

MOUNDS OF FURY

CHRISSIE A. SEGARS, PH.D., EXTENSION TURFGRASS SPECIALIST

MICHAEL MERCHANT, PH.D., EXTENSION URBAN ENTOMOLOGIST



TEXAS A&M UNIVERSITY

Soil & Crop Sciences

TEXAS A&M
AGRI LIFE
EXTENSION



TEXAS A&M UNIVERSITY

Entomology

WHAT IS THAT MOUND???

Each year, we do our best to manage our lawns and landscapes. But each year, unexpected pests pop out of nowhere! It never fails! This factsheet seeks to explain critters that cause mounds in your yard—how to identify them and whether or not you should be worried. This is intended as a basic guide for mound identification. For more information please visit aggieturf.tamu.edu and insects.tamu.edu.

ANTS

Red Imported Fire Ant

In Texas, the principal ant pest is the red imported fire ant. While fire ants do not damage lawns directly, mounds are unattractive and may hinder cultural practices such as mowing. Even worse, fire ants have painful stings that can make infested areas unusable to people and pets. Fire ant mounds consist of piles of loose soil with no obvious entry or exit. Inside, ants live in complex galleries that extend 1 to 3 feet below the surface. When treating fire ants, it's best not to disturb them ahead of time, as this may cause the worker ants to relocate and avoid the insecticide treatment.

Texas Leaf Cutting Ants

This ant has several common names—“town ant”, “cut ant”, etc. This ant has the potential to be very destructive to landscapes, gardens, and even some agricultural crops. The population of their colonies can be up to 2 million ants! Symptoms of damage include defoliation similar to leaf chewing insects. These ants do not eat the leaves, but take them to an underground nest where they use them to raise a fungus garden for feeding. These ants have large nests that can cover 1000 sq. ft. or more.

MOUNDING OR BURROWING ANIMALS COMMONLY FOUND IN TURFGRASS SYSTEMS

- Ants
- Crawfish
- Earthworms
- Gophers & Moles
- June Beetles
- Ground-Nesting Bees
- Ground-Nesting Wasps
- Mole Crickets



A fire ant bed next to a sidewalk.
Photo Cred: Bart Drees



Texas leaf cutting ant mound.
Photo Cred: Bart Drees

Texas Leaf Cutting Ants cont...

Underneath the volcano-like mounds is an underground cavity that shelters the fungal gardens. For nests close to structures and pavement, excavations can undermine and damage sidewalks, roads, and even building foundations.

CRAWFISH

Whether you know them as crawfish, crayfish, crawdads, or mudbugs, there is a chance you may see these swampy creatures popping up in a yard near you. Crawfish holes look like castle turrets and consist of ball-like accretions of soil/mud. They are more likely to be found in low areas near water, or where there is a high-water table. Crawfish mounds are more "ugly" than damaging to turf. Mounds can, however, dull mower blades. In turn, dull blades open grasses to disease pathogens and reduce the appearance of the lawn. While crawfish burrowing can lead to improved drainage and help aerate soil, they are a nuisance. There are no pesticides labeled to control crawfish. Putting any toxic chemical directly down a crawfish hole is not recommended due to the potential for contaminating groundwater.

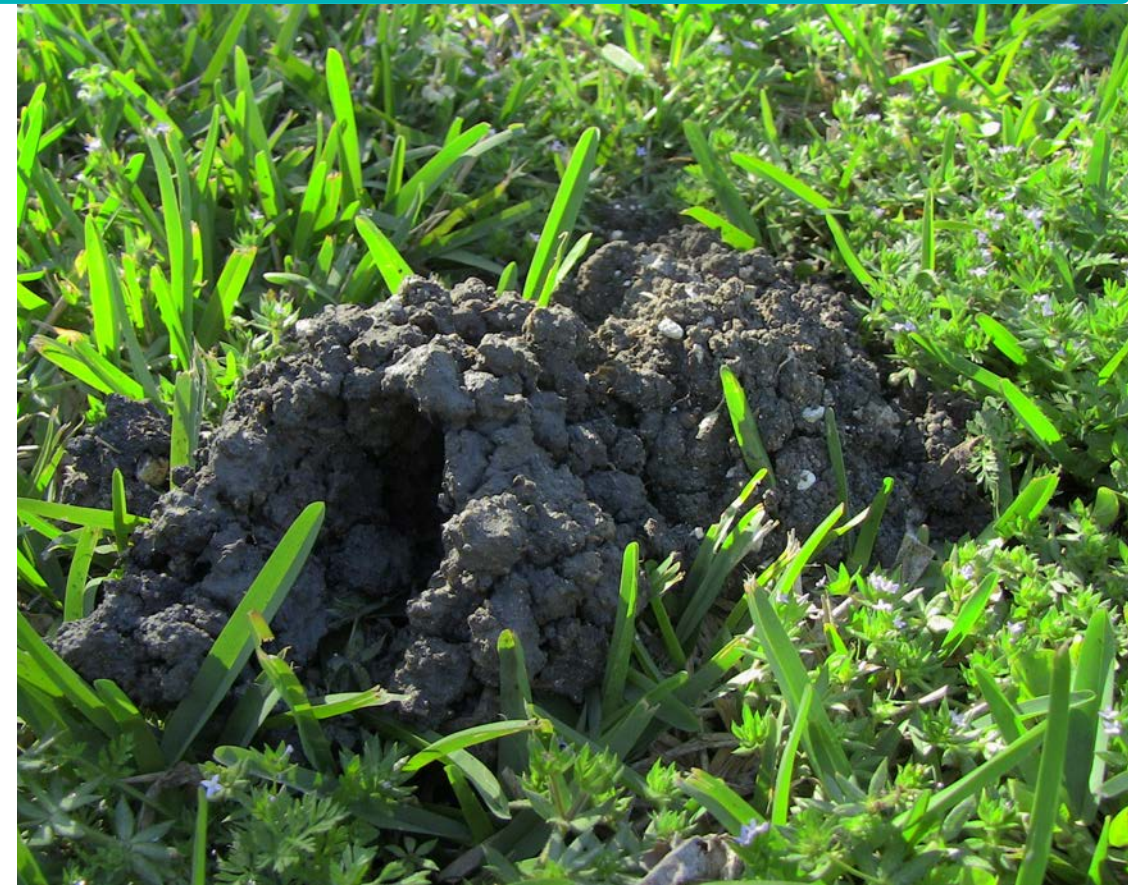
EARTHWORMS

Earthworms are touted for their environmental benefits like soil aeration. As they tunnel, earthworms pass soil through their bodies and eventually expel it as small pellets called castings. Castings are prized for their nutrients; however, there can be too much of a good thing. Under the right conditions, some kinds of earthworms leave large amounts of castings on the soil surface. Excess castings can lead to boggy soil making it hard to walk or run a mower across the lawn. Excess tunneling can also disrupt root growth and affect turfgrass quality. In the right amount, earthworms can be beneficial to turfgrass systems, but high populations can lead to overall poor turfgrass quality. There is currently no registered pesticide to control earthworms.

GOPHERS & MOLES

Gophers

Pocket gophers are notorious for eating plants both above and below ground. They love to eat flower bulbs and tubers and tree roots. Gopher mounds are flatter than mole hills and usually fan-shaped with a hole on one side.



Crawfish mound in a North Texas Lawn. Photo Cred: Scott Morgan



Crawfish in lawn. Photo Cred: BugSpray.com



Extreme case of earthworm castings. Photo Cred: Ray Pfefferkorn



Up close look at earthworm castings. Photo Cred: DenGarden

Gophers cont...

A single pocket gopher can create up to three mounds per day. If you see a plant in your garden disappear, it is likely due to a gopher, not a mole.

Moles

Moles are tunnel-making experts. They dig deep and shallow tunnels in a yard. Mounds of soil excavated from their many tunnels and can range from 2 to 24 inches high. Instead of being plant feeders like gophers, moles feast on grubs, worms, and insects. Well-placed traps are the best control method for moles.



Gopher pushing up dirt. Photo Cred: Kastle Kare

GROUND-NESTING BEES & WASPS

Ground-Nesting Bees

Ground-nesting bees are beneficial pollinators and will not aggressively defend their nest like honeybees or yellow jackets. Female ground bees are solitary and prefer to dig their nests in bare areas of your lawn. Most are smaller than honeybees. Nests can be almost invisible holes in the soil, or they may consist of small conical shape mounds with a hole in the middle. Mounds are most likely to be seen in dry areas with sandy soil. Most bee nesting occurs in the spring during mating season. These tiny bees are harmless and we hope you will consider protecting these important pollinators.



Mole hill. Photo Cred: Saga

Cicada Killer Wasps

Cicada killers are solitary, predatory wasps and dig nests in the soil similar to ground-nesting bees. Female wasps burrow in the ground to make a home to bring their prey (cicadas). Each cicada is carefully buried after laying an egg on it. The eggs hatch shortly after burial and use the cicada as a food source. These wasps prefer sandy, well-drained soil in full sun. While rarely aggressive, females do have the ability to sting. Males are more likely to be aggressive toward people who trespass their territory, but they lack a sting and can do no harm. Control is not necessary, but if desired their mounds can be treated with an insecticide dust or granule. In their defense, cicada killer wasps do keep noisy cicadas under some control.



Female ground-nesting bee. Photo Cred: Margarita Lopez-Uribe



Female cicada killer. Photo Cred: Joan B. Stanley

JUNE BEETLES

Green June Beetles

The larval stage of the green June beetle is a C-shaped grub worm that occasionally appears in lawns. Adult beetles are large, heavy-bodied beetles with iridescent green wings and body. Adults are commonly attracted to ripening tree fruits or fermenting sap oozing from trees. The green June beetle grub feeds on compost and may be more common in lawns that are being heavily fertilized or amended with compost. These grubs do not feed on grass roots but will create holes and mounds at night. They have a strange behavior of emerging from the soil and inching across the lawn on their backs at night. No control is usually needed for green June beetle larvae in lawns though the adults may be damaging to fruit.



Left: Green June beetle adult; Right: Green June beetle larvae. Photo Cred: Mark Etheridge & P. Shrewsbury

MOLE CRICKETS

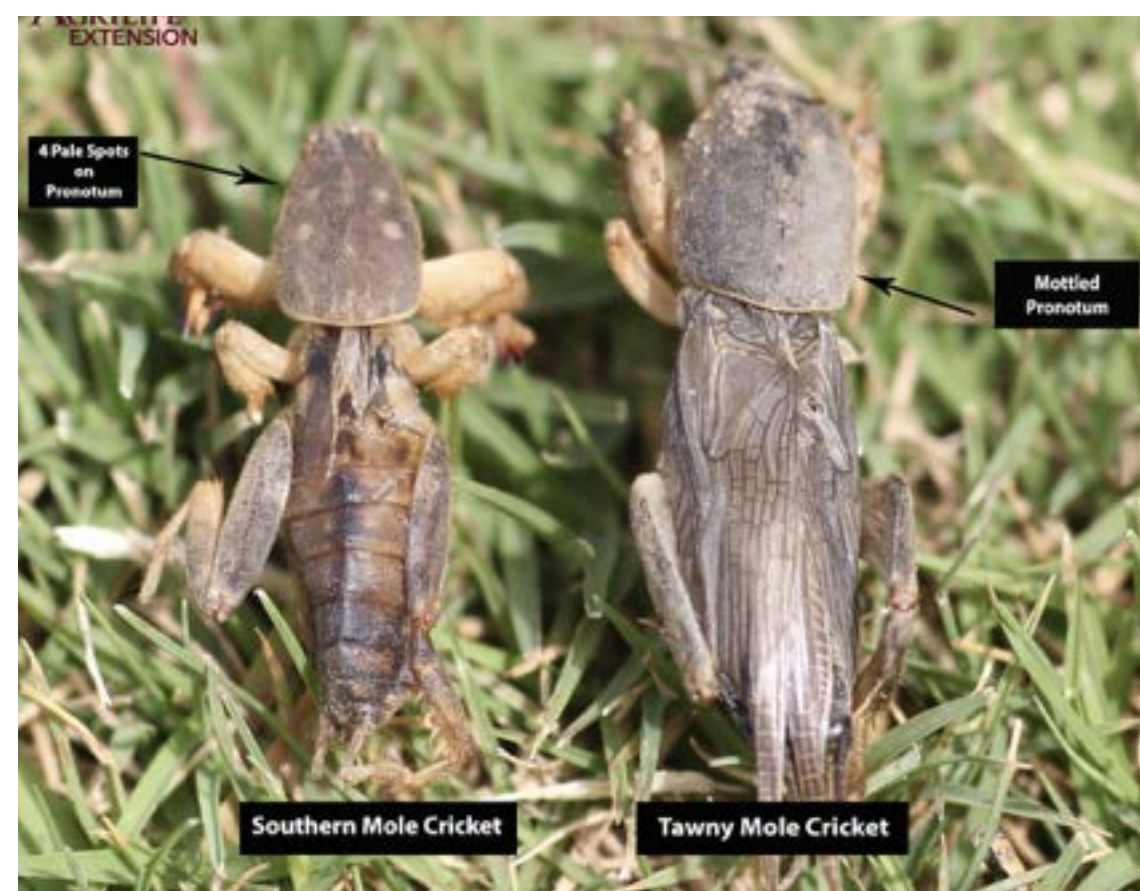
Mole crickets are subsurface tunnelers, much like real moles. In fact, mole cricket feet resemble mole feet in a wonderful example of convergent evolution where unrelated animals develop very similar features. Mole cricket cases vary in intensity throughout Texas but are more common in sand-based root systems in the eastern half of the state. Typically, eggs are laid by females starting in April in south Texas in June/July in north Texas. If you think you might have mole crickets, use soapy water (3 tablespoons of dish soap in 3 gallons of water for three square feet of grass) to bring crickets to the surface.



Mounds formed by green June beetle larvae. Photo Cred: Purdue Extension

Tawny Mole Cricket

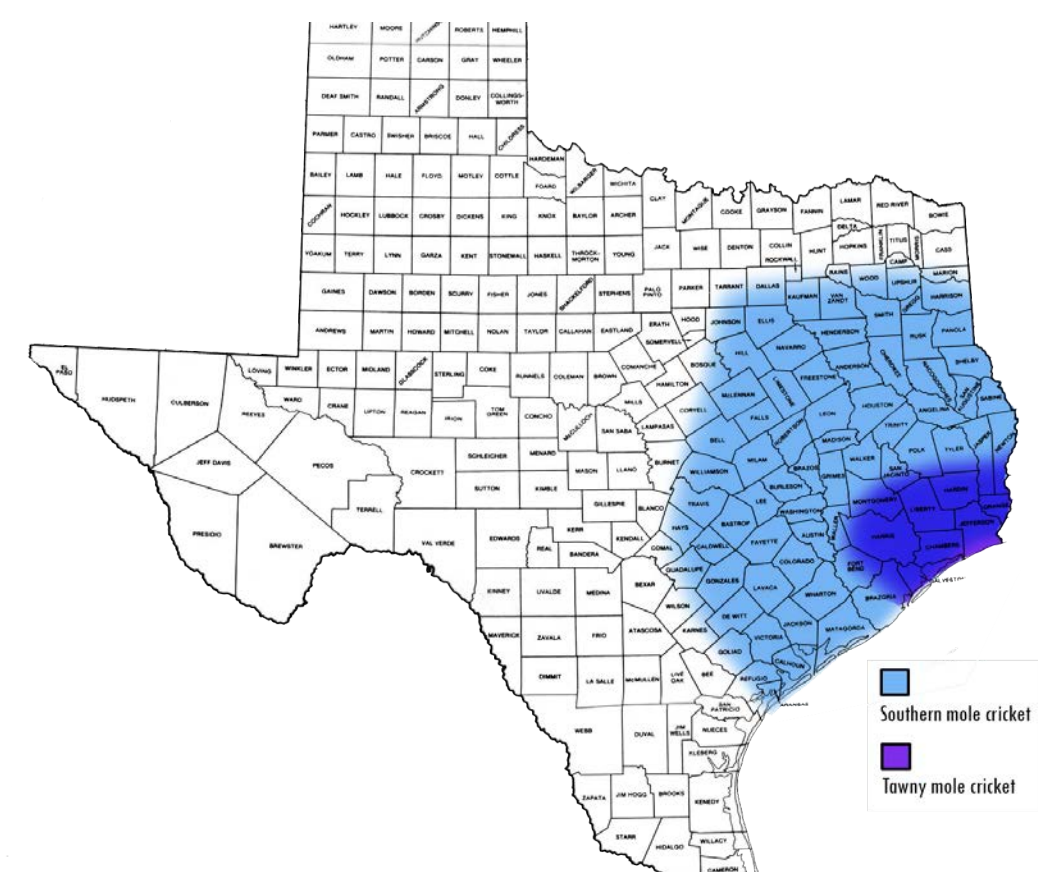
The tawny mole cricket is found in a handful of counties in the upper Gulf Coast part of the state (see map). It feeds primarily on grass roots and is slightly larger than the southern mole cricket. It is the most damaging mole cricket species and can destroy lawns through its tunneling and feeding on plant parts.



Left: Southern mole cricket; Right: Tawny mole cricket. Photo Cred: Casey Reynolds, Ph.D.

Southern Mole Cricket

The southern mole cricket is widely spread in the eastern part of the state than the tawny. It is a predator first and a plant feeder second. However, its tunneling can still cause noticeable damage on a small scale.



Left: Southern mole cricket; Right: Tawny mole cricket. Photo Cred: Michael Merchant, Ph.D.