

## Southeastern Pocket Gopher <sup>1</sup>

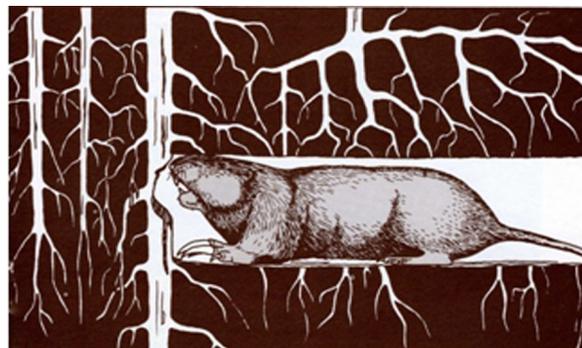
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### Description

The southeastern pocket gopher, *Geomys pinetis*, is also known as the sandy-mounder in Florida. Sandy-mounder has been modified into “salamander” in some local dialects in the Southeastern US. The pocket gopher is a rodent well adapted for its life underground. It has very small eyes and ears and large claws on its powerful front legs (Figure 1). The term pocket refers to the fur-lined cheek pouches that the gopher uses to carry food (Figure 2). The folk tale that it carries soil from the burrow in these pouches is false. The lips close behind the protruding chisel-like front teeth so the gopher can chew through dense soil or large roots without getting dirt in its mouth. The southeastern pocket gopher is tan to gray-brown in color (Figure 3). The feet and naked tail are light colored. The average total length (tip of nose to tip of tail) for an adult gopher is about 10 inches (25 cm), with a range of 9-12 inches (23-30 cm). Its tail averages about 3 inches (7.6 cm) in length.

### Habitat and Food

The southeastern pocket gopher requires deep, well-drained sandy soils. It is most abundant in



**Figure 1.** Southeastern pocket gopher. The long front claws, small eyes and small ears are adaptations for its subterranean habits. The naked tail functions as a radiator to keep the gopher from overheating in its warm, humid burrows.



**Figure 2.** The external, fur-lined cheek pouches that give the pocket gopher its name.

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**Figure 3.** The Southeastern pocket gopher is tan to brown, compared to the darker gray of the Plains pocket gopher. Photo from WEC-241, EDIS, Department of Wildlife Ecology and Conservation, Institute of Food and Agricultural Sciences, University of Florida.



**Figure 4.** The distribution of the Southeastern Pocket Gopher.

longleaf pine/turkey oak sandhill habitats, but it is also found in coastal strand, sand pine scrub, and upland hammock habitats. Gophers dig extensive tunnel systems and are rarely seen on the surface. The average tunnel length is 145 feet (44 m) and at least one tunnel was followed for 525 feet (159 m). The soil gophers remove while digging their tunnels is pushed to the surface to form the characteristic rows of sand mounds. Mound building seems to be more intense during the cooler months, especially spring and fall, and slower in the summer. In the spring, pocket gophers push up 1-3 mounds per day. Based on mound construction, gophers seem to be more active at night and around dusk and dawn, but they may be active at any time of day.

The primary tunnels run parallel to the surface and most are 2 inches (5 cm) to 2 feet (0.6 m) below the surface, but some tunnels may extend downward as far as 5 feet (1.5 m). Nests and food storage chambers are located in these deeper tunnels. As the gopher digs, it pushes the excavated dirt behind itself. It then turns around in the tunnel and pushes the dirt up a tunnel that ends at the surface, producing a mound. As the main tunnel progresses beyond the first tunnel, a new lateral tunnel is dug to the surface. Then the first lateral tunnel is backfilled to block it off from the surface. This behavior is a defense against the gopher's main predator, the Florida pine snake, which goes down the tunnel after its prey. The pine snake kills the gopher by pressing it against the wall of the tunnel, rather than wrapping it in constricting coils.

The pocket gopher feeds on the tap roots, crown roots, fleshy rhizomes, bulbs, and tubers of a wide variety of plants in its natural environment. Bahiagrass tubers appear to be a preferred food based on the contents of food caches. Gophers also have an unfortunate fondness for sweet potatoes, peanuts, sugarcane, alfalfa, and peas.

### Reproduction

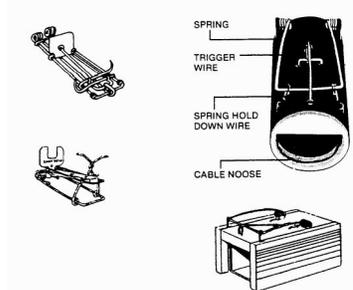
Gophers reach sexual maturity at about 6 months of age. The southeastern pocket gopher usually has one or two litters per year. The average number of young per litter is 1.5 (one to three young). Although gophers breed year round, breeding is most common in March and in July or August. They build nests of shredded grass in the deepest part of the tunnel system, 2-5 feet (0.6-1.5 m) below the surface. The low reproductive rate can sustain gopher populations because the gopher has few natural predators, owing to its underground lifestyle.

### Damage and Control

The most common problem associated with pocket gophers is the numerous large, sandy mounds they deposit on the surface. Occasionally, gophers will feed on the roots or tubers of garden, ornamental, or crop plants. In natural settings, gopher tunneling activities are beneficial. The soil gophers bring to the surface contains nutrients leached from surface soils. This natural fertilizer helps to maintain the sandhill

ecosystem. The mounds of loose soil provide needed germination sites for some native plant seeds. Many amphibians and reptiles use pocket gopher mounds as homes, including Florida's unique mole skinks. The pocket gopher tunnels themselves serve as habitat for many unique invertebrates found nowhere else.

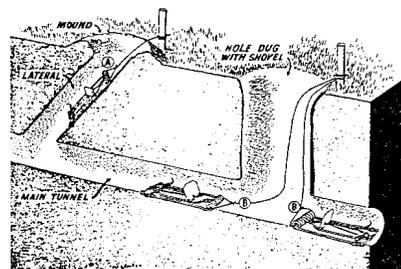
When pocket gophers are damaging lawns, golf courses, or gardens, it is legal for the property owners, tenants, or employees to trap them without a permit. Trapping is the most effective method for controlling the few gophers that invade yards, gardens, golf courses, or crop fields. Gophers should be maintained in natural areas and can usually be tolerated along rights-of-way for roads and power lines. Traditional gopher traps are very effective but are less humane than choker-loop gopher traps (Figure 5).



**Figure 5.** Traditional gopher trap.

Because they do not always kill trapped animals quickly, traditional gopher traps should always be attached by a wire to a stake on the surface. In the morning, the trap can be gently pulled to the surface and the gopher killed quickly with a sharp blow to the head. Gophers are killed quickly when caught in a choker-loop trap. Regardless of which trap is used, the most important part of the trapping process is finding the tunnel. This is also the most difficult part of the process. One method depends on finding a mound in the process of being formed. This may require looking at night or around dusk. Push the mound of sand to one side and probe in that location with a trowel or stiff wire. When the tunnel is found and opened, insert the trap into the lateral tunnel (Figure 6).

Cover the opening with a board or piece of cardboard and seal the edges with soil from the mound. This will block the light and prevent air



**Figure 6.** Gopher tunnel.



**Figure 7.** Gopher tunnel

movement that might alert the gopher to the trap. The next load of soil the gopher brings to the surface will place it in the trap. The other method of placing traps involves digging a hole down to the main tunnel and setting the traps in the exposed openings of the tunnel. The location of the main tunnel can be estimated to be under the line of mounds on the surface. When digging the hole down to the tunnel, put the excavated soil in a wheelbarrow or on a sheet of heavy plastic so it can be replaced after the gopher is captured. Again, cover the ends of the tunnels with soil after the traps are set to avoid alerting the gopher to the traps. As a general rule of thumb, the larger the mounds, the larger the gopher. A larger gopher requires a larger tunnel, meaning that more soil must be excavated and moved to the surface. Choker-loop gopher traps were generally designed for western pocket gophers, which are smaller than our southeastern pocket gopher. These traps will work on smaller individuals, but traditional gopher traps may be required to capture large adult gophers.

If a lawn service or pest control technician is hired to trap nuisance animals, that person must have a certified pest control operator's license in Lawn and Ornamental pest control or some special certification may be required for commercial wildlife control. No poison (bait or fumigant) may be used on native

wildlife in Florida, with the following exception effective July 1, 2008.

Title 68A -9.010 (2) of the Florida Administrative Code

(2) Methods that may not be used to take nuisance wildlife:

(c) Poison, **other than those pesticides that are registered by the Florida Department of Agriculture and Consumer Services without additional authorizations and are only used in a manner consistent with the product labeling.**

This means that registered mole and pocket gopher products available in stores in Florida are now legal to use on these two native mammals. Some products purchased from outside of Florida on the Internet may still not be legal to use if they do not have a Florida registration.

Gophers can be excluded from small areas such as gardens, flower beds, and even small backyards through the use of underground fences made of 1/2-inch galvanized hardware cloth. The barrier should extend at least 2 feet (0.6 m) under the ground and at least 6 inches (15 cm) above the ground. Since gophers can burrow down to 5 feet (1.5 m), some may get under the fence, but this barrier will keep out the majority. Planting unpalatable plants such as oleanders around the edge of your property may deter gophers from entering. Unfortunately, there are no chemical repellents known to be effective against gophers. Vibrating devices have not been proven to repel gophers. Reports that Wrigley's Juicy Fruit gum kills gophers by blocking their digestive tracts have been proven to be false. Finally, tunnel flooding has been used successfully in other parts of the country. However, this method usually does not work here since the southeastern pocket gopher is restricted to deep, well-drained sandy soils in Florida.

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