= 52 , FN =
58) . The non @-@ sex chromosomes (autosomes) are mostly acrocentric , having a long and a short arm , or telocentric , having only one arm , but there are also three large metacentric pairs , which have two major arms , and a small metacentric pair . The Y chromosome is metacentric and the X chromosome is variable , ranging from nearly metacentric to acrocentric in five specimens studied .

= = Distribution and ecology = =

Lundomys molitor has been found as a living animal only in Uruguay and nearby Rio Grande do Sul ; records of live specimens from eastern Argentina and Lagoa Santa , Minas Gerais , have not been confirmed . It is rarely encountered and it has been collected in only one location in Rio Grande do Sul , but this may be due to insufficient efforts to locate it , rather than genuine rarity . Its distribution is generally limited to areas with mean winter temperatures over 12 ° C (54 ° F) , mean annual temperatures over 18 ° C (64 ° F) , annual rainfall over 1 @,@ 100 mm (43 in) , and a long rainy season averaging over 200 days . It is usually found in swamps or near streams .

Pleistocene fossils have been found throughout its current range and beyond it . In Uruguay and Rio Grande do Sul , the Lujanian (Late Pleistocene to Early Holocene) Sopas Formation has yielded remains of L. molitor , in addition to such other mammals as the extinct saber @-@ toothed cat Smilodon populator and species of Glyptodon , Macrauchenia , and Toxodon . The type locality , Lagoa Santa , lies far northeast of the nearest record of live L. molitor ; there , it is known only from three skull fragments from a cave known as Laga da Escrivania Nr. 5 . This cave also contains numerous remains of members of the extinct South American megafauna , such as ground sloths , litopternans , gomphotheres , and glyptodonts , in addition to 16 species of cricetid rodents , but it is not certain that all remains from this cave are from the same age .

Remains of Lundomys have been found at six Pleistocene localities in Buenos Aires Province , Argentina , which suggests a warm and humid paleoclimate there . The oldest deposits , at Bajo San José , date to Marine Isotopic Stage 11 , about 420 @,@ 000 to 360 @,@ 000 years ago , younger specimens from other localities are as little as 30 @,@ 000 years old . The younger Argentine Lundomys specimens are subtly distinct from living Lundomys in some features of the first lower molar and may represent a distinct species . One lower first molar of this form has length 3 @.@ 28 mm . Because the Bajo San José material does not contain lower first molars , it is impossible to determine whether this material also pertains to the later Argentine Lundomys form . The morphology of the upper and lower jaw precludes an identification as Holochilus primigenus , a fossil species with molar traits almost identical to those of Lundomys . The length of the upper toothrow of one specimen from this locality is 8 @.@ 50 mm (0 @.@ 335 in) and the length of the upper first molar is 3 @.@ 48 mm (0 @.@ 137 in) , slightly smaller than in living Lundomys , which ranges from 3 @.@ 56 to 3 @.@ 64 mm (0 @.@ 140 to 0 @.@ 143 in) in four specimens

= = Natural history = =

Lundomys molitor is semiaquatic in habits , spending much of its time in the water , and is active during the night . An excellent swimmer , it is even more specialized for swimming than is Holochilus . It builds a spherical nest among reeds in up to 1 @.@ 5 m (4 @.@ 9 ft) deep water , usually about 20 cm (8 in) above the water . The material for the nest , which is 25 to 30 cm (10 to 12 in) in diameter and 9 to 11 cm (about 4 in) in height , comes from the surrounding reeds . Its wall consists of three layers , surrounding a central chamber , which is connected to the water by a ramp , also composed of reeds . Nests built by members of the related genus Holochilus are similar in many details . Several dissected stomachs contained green plant material , suggesting that it is herbivorous , like Holochilus . A female caught in April was pregnant with three embryos , which were about 12 mm (0 @.@ 47 in) long . The mites Gigantolaelaps wolffsohni and Amblyomma dubitatum have been found on specimens of L. molitor in Uruguay . Other rodents found in association with it include Scapteromys tumidus , Oligoryzomys nigripes , Reithrodon auritus ,

Akodon azarae , Oxymycterus nasutus , and Holochilus brasiliensis .

= = Conservation status = =

The species ' conservation status is currently assessed as " least concern " by the International Union for Conservation of Nature , reflecting a relatively wide distribution and the absence of evidence for a decline in populations . Several of the areas where it occurs are protected , but the destruction of its habitat may pose a threat to its continued existence .