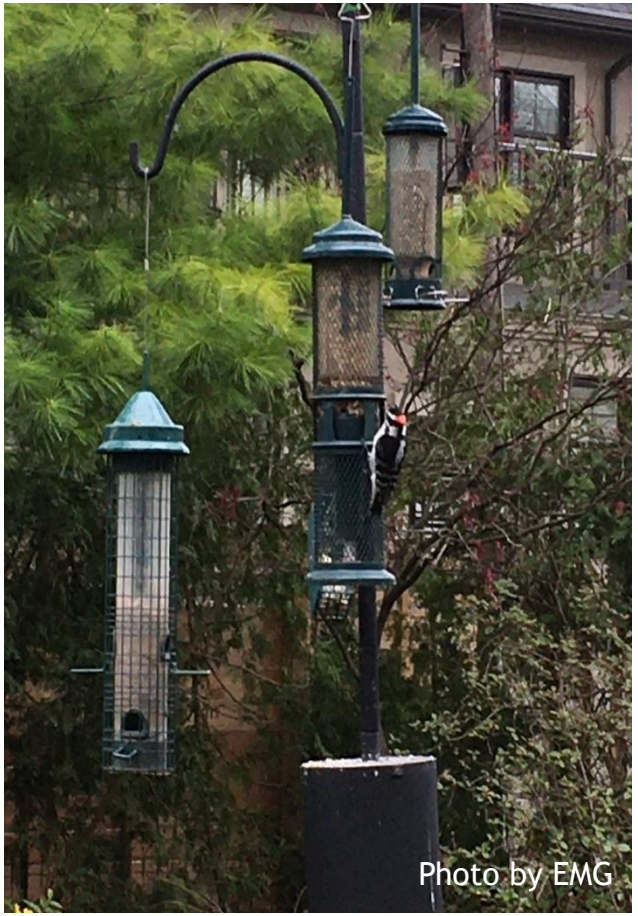
- ✓ Food
- ✓ Water
- ✓ Shelter
- ✓ Heterogeneous layering

Food! An element for ‘Tweet’ Success

- Bird feeding is the most popular way to attract birds
- Popular seed
  - In-shell black-oil sunflower seeds
  - Suet
  - Nyjer Seed

Food! An element for ‘Tweet’ Success

- ✓ Most food sources are natural
- ✓ Augment natural sources with feeders;
  - ✓ Tube
  - ✓ Hopper
  - ✓ Tray
  - ✓ Suet
  - ✓ Sugar-Water



Water! An element for ‘Tweet’ Success

- ✓ Needed for drinking and bathing
- ✓ Birdbaths
  - ✓ Consider functionality, materials, location, winter heating, and cleanliness
- ✓ Small ponds or streams

Shelter! An element for 'Tweet' Success

- ✓ Trees, shrubs, and hedges
- ✓ Primary consideration is ***safety***

Hedge of Eastern Arborvitae provides shelter for cardinals

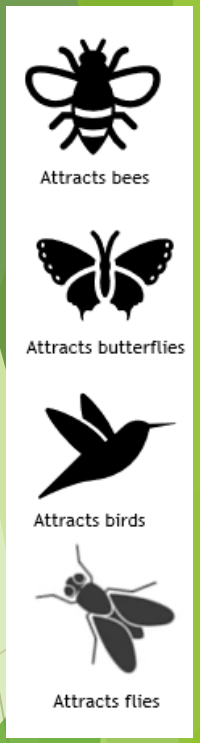
English Ivy planted on wall of house is welcome shelter for sparrows

Shelter!
An element for ‘Tweet’ Success

- ✓ Birdhouses
  - ✓ Consider size
  - ✓ Shape
  - ✓ Openings of their homes
- ✓ Elements that mimic nature

Plants for Pollinators and Birds

Legend:



Wild Bergamot *(Monarda fistulosa)*

Attracts bees

Attracts butterflies

Attracts birds

Attracts flies

Black eyed Susan (***Rudbeckia hirta***)

Attracts bees

Attracts butterflies

Attracts birds

Blazing Star *(Liatris spicata)*

http://www.squidoo.com/blazing-star-liatris

Attracts bees

Attracts butterflies

Attracts birds

Dogwood *(Cornus)*

Attracts bees

Attracts butterflies

Attracts birds

Milkweed *(Asclepiadaceae)*

Gray-headed Coneflower *(Ratibida pinnata)*

Photograph by Graham Buck

Attracts bees

Attracts butterflies

Attracts birds

Serviceberry *(Amelanchier)*

Attracts bees

Attracts butterflies

Attracts birds

Attracts flies

Sunflower *Helianthus (Asteraceae)*

Attracts bees

Attracts butterflies

Attracts birds

Sumac *Rhus (Anacardiaceae)*

Attracts bees

Attracts butterflies

Attracts birds

Attracts flies

Sweet Joe Pye weed (*Eupatorium purpureum)*

Attracts bees

Attracts butterflies

Attracts birds

Sweet Viburnum (*Viburnum lentago)*

https://nativeplants.evergreen.ca

Attracts bees

Attracts birds

Turtlehead *(Chelone glabra)*

Attracts bees

Attracts birds

Any many others they will love…

photos
www.nativeplantnurseries.ca

Birds Of Ontario
Let’s meet some of them

American Goldfinch *(Carduelis tristis)*

American Robin *(Turdus migratorius)*

Black-Capped Chickadee *(Carpodacus mexicanus)*

Blue Jay *(Cyanocitta cristata)*

Dark-Eyed Junco *(Junco hyemalis)*

Downy WoodPecker *(Picoides pubescens)*

Northern Cardinal *(Cardinalis cardinalis)*

Red-Breasted Nuthatch
(Sitta Canadensis)

White-breasted Nuthatch
(*Sitta carolinensis*)

Ruby-Throated Hummingbird
(Archillochus alexandri)

Resources

- Bird Studies Canada http://www.bsc-eoc.org
- Master Gardeners Web Site www.mgoi.ca
- Evergreen Native Plant Database www. nativeplants.evergreen.ca
- Ontario Trees & Shrubs www.ontariotrees.com
- The David Suzuki Foundation www.davidsuzuki.org
  - Toronto Plant Guide for attracting Pollinator
  - A Guide to Toronto's Pollinators
- Pollination Canada. www.pollinationcanada.ca
- Pollination Guelph. www.pollinationguelph.ca
- North American Native Plant Society www.nanps.org

Join us an upcoming workshop

Saturdays 10 - 11 am (*exception 10-10:30)

Benefits of Gardening - June 12, 2021*
Pruning - October 16, 2021
Pests & Pathogens - November 13, 2021

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Photo by EMG

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Thank you!

Questions

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+ CENTRE FOR URBAN ECOLOGY