



Common Name: Southeastern pocket gopher

Scientific Name: *Geomys pinetis* Rafinesque

Other Commonly Used Names: Gopher, Salamander, Sandymounder

Previously Used Names: The now extinct Sherman's pocket gopher was once considered to be a separate species (*G. fontanelus*), but is now recognized as a subspecies (*G. pinetis fontanelus*). The colonial pocket gopher and the Cumberland Island pocket gopher (*G. colonus* and *G. cumberlandius*, respectively), were also once considered to each be distinct species and are also both extinct, but are now considered to be *G. pinetis*. Animals in the southwestern corner of Georgia were once considered to be a distinct subspecies (*G. p. floridanus*), but are no longer considered to have that distinction.

Family: Geomyidae

Rarity Ranks: G5/S2

State Legal Status: Threatened

Federal Legal Status: None

Federal Wetland Status: None

Description: These brownish-gray fossorial rodents measure about 26 cm in total length and have very small eyes and ears and short hair; males are slightly larger than females. Powerful front legs and feet with long claws are used for digging extensive subterranean burrow systems in which they spend most of their time. Mounds of loose, sandy soil at the surface indicate the presence of burrows and earn these animals the nickname “sandymounders” or “salamanders.” Members of this family possess distinctive external fur-lined cheek pouches (pockets) used for transporting food. The gopher’s lips close behind the protruding incisors, allowing it to gnaw underground without getting dirt in its mouth.

Similar Species: Sherman’s pocket gopher (*G. p. fontanelus*) was once thought to be a separate species, but it has disappeared from its only known location near Savannah. This subspecies was slightly larger and darker and was further characterized by the presence of a fontanel between the parietal and temporal bones of the skull. The eastern mole (*Scalopus aquaticus*) is also entirely fossorial, but is smaller and darker and does not possess external cheek pouches. Moles do not create surface mounds and they are insectivores, thus they lack the large gnawing incisors characteristic of rodents.

Habitat: Pocket gophers require loose, sandy, well-drained soil for burrow construction and an abundant supply of grasses and forbs for food. They are native to areas of upland coastal plain longleaf pine forest, including rolling hills and sandhills, particularly where frequent fires maintain conditions that favor the growth of groundcover plants. Most of the known remaining populations in Georgia are found in areas where natural longleaf forest and associated groundcover remains. However, in some instances they persist, at least temporarily, in heavily disturbed and manipulated habitats such as open pine plantations, lawns, roadsides, cattle pastures, and even agricultural fields.

Diet: Pocket gophers primarily eat plant material, particularly roots and fleshy rhizomes that extend into their tunnel systems. They also consume green plant material collected from the surface near tunnel entrances. Considerable food caches are stored in chambers of the tunnel system.

Life History: Pocket gophers are highly adapted for digging and life underground; each individual spends almost its entire existence within its own burrow system that can vary from a few inches to 3 feet below the surface. Excavated soil is pushed to the surface every few feet through lateral tunnels to form mounds that generally outline the tunnel system. These lateral tunnels are tightly plugged after use to keep predators such as pine snakes out. While on the surface, gophers are subject to avian and mammalian predators. Female burrows tend to meander while male burrows are more linear. This enhances the opportunities for male burrows to intersect female burrows for occasional mating, which can happen at any time of the year, but tends to be more frequent in late winter and summer.

Survey Recommendations: The presence of pocket gophers is easily detected by the distinctive mounds that mark the tunnel systems. Pocket gophers are active throughout the year and regularly maintain their tunnels such that fresh soil is deposited at the surface to form mounds. Fire ant mounds might be confused with pocket gopher mounds in some instances.

Range: The general range of the pocket gopher includes the entire coastal plain of Georgia, most of the coastal plain in Alabama, and approximately the northern two-thirds of Florida. However, historically occupied areas would have included only sites of suitable habitat, primarily determined by soil type, within that broad range, and the currently occupied areas are much further restricted and isolated. Large streams and other types of unsuitable habitat serve as barriers to dispersal.

Threats: Habitat alteration and loss appear to be the primary factors that have caused the decline in pocket gophers and the many other species that favored the once abundant longleaf pine/wiregrass communities of the Coastal Plain. These highly territorial and sedentary animals have a very low ability to disperse, with rivers and bottomlands in particular serving as barriers. Populations are easily isolated through habitat fragmentation, making them vulnerable to inbreeding and local extinction, and hindering recolonization. Pocket gophers have sometimes been targeted as pests because their burrows were considered to be hazardous or unsightly, and because of their occasional taste for agricultural crops.

Georgia Conservation Status: Most known populations are on private land and are unprotected, and most are very small and vulnerable. A recent survey of 272 (of a total of 297 historical) sites in 41 counties documented pocket gopher presence at 65 (24 %) in 18 counties. An additional 41 occupied sites were documented during the survey, including sites in two additional counties. Five small areas of relatively high density were identified in Baker, Early, Taylor, Camden, and Burke counties. Additionally, some of the quail plantations in Thomas County are known to harbor a relatively good population.

Conservation and Management Recommendations: Conservation of this species should include beneficial management of known existing populations where possible and reintroduction to areas of suitable, secure habitat. Pocket gophers are somewhat of a keystone species in that their burrows are used by many commensal species, mostly invertebrates, and some actually require these burrows to survive. Additionally, the burrows and mounds help to cycle nutrients to the surface and provide bare soil necessary for the germination of some seeds.

Selected References:

Ford, C. R. 1980. The status and preservation of the colonial pocket gopher. M. S. Thesis University of Georgia, and final report to the Georgia Dept. of Natural Resources.

Golley, F. B. 1962. Mammals of Georgia. Univ. of Georgia Press. 218 pp.

Jordan, J.R., Jr. 2004. Southeastern pocket gopher. Pp 204-205 in Alabama Wildlife, Vol 3. Imperiled amphibians, reptiles, birds, and mammals. R. E. Mirarchi, M. A. Bailey, T. M. Haggerty, and T. L. Best, eds.

Kovarik, P. W., P. E. Skelley, K. A. Milla, R. H. Turnbow, and D. L. Capers. 2000. Distribution patterns of insects inhabiting burrows of the southeastern pocket gopher. <http://www.famu.org/gopher/>. A contribution from the Bioinformatics Project. M. D. Hubbard, ed. Florida A & M Univ.

Laerm, J. 1981. A survey of the status, distribution, and abundance of potentially threatened and endangered vertebrate species in Georgia. Part VI: The mammals. Final report to the Georgia DNR

Laerm, J., B. J. Freeman, L. J. Vitt, J. H. Rappole, and L. E. Logan. 1981. The Status of Georgia's Nongame Vertebrates. Pp. 166 – 179 in Proc. of the Nongame and Endangered Wildlife Symposium, R. R. Odum and J. W. Guthrie, eds. Georgia DNR Tech Bull WL 5

Scott, Jay. 2008. Survey of the Current Distribution of the Southeastern Pocket Gopher (*Geomys pinetis*) in Georgia. Final report to the Georgia DNR. 42 pp.

Whitaker, J. O., Jr., and W. J. Hamilton. 1998. Mammals of the eastern United States. Cornell Univ. Press. 583 pp.

Winchester, B. H., R. S. Delotelle, J. R. Newman, and J. T. McClave. 1978. Ecology and management of the colonial pocket gopher: a progress report. Pages 173 – 184 in R. R. Odom and L. Landers, eds. Proceedings of the rare and endangered wildlife symposium, Georgia DNR Tech Bull WL 4

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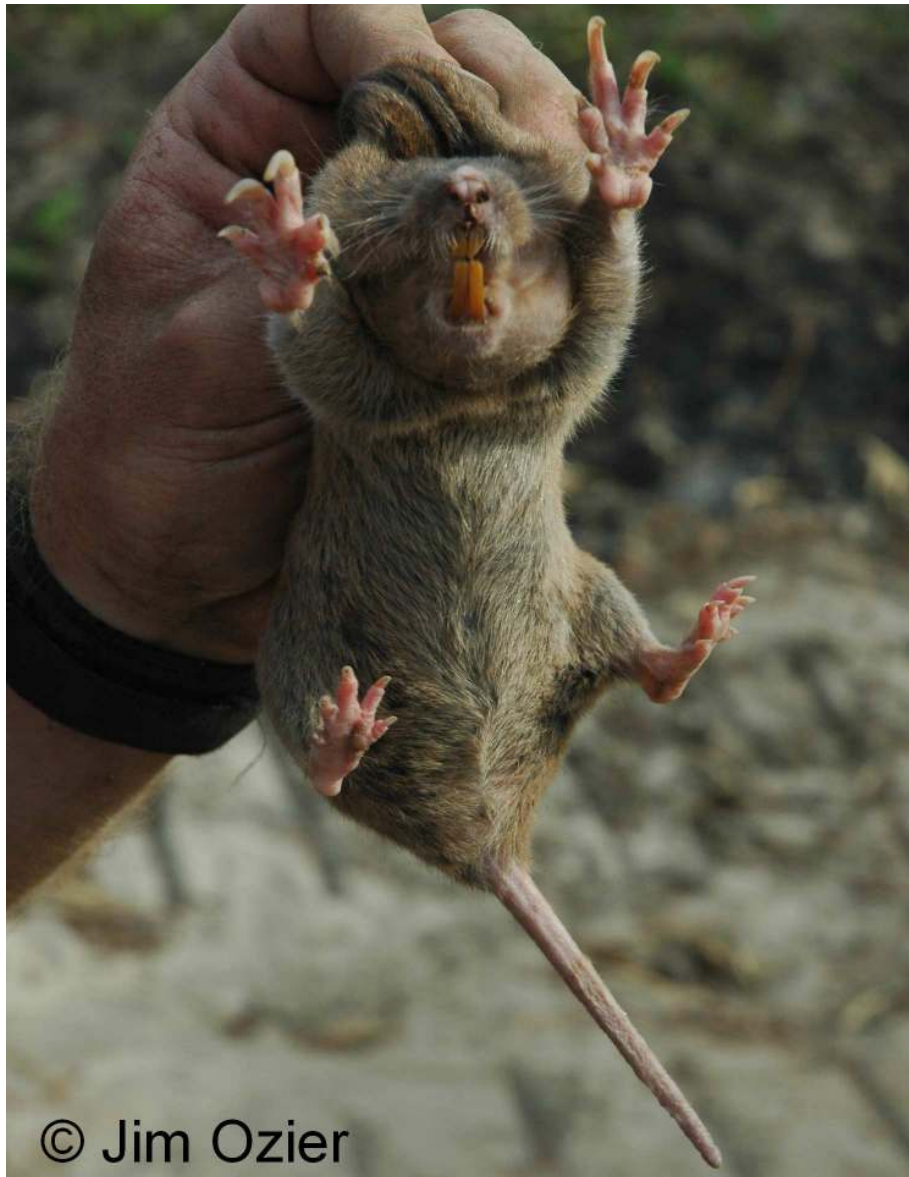
Date of species account:

J. Ozier, Jan. 2010: original account

K. Owers, May 2010: updated status and ranks, added pictures







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