Getting to know... RATS

Rats belong to the Order *Rodentia* which is derived from the Latin *rodere* meaning to gnaw. They gnaw constantly to prevent their two pairs of incisors (front teeth) from growing too long. This gnawing habit damages electrical wiring, cupboards, computer diskettes, gas pipes and even brick walls, thus causing power failures, equipment malfunctions, explosions and expensive shutdowns.

Rats (and mice) are referred to as commensal rodents. "Commensal" means sharing one's table i.e. man's food and shelter. Unfortunately they contaminate what they don't eat with their urine, faeces or body hair. Experts estimate that rats and mice destroy enough food each year to feed 200 million people.

The "cousins" of rats (belonging to the Order Rodentia) **are mice, squirrels, hamsters, porcupines and chipmunks.**

The common species of rats in Singapore are the Norway rat, *Rattus norvegicus* (alias the brown rat, the sewer rat, the house rat) **and the roof rat**, *Rattus rattus* (alias the black rat, the ship rat).

Rats have been responsible for, or implicated in, the spread of the Black Death or the plague. This is spread by bacillus (*Yersinia pestis*) from the oriental rat flea (*Xenopsylla cheopi*) which reportedly killed some 25 million people in Europe in the 14th century.

In August 1994, the news of the plaque in India caused millions of dollars in losses for the airlines and the travel-related industries. Any outbreak today can cause widespread panic because the more contagious pneumonic form of the plague is spread through the air by, say, sneezing.

Other diseases associated with rats are murine typhus (transmitted by oriental rat fleas), **salmonellosis** (acute food poisoning spread through food contaminated with rat faeces), **rat-bite fever** (caused by the bacterium *Streptobacillis moniliformis* living in the saliva of rats), **and the Weils disease or leptospirosis** (caused by the leptospira organisms via rat urine in drinking water and food).

Rats are highly intelligent animals. Like some humans, they suffer from "neophobia" which means a fear of the new. That is why they quickly develop "trap-shyness" and "bait-shyness". To control neophobic rats, patience and a range of specialised control techniques are needed.

Rats can swim half a mile in open water, tread water for up to three days, jump vertically up to one metre from a standing position, drop from 15 metres without injury and a young rat can squeeze through a half-inch opening.

Rats are nocturnal creatures. They have very poor vision beyond one metre but are very sensitive to motion up to 15 metres away. They rely on their other acute senses like smell, touch and hearing.

Like the human triads or mafias, rats have their own territories, which are between 15 to 50 metres from their nests, demarcated by their urine. They will fight and kill to defend their territory especially when their population grows and competition for food and water becomes keener.

Rats have their own "social order". The stronger (dominant) rats occupy the most favourable habitat. They are the first group to feed, while the weaker (subordinate) rats are forced to live in the "fringe areas" furthest away from the primary food source. These are the ones often seen during the day in heavy rat infestation. The rats' similarity to human behaviour (including raping the weak when society breaks down) can be seen in a very disturbing video "*RATOPOLIS*", available from Aardwolf Pestkare.

A pair of Norway rats can, theoretically, over a period of 3 years, be responsible for a 2 million rat population.

Aardwolf Rodent

MONITORING STATIONS

How do you know if a rat has invited itself into your building?

Aardwolf Rodent Monitoring Station (ARMS) is an electronic device which automatically switches its light indicator from green to RED to warn you that you have an unwelcome guest. All you have to do is call **4767322**, sit back and let the Aardwolf service team swing into action.

Up until now, building owners and residents are only aware that they have a rat infestation problem when (and if) they

happen to see a live vermin or detect damage to their property, in which event the situation is already serious.

ARMS's red light will trigger-off a thorough inspection of the premises for other tell-tale signs of infestation like rat droppings and hair, smell of rat urine, body smear marks, tracks and footprints, gnaw marks, burrows and runways. To the trained eye, these signs will reveal the level and source of infestation.

The complete arsenal available to control rats includes traps, glue boards, grain baits in tamper-proof boxes, liquid bait, dusting powder and gel. In certain controlled situations, Aardwolf Pestkare uses a special electrocutive device to kill invading rats quickly and humanely.

Knowing where and when to install the ARMS and what to use to get rid of rat infestation is the craft of experienced and trained technicians in Aardwolf Pestkare.

Do you know?

Dogs, not cats, can be trained to catch rats!