## The Birds and the Bees

This topic is probably not one that your mother discussed with you. This one takes place in your back yard. Here in Arizona we have the best sunrises and sunsets. If you have not taken the time to sit in your yard and observe this time of day, you are missing a beautiful experience. Just after sunrise the birds and the bees get busy. Sitting and watching is very relaxing. Take a deep breath for those of you that shiver at the mention of birds or bees.

The birds and the bees are essential to our daily existence. Every fifth bite of your food is a direct result of pollination. Bees and other pollinators are important to our environment and provide pollination for our fruit and vegetables from our gardens and farm producers. Pollinators in general and those I am specifically mentioning are in decline. That means that our food resources are declining as well. Gardener's can conserve bees and habitat for birds by planting flowers and trees that attract, provide nesting habitat, and protection from harmful pesticides. You may try urban beekeeping and bird habitats.

Here's what you need to know.

One-third of our food in the U.S., including 130 fruits and vegetables, depends on pollination.

The honey bee is one of more than 20,000 distinct bee species

A honey bee can visit 50 to 1,000 flowers

The number of hives in the US has decreased about 50% from six million in the 1940's to about 2.5 million today. Problems include urban sprawl, reduced habitat, pesticide usage, and colony collapse disorder. Colony collapse is a phenomenon when the majorities of worker bees disappear and leave behind the queen, nurse bees, and immature bees not ready to sustain the hive.

Since 2006, an estimated 30% of bee hives have collapsed. Decline is a result of disease, parasites, poor nutrition, and pesticide exposure. Usda.gov

A 16 ounce jar of honey requires 1152 bees to travel approximately 11000 miles, about 10 miles each, and visit 45 million flowers. They are busy little bees. Fox 10 News.

Birds are also pollinators in our backyards. Hummingbirds are the most fun to watch because of their tiny size and fast action. They are very adaptable to their environment. They have long slender bills and tube-like tongues that they use to drink nectar from brightly colored flowers. They specially love the color red. Wear red and a Hummingbird will hover nearby to check you out. A courting male experiences centripetal acceleration of 10Xg forces (fighter pilots do not

exceed 7Xg). The female takes to the air with wings beating 50 times per second and visits each flower on the shrub. The Rufus with its orange color and a ruby throated male will perform quite an aggressive chase and fly by for your entertainment.

There are 300 species and they are found only in the Western Hemispheres. About 26 species visit the US.

The Anna Hummingbird stays year round in the Northern Sonoran Desert, our areas. Hummingbird species that breed in N. America overwinter in Mexico taking long migratory flights. They follow the coasts, Rockies, in a long distance 18 to 22 hour non-stop flight. Some species will leave in January and February migrating to Mexico. When the weather warms they return to our areas corresponding to the time of native plants flowering. National Park service

Hummingbirds require nectar from plants and protein from insects caught in flight. They drink up to two times their body weight per day. As they move plant to plant they carry pollen.

Here's what you can do in your back yard to improve the ecology and habitat for our pollinators

There is a bee/bird- plant relationship that can provide the necessary habitat and feeding of pollinators. Cultivating the right plants is not difficult. Whether you are a pot container gardener on your patio or a fully fledged vegetable gardener, it all matters. Use native plants or consult a list for a hummingbird garden will assist in the selection for our areas. Bees can't read so they don't care. They'll stay busy with plants that are healthy and pesticide free. Native plants that have a tube shape bloom and are brightly colored will attract the pollinators. Use <a href="https://www.nps.gov">www.nps.gov</a> or pollinator.org/guides.htm using your zip code will provide a list.

Hummingbirds love the red feeders that you find at most household stores. Red attracts the birds. Boiling a mixture of 1 cup sugar to 4 cups water until the sugar dissolves is all that is necessary. It does not require the red coloring. Keep your feeder clean and replace the water not used weekly. This mixture also attracts the bees that want a drink of water. We place a plant saucer with water on the ground with a floating stick (or a rock) for the bees. They drink their fill and move off.

Protect the bees Take the Earth Day Network's Pesticide Pledge (<a href="www.earthday.org/pesticides-pledge">www.earthday.org/pesticides-pledge</a>) to reduce the use of pesticides that are killing our pollinators.

Support local beekeepers buying honey from them or at farmer markets. They are resources for bee problems too.

Gatton Honey Farm, Maricopa

Punch Honey bee Company, Dan Punch Relocation Co. Phoenix He'll help you host a bee hive.

Create a pollinator habitat with bee-friendly plants www.ncrs.usda.gov/wps

Plant a bee water garden or place a container for water and keep it clean.

Resources: If bees become a problem, a swarm or a large hive that you would like removed call a bee keeper. Do not remove the bees yourself. Always be prepared for bee sting or pollen allergy and seek medical advice.

Teach your children how to preserve the pollinators.

Harriet Phelps is a retired Psychologist. A member of the Pinal County Master Gardeners Maricopa for 6 years.

Formerly a Master Gardener in Rock Island County, Illinois for 7 years.

MG Office 520.374.6263

macmastergardener@gmail.com