= Euryoryzomys emmonsae =

Euryoryzomys emmonsae , also known as Emmons 's Rice Rat or Emmons ' Oryzomys , is a rodent from Amazonian Brazil in the genus Euryoryzomys of the family Cricetidae . Initially misidentified as E. macconnelli or E. nitidus , it was formally described in 1998 . A rainforest species , it may be scansorial , climbing but also spending time on the ground . It occurs only in a limited area south of the Amazon River in the state of Pará , a distribution that is apparently unique among the muroid rodents of the region .

Euryoryzomys emmonsae is a relatively large rice rat , weighing 46 to 78 g (1 @.@ 6 to 2 @.@ 8 oz) , with a distinctly long tail and relatively long , tawny brown fur . The skull is slender and the incisive foramina (openings in the bone of the palate) are broad . The animal has 80 chromosomes and its karyotype is similar to that of other Euryoryzomys . Its conservation status is assessed as " Data Deficient " , but deforestation may pose a threat to this species .

= = Taxonomy = =

In 1998 , Guy Musser , Michael Carleton , Eric Brothers , and Alfred Gardner reviewed the taxonomy of species previously lumped under " Oryzomys capito " (now classified in the genera Hylaeamys , Euryoryzomys , and Transandinomys) . They described the new species Oryzomys emmonsae on the basis of 17 specimens from three locations in the state of Pará in northern Brazil ; these animals had been previously identified as Oryzomys macconnelli (now Euryoryzomys macconnelli) and then as Oryzomys nitidus (now Euryoryzomys nitidus) . The specific name honors Louise H. Emmons , who , among other contributions to Neotropical mammalogy , collected three of the known examples of the species in 1986 , including the holotype . The new species was placed in what they termed the " Oryzomys nitidus group " , which also included O. macconelli , O. nitidus , and O. russatus .

In 2000 , James Patton , Maria da Silva , and Jay Malcolm reported on mammals collected at the Rio Juruá in western Brazil . In this report , they provided further information on the Oryzomys species reviewed by Musser and colleagues , including sequence data from the mitochondrial cytochrome b gene . Their analysis reaffirmed that O. emmonsae was a distinct species and found that it was closest to O. macconnelli and O. russatus , differing from both by about 12 % in the cytochrome b sequence ; O. nitidus was more distantly related , differing by 14 @.@ 7 % . The average sequence difference between the three O. emmonsae studied was 0 @.@ 8 % .

In 2006 , an extensive morphological and molecular phylogenetic analysis by Marcelo Weksler showed that species then placed in the genus Oryzomys did not form a single , cohesive (monophyletic) group ; for example , O. macconnelli , O. lamia (placed under O. russatus by Musser and colleagues) and O. russatus clustered together in a single natural group (clade) , but were not closely related to the type species of Oryzomys , the marsh rice rat (O. palustris) . Later in 2006 , Weksler and colleagues described several new genera to accommodate species previously placed in Oryzomys , among which was Euryoryzomys for the " O. nitidus complex " , including O. emmonsae .

Thus , the species is now known as Euryoryzomys emmonsae . As a species of Euryoryzomys , it is classified within the tribe Oryzomyini (" rice rats ") , which includes over a hundred species , mainly from South and Central America . Oryzomyini in turn is part of the subfamily Sigmodontinae of family Cricetidae , along with hundreds of other species of mainly small rodents .

= = Description = =

Euryoryzomys emmonsae is a fairly large , long @-@ tailed rice rat with long , soft fur . The hairs on the back are 8 to 10 mm (0 @.@ 3 to 0 @.@ 4 in) long . It generally resembles E. nitidus in these and other characters , but has a longer tail . E. macconnelli is slightly larger and has longer and duller fur . In E. emmonsae , the upperparts are tawny brown , but a bit darker on the head because many hairs have black tips . The hairs of the underparts are gray at the bases and white at

the tips ; overall , the fur appears mostly white . In most specimens , there is a patch on the chest where the gray bases are absent . The longest of the vibrissae (whiskers) of the face extend slightly beyond the ears . The eyelids are black . The ears are covered with small , yellowish brown hairs and appear dark brown overall . The feet are covered with white hairs above and brown below . There are six pads on the plantar surface , but the hypothenar is reduced . The ungual tufts , tufts of hair which surround the bases of the claws , are well @-@ developed . The tail is like the body in color above , and mostly white below , but in the 10 mm (0 @.@ 4 in) nearest the tail tip it is brown below .

Compared to E. nitidus and E. macconnelli , the skull is relatively small and slender . It has broad and short incisive foramina (perforations of the palate between the incisors and the molars) and lacks sphenopalatine vacuities which perforate the mesopterygoid fossa , the gap behind the end of the palate . The animal is similar to other members of the genus in the pattern of the arteries of the head . The alisphenoid strut , an extension of the alisphenoid bone which separates two foramina (openings) in the skull (the masticatory @-@ buccinator foramen and the foramen ovale accessorium) is rarely present ; its presence is more frequent in E. nitidus . The capsular process , a raising of the bone of the mandible (lower jaw) behind the third molar , houses the back end of the lower incisor in most Euryoryzomys , but is absent in E. emmonsae and E. macconnelli . Traits of the teeth are similar to those of E. nitidus and other Euryoryzomys .