

Gerbils caused Black Death, historians say

Millions of Europeans were killed by the plague, and history textbooks have long blamed rats. But new research suggests that gerbils were to blame. Can we ever be sure of historical facts?



This day, much against my will, I did in Drury Lane see two or three houses marked with a red cross upon the doors, and "Lord have mercy upon us" writ there — which was a sad sight to me.'

Samuel Pepys' 1665 diary entry describes the grim atmosphere that pervaded London as the Black Death devastated the city's population. His account conjures images of crowded streets crawling with plague-infested rats. But new research suggests that the much-maligned animals were innocent all along.

According to the familiar theory, rats carried the plague to in the 14th century aboard boats from Asia. It was then spread by plague-infested fleas that jumped from rats onto humans, ultimately killing a third of Europe's population. Historians believed that each epidemic coincided with a spike in European rat populations.

The new findings suggest a different rodent as the culprit for the Black Death: the gerbil. Researchers from the University



of Oslo analysed tree-ring data and matched outbreaks of the plague with climate fluctuations not in Europe, but Asia. When the weather was warm, the new theory goes, Asian gerbil populations flourished. Many boarded ships bound for Europe along newly-established trade routes — bringing the plague along with them.

Throughout the plague's centuries-long residence in Europe, its spread was blamed on many things: infected livestock, the wrath of God, cats and dogs or invisible clouds of toxic air called 'miasmas'. One by one those ideas were discredited, until historians and scientists converged on what seemed like the definitive offender: rats.

The idea that rats spread the plague is confidently asserted as 'fact' in countless history textbooks and documentaries. If even such well-established discoveries can be proved wrong, can we really be sure that anything we think we know is true?

Plauged by doubt

Trust in nothing, sceptical philosophers warn: we humans are woefully ill-equipped to discover any absolute truth. Historical realities can be buried or forgotten. Science depends on observations gathered by our flawed, unreliable senses. And every thought we have is constrained by our limited powers of reason. When it comes to the pursuit of knowledge, the most brilliant and perceptive person in the world is as helpless as a blind, deaf fool.

That's absurdly pessimistic, more 'positivist' philosophers object. The world is indeed shrouded in mysteries, but our powers of reason can penetrate the gloom. We understand the world better with every passing year. If we can learn about a disease in Medieval Europe by looking at trees on the other side of the world, who knows what other seemingly unsolvable problems may be within our grasp.



Q & A Why is it so important to know so much about the plague?

A The plague wiped out an enormous amount of the population, killing millions of people worldwide. Establishing what caused the plague to spread isn't just about understanding how people lived at the time — it

can also teach us something about the general spread of diseases, which could benefit current and future populations.

Q But it happened such a long time ago.

A That's true, but so did many other important events that still affect us today, from the invention of the wheel to the discovery of penicillin. Understanding how the plague spread could have practical benefits. But even

if it doesn't, it helps us to understand the story of our past and appreciate how we arrived at the present — that's valuable enough in itself.



SOME PEOPLE SAY...

'It is beyond a doubt that all our knowledge begins with experience.' Immanuel Kant

WHAT DO YOU THINK?



RAINFORD
HIGH

READING HOMEWORK

1. What has been the long-established theory of how the Black Death reached Europe?

2. How did scientists at the University of Oslo prove this theory wrong?
