

Lynn Cook gave an informative and entertaining program on Beneficial Friends in the Garden at our January, 2012 meeting. Following a hand-out and drawing on her own experiences, she covered the reptiles, amphibians, birds, worms, and insects that help us maintain the health of our gardens.

Frogs, Lynn explained, are usually found around water sources such as ponds, streams, and lakes. They are also attracted to the humidity levels of greenhouses. These moist conditions attract insects and small creatures that are on a frog's diet. Native shrubs and plants, mulched garden beds,



Bullfrog



Spring Peeper



Wood Frog

and a compost heap are frog magnets. It may take a few years to attract frogs to your newly-installed pond, but don't waste time catching frogs from other areas and relocating them to your property. They will likely migrate away or die. During the winter months, frogs may hibernate at the bottom of ponds and streams or under dirt and leaves on the shoreline of a stream. In the spring, they emerge to reproduce and eat moths, mosquitoes and mosquito larvae, snails, slugs, flies, beetles, and cockroaches.

Toads live in moist places on land and near water. Several different toad species are indigenous to Ohio and can be found around rocks, logs,



Eastern Spadefoot Toad

(Endangered)



Fowler's Toad

damp, shady areas, and near water sources. Many gardeners have encouraged toads to visit their gardens by providing toad habitats. Toad



American Toad

houses can be purchased or made simply by turning a cracked terra cotta pot upside down and chipping out entrance and exit holes. Toads eat thousands of beetles, grubs, caterpillars, and many other pests. Take care not to use chemical controls on plants when toads and frogs are present since both are highly sensitive to insecticides.



Eastern Black Ratsnake eating Red Squirrel

As much as they may be feared, Ohio's snakes are among the most beneficial of all "critters" in the garden and on farms. The Eastern (or Black) Ratsnake tops the good-guy list by eating chipmunks, mice, rats, moles, voles, and other small rodents. Garter snakes, water snakes, black racers, and other species are valued for their ability to keep rodent and insect populations under control.

Lynn lives in the country where residents are allowed to have chickens, so she has access to some of the highest quality fertilizers. Chickens scratch the ground when looking for grubs, earwigs, and other bugs, and by doing so, they break down large pieces of vegetation. This speeds up decomposition and releases nutrients into the ground. In addition, chicken manure contains high levels of protein and nitrogen.

Earthworms are perhaps the most highly prized of all garden friends. There are more than 1,000 different kinds of worms in the world, and they vary in color from red to maroon to brown and from dark gray to black. Most earthworms are 2- to 10-inches long and live anywhere from a few months to 10 years or longer. They loosen soil, making it easier for roots to grow, absorb water, and get air. During the winter, they burrow down to as much as 6 feet below the soil surface to avoid freezing. Earthworms thrive in farm manure, household garbage, and moist soil that is rich in organic matter. The “food” they eat is ground in their gizzards and digested in their intestinal tract. What is not needed for growth and activity is discharged in the form of castings (worm poop). Castings contain 5 times more soluble nitrogen, 7 times more phosphorous, 3 times more magnesium, and 1.5 more calcium than what was contained in what the worms ate. Vermicomposting has become big business as farmers see the potential of utilizing earthworms to create valuable, organic fertilizer from waste.



Lynn is a talented gardener as well as a fabulous photographer. To prove this, she passed around close-up photos she took of a praying mantis devouring a cicada. Look closely at the first photo below and you'll see a cicada at the far left. The kidney bean-shaped object near the top of the photo is the back of the praying mantis' head.



The photo on the right shows a partially-eaten cicada and a female mantis looking straight at the camera as if to say, “This is MY dinner. Stay away!”



Female Praying Mantis with egg case

Praying mantids are formidable-looking insects growing 4” to 6” in length, although 18” mantids in southern China have been reported. Males are typically green in color and much smaller than brownish females. Both blend well into their surroundings. All praying mantids have voracious appetites and will eat

larvae and eggs, moths, beetles, crickets, grasshoppers, and many other insects, including each other. Mating takes place in late summer, and may result in the female cannibalizing the male. Recent research, however, indicates that only about 1/3 of the males are killed in this manner. The female lays between 100-400 eggs on a sheltered branch or stem and covers them with a frothy substance that hardens and protects them from the cold. Adults die during the winter in Ohio, but the egg cases erupt in late spring with tiny praying mantids ready to eat all the bugs they can catch.

There are many types of Ladybugs or Lady Beetles, but one of the best friends an Ohio gardener or farmer can have is the Convergent Ladybug. During its lifetime, this Ladybug pollinates flowers and



consumes over 5,000 mainly soft-bodied insects such as aphids and white flies. Ladybugs and their peculiar-looking larvae also feed on spider mites and the eggs and larvae of mealy worms. To encourage Ladybugs, Lynn cautioned against using broad-spectrum insecticides. She also advised members to check for location when ordering ladybugs over the internet. While many



companies sell ladybugs, orders from out-of-state and even those from northeastern Ohio will probably result in a waste of money. The ladybugs are likely to migrate elsewhere or die since they are non-native.

The moral of Lynn's story for both gardeners and farmers is to reduce harmful pesticides, provide welcoming habitats, and encourage our beneficial friends to help us create a healthier and more beautiful environment.