



North Florida Ecological Services Office

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Species Account/Biologue

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FLORIDA SALT MARSH VOLE

Microtus pennsylvanicus dukecampbelli



Photo of Salt Marsh Vole.courtesy of USFWS/Photo by Michael Mitchell.

FAMILY: Muridae

STATUS: Endangered (*Federal Register*, January 14, 1991)

DESCRIPTION: The Florida salt marsh vole is a small (178

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to 198 millimeters in total length), short-tailed rodent with a blunt head and short ears. Its fur is black-brown dorsally and dark gray ventrally. It is closely related to the meadow vole (*M. p. pennsylvanicus*) but can be distinguished by its larger size, darker coloration, relatively small ears, and by certain skull characteristics.

BIOLOGICAL INFORMATION: The Florida salt marsh vole is found at only one site in a transitional high salt marsh zone. It appears to be restricted to areas near the edge of patches of black rush (*Juncus roemerianus*), in patches of seashore saltgrass (*Distichlis spicata*) and appears to avoid areas dominated by smooth cordgrass (*Spartina alterniflora*). Like most species of *Microtus*, it probably feeds mainly on green plant materials, especially grasses.

RANGE AND POPULATION LEVEL: The Florida salt marsh vole is known only from one site at Waccasassa Bay in Levy County, Florida, where it appears to exist in low numbers and has a very restricted range. Any natural or human-caused adverse impact to this species could result in its extinction.

HABITAT: The Florida salt marsh vole lives in periodically flooded high salt marsh zone where it is believed to survive high tides and storm flooding by climbing vegetation and swimming. It appears to be most common in areas vegetated by seashore saltgrass (*Distichlis spicata*).

REASONS FOR CURRENT STATUS: The Florida salt marsh vole is believed to represent a relict population of the widespread meadow vole (*Microtus pennsylvanicus*) which was much more widespread in Florida during the Pleistocene. The range of the species in Florida is believed to have been greatly reduced as climatic change resulted in vegetational changes from grassland to forest in Florida. The current restricted population is threatened by storm surges association with hurricanes and tropical storms, the loss of coastal marshes due to flooding from rising sea level, and potentially by any human-caused alterations that might be proposed for these salt marshes.

MANAGEMENT AND PROTECTION: The sole known site for the Florida salt marsh vole is on private land; however, the salt marsh is under U.S. Army Corps (Corps) of Engineers jurisdiction pursuant to the Clean Water Act.

Dredge and fill activities in the marsh would require a Corps permit. No development plans for the area are currently known, however several tracts of the property are for sale. The vole may occur on adjacent lands owned by the Florida Department of Environmental Protection (Wacassasa Bay State Preserve) and efforts should continue to locate additional populations. The saltmarsh habitat and adjacent uplands of the type locality should be protected by public ownership.

REFERENCES:

Department of the Interior. U.S. Fish and Wildlife Service. Endangered and Threatened Wildlife and Plants; Endangered Status for the Florida Salt Marsh Vole. *Federal Register* 56(9):1457-1459, January 14, 1991.

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Woods, C. A., W. Post, and C. W. Kirkpatrick. 1982. *Microtus pennsylvanicus* (Rodentia: Muridae) in Florida: A Pleistocene relict in a coastal saltmarsh. Bull. Florida State Museum., Biol. Sci. 28(2):25-52.

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