

In My Backyard

Termites

Queens of the Sky



A swarm of termimte queens and kings.

“Oh, Dad, come look at this!”

My ten-year-old son, Will, was discovering something I had enjoyed all my life, the flight of thousands of lacey-winged creatures after a driving thunderstorm in early summer. As a child, my mentors told me that these were Mayflies and I believed it, since they came out in the vicinity of May in most rainy years. But this day I decided to go out and have a look, mainly to impart my voluminous and pithy knowledge to my young, impressionable son.

Dazzled by the sight of multitudes of insect wings glimmering in the rain-washed sky I had never thought to turn my gaze downward. But this day I couldn't help but notice that the ground seemed alive. As I bent over for a better look I peered at a small hole in the ground and a tiny insect with im-



Termite queen. Males are identical but slightly larger.

possibly long wings emerged, scuttled furiously around the hole shaking its wings vigorously, then suddenly leaped into the air and soared away. But the ground was still alive with non-winged critters, white as snow and strangely familiar. As I focused on a few I realized they were termites! And then it dawned on me...these weren't Mayflies, they were young termite queens, swarming away to start new termite colonies! Then another lady emerged and I could clearly see the termite front and the elongated abdomen of a queen.

No one thinks of termites living in the desert, but if you have ever taken a walk in brushy areas away from town you will notice that many of the mesquites and greasewoods have what seems to be mud caked around their base, sometimes extending up a few inches into the branches. Once you realize what you are seeing, you begin to notice that termites are everywhere. And on these dazzling days when royalty take to the skies in hoards, you realize just how alive the desert is.

There are several species of termites in Texas, but the kinds we are dealing with are commonly known as agriculture termites, which mainly subsist on grasses and small woody plants. They live in the soil and construct mud tubes to travel over the surface, since they are sensitive to dry air and lack of moisture. Their cousins, the subterranean and dry wood termites, can cause great damage to wooden structures, but our little fellows are, basically, harmless. Termites in nature are valuable members of the community for their ability to reduce wood and nitrogen to enrich the soil.

It was once thought by researchers that termites cannot digest wood fibers by themselves. Instead, as the chewed up wood passes through their



Queen at top, workers and soldier termites.

gut, small one-celled organisms living within as symbiotes (beneficial parasites,) digest the food for them, releasing the nutrients. However, new findings suggest that may not be completely true in all cases.

We do know that termites come as three types: workers, soldiers and reproductives.

The workers do all the work (naturally!) including construction, nurturing the young, feeding the soldiers and reproductives and general housework. They are about 3/8 inch long, pale or white and soft-bodied. If a queen or other reproductive dies, a worker can be pressed into duty since all are fertile.

The soldiers are larger than the workers, with a much larger, dark-colored head and large pincers to aid in their security patrols. They can give humans a painful nip if they are large enough.

The reproductives are otherwise known as queens and kings. Unlike bees and ants, which can mate once for life, termite queens and kings must mate frequently to keep up egg production. When the queen's life cycle is complete, immature reproductives are allowed to mature and assume the throne. Workers can also transform into queens and kings to take their place, if necessary.

Agriculture termite kings and queens usually swarm in early summer, after rainfall. Swarming is determined by the queen of the old colony, who



Mud tunnels made by agriculture termites at the base of bushes.

rallies her forces by means of a pheromone, or chemical odor, which has been suggested by some as a sensory language with its own syntax and vocabulary.

So, I was somewhat mistaken in my first analysis; the gossamer-winged creatures we were observing were both male and female.

Later that night, thousands of the insects swarmed around the porch light, and the next day, all that remained were the lacy wings, scattered about the porch in silky drifts.

Under normal circumstances, the newlyweds find a suitable spot to form a new colony, then lose their wings and begin their new life apart from the old nest. Many pairs never get to that point, being eaten by all manner of predators as they soar up into the air.

A shocker for most people is that termites are not related to ants and bees. They are, in fact, closely related to cockroaches and are included in the cockroach order Blattodea in the classification system. There are currently 3,106 recognized species of termites, worldwide, with a fossil record stretching back to the Cretaceous time period (145.5 million BC,) a sign of great success as a denizen of our planet.

Termite queens can live up to 45 years and must continue having sex periodically with the king to keep the eggs flowing!

Compare that to Mayflies, who have a lifecycle of up to two or three years as a nymph or immature adult and anywhere from 2 or 3 minutes to 24 hours as an adult. They have such flimsy mouthparts that they cannot feed. The adult Mayfly's only job is to mate and die. Nice work if you can get it!

And what's in your backyard?