

Rodents

“Wee, sleekit, cow’rin, tim’rous beastie, “so wrote the bard Burns about a nest of mice he ploughed up in 1785, testament if needed to their ubiquitousness. After man, rodents are the most successful and widespread group of mammals on earth. They are also by far the most widely used animals in biomedical research and will have certainly played their part in COVID vaccine research.

It seems everyone I speak to at the moment has them somewhere round about, in their kitchen cupboards, loft, shed, garage or garden. There are several reasons for this success, their high breeding rate for example allows them to endlessly explore the possibilities of natural selection. Their teeth, particularly their incisors, are capable of biting through the hardest nut or gnawing through wood, lead, computer cables and even concrete. Another important feature are their highly manipulative fore feet. With five fingers on each, they are well adapted for climbing and feeding.

The survival strategy of rodents means they can exploit a wide variety of habitats, the success of which is based upon the presence of three basic factors: acceptable climate, suitable food supply and safe sites for shelter and breeding.

The British members of order Rodentia, along with the Black and Brown Rat, are the House Mouse (*Mus musculus*), the Woodmouse (*Apodemus sylvaticus*), the Yellow-necked mouse (*Apodemus flavicollis*) and the Harvest mouse (*Micromys minutus*). They are the Murinae or “mouse like” sub family. The list does not include the hazel dormouse because it belongs to its own distinct genus called Muscardinus.

The house mouse will live virtually anywhere. I remember finding them in a West Kent coal storage facility, running around like little Davey Crocket hats, covered in an extra thick coat of hair. Their populations can reach plague like numbers. An Australian farmer found 28,000 dead mice on his veranda after laying rodenticide on one night. The house mouse has quickly evolved to recognise the danger of traps and poison. Their genome was the second to be unravelled and sequenced after the human genome resulting in the breeding of, amongst others, Doogie mice, who have improved memories, and Immunodeficient nude mice, used for immunology and transplant research. It isn’t hard to imagine them in some future Margaret Atwood dystopia running the planet. Think of the smell!

It would certainly be a mistake to underestimate the tenacity and adaptability of these animals in habitats with no natural predators. In New Zealand they have devastated ground nesting bird species notably albatross and petrels. They will also eat reptile and fish eggs on top of denuding an ecosystem of plant seed that then prevents natural habitat regeneration.

Common names are frequently misleading as is the case of the wood mouse, sometimes called the long- tailed field mouse. This species will occupy any suitable habitat niche from heather moorland, open fields, deciduous woodland and occupied buildings. They are frequently found in parks and gardens and take full advantage of man-made habitats.

Yellow-necked mice are the larger relative of the wood mouse and always found in habitats alongside wood mice. Even at close quarters it is difficult to distinguish a yellow-necked mouse from its smaller relative. They are skilful climbers and enter buildings more often than wood mice. Unfortunately, these seem to be the mice that we are continuously trying to evict from our houses particularly in the countryside. You may be surprised to know that rodenticide is not developed or approved for use on wood or yellow-necked mice. This is to avoid bio accumulation of rodenticides in non-targeted species that predate them like hawks, owls, stoats and weasels. It's best to find out how they have got in to the house and proof the access point.

The final mouse is the size of a bumblebee, weighing little more than 6 grams, the harvest mouse is 50-70 mm long with a tail of 50-60 mm. It is the only British animal with a truly prehensile tail that can be used as a 5th limb. Other mice and rats can use their tails by wrapping them loosely around twigs etc. 40% of a harvest mouse's tail, the end portion, can be used to apply a precision grip, allowing the mouse to anchor itself and use both its hands to forage and feed. The prehensile tail, combined with an uncanny sense of balance, makes the harvest mouse the most skilful and agile member of the group but the least likely to turn up in a house. They all lead a hazardous existence in the wild being consumed by owls, weasels and surprisingly by blackbirds, pheasants and even toads...

O, what a panic's in thy breastie!

Thou need an start awa sae hasty,

Wi bickerin' brattle!

I wad be laith to rin an' chase thee,

Wi' murd'ring prattle ...though we mostly do or stand on a chair and scream!