

= Florida mouse =

The Florida mouse (*Podomys floridanus*) is a species of rodent in the family Cricetidae . It is the only species in the genus *Podomys* , which is the only mammal genus endemic to Florida . The Florida mouse (also known as the big @-@ eared deer mouse , the Florida deer mouse , and the gopher mouse) is found only in a limited area in central peninsular Florida and in one small area in the Florida panhandle . The mouse inhabits some of Florida 's hottest and driest areas in the high pinelands , sandhills , flatlands , and coastal scrub .

The mouse is an omnivore , measures 195 mm (7 @. @ 7 in) in total length , has relatively large ears , and displays brown to orange upperparts and white underparts . The mouse breeds throughout the year , and raises its two or three young per litter in the nesting chambers and passages it constructs in the burrow of the gopher tortoise (*Gopherus polyphemus*) . Real estate development and a decline in the gopher tortoise population threaten the mouse 's future . The species is listed as Vulnerable by the IUCN .

= = Description = =

The Florida mouse displays a soft and silky pelage , brown above and orange on the cheeks , shoulders , and lower sides . Underparts are white . The young are gray . The species has a skunk @-@ like odor . The mouse has relatively large , nearly naked ears (16 mm long or more) , a relatively short tail approximately 80 % of total body length , and large hind feet (24 mm long or more) with five , rather than the usual six , plantar tubercles . There is no difference in appearance between males and females .

The mouse looks like *Peromyscus* , and was once placed as a monotypic subgenus in the genus *Peromyscus* . The greater size and distinctive coloration of *Podomys floridanus* distinguish it from the cotton mouse (*Peromyscus gossypinus*) and oldfield mouse (*Peromyscus polionotus*) , which also occur in Florida .

In 1973 , a biochemical polymorphism study was conducted in four sample areas of the species . Electrophoretically demonstrable variation was found in one or more populations at 15 of 39 (38 %) of the loci examined , and two and sometimes three alleles per locus were detected . At the least , the findings give an indication of the kind of genetic variation that may be found between populations within a species . The amount of variation was similar to findings in examinations of *Peromyscus polionotus* , *Sigmodon* , and *Dipodomys* .

Average measurements reported in 1993 of 30 adults were : total length 195 mm (7 @. @ 7 in) 178 ? 220 mm (7 @. @ 0 ? 8 @. @ 7 in) ; tail 88 mm (3 @. @ 5 in) 80 ? 101 mm (3 @. @ 1 ? 4 @. @ 0 in) ; hind foot 26 mm (1 @. @ 0 in) 24 ? 28 mm (0 @. @ 94 ? 1 @. @ 10 in) ; ear 19 mm (0 @. @ 75 in) 16 ? 21 @. @ 5 mm (0 @. @ 63 ? 0 @. @ 85 in) . The diploid number is 48 and dentition 1 / 1 0 / 0 0 / 0 3 / 3 total 16 .

= = Taxonomy = =

The mouse was first described by Frank Chapman in 1889 in a paper in the Bulletin of the American Museum of Natural History , from a specimen collected at Gainesville , Florida . The species was named as a separate subgenus of *Peromyscus* by Wilfred Hudson Osgood in 1909 , but generic recognition was disputed in the 1980s . Michael Carleton and Guy Musser supported the ranking in 1993 . No subspecies have been described .

= = Distribution and habitat = =

Podomys is the only mammal genus endemic only to Florida . The Florida mouse is found coast to coast in central peninsular Florida . An isolated population is found in the Florida panhandle at Franklin County , Florida . The species occurs from north @-@ central Florida south to Highlands County and Sarasota County . It is found along the Atlantic coast from St. Johns County south to

Miami @-@ Dade County .

The mouse inhabits some of Florida 's driest locations . It is common in the sand pine (*Pinus clausa*) scrub and the high pinelands of turkey oak (*Quercus laevis*) and longleaf pine (*Pinus palustris*) , and is found in the slash pine (*Pinus elliottii*) and turkey oak habitat of the southern ridge sandhills , and in scrubby flatlands , and in coastal scrub associations . Home ranges average roughly 1 acre (0 @.@ 40 ha) , and are smaller in the flatlands . Populations are greater in the scrub and flatlands than in the highlands . Its largest populations may occur within Ocala National Forest and the scrubs along Lake Wales Ridge .

= = Behavior = =

The Florida mouse is nocturnal , and is active throughout the year except on especially cold nights . The mouse can climb , but is primarily a terrestrial species . In laboratory experiments , *P. floridanus* used its forepaws to dig and throw substrate backwards while other species mainly used their hindfeet to do the same .

= = = Shelter = = =

The Florida mouse has been called the gopher mouse because it shares the long , deep burrow of the gopher tortoise (*Gopherus polyphemus*) . The mouse makes nest chambers , small side passages , sometimes a pad of oak leaves and wiregrasses for chamber floors , and small chimney openings in the roof of the burrow . It uses these openings , the main entrance , and side passages for entrance to and exit from the burrow . In the absence of gopher tortoise burrows , the mouse will use those of the oldfield mouse (*Peromyscus polionotus*) or will make its own .

= = = Diet = = =

The Florida mouse is an omnivore and its diet consists of acorns when available , insects , seeds , nuts , fungi , and other plant material and vertebrates . A 1987 report indicates the mouse feeds on engorged ticks (*Ornithodoros turicata americanus*) that parasitize gopher frogs (*Rana areolata*) and gopher tortoises .

= = = Reproduction = = =

Florida mice breed throughout the year with a peak between July and December , a lesser peak in January and February , and a lull or cessation in April and May . Unlike most murids , copulatory behavior lacks intravaginal thrusting , the intromission thrust is more intense than the dismount , there is no lock , and ejaculation occurs with every thrust .

Gestation is about 23 or 24 days . The mice dig side burrows off the main burrow of the gopher tortoise , line them with shredded plant material , and use them as nurseries . In eight litters of young conceived in the wild but born in the laboratory , litter size numbers varied from two to four for an average of 3 @.@ 1 per litter . The young are born in nests in the burrow . Newborn weigh 1 @.@ 9 ? 2 @.@ 9 g (0 @.@ 067 ? 0 @.@ 102 oz) and measure in total length 44 mm (1 @.@ 7 in) ; tail length 12 mm (0 @.@ 47 in) ; and hind foot length 8 mm (0 @.@ 31 in) . Teeth begin appearing on the fourth day , the young are active and agile about the 10th day , and the eyes open about the 16th day . Nursing is virtually non @-@ stop for the first two weeks of life . Weaning occurs at three to four weeks , and the young display adult behavior at this time .

= = = Survival = = =

Ectoparasites are seven species of mites , five ticks , five fleas , a louse , and the subdermal botfly larva , *Cuterebra* . Known endoparasites are three species of protozoans found in fecal smears , one trematode , four cestodes , seven nematodes , and nymphal pentastomids found in various

internal organs .

In 2010 , exact population size was unknown , but estimated to be in the several thousands and decreasing . Presumed predators are snakes , birds of prey , bobcats , raccoons , and foxes . A high number of shortened tails have been observed in the mice and a modified integument in the tail facilitates tail loss , probably as an anti @-@ predator mechanism .

Few wild individuals have a lifespan of over a year , though captive individuals may live for several years . One captive male lived seven years , four months .

= = Relations with humans and conservation = =

The species in all probability has little or no direct impact or influence on human interests and concerns but agricultural and real estate development are a threat to the species ' very narrow habitat . Collecting specimens in the dry ridges is complicated by the millions of ants which eat the bait in the trap the moment it is set on the ground . Live collecting is the alternative , but the bait is usually digested by the time the animal is taken from the trap , making food research difficult if not impossible .

As early as 1998 , the Florida mouse was a federal C2 candidate taxon , and considered Threatened by the Florida Committee on Rare and Endangered Plants and Animals . The mouse was named a Species of Special Concern by the Florida Game and Fresh Water Fish Commission . The Florida mouse inhabits a restricted habitat in the United States and that habitat is threatened not only by agricultural and real estate development but by wildfire suppression . Habitat decline is expected to continue into the future . The mouse is dependent upon gopher tortoise burrows , but disease and habitat loss are responsible for decline in the tortoise population . Red imported fire ants (*Solenopsis invicta*) threaten both tortoise and mouse populations . The IUCN has listed the species as Vulnerable and recommends further study of the species , maintenance of viable populations of gopher tortoises , and the preservation and management of suitable habitat for the species . The mouse is protected on several conservation lands across central Florida . Occurrences of the Florida mouse are protected at Archbold Biological Station , Ocala National Forest , and others .