

= *Oecomys sydandersoni* =

Oecomys sydandersoni is an arboreal species of rodent in the genus *Oecomys* . It lives in forest patches in a small area in eastern Bolivia . It is a medium @-@ sized species , weighing about 45 g (1 @.@ 6 oz) , with mostly grayish and brownish fur and short and broad hindfeet with well @-@ developed pads .

First collected in 1964 , it was formally described in 2009 . The species may be most closely related to *O. concolor* and *O. mamorae* , which are distributed further north and south in South America . Among other characters , the three share a particular arrangement of the arteries of the head . Virtually nothing is known of its biology .

= = Taxonomy = =

An American Museum of Natural History expedition led by Sydney Anderson collected the first three specimens of *Oecomys sydandersoni* in 1964 and 1965 . The material was mentioned in passing in a report on the chiggers of the region and tentatively identified as *O. concolor* in publications of the 1990s . During studies in the Noel Kempff Mercado National Park (NKMNP) from 1997 to 2006 , Smithsonian zoologist Louise Emmons and coworkers obtained large series of *Oecomys* , including four species ? *Oecomys bicolor* , *Oecomys roberti* , *Oecomys trinitatis* , and a fourth species they could not identify to species level . In 2009 , Michael Carleton , Louise Emmons , and Guy Musser described the latter as a new species , *Oecomys sydandersoni* , referring to it the specimens collected in the 1960s and previously identified as *O. concolor* . They named the new species after Sydney Anderson in honor of his work on the Bolivian mammal fauna , including the first collection of *O. sydandersoni* .

Its closest relatives may be *O. concolor* from northern Amazonia , including northwestern Brazil , southern Venezuela , and eastern Colombia , and *O. mamorae* from Bolivia , Paraguay , nearby Brazil , and possibly northeastern Argentina . The three share a particular configuration of the arteries in the head known as the derived carotid arterial circulatory pattern , which is unique within the genus *Oecomys* , and a general similarity in other traits . However , *O. sydandersoni* differs from the other two in characters of the fur and in metric characters . Whether the three species are truly closely related needs to be determined using molecular data .

All three are part of the genus *Oecomys* , which includes about fifteen species distributed in rainforest habitats in South America and into southern Central America . *Oecomys* is one of the genera of the tribe Oryzomyini (" rice rats ") , a diverse assemblage of American rodents of over a hundred species , and on higher taxonomic levels is classified in the subfamily Sigmodontinae of family Cricetidae , along with hundreds of other species of mainly small rodents .

= = Description = =

Oecomys sydandersoni is medium @-@ sized for its genus , being larger than , for example , *O. bicolor* , but smaller than *O. concolor* and *O. mamorae* . Its short , soft , and fine fur is bright ochraceous brown to pale tawny on the upperparts , changing moderately abruptly into the generally gray underparts . The fur on the chin , throat , and part of the belly is entirely white . The head is more grayish than the rest of the upperparts and the eyelids are black . Short hairs thinly cover the external ears , which are brown to gray @-@ brown in color . The short and broad hindfeet are dirty white and show some characters that are typical of the genus , including well @-@ developed pads and tufts of hair on the digits and a long fifth digit . The tail is slightly longer than the head and body on average , but relatively short for the genus . It is uniformly brown , but with a somewhat paler portion below near its base . Sparsely haired , the tail ends in a rudimentary pencil . There is no evidence for sexual dimorphism .

The skull shows a short front part (rostrum) and a broad interorbital region (located between the eyes) . The roof of the braincase is marked by supraorbital shelves . The incisive foramina , which perforate the front part of the palate , are very broad and extend between the first molars . The

zygomatic plates , the flattened anterior portions of the zygomatic arches (cheekbones) , are expansive and show well @-@ developed notches at their front ends . The palate itself is flat and ends a little behind the third molars . The posterolateral palatal pits , located near the third molars , are well developed . The mesopterygoid fossa , the opening behind the end of the palate , is rounded at the frond and broad . An extension of the alisphenoid bone known as the alisphenoid strut is usually present , separating two foramina (openings) , the foramen ovale accessorium and the masticatory @-@ buccinator foramen . The roof of the tympanic cavity , the tegmen tympani , is small .

The upper incisors are opisthodont , with the chewing edge located behind the vertical plane of the incisors . As is usual for the genus , the molars are brachyodont , low @-@ crowned , and bunodont , with the cusps higher than the connecting crests , and accessory crests such as mesolophs are present . On the upper first molar , the frontmost cusp , the anterocone , is divided into two small cusps in young individuals , connected by a crest , but the two fuse with wear .

= = Distribution and ecology = =

O. sydandersoni is known from the departments of Beni and Santa Cruz in eastern Bolivia , including the Noel Kempff Mercado National Park (NKMNP) , where the type locality is located . All but a few specimens come from pockets of woodland in seasonally flooded grasslands , where it is the most frequently encountered rodent ; the related oryzomyine *Hylaeamys acritus* , the spiny rat *Proechimys longicaudatus* , and the opossum *Marmosa murina* were found in the same habitat . It is absent in other , more contiguous forests and in other grasslands without large forest patches . Thus , *O. sydandersoni* is a narrow habitat specialist with a limited distribution . It joins several other species with restricted ranges found in the NKMNP , including *Hylaeamys acritus* , the akodontine rodents *Juscelinomys guaporensis* and *J. huanchae* , and an opossum , *Cryptonanus unduaviensis* .

All specimens from the NKMNP were caught above the ground in vegetation , suggesting that the species is arboreal like the other members of its genus . The chigger *Eutrombicula batatas* has been found on *O. sydandersoni* . Nothing else is known about ecology , behavior , diet , reproduction , or conservation status .