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Rats!

“Rats!

*They fought the dogs, and killed the cats,
And bit the babies in the cradles,
And ate the cheeses out of the vats,
And licked the soup from the cook's own ladles...”*

– Pied Piper of Hamelin

Lucky for the people of Hamelin, there was the pied piper to free them from those terrible little rodents, those horribly repulsive rats!

This, in essence, sums up how most of the world view rats, and perhaps even mice. Numerous negative rat-related expressions and superstitions that date from the Middle Ages still exist today. For instance, there is the belief that a sudden surge in the number of rats foretells a war. And of course, in most parts of the world, rats equal disease – not least, the plague.

But do they indeed deserve to be regarded with so little affection, or is there more to them than we think?

Rodents of the super-family Muridea, which are rats and mice, are extremely widespread animals, found almost everywhere on the planet. Worldwide, there are 1,500 species, 70 of which are found in Southeast Asia.

Rats and mice play a vital role in the food chain, preying on some species of insects, but perhaps more importantly, providing food for a multitude of larger animals, such as small to medium-sized carnivores, raptors and some reptiles.

Scores of these species shy away from human-altered habitats and live deep in the forests, rarely seen by most, and not a threat to cash crops or conservation. In fact, due to human pressures, such as hunting (some species of rats are commonly hunted and eaten by people) and habitat destruction, many of these native rat species themselves may be threatened.

Brown rats will fight fiercely for their lives and will attack dogs, cats, and even people if cornered.



► The temple of the Gajner Palace lies in Deshnok, near the desert town of Bikaner. It plays host to thousands of rats. The rats are considered sacred and worshipped.

the world. Everything, from chemicals, poisons and traps, has been used. In many places, nature's own rat removal schemes are being utilised. Plantation managers are encouraging owls to take up residence by building nest boxes and prohibiting the killing of these rat-terminators. Others are allowing populations of snakes, such as pythons and cobras to exist in the plantations and around cropland, as these reptilian hunters also make short work of the rat invaders.

On some rat-invaded islands, people have introduced cats and even the mongoose to battle the rat populations. These methods, however, have often proved to do more harm than good and have, in some cases, led to the extinction of several endemic species of reptiles, amphibians and birds that were preyed upon by these new predators.

Peculiarly enough, for a group of animals that elicits little admiration or fondness, it features heavily in the traditions of many cultures, especially in the east. Rats play an important role in religion and astrology. In Hinduism, for example, the rat is an object of veneration. In India, a famed temple in the south, in Deshnok, takes reverence to a new plane. It serves as a home for tens of thousands of rats, which are fed daily and treated with utmost respect.

Legend had it that a Karni Mata, an incarnation of the Goddess Durga, attempted to revive a dead child, and part of the arrangement she made with the god of death resulted in all of her tribesmen being reborn as rats until they could be born back into the clan. Followers believe that touching one will bring good fortune.

In the Chinese zodiac, the rat is one of the 12 lunar animals and in traditional Chinese culture they are considered auspicious animals. The number of them inhabiting a house's foodstuff storage used to be a reflection of the affluence of a family.

It is interesting that while rats are often despised for the damage they cause – the havoc they reap is in places where man introduced them – they play an essential role in the web of life, in places where they naturally occur.

Perhaps if the Pied Piper of Hamelin had known that, he may not have been so willing to use his flute to drown so many. **AG**



▲ Under favourable conditions, a single pair can, in theory, multiply to over 15,000 in the space of a year.

However, some species of rats found in Southeast Asia are not native to this region. How did they end up here? Like the numerous species considered alien and invasive, countless arrived with the unknowing assistance of humans, stowing away on ships, in cargo and freight. These highly adaptable stowaways then make themselves quite at home, usually continuing to live near their 'human travel agents', in cities and towns, thriving off of our crops, and our rubbish.

Like other invasive species, these introduced rats pose a very real threat to native wildlife and indeed have caused the decline and extinction of many species around the world. The negative impact of their presence is especially felt on islands, which are often home to species with no adapted defences against predators such as rats. In Mauritius, for instance, rats have been responsible for the extinction of several snakes and lizards and contributed to the threatened status of a number of birds. Further, non-native rats prey on approximately a quarter of all seabird species and are thought to be the single largest threat to seabirds globally.

Some species of rats have even been decimated by introduced Black Rats. Two such species, Maclear's Rat

(*Rattus macleari*) and the Bulldog Rat (*R. nativitatis*) were once found on Christmas Island, the former being so common that early residents reported them in swarms. Black Rats (*R. rattus*) were inadvertently introduced, and diseases with them, resulting in a plague between both species of endemic rats, sending them spiraling into extinction within a few years.

Curiously, as a knock-on effect, the mass migrations of red land crabs that have brought fame to Christmas Island were never mentioned by early visitors. It is thought that the extinction of the huge numbers of Maclear's Rat may be the reason for the explosion in the crab population, as the rats may have been a major predator, keeping them in check.

Non-native rats also pose a threat to the economies of those that rely on the crops that these furry invaders like to feast upon. Labour-intensive and very costly invasive rat removal campaigns have been waged in countries around

Brown rat

Size: The typical brown rat is 22–29 centimetres from head to body end. The tail itself can grow up to 23 centimetres.

Biology: Short legs, longish fingers and toes, pointed face, pink and prominent ears, the typical brown rat's tail is scaly and noticeably shorter than its head and body. The fur is greyish-brown, fading to white or pale grey on the belly.

Lifestyle: Generally nocturnal and social, it can be cautious at first but can become bold. It climbs and swims well.

Breeding: They can breed up to 12 litters of 1–22 young born at any time of the year after a gestation period of 21–26 days. Weaned at three weeks, sexually mature at two to three months, they may live up to six years in captivity, and three years in the wild.

Distribution: Worldwide in association with humans; not normally in more sparsely populated areas of the world.

Conservation status: Least concern (ICUN Red List)

Population trend: Stable



► The young are born blind and naked but are quick developers – just after three weeks they are ready to leave the nest.