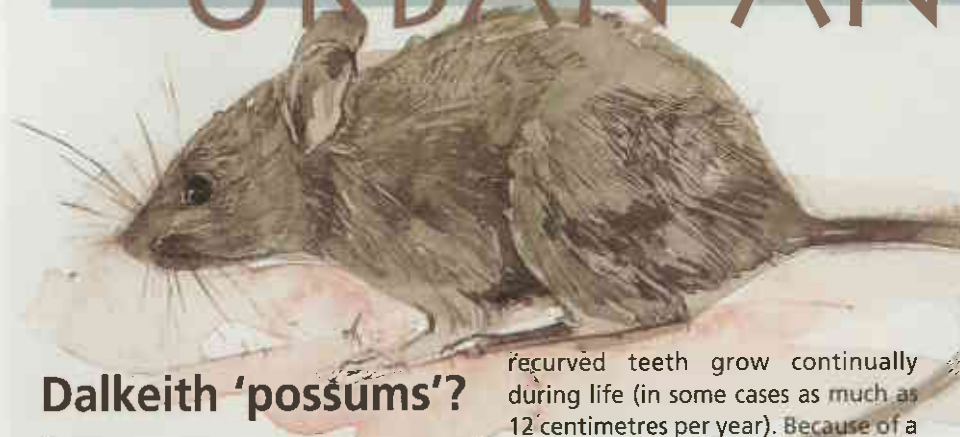


URBAN ANTICS



Dalkeith 'possums'?

WANTED

A gregarious exterminator, preferably with European ancestry and historical experience, plays a flute, clarinet or penny-whistle, and will rid the western suburbs of their current rat problem.

Ever since the Great Plagues of Europe (carried by rat fleas) in the late 1600s, that wiped out around 16 per cent the population of London alone, rats have been the objects of widespread fear and revulsion, but our native rodents are frequently tarred with the same brush.

The Order Rodentia includes the familiar introduced rats and mice, as well as many other rodent species, including the squirrels, guinea pigs, beavers and porcupines that are often depicted as favourite characters in cartoons and comics. Altogether, they comprise more than 2000 described species and make up nearly half of all mammal species on Earth.

There are many species of Australian native rodents, all in the Family Muridae. They are found throughout the country and generally live in their respective niches away from human dwellings. Most of this group came as 'late invaders' among the Australian mammal fauna, when they crossed from eastern Indonesia up to 15 million years ago. Most native rodents are not considered to be pests. They occupy terrestrial, arboreal and amphibious habitats on the continent and comprise about a fifth of our indigenous terrestrial mammal species (62 species of a total of 305 species).

Rodents are characterised by having only one pair of upper and one pair of lower incisors. These long and

recurved teeth grow continually during life (in some cases as much as 12 centimetres per year). Because of a hard enamelled front surface and soft rear, they become chisel-edged when continually worn away by the animal's persistent need to gnaw. Rodents do not have canines, and most species also lack premolars.

While our native rodents are as much a part of our heritage as marsupials, it was with the coming of Europeans that the house mouse and two species of rat were introduced to become feral intruders and community-wide pests.

The brown, wharf, sewer or Norway rat (*Rattus norvegicus*) and the black, tree, ship or roof rat (*Rattus rattus*) are, like the cockroach, extremely successful and resilient pests in human habitation. Here, the rats not only spread disease, but also cause food poisoning with their faeces, urine and hair, and economic loss due to property damage. The black rat has also established in many bush areas.

Brown rats, which are larger-bodied with small ears and eyes, generally build their nests at or under ground level, while smaller-bodied black rats with large ears and eyes prefer vegetation, wall cavities and ceiling spaces. While the black rat and most native rats are timid creatures, a cornered 'brown' will repeatedly launch itself, even at humans.

Rats eat almost anything, including their own dead and dying.

Their peak breeding periods are in autumn and spring and, depending on the availability of food, they have up to nine litters, weaning up to 50 young a year. Theoretically, a pair and its increasing number of offspring can produce 15,000 rats a year, but the evolutionary process has produced mechanisms that prevent

overpopulation (for example, the abortion of fetuses and eating of young).

The domestic rat problem is the responsibility of the whole community. Rats derive their life support systems from our waste-management systems, food-processing places, storage areas and general junked-up and overgrown backyards. All are found in households, public facilities, restaurants, food stores and factories.

It is no good baiting and trapping these pests if we don't also attend to and secure our bin-lids, wood heaps, fruit trees, vegie patches, fruiting vines and open compost heaps. We must take away the availability of the life supports or another rat will just move in to the territory. After your prized passion fruit have disappeared overnight, it'll be too late then to 'give a rats . . . !'

BY JOHN HUNTER

DID YOU KNOW?

- As well as being able to tread water for up to three days and swim up to a kilometre, rats can walk along the inside of a sewer pipe and swim up through the 'S' bend water seal (ouch!).
- Rats can gnaw through lead, wood, aluminium and fibro sheeting and leave marks on glass and steel. A rule of thumb is, if you don't see any rats, there are probably five nearby. If you see one, there are probably 15.
- Australian native rodents have gained a poor reputation by being compared with the introduced species. Using Aboriginal names rather than 'rat' or 'mouse' is one way of improving their image (see 'Dinkum Aussie rats' in *LANDSCOPE*, Spring 1996).

Winner of the Alex Harris Medal for excellence in science and environment reporting

LANDSCOPE



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Native animals need tree hollows and people need wood. How are these conflicting uses managed? See page 20.

An exciting range of recreational opportunities are being offered in some national parks, creating employment for locals. See page 28.



Declining water levels threaten a remarkable community of cave-dwellers in Yanchep National Park. Turn to page 34.



The search to find out the cause of a new tree killer known as Mundulla Yellows. See page 41.



Re-discovering the long-forgotten memoirs of a Kimberley pioneer. See page 48.

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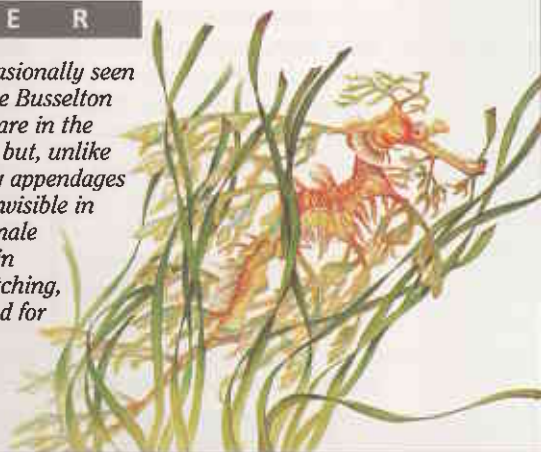
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COVER

Leafy seadragons are occasionally seen in the seagrass around the Busselton Jetty (see page 10). They are in the same family as seahorses but, unlike seahorses, they have leafy appendages that make them almost invisible in their surroundings. The male carries the eggs in the skin beneath his tail. After hatching, the young swim off to fend for themselves.

Cover illustration by Philippa Nikulinksy



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AND LAND MANAGEMENT**
Conserving the nature of WA