

ANASTASIA ISLAND BEACH
MOUSE

Peromyscus polionotus phasma



Photo of Anastasia Island beach mouse.
Photo courtesy of the Florida Fish and Wildlife Conservation
Commission (FWC).

SOUTHEASTERN BEACH
MOUSE

Peromyscus polionotus niveiventris



Photo of Southeastern beach mouse.
Photo courtesy of the Friends of Archie Carr
National Wildlife Refuge.

FAMILY: Cricetidae

STATUS: Anastasia Island beach mouse is Endangered; Southeastern beach mouse is Threatened (*Federal Register*, May 12, 1989)

DESCRIPTION: The Anastasia Island beach mouse and the Southeastern beach mouse are two of six existing coastal subspecies of the oldfield mouse (*Peromyscus polionotus*). The oldfield mouse is a wide-ranging species in the Southeast. One of the largest beach mice (averaging 138.5 millimeters in length and 53 millimeters in tail length), the Anastasia Island beach mouse is much paler than most inland races of the oldfield mouse. This beach mouse has a light buff-colored back, pure white underparts, and indistinct, white markings on its nose and face. The southeastern beach mouse is the largest beach mouse; it averages 139 millimeters in total length and 52 millimeters in tail length. Although it is darker than the Anastasia Island beach mouse, it is still lighter than most inland subspecies of the oldfield mouse.

RANGE AND POPULATION LEVEL: The distribution of the southeastern beach mouse has declined significantly, particularly in the southern part of its range. Historically, it was reported to occur from Florida's Ponce Inlet in Volusia County to Hollywood Beach in Broward County. More recently, the southeastern beach mouse has been reported only from Volusia County (Smyrna Dunes Park), Federal lands in Brevard County (Canaveral National Seashore, Merritt Island National Wildlife Refuge, and Cape Canaveral Air Force Station), and in Indian River County (Sebastian Inlet State Recreation Area). Large, healthy populations of the southeastern beach mouse are still found on the beaches of Merritt Island National Wildlife Refuge and Cape Canaveral Air Force Station in Brevard County—all federally protected lands. This beach mouse is no longer found in the southern portion of its historic range (Broward, Palm Beach, and Martin Counties).

The Anastasia Island beach mouse may have ranged from Florida's St. John's River in Duval County, south to Anastasia Island in St. Johns County. This beach mouse currently occurs on Anastasia Island, primarily on the north (Anastasia Island State Park) and south (Fort Matanzas National Monument) ends of the island. In 1992, mice from these two populations were reintroduced into suitable historical habitat between Ponte Vedra Beach and South Ponte Vedra Beach in north St. John's County at the Guana-Tolomato-Matanzas National Estuarine Research Reserve (formerly Guana River State Park). The reintroduced population is surviving, although in low numbers.

HABITAT: Both inhabit sand dunes which are vegetated by sea oats and dune panic grass. The scrub adjoining these dunes is populated by oaks and sand pine or palmetto. A study conducted on Merritt Island indicated that the southeastern beach mice may prefer open sand habitat with clumps of palmetto and sea grapes, or dense scrub habitat dominated by palmetto, sea grape, and wax myrtle; over seaward habitat with sea oats (Extine and Stout 1987). Little specific information exists about these species' burrowing habits, although they are presumed to be similar to those of beach mice on the Gulf Coast. Sometimes beach mice use the former burrows of ghost crabs, but usually they dig their own. Burrow entrances are generally found on the sloping side of a dune at the base of a clump of grass. The burrows are used for nesting and food storage as well as a refuge.

BIOLOGICAL INFORMATION: Breeding activities may be similar to those of beach mice on the Gulf Coast. The breeding season for beach mice appears to start in November and end in early January (Blair 1951). The female, which may reach reproductive maturity at 6 weeks of age, produces two to seven beach mice per litter. A female beach mouse can usually produce litters at 20-day intervals, but mortality is high. Most of the progeny will not survive over 4 months. Predictably, beach mice feed on sea oats and beach grasses. The sea oats must be blown to the ground for the mice to eat. During the spring and early summer when seeds are scarce, beach mice may eat invertebrates.

REASONS FOR CURRENT STATUS: Both of these subspecies occur only in beach dune systems and adjacent interior scrub areas. The greatest threat to these beach mice is the continuing loss or alteration of dunes due to human development and use. Competitors, such as house mice, are also threats. The control of free-ranging house cats has been identified as important to the species' survival. The Anastasia Island beach mouse and subpopulations of the southeastern beach mouse have such small ranges that hurricanes and other large coastal storms and the associated flooding and erosion are a serious threat. The urbanization along the Atlantic coast has created isolated patches of habitat. Such habitat fragmentation can cause genetic isolation between subpopulations in each subspecies and is a concern.

MANAGEMENT AND PROTECTION: Most of the remaining habitat for both species is on public land, and management efforts have centered on maintaining suitable habitat. The long-term persistence of the Anastasia Island and southeastern beach mice may depend on reintroducing into historical areas with suitable habitat and these sites need to be evaluated and reintroduction plans developed. Translocation for genetic purposes needs to be assessed and an action plan developed. Surveys to monitor the status of these beach mice in areas of suitable habitat should continue. Other management needs include controlling house mice and cats.

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For more information please contact:

Annie Dziergowski
U.S. Fish and Wildlife Service
6620 Southpoint Drive South, Suite 310
Jacksonville, Florida 32216
904/232-2580
annie_dziergowski@fws.gov

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