

Bee City USA Pollinator Friendly Community

August 10, 2023

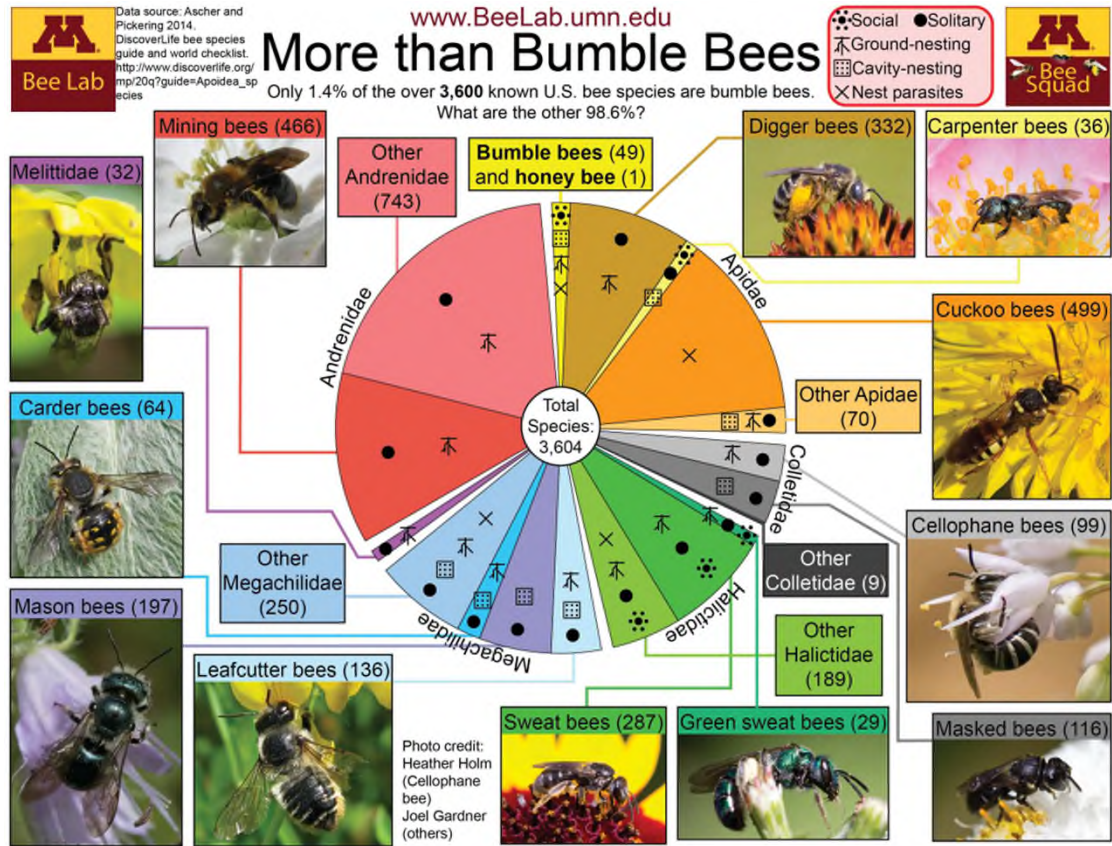
What is a Pollinator?

- Bees, flies, wasps, butterflies, moths, beetles, ants, some birds and bats.
- They move pollen from plant to plant, ensuring fertilization & plant reproduction.
- Honeybees do pollinate BUT they are not native to N. America and are not threatened. Research shows they compete with native pollinators for resources.



Swallowtail & Native Cleome; Photo by Dana Ecelberger
White Rock home pollinator garden

If the critical pollinators aren't honeybees, who are they?



Slide courtesy of Kaitlin Haase: Xerces Southwest

- Bumble bees are important native pollinators, but there are
- More than 4,000 species of native bees in the United States.
- More than 70% are solitary, ground or stem nesting bees.
- New Mexico is a “hotspot” for native pollinators: over 1,000 known species.

Why are Pollinators so important?

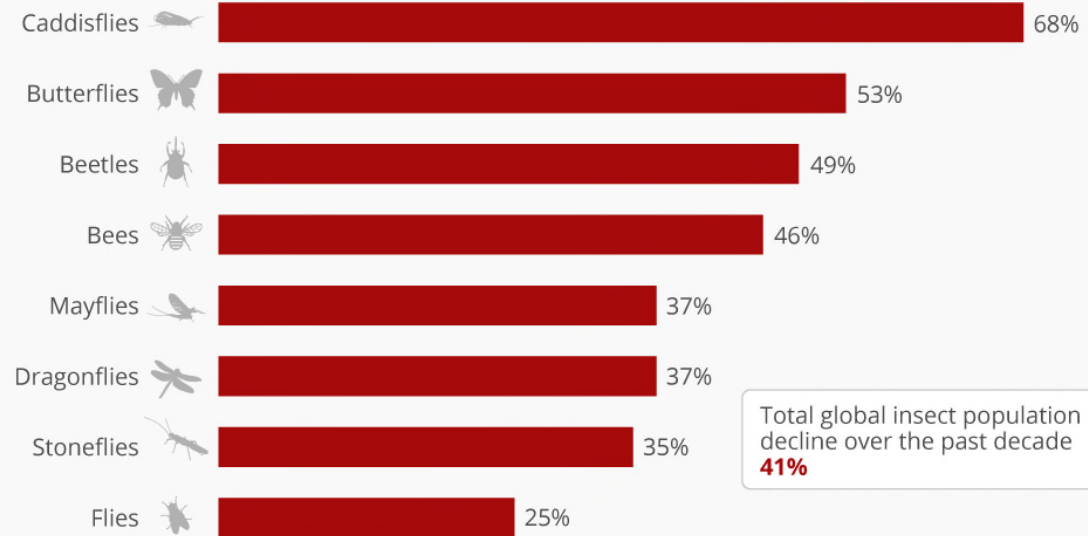
- Pollinators are responsible for over 85% of all food & fiber.
- Native pollinators ensure that native plants reproduce.
- New Mexico lists over 235 native plants that are rare or imperiled. 103 of those are threatened globally & 109 occur ONLY in New Mexico. The native pollinators are critical for the survival of those plants!
- Native pollinators are important food for native birds, fish, reptiles, mammals, etc.

Pollinators are in critical decline globally, due to:

- Habitat loss & degradation
- Pesticide Use
- Disease & Pathogens
- Climate Change
- Competition from exotic, introduced species

Massive Insect Decline Threatens Collapse Of Nature

Percentage decline in selected global insect populations over the past decade



@StatistaCharts

Source: Sánchez-Bayo & Wyckhuys, Biological Conservation, 2019

statista

We Can Educate & Increase Awareness

- Become a Bee City like Santa Fe & Albuquerque and over 200 communities in 42 states
- Conduct County government education & awareness programs
- Citizen & Student education through volunteer programs
- Research & adopt pollinator friendly practices
- Partnerships across municipalities & businesses
- Apply for grants geared toward pollinator conservation activities

We Can Commit to Taking Action

- Update IPM documents & commit to non-toxic best management practices
- Increase availability of native flowering species
 - Prioritize native plantings on private and public lands
 - Replant disturbed sites with native pollinator plants
 - Plant public trails & open spaces with native pollinator plants
 - Create school pollinator gardens (like Barranca Mesa Elementary & White Rock Community Garden)
 - Remove invasive & non-native plantings, where possible
- Adjust landscape management practices to protect nesting, nursery & overwintering sites through timed mowing & leaving leaf litter on the ground



Image: Xerces Society

Potential Concerns

Bees Sting

- Any time there are flowers of any sort there is a risk of being stung BUT planting native flowers attracts native bees which are LESS likely to sting than honeybees

Fire Hazard

- Most native plantings can be mown once the flowers are finished & before the plants dry out. Timed mowing is an important piece of management. Low fire risk areas can be left for overwintering and seed dispersal.

Maintenance

- Native plantings DO require water and weeding during the establishment phase (as all plants do for the first 2-3 years) BUT they require less water overall.
- Leaving leaf litter is essential for overwintering so blowers are not required or desirable.

Aesthetics

- Native plantings can be very beautiful, albeit wilder in appearance. This is an awareness & education issue that can be handled through outreach and participation.

Prioritizing Pollinators can overlap with existing management goals

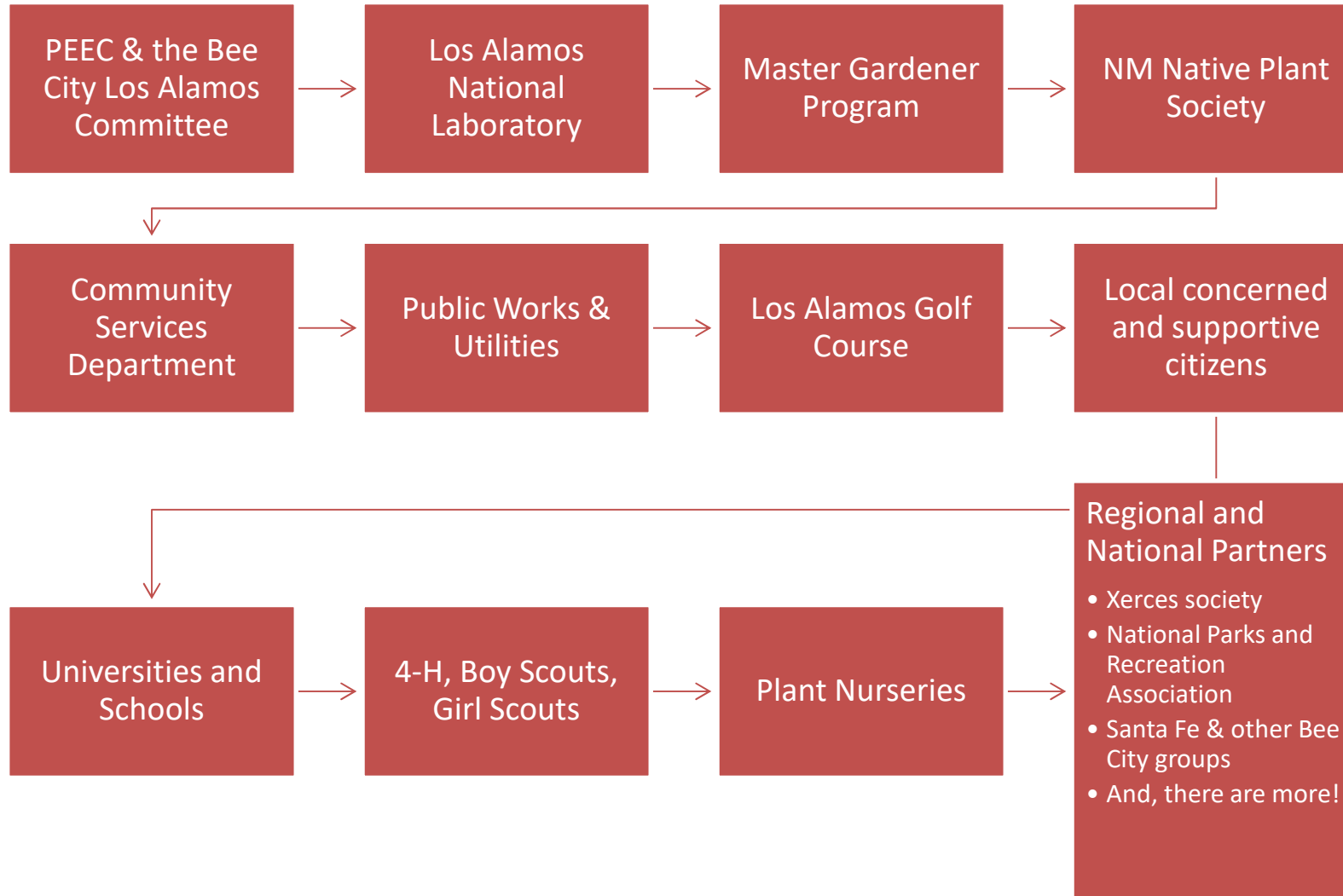
- Energy & Water Conservation
- Use of native plants
 - Species Conservation
 - Better adapted to local climate
 - Reduced water usage
 - Reduced maintenance requirements
- Climate change resilience & adaptation
- Stormwater management
- Media & Grant opportunities

Stormwater management that is a beautiful, low maintenance pollinator paradise!



Photo: Environment America

Potential Partners



Questions



Endangered Monarch Butterfly on native Gaillardia, Los Alamos
Photo by Jenna Stanek