

If you have spent any time outdoors walking around, you may have noticed a very distinct, grotesque looking insect on trees, shrubs, or near homes. The insect is the wheel bug (*Arilus cristatus*), which is common, and widely distributed throughout Kansas. Wheel bugs, also called assassin bugs, are predators that feed on many insect pests. However, the nymphs and adult can inflict a painful bite if handled by humans. Adult wheel bugs are 1 to 1-1/4 inches long, robust with long legs and antennae, and have a stout beak and large eyes on a narrow head. They are dark-brown to gray and possess a wheel or crest with 8 to 12 protruding teeth-like structures (tubercles) on the thorax that resembles a cogwheel; similar to the dinosaur—*Stegosaurus*. Wheel bugs have two long, slender antennae that are constantly moving or weaving around. Females are typically larger than males. Females lay eggs that resemble miniature brown bottles with white stoppers. Eggs are laid in clusters of 40 to 200. The eggs are glued together and covered with a gummy cement, which protects eggs from weather extremes and natural enemies (e.g. parasitoids and predators). Egg clusters are located on leaves, or the trunk or branches of trees or shrubs. Nymphs hatch (eclose) from eggs and are bright red with black markings. The nymphs do not have the wheel or crest. The life cycle, from egg to adult, takes three to four months to complete. Wheel bugs are active day and night, and are very shy, tending to hide on leaf undersides. The wheel bug overwinters as eggs with one generation per year in Kansas. Wheel bugs are voracious predators feeding on a wide-variety of insects, including caterpillars, beetles, true bugs, sawflies, and aphids.

Unfortunately, wheel bugs will feed on beneficial insects such as ladybird beetles and honey bees. The mouthparts are red-brown and resemble a tube or straw that is located underneath the head. The mouthpart extends out when wheel bugs are ready to “stab” prey. Wheel bugs paralyze prey with their saliva that contains a toxic substance, which immobilizes prey within 30 seconds. In addition to feeding on insects, wheel bugs are cannibalistic, and will feed on each other if they cannot locate a food source (prey). What is there not to like about “bugs?”

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