

So you think you know about Rats?

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Like many animals, lots of stories have grown up about rats, some of which are relatively new, while some appear ancient in origin. Of course, many of these tales are false, but some are rooted in fact and a few are true. In fact some of the false ones still find their way into print as fact even now. On the face of it, it can be hard to sort out the myth from the facts and in many cases there is some disagreement.

Anyway, here is a brief look at some of the commoner beliefs concerning rats.



Rats need to chew or their teeth will grow into their brain

A very common myth this one, unfortunately still perpetuated in many books and websites on rat care. The story concerns their incisors, with the idea that if a rat isn't constantly chewing on hard substances then the teeth will overgrow to such an extent that they will pierce the skull etc. This is sometimes backed up with gruesome pictures of rats with horribly deformed teeth.

The facts are that this only happens if a tooth is lost or broken, or the jaw is in some way deformed so that the teeth don't meet. Normally where the teeth meet, they wear each other down, whether or not the rat is given something to gnaw on. Having said that, rats like to gnaw and if you keep them you should give them the opportunity to do so.



Rats big as cats

I can't tell you how often I have heard this one, even from my own daughter. I expect many of you would say the same. Surveys of the weights of wild rats however tend to put the average weight of a wild brown rat at around 12 - 15 oz. (350 - 425 g). Indeed Brian Plummer in his book 'Tales of a Rat Hunting Man' agrees with this, and he killed thousands, some by hand! He does however go on to give one instance of a rat who weighed a kilo and one who weighed 2 kilos. These two specimens were weighed and verified. I have seen a few fancy rats around the 1.5 kilo mark and many of 1 kilo, so I can accept rats the size of a kitten, not least because I have some! Cats however weigh around 4 Kilos. Of course, if any of you have a wild rat of more than 2 kilos I would be happy to see it in the flesh. As they say in murder cases, 'Present the body'.



Rats can chew through pipes, concrete etc

True, every word of it. On the Mohs Hardness scale, which grades the hardness of materials from 1 (talc, the softest) through to 10 (diamond, the hardest), Rat's teeth come in at five, which is harder than mild steel, concrete and lead pipe. Couple this with a bite pressure greater than a Rottweiler and you can see that a rat's capacity for gnawing is considerable.



Rats are almost blind

This is widely believed, even by some rat owners. In fact they have quite good eyesight, evolved to work best in low light levels. Their lenses are very big, in order to let more light in. But this means they have limited room to focus and it has been postulated that the eyes are similar to a fixed focus camera. Strong light levels are not good for rat's eyes however and albinos have been proved to have impaired vision.



Rats are colour blind

Probably not. There is evidence that they do have some colour vision, including into the UV region, but it is unlikely that they can see red.



One rat for every human

This is a common urban myth widely reported by Environmental Health Officers, Rodent control workers and many others with an interest in pest control and I am pretty certain I have tracked its source.

In 1909 a man called W.R Boelter published a book called 'The Rat Problem'. Mr Boelter was evangelical in his desire for the need for rodent control and part of this was to give people an idea of the size of the problem.

Boelter's figure of one rat per human was obtained using the formula of one rat per acre of cultivated land, a figure he arrived at by asking landowners what they thought of his educated guess, ie by asking whether it was reasonable to assume this figure. The answer given was almost always yes.

The same question was not asked in populated areas because the author considered it unnecessary. Based on the then figure of 40 million acres of land under cultivation at the time, a figure of 40 million rats was obtained.

As Boelter gives the population of Britain as also being 40 million at the time, this is how the figure of one rat per human was calculated. In fact the figure of 40 million acres was probably overinflated, more reliable estimates give a figure closer to 20 million acres at the time.

No one knows what the population of rats is, as this is very difficult to calculate, but experts generally agree that it is nowhere near 60 million. Figures of between 6 and 25 million are given, depending on source. Mild winters tend to increase the population, as does leaving edible rubbish about, but as Plummer points out, two rats in a building or hayrick can easily make such a huge mess that the owners often think that a large colony is involved.



You are never X feet/metres away from a rat

I have seen all sorts of figures for this from an absurd 3 feet to a somewhat more understandable 6 metres. I have no idea and have not been able to find the source of this one, so can only assume that it is a basic statistical calculation from the above figure.

Of course, how close you are to a rat is dependent on where you are. Rats are not evenly spread all over the country. There has been a lot of talk that fortnightly rubbish collections and home composting of food waste has put up the rat population. I suspect however that this is because the problem has been moved from the council dump to the streets, where people will see them more, as the overall amount of waste will be the same. This would also account for the rising number of complaints.



Fight like a cornered rat

True, cornered rats will fight very hard, but then so will most animals. What they don't do however, is go for your throat, not least because experiments have shown that the highest a rat can jump upwards is about 76 cm. Plummer says that he regularly kept rats in 3 foot barrels and that they couldn't jump out of those. I have cornered a number of wild rats in my time and have found that what they tend to do is bolt round my feet. They never tried to attack me, although I have seen them stand up to a cat.



Rats leaving a sinking ship

Rats leaving a ship that later sinks is a common story and widely considered a myth. An article in Prorata some years ago maintained that it was nothing more than rats leaving a ship at port in order to find mates, food etc. However I suspect that there may be a grain of truth in this one. Anyone with any knowledge of wooden vessels will tell you that they all leak to a degree. Rats tend to live in the lower quarters of the ship and if the ship was leaking more than it should, it is very likely that the rats would move on if they could.



Arrival of rats in the UK

Rats are not native to the UK. Originally black rats came from tropical Asia and brown rats from Mongolia and China.

Traditionally the Black rat (*Rattus rattus*) was said to have arrived at the time of the crusades. However, bones of Black rats have been found in Roman rubbish tips and wells from the 4th and 5th centuries.

The arrival of the Brown rat (also called Norway and Hanoverian rat) is officially given as between 1728 and 1730, following on from an invasion of rats over the Volga into Europe after a serious earthquake in 1727. The story goes that they were probably bought over on Russian ships..

However there are several other stories of how they got here including on the ship that bought over William of Orange, 1688 and the ship that bought over George 1 in 1716. (hence Hanoverian rat). Both of these stories can be discounted as political slur. It is also unlikely that they came from Norway, as Norway didn't have any rats at the time.

One quite plausible story, although there is no evidence for it, is that Brown rats came off of shipping from the far East around 1695. In fact, apart from the anecdotal reports written around 1730, the only hard evidence we have are some remains found in an archeological site and dated to the 15th Century!

There are also another handful of reports of finds that put the date back further than the 18th Century. A German writer on Natural History in 1559, describes white rats with red eyes, being present in Germany at the time. While white mutations of Black rats do exist, they have all had black eyes.



Brown Rats driving out Black Rats

The demise of the black rat following the introduction of the Brown is often given as Brown rats pushing them out. Brown rats are certainly bigger and stronger than black rats and have more babies.

The evidence for Brown rats actually physically attacking the Black kind however comes from Brown rats killing Black rats they were caged with! Black and Brown rats in the wild live in slightly different habitats, and where both occupy the same building, Brown rats tend to live in the basement, and Black rats in the roof, hence their other name of roof rat. On the Island of Lundy, which had a stable population of both Black and Brown rats before the RSPB took it upon themselves to exterminate them, the two seemed to co exist quite happily.

It is not known why the Black rat has decreased to such low numbers (approx 1500 in the UK!) but the decline of thatched roofs maybe an important reason.



Rats and eggs

The story of rats transporting eggs by one rat lying on its back holding the egg while another pulls it along by the tail is very old and one which it is difficult to get to the bottom of. It turns up in the artworks of many different countries and cultures including Iran, China, India, Japan and Europe, stretching back over 900 years. The French poet, La Fontaine, retold the tale in the 17th Century in his fable denoted 'The two Rats, the Fox and the Egg. Even now, its possible to look on the web and find this method described as the legitimate way that rats carry eggs.

Unfortunately for this charming tale of ratty cooperation there doesn't appear to be any truth in it. It is one of those events usually seen by a friend of a friend without any solid proof.

However Mr Plummer has come up with an interesting theory regarding this myth. Rat No 1 gets hold of an egg and in trying to get through the shell, it rolls onto its back. Enter rat No 2, who sees the first one getting into the egg, and attempts to pull it off by grabbing hold of the first rat's tail.

It's possible, I can vouch as a rat owner that rats do pull and bite at other rat's tails and that eggs are difficult for rats to get into. Whatever the truth in it, I find it easier to believe the second story to the first.

That's a small selection of the myths that have grown up surrounding rats.

Quite a lot of them are still perpetuated by authors simply accepting as fact information previously reported by other authors.

Let that be a lesson to all

