

Pollinator Protection Grand Monadnock Rotary

August 3, 2021

Pollinators

- Birds
- Bats
- Insects
 - Bees



- Butterflies & Moths
- Flies
- Beetles
- Wasps





Importance of Pollinators

- More than 75% of flowering plants depend on animal pollinators
- In U.S., over 100 crop plants depend on pollinators (value >\$15 Billion)
- Most natural ecosystems would collapse without animal pollinators
- Some plants are endangered because of diminished pollination

What Makes a Good Pollinator?

- Mobile
- Sticky Pollen can attach to it (hairs, scales, feathers)
- Selective Visits a limited number of plant species
 - Adapted to feeding on flowers/nectar/pollen





Pollinator Conservation Pollinators in Decline

- Habitat loss and fragmentation
- Invasive species
 - Insects
 - Plants
- Diseases
- Pesticides, Fungicides, Herbicides
- Parasites





Pollinator Conservation What do pollinators need?

- Food
 - Nectar
 - Pollen
 - Larval food source
 - Water
- Nesting Sites
 - Ground nesting
 - Cavity nesting
- Overwintering Sites
 - Hollow weed stems
 - Deadfall



Rick Hansen, USWS



What can I do?

- Plant Pollinator Forage
 - Gardens or Strips
 - Dandelions, let them flower
 - White Clover, overseed your lawn
 - Plant Trees Willow, Redbud, Linden, Fruit
- Water Sources
 - Put stones or pads in your bird baths
- Nesting Sites
 - Try not to disturb dry sloping surfaces
 - Wait till Spring to cut down last years growth

Pollinator Gardens

- Choose plants that flower at different times
- Plant in clumps rather than single plants
- Choose native plants whenever possible
 - They attract native pollinators
 - Can be better sources of nectar and pollen
 - Can be a food source for caterpillars
- Native Wildflowers Seed/Plant Sources
 - Prairie Moon Nursery: prairiemoon.com
 - American Meadows: americanmeadows.com







Native Bee Nests

- Mason Bees
 - 6 inches thick
 - 3/8 inch holes
- Bumble Bees
 - Two cavity box
 - Soft nesting material
 - Located at ground level
 - Or partially below





Resources to Learn More

- The Xerces Society: xerces.org
 - Science-based nonprofit organization that protects wildlife through the conservation of invertebrates and their habitats.
 - Book: 100 Plants to Feed the Bees
- Pollinator Partnership: pollinator.org
 - PDF for Adirondack Planting Guide
- The Pollinator Conservation Association
 - pollinatorconversationassociation.org
 - Magazine: The POLLINATOR

Local Resources

- Monadnock Beekeepers Association
 Web Page: monadnockbeekeepers.com
- Imagine that Honey (Swanzey)
 Web Page: imaginethathoney.com
- Hampshire Hives (Gilsum)
 - Local Source for Hives and Frames
 - Web Page: hampshirehives.com
- Slovenian Beekeeping (Harrisville)
 Web Page: solvenianbeekeeping.com

Bee City USA

- Keene is now a Bee City USA Affiliate
- Goals
 - Create Pollinator Forage on Public Land
 - Reduce the use of Pesticides, Fungicides, Herbicides
 - Educate citizens on how they can help
- Keene joins Durham and Plymouth State University as New Hampshire members





Protecting Pollinators

1. PLANT FOR POLLINATORS

- Habitat opportunities abound on every landscape from window boxes to acres of farms to corporate campuses to utility and roadside corridors – every site can be habitat.
- Utilize plants native to your area (or at the least, non-invasive for your area).
- Utilize the <u>BeeSmart Pollinator Gardener App</u> or the <u>Ecoregional Planting Guides</u>. Decide among the plant material options - seeds, plugs, plants or a combination.
- Know your soil type and select appropriate plant material.
- Plant in clusters to create a "target' for pollinators to find.
- Plant for continuous bloom throughout the growing season from spring to fall.
- Select a site that is removed from wind, has at least partial sun, and can provide water.
- Allow material from dead branches and logs remain as nesting sites; reduce mulch to allow patches of bare ground for ground-nesting bees to utilize; consider installing wood nesting blocks for woodnesting natives.

Other planting suggestions by region at www.xerces.org

2. REDUCE OR ELIMINATE THE IMPACT OF PESTICIDES.

3. REACH OUT TO OTHERS - INFORM AND INSPIRE

- Tell the story of pollinators
- Especially during <u>National Pollinator Week</u> (June 21-27, 2021)
- Tell local and state government officials that you care about pollinator health

4. SUPPORT LOCAL BEES AND BEEKEEPERS.

- Buying local honey supports the beekeepers in your area
- Bee kind to bees you see in the wild

These suggestions provided by www.pollinator.org



How about Honeybees?

- Check local regulations
 - NH requests you register your hives (voluntary only)
- If you have close neighbors, it pays to ask or at least notify them.
- A two-hive apiary would need less than 50 Sq Ft
 - South-eastern or southern exposure
 - Full sun during the winter
- Education and Knowledge

Equipment Needed

- Hives and Frames
- A fence of some kind (electric or strong barrier)
- Level Hive Stands
- A water source
- A smoker
- A Hive Tool
- A Veil or Bee Suit
- Gloves







How do I get Bees?

- Bees can be acquired via:
 - Packages (3 pounds of bees and a caged queen)
 - Nucs (a small colony)
 - Swarms (caught in baited hives or collected from the wild)
- Bees are generally purchased in Dec/Jan for the spring season
 - Delivered in April or May



Types of Hives

- Langstroth
- Warre
- Top Bar
- Slovenian (A-Z)





• Dozens of variations and no right or wrong answers

Beekeeper's First Year

- Jan March
 - Reserve Bees
 - Build Wooden Ware
 - Take a Class
- April
 - Set up Apiary
 - Install Bees
- May June
 - Weekly Inspections



• July – August

- Monitor Resources, feed if necessary
- Check for Mite levels and treat if necessary
- September
 - Prepare hives for Winter
 - Feed if necessary
- October
 - Install wind breaks and mouse guards
- Nov Dec
 - Dream of next Spring



Parts of a Honey Bee

