

Overrun by rats

It's boom time for rats. There are now more of them than of us. According to the latest research, the British rat population is nearing 70 million and growing by 18% every year. Is it too late to stop them?

It's probably the greatest mammal pest of all time, the cause of more deaths than all the wars in history. Harboured lice and fleas and spreading diseases through its urine and droppings, it has been the source of bubonic plague, typhus, salmonella, Weil's disease, trichina, infectious jaundice and many other serious or fatal illnesses. Due to the risk of disease it is the only animal that SAS soldiers are banned from eating in the field. The only thing in the rat's favour is that it may have been unfairly blamed for the Black Death, which, according to a recent study, is more likely to have been an ebola-like virus transmitted from person to person.

Rats destroy some 20% of the world's crops and cause a huge amount of damage to buildings and their contents with their chewing. The enamel on rats' incisor teeth is the hardest animal substance on earth - harder than aluminium or copper - so they can gnaw through piping, wires, masonry, even corrugated iron. Rats once put out the lights at Heathrow airport by gnawing through double-insulated power cables. In the USA alone, economic losses due to rats are estimated to be in the region of \$1,000m annually.

Partly because they're ideally suited to living among humans. The common brown rat, *Rattus Norvegicus* - which consumes the equivalent of 10% of its own body weight every day - eats everything from soap to sweets, milk, eggs, meat, poultry and grains of all sorts. In cities they thrive on uneaten and spoiled food discarded by humans. The average rat is about 12 inches long, not including the tail, but can grow to twice this length. Yet it can squeeze through a hole no bigger than a man's thumb. Adept at hiding, rats are also good jumpers, climbers and swimmers - they can even swim round the U-bend of lavatories. But perhaps the rat's greatest advantage is its amazing fertility. They reach sexual maturity eight weeks after birth and have sex about 20 times a day. Females typically produce six to eight litters a year of up to 14 babies per litter.

In Mexico and Africa they eat them; in China they drink 'baby rat wine' as a cure for arthritis. Selective breeding has produced the albino laboratory rat, which has been vital in developing cures for a range of human diseases. More bizarrely, an 'explosive rat' was developed by the Special Operations Executive (SOE) during World War II. It was made by skinning the animals, filling them with explosives, and then sewing them up. The rats were to be placed next to boilers in strategic German buildings in the hope they would then be spotted and thrown on the fire, causing huge explosions. In the event, the Germans intercepted the container



Each of the paragraphs in this article begins with one of the **headings** below. Replace the **headings** in the appropriate places.

- Who is responsible for getting rid of rats?
- Do rats ever benefit humans?
- How is rat life organised?
- And is the rat an economic threat?
- Why do rats always seem to prosper?
- Why are rats proliferating?
- Is the rat dangerous?

of rats before they could be used, but the ruse still caused disruption. The trick rats were exhibited at German military schools, prompting a mass hunt across Germany for hundreds of others.

Rats tend to live in big groups in which the larger males are dominant. Nests are built out of leaves, paper, twigs, or any other material the rat finds useful. If a suitable cavity or crevice is not available for nesting, rats make burrows in the ground. They tend to follow set trails on the surface, particularly under the cover of old boards or other rubbish. Even though rats are nocturnal, some can be found foraging during the daytime. These ones tend to be socially low-ranked individuals who have been denied access to food by dominant rats during the night, when most foraging activity takes place.

Flooding has driven rats above ground, warmer winters encourage extended breeding, and the growth of fast-food restaurants has left pavements conveniently strewn with chicken and chips. In fact, over the past 35 years the amount of rubbish dropped on the streets has increased by 35% - to the rat's great benefit. Some experts believe that greater use of plastic building products has enabled more rats to chew their way out of sewers into homes and gardens. Meanwhile, there has been an increase in communities of rats resistant to standard poisons. This has led to the introduction of stronger poisons which are more toxic to the birds and animals that eat rodents. Earlier this year a team of scientists at the Institute of Terrestrial Ecology discovered alarming levels of rat poisons in barn owls, polecats, foxes, weasels, stoats, red kites and even domestic cats and dogs.

Local authorities have responsibility for dealing with infestations of rats above ground and in houses, but the trouble is that 60% of urban infestations occur in our decrepit sewer system where cracks in pipes provide bolt holes and allow rats to come above ground to search for food. Council pest control services used to deal with sewers too, but since privatisation of the ten regional water authorities in the Eighties, responsibility for sewer baiting has been passed increasingly to private companies, many of which have little contact with the local council. The resulting lack of co-ordination, experts argue, is frustrating our ability to tackle the problem. When sewer baiting in Yorkshire and Humberside was contracted to a private company three years ago, councils soon complained of a rise in the rat population. In Sheffield, a public slanging match erupted after the city council blamed Yorkshire Water for a 40% rise in infestations. Pest control teams in other parts of the country worry that baiting may not be taking place at all.

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