

Why Are Honey Bees Important?



Cathy Schuman

Objectives



1. Provide information about honey bees
2. Provide information about the impact of honey bee decline on humans
3. Provide information about how to make a direct impact on the survival of honey bees
4. Provide opportunity for questions



Apis Mellifera

- The western honey bee which can be found in Africa, Europe and central and western Asia – not native to north America
- Honey bee importation began in early 17th century - 1621(for honey and bees wax)
- They are cavity nesters except when humans move them into boxes
- Honey bees have thrived for 50 million years

Pollination



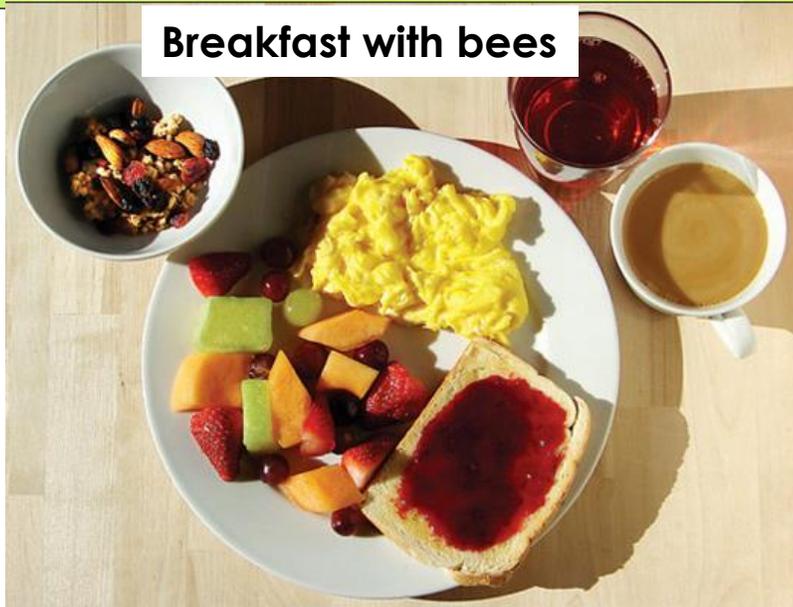
- Honey bees are responsible for 80% of pollination and 30% of the worlds food

Pollinator declines in US

- Continual 30% annual decline (based on commercial beekeepers)
- 1945 4.5 million colonies
- 2007 2 million colonies

Help...

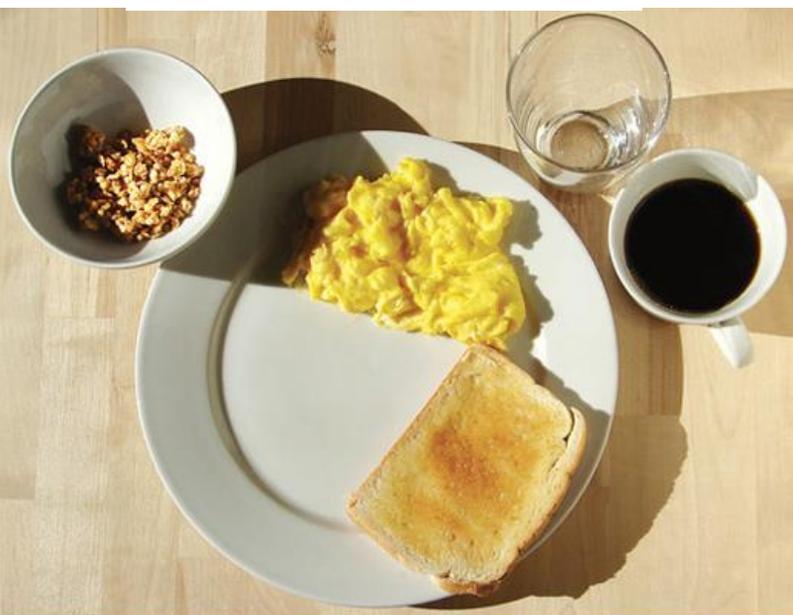




Breakfast with bees



Produce with bees



Breakfast without bees



Produce without bees

So What is the Problem?

- Pest and pathogens
- Intensified land use and loss of habitat
- Mono-food sources (farms with one crop)
- Stress
- Invasive species
- Pesticides/Chemicals



Honey Bees

- o Live as a superorganism



Bee	Egg	Larva	Pupa	Adult	Life Span
Queen	Days 1-3	Days 4-9	Days 10-15	Day 16	3-5 years
Worker	Days 1-3	Days 4-9	Days 10-20	Day 21	6 weeks
Drone	Days 1-3	Days 4-9	Days 10-23	Day 24	3-4 Months

Members of Honey Bee Cast



Queen Bee

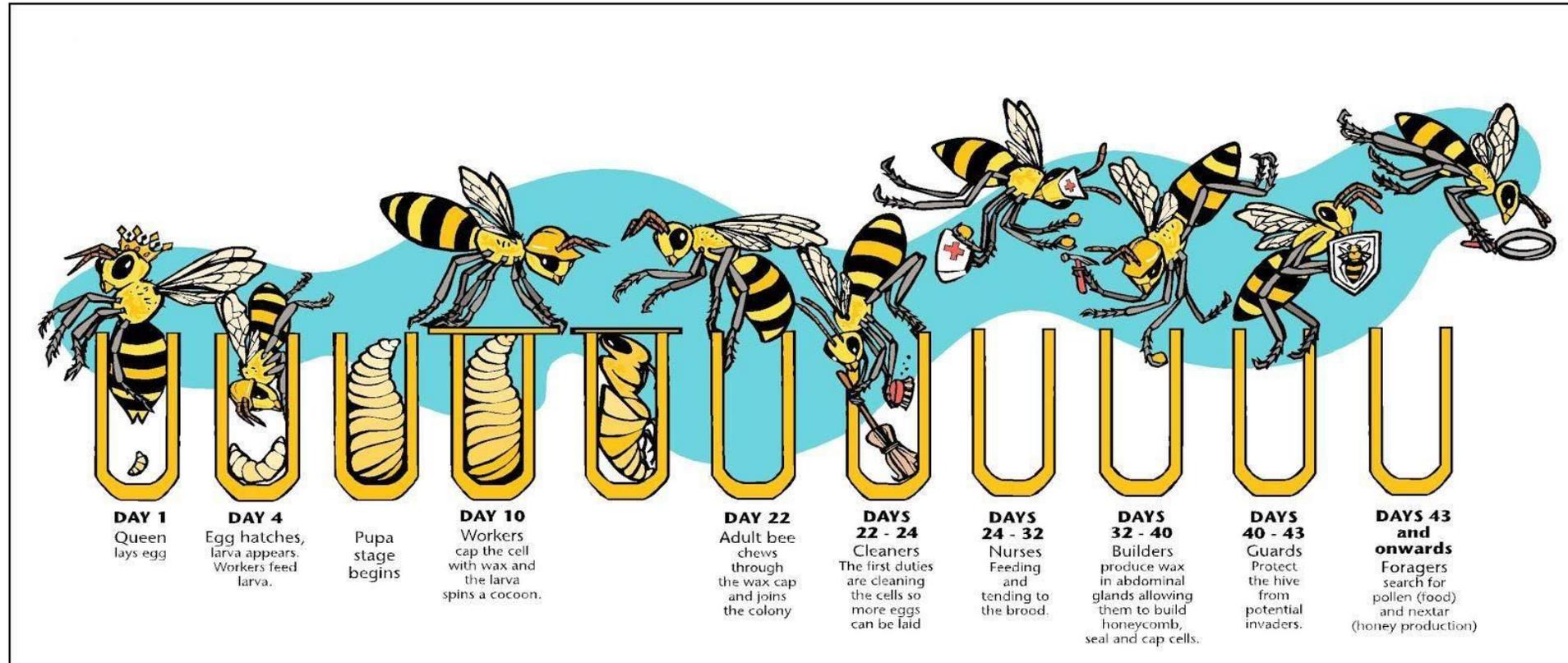


**Drone
(male)**



**Worker Bee
(female)**

Life of a Honey Bee



Honey Bee Fun Facts



- Life time of 12 bees = 1 teaspoon of honey
- Females do all the work
- Hive = 20-60,000 bees
 - 1 Queen (3-5 years) (up to 2500 eggs/day)
 - ~ 800 Drones (male bees)
 - The rest are worker bees (female)(6-8 weeks in summer)

Honey Bee Facts



- The honey bee's wings stroke incredibly fast, about 200 beats per second, thus making their famous, distinctive buzz
- A honey bee usually stays within two miles of their hive for foraging, but can fly for up to six miles, and as fast as 15 miles per hour
- It takes one ounce of honey to fuel a bee's flight around the world ([National Honey Board](#)).
- A honey bee visits 50 to 100 flowers during a collection trip

Bees Die After Stinging

- A honey bee can sting
- If you get stung, the bee's stinger gets hooked into your skin, and while the bee tries to flee, part of its body tears off, causing it to die (can take up to 20 minutes for them to die, but they only have one stinger)
- A bee sting leaves a tiny drop of venom under your skin which makes the skin turn red and swollen (ice immediately) Pain goes away within minutes
- Don't be afraid of bees; they only sting people or animals to protect themselves and their hive
- If you get stung – flick the stinger out with a credit card or sharp object to avoid pinching all the venom into the skin

Honeybee



Bumblebee



Hornet



Wasp



Products From The Hive

- Honey (Only human food produced by insects)
- Wax
- Royal Jelly
- Pollen
- Propolis (product bees harvest from trees)



Honey



- **Honeybees are the only insects that produce something that humans eat**
- Only food that never goes bad because of its high sugar content
- Edible honey was found in King Tut's tomb
- Honey is the only food that includes all the substances necessary to sustain life, including enzymes, vitamins, minerals, and water; and it's the only food that contains "pinocembrin", an antioxidant associated with improved brain functioning
- To make one pound of honey it would take 556 workers and 2 million flowers

Honey



- The Centers for Disease Control and Prevention, the American Association of Pediatrics and the National Honey Board have recommended that it not be given to infants under 1 year old, due to botulism spores
- Honey has also been shown to be an effective cough suppressant

Two Things You Can Do to Make a Direct and Powerful Impact on Honey Bee Survival

- Plant flowering food sources for bees that will be available throughout the season
- Don't contaminate your flowers with pesticides





Getting Connected...

- o **LA CROSSE AREA BEEKEEPERS**

When: 6 pm on 3rd Tuesday of most months

Where: County Administrative Building
(Basement Auditorium 430) 212 6th St N, La Crosse, WI 54601

- o **Women Beekeepers of La Crosse Area**

When: 9 am on 1st Saturday of most months

Where: Root Note, 115 4th Street South, La Crosse

- o **La Crosse Area Beekeepers Regional Conference**

When: March 14, 2020, 8-4pm

Where: Myrick Park, La Cross WI



Contact

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