

The Florida Mouse¹

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Identification

The Florida mouse (*Peromyscus floridanus*) is in the family Cricetidae, a group of approximately 60 species of small, delicate rodents that are active at night and found in habitats from Alaska to South America. Sometimes known as the gopher mouse, the Florida mouse is a brownish to tawny colored rodent with chestnut or orange flanks and a white underside, measuring 186–221 mm in total length (Figure 1). Its tail is 80–100 mm long, approximately 80% of its body length, and bicolored with grey-brown coloration above and white below. Juveniles have a grayish upper body, but like adults, are white underneath.

In general, the greater size and distinctive color of the Florida mouse serve to distinguish it from other similar species occurring in the state, including the cotton mouse (*Peromyscus gossypinus*) and the oldfield mouse (*Peromyscus polionotus*). The cotton mouse is dark to wood brown in color above with a white underside. The majority of its fur is short, with the exception of the middle portion of its back, which tends to be longer. Cotton mice measure between 142–206 mm in total length with a 55–97 mm long tail. The color of the oldfield mouse varies greatly



Fig. 1. The Florida mouse (*Peromyscus floridanus*). Credits: Fiona Sunquist

and is typically correlated with the substrate in the area it lives. Inland individuals are usually dark to wood brown above, while those inhabiting coastal beach areas are typically lighter. Like the Florida mouse and cotton mouse they are white underneath. Total length of the oldfield mouse ranges from 110–150 mm. Their tail is brown above and white below, measuring 40–60 mm in length. If identification based on color and size is not possible, the Florida mouse can also be distinguished from the other mouse species that share its distribution by the 5 pads (plantar tubercles) on each of its hind feet. The

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cotton mouse and oldfield mouse both have 6–7 of these pads (Figures 2a & 2b).



Fig. 2a. Hind foot of a Florida mouse (*Podomys floridanus*) showing 5 plantar tubercles. Credits: Dan Hipes, myfwc.com



Fig. 2b. cotton rat (*Peromyscus gossypinus*) showing 6 plantar tubercles. Credits: Dan Hipes, myfwc.com

Habitat

The Florida mouse lives in fire-maintained upland habitats with dry, well drained, sandy soils, patches of bare ground and open herbaceous and shrubby vegetation. If these dry habitats are not regularly burned, they become more densely vegetated, shadier, and wetter, rendering them unsuitable for large "healthy" mouse populations. It is most commonly found in scrub (Figure 3) and sandhill habitats and, to a lesser extent, scrubby and drier pine flatwoods.

The Florida mouse is a ground dweller and, when inactive, relies on holes in the ground for shelter and nesting. These mice do not generally dig their own holes, preferring to occupy gopher tortoise (*Gopherus polyphemus*) burrows as den sites (Figure 4). Gopher tortoise burrows provide the Florida mouse with a good nesting structure and protection from unsuitable

weather conditions and extreme variations in temperature. In addition, they provide a valuable insect food source. The Florida mouse has also been recorded in burrows of nine-banded armadillos (*Dasypus novemcinctus*), oldfield mice, and cotton rats (*Sigmodon hispidus*) and in pocket gopher (*Geomys pinetis*) mounds. Predators of the Florida mouse often occupy the same burrows. These predators include indigo snakes (*Drymarchon corais*), pine snakes, (*Pituophis melanoleucus*), and spotted skunks (*Spilogale putorius*). To avoid these predators, the Florida mouse uses alternative entrances or "chimneys" and digs side tunnels off the main burrow.



Fig. 3. Florida mice are often found in scrub habitat. Credits: Kevin Main, myfwc.com



Fig. 4. Gopher tortoise burrows often provide den sites for the Florida mouse. Credits: Wendy VanDyk Evans, forestryimages.org

Distribution

The Florida mouse occurs from north central Florida south to Highland and Sarasota counties, and along the Atlantic coast from St. John's County down to Miami-Dade County. In the recent past, an

isolated panhandle population was also recorded in Franklin County (Figure 5). The Florida mouse is found exclusively in Florida and is the only endemic mammal in the state.



Fig. 5. Mouse distribution in Florida. Species is present in shaded counties.

Behavior

The Florida mouse is active and forages at night. Its nocturnal behavior helps it avoid and escape predators. It feeds mostly on seeds, fungus, and insects. Acorns are a particularly important and preferred seed food source. The Florida mouse breeds throughout the year, but breeding is most common in fall and early winter. Litter size averages 2–3 young, with no more than 2 litters produced per year. Young are weaned at 3–4 weeks. The average lifespan of the Florida mouse is 1 year in the wild, although 3–7 years has been documented in captivity. A major source of mortality is predation, especially by snakes, medium sized mammals, and raptors.

Conservation Status

The Florida mouse is listed as vulnerable on the IUCN Red List and is considered a species of special concern by the Florida Fish and Wildlife Conservation Commission. It is a candidate for federal listing on the endangered species list with some evidence of vulnerability. However, insufficient evidence currently exists to justify listing it as an endangered species.

Over the past 10 years, this species has undergone population declines of approximately 30%. While it still occupies much of its former range, its numbers have been reduced. Habitat loss as a

result of development, agriculture, and fire suppression is thought to be responsible for declines. Conservation lands in Ocala National Forest and scrub along the Lake Wales Ridge are home to some of the largest populations of the Florida mouse.

The Florida mouse is dependent on gopher tortoise burrows. Declines in Gopher tortoises have been observed across Florida, with some populations reduced by as much as 80%. The reasons for tortoise declines appears to be linked to habitat destruction. The resultant declines in new gopher tortoise burrow construction are cause for some concern in relation to the conservation of the Florida mouse.

Habitat Management

The Florida mouse prefers open herbaceous and shrubby habitat with little dense vegetation. Therefore, managers emphasize the prescribed burning of its habitat. In areas that are regularly managed with fire, continued prescribed burning is important to ensure suitable habitat is maintained for the Florida mouse. However, fire suppression in past years has caused vegetation across much of the mouse's range to grow too dense, making many areas unsuitable for occupation. In these areas, prescribed burning needs to be reintroduced in an attempt to thin the vegetation and increase habitat availability for the Florida mouse. Areas with known populations of the species should be protected from development and agricultural intensification whenever possible.

The often close relationship between the Florida mouse and gopher tortoise should encourage continued protection and management of both species. In situations where habitat loss demands the relocation of gopher tortoises, consideration should be made to also relocate associated Florida mice.

For more information

University of Michigan. Animal Diversity Web. animaldiversity.ummz.umich.edu.

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