= Transandinomys bolivaris =

Transandinomys bolivaris , also known as the long @-@ whiskered rice rat , is a rodent in the genus Transandinomys . It is found in humid forest from northeastern Honduras to western Ecuador , up to 1 @,@ 800 m (5 @,@ 900 ft) above sea level . Since it was first described in 1901 from Ecuador , six scientific names have been introduced for it , but their common identity was not documented until 1998 and the species has long been known under the name Oryzomys bombycinus , described from Panama in 1912 . The name Oryzomys bolivaris was used before it was moved to the new genus Transandinomys with Transandinomys talamancae (formerly Oryzomys talamancae) in 2006 .

It is a medium @-@ sized rice rat distinguished by its very long vibrissae (whiskers) ? those above the eyes are up to 50 mm (2 in) long . The fur , which is soft and dense , is usually dark brown above and light gray below ; it is darker in juveniles . The feet are long and the tail is about as long as the head and body . The skull is narrow and has a broad interorbital region (between the eyes) . The species generally lives on the ground . Although it is rare , its conservation status is thought to be secure .

= = Taxonomy = =

In 1901 , Joel Asaph Allen described four new species of rice rat in the genus Oryzomys : three from Ecuador and the Peruvian Oryzomys perenensis . The three Ecuadorian species ? Oryzomys bolivaris from Porvenir , Bolívar Province ; Oryzomys castaneus from San Javier , Esmeraldas Province ; and Oryzomys rivularis from Río Verde , Pichincha Province ? were each based on a single specimen collected in 1899 or 1900 . He distinguished the three on the basis of coloration , size , and relative tail length . Philip Hershkovitz listed all three among the many synonyms of " Oryzomys laticeps " (currently more narrowly defined as Hylaeamys laticeps) in a 1960 paper .

Edward Alphonso Goldman described Oryzomys bombycinus in 1912 from four specimens from Panama . He compared it to Oryzomys talamancae and placed it with the " Oryzomys laticeps group " . Three years later , he described Oryzomys nitidus alleni from Costa Rica as a subspecies of Oryzomys nitidus , without mentioning bombycinus . He revised Oryzomys of North America in 1918 and recognized Oryzomys bombycinus as the only member of its own group , with alleni as a subspecies distinguished by the proportions of the skull . He also mentioned that the group occurred in Ecuador and indicated that O. bombycinus probably reached Colombia . Goldman considered the group to be similar to O. talamancae , but suggested that bombycinus and alleni might only be subspecies of O. nitidus . In 1939 , Oliver Pearson added a third subspecies , O. b. orinus , from eastern Panama , and in 1966 the species was first recorded from Colombia . Ronald Pine reviewed Oryzomys bombycinus in 1971 , when 59 specimens of it were known , and first recorded the species from Nicaragua and Ecuador . He kept the three described subspecies ? alleni from Nicaragua to western Panama , bombycinus from central Panama , and orinus from eastern Panama to Ecuador .

Alfred Gardner and James Patton suggested in 1976 that Allen 's O. rivularis may be the same species as O. bombycinus . They considered O. bolivaris as probably the same as O. nitidus and listed castaneus as a synonym of O. capito (equivalent to modern Hylaeamys megacephalus and closely related species plus Transandinomys talamancae) . In 1984 , Benshoof and colleagues reported the first record of Oryzomys bombycinus from Honduras . Guy Musser and Marina Williams reviewed O. talamancae in 1985 and included O. castaneus as one of its synonyms , though without having examined the holotype . In the 1993 second edition of Mammal Species of the World , Musser and Michael Carleton used the name Oryzomys bolivaris for the species previously known as O. bombycinus , and in 1998 , Musser and colleagues fully documented the allocation of the names bolivaris , castaneus , rivularis , bombycinus , alleni , and orinus to the same species , Oryzomys bolivaris . They noted its similarity to O. talamancae , but did not attempt to determine phylogenetic relationships among the species they discussed . In their limited material , they found geographic variation within the species inconsequential and they recognized no subspecies .

In 2006 , Marcelo Weksler published a phylogenetic analysis of Oryzomyini (" rice rats ") , the tribe to which Oryzomys is allocated , using morphological and DNA sequence data . His results showed species of Oryzomys dispersed across Oryzomyini and suggested that most species in the genus should be allocated to new genera . Later in the same year , he , together with Alexandre Percequillo and Robert Voss , named ten new genera for these species , including Transandinomys , which has Oryzomys talamancae (now Transandinomys talamancae) as its type species . They also included Oryzomys bolivaris in Transandinomys , so that it is now named Transandinomys bolivaris , although it had not been included in Weksler 's phylogenetic study . The two species are morphologically similar , but they could identify only one synapomorphy (shared @-@ derived trait) for them : very long superciliary vibrissae (whiskers above the eyes) . Transandinomys is one of about 30 genera in Oryzomyini , a diverse assemblage of American rodents of over a hundred species , and on higher taxonomic levels in the subfamily Sigmodontinae of family Cricetidae , along with hundreds of other species of mainly small rodents .

Various authors have used the common name " long @-@ whiskered rice rat " for this species , but several other names have been proposed . In 1918 , Goldman named O. bombycinus bombycinus the " Long @-@ Haired Rice Rat " and O. b. alleni the " Allen Rice Rat " . Musser and Carleton , writing in the 2005 third edition of Mammal Species of the World , used " Long @-@ whiskered Oryzomys " , the 2009 IUCN Red List gave " Bolivar Rice Rat " , and Thomas Lee and colleagues used " Long @-@ whiskered Trans @-@ Andean Rice Rat " in 2010 .

= = Description = =

Transandinomys bolivaris is a medium @-@ sized rice rat with very long superciliary vibrissae (more than 50 mm (2 @.@ 0 in) long and extending well beyond the ears when laid back against the head) . According to Fiona Reid 's Mammals of Southeastern Mexico & Central America , it is distinguishable from any similarly sized rice rats by the length of these whiskers ; T. talamancae also has long superciliary vibrissae , but not as long as in T. bolivaris . In both species , the mystacial vibrissae (above the mouth) are also long and extend beyond the ears when laid back , but they are again much longer in T. bolivaris . The vibrissae are mostly dark , but translucent at the tips . Handleyomys alfaroi , a rice rat with which young T. bolivaris are often confused , is much smaller . In T. bolivaris , the cheeks may be light gray , buff , or reddish . The ears are dark brown to black and are sparsely haired .

The fur , which is soft , dense , and thick , is dark brown to gray on the upperparts , grading to black on the midback and yellowish brown on the sides . The underparts are sharply different in color . There , the hairs are dark gray at their bases and white at the tips , so that the fur appears grayish white . The fur is shorter and darker than in T. talamancae and softer and thicker than in H. alfaroi . Young animals have darker , finer , and softer fur . Pine separated the subspecies alleni and orinus on the basis of their darker fur , but Musser and colleagues could not confirm this pattern and found paler and darker specimens within the same geographical regions .

The tail appears naked and is shorter than or about as long as the head and body ; it is longer in T. talamancae . Its coloration is variable ; it is dark brown above and at the sides and light brown and often white to a greater or smaller extent below , and in some specimens the tail has the same color above and below . The scales on the tail are smaller than in T. talamancae .

The forearms are dark gray . The forefeet are unpigmented and ungual tufts of white hairs surround the equally unpigmented claws . The animal has long , narrow hindfeet , longer than in T. talamancae , with usually smooth soles (lacking squamae , which are present in T. talamancae) . The three middle digits are much longer than the outer two . Six pads are present on the sole . The upper surface and the sides of the hindfeet are white and appear naked , although short , white hairs are present ; these hairs are longer in T. talamancae . Ungual tufts of long , white or gray hairs are present around the claws , which are short and lack pigment .