

In My Backyard The Red Harvester Ant Not a Sluggard



Photo: Wikipedia, Jeff Turner, Santa Clarita, CA

Go to the ant, thou sluggard; consider her ways, and be wise: Which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest. How long wilt thou sleep, O sluggard? When wilt thou arise out of thy sleep? (Proverbs 6: 6-9)

King Solomon was wise, indeed, and a pretty good observer of nature. For centuries man has observed our lowly neighbors at work, marveling at their diligence and the success of their ordered way of life. They have served as examples of hard work and careful planning and, according to Aesop's ant and grasshopper tale, as evidence of the dangerous effects of laziness and poor work ethic. They are marvelous creatures!

There are many species of ants in our environment, even here in the dry "wastes" of West Texas. The countryside is alive with life and the ants are an integral part of our ecology.



Our local version has a black head and thorax and red abdomen, but is still a variation of thi Texas Red Harvester Ant. Photo: AntWeb. Available from <http://www.antweb.org>. Accessed 26 January 2018

Take the red ant, as we call them, or officially, the Red Harvester Ant (*Pogonomyrmex barbatus*.) They are found from Texas into the Great Southwest. They are just one of twenty-two species identified as harvester ants found in the United States. Our little fellow is distinctive, with its black head and thorax and its dark red abdomen, but the colors vary slightly from individual to individual. We have several other species of ants in our region, including black ants with long, spindly legs (we called them "racehorse ants" in Marathon because they moved very fast on those long legs) and totally red ants (which we called "red ants" at Marathon, but confusing because many people call the Red Harvesters "red ants" as well.) But "racehorse ants" and "red ants" are not found in as large a population as red harvester ants, the kind I usually see in my backyard.

Ants are members of the group that includes bees and wasps. It is thought that ants once had wings but evolved to be total ground dwellers. Red harvester queens and drones still have wings, at least until they mate, the males die and the females start their new colony, but the workers are wingless.

Red harvesters generally are one-half to one-quarter inch in length, with varying shades from black to dark brown to red. The head is large and square-shaped and the thorax and abdomen are joined by a very slender waist called a petiole. These

are the most common ants we see in Sanderson, although we have quite a few other species and sizes.

Young red harvester queens and drones usually leave the nest after a rainy spell in spring or summer. Males gather in groups to attract the females...the larger the group, the greater the attraction, as the chemicals released by the males are in greater quantity and more "alluring." The queen requires mating by two different males...one to produce workers and the other to produce new drones and queens. The queen can make the distinction between the two types of males, insuring that the future of her new colony will be properly populated.

Once mating has occurred, the males die and the queen tears off her wings and makes a new nest. She seals herself in to protect her young and the first brood is raised by the queen alone. Succeeding broods are taken care of by the workers that came from the first brood and the queen only produces eggs after that. Younger workers do all the work within the nest, taking care of the eggs, the larvae and the young ants, as well as creating new chambers and clearing out ant "garbage" to keep the nest tidy. As they grow older, workers move to the surface and become foragers to go out of the nest to bring in seeds and other food items. They lay down a scent trail to help them return to the nest, and soon a path is cleared to the food harvesting area. Eight to ten well-marked trails network out from the nest to make the job more efficient. A circle up to four feet in diameter is cleared around the entrance to the nest and is scoured clean of all plant life, making the nest easy to spot. A typical nest can go as deep as twenty feet into the earth, with a maximum population of 10,000 ants, although colonies of 20,000 have been discovered.

Harvesters present somewhat of a mystery to researchers. There are no commanders, captains, lieutenants or sergeants, yet all the workers carry out their work in order. The only ant hierarchy is queen - worker. There is no language or apparent communication, yet when needs arise the workers carry out the work, seemingly by a collective consciousness.

Another mystery is how all the nests in an area release their young queens and drones on the same day, almost at the same moment. If there is no intra-nest communication, certainly there is no communication between neighboring nests, yet, like clockwork, all the nests release their young royals and the air is filled with winged ants.

Still not understood is how so many royals are released, yet probably only one percent of the queens will establish new nests. The rest starve, die of exposure or are killed by a legion of predators awaiting their release. Mother Nature is a mysterious lady!

Although most people know of the dangerous sting used by wasps and bees, not everyone knows that female workers also carry a stinger, and the harvester venom is potent. Ants do not sting unless totally provoked, more likely to give the offender a pinch with their big mandibles. That is painful enough, but to be stung by a harvester is much more painful. As a small child I got pinched several times...I didn't like it but there was no lasting effect. But, the one time I actually got stung, it made me very ill and landed me home from school for two days until I recovered.

Ordinarily I would have enjoyed being off from school, but I was so miserable with the pain, swelling and upset stomach that I was more than glad to go back to school when I got well. It was enough to make me wary of any kind of ants, even today, sixty years later.

Ants in the Southwest have entered into local mythology of the Native Americans. Wonderful stories of ants and their importance in the world are retold by the human inhabitants of the desert. The Pima Indians believe that a giant ball of ants in the universe became the building materials used by their creator to make the earth. The Isleta Indians have a story of how ants saved a village from starving by releasing a young man trapped by a bewitched tree so that he could help his people. The Navajos believe that if you disturb an ant nest, a complex ritual must be performed to make the ants happy again.

Although a run-in with a nest of ants can be painful, in general harvester ants perform a tremendous service for men. Ants and their tunnels actually aerate more soil than earthworms. Ants often clear away debris from an area and are constantly policing for food items, plant and animal. They are also very important in distributing seeds throughout an area, insuring propagation into new areas.

There is also entertainment value for children. As a kid I would place a dead grasshopper or lizard near the entrance of a nest and watch as the workers either butchered it on the spot or carried the whole carcass down into the nest for consumption. At other times we would catch live scorpions (Marathon is crawling with them) and throw them into a nest. The ants would swarm in huge numbers and eventually overpower the scorpion and add it to their pantry. We would also do this with horny toads, but with a different ending. The armor-plated reptile uses ants for 60 or 70 percent of its diet. The horny toad would lap up the ants as fast as he could. If he was swarmed, he simply closed his eyes and hunkered down until the stinging ants gave up. The horny toad is not affected by ant venom. Soon, he was back to finishing his lunch. And, finally, Texas red harvester ants are the main ingredient of commercial ant farms sold to children and schools.

Sometimes, ant warfare breaks out, either by different species or by neighboring colonies of harvesters. Ants are savage warriors when attacking or defending their home turf. Battles can rage for hours or days until one side loses. The most effective tactic is to grab the opponent by the petiole, the slender tube connecting the thorax and abdomen, and crush it until the abdomen is separated from the thorax, ending the fight for the opponent.

As with all things in our desert, ants are important members of our ecological niche. As with most of our creature-neighbors, it is best to live and let live (unless they are climbing up your pants leg!)

To paraphrase wise King Solomon, "O Sluggard, what is in thy backyard?"