

LIVING WITH WILDLIFE

Brushtail Possums

Trichosurus vulpecula



Parks and Wildlife Service Tasmania

DEPARTMENT of TOURISM, PARKS
HERITAGE and the ARTS

The lively brushtail possum is one of Australia's most familiar marsupials. The Tasmanian brushtail *Trichosurus vulpecula* is the same stock as the mainland form but has several characteristic differences such as larger size and longer, thicker coat.

Brushtail possums are highly adaptable to a wide range of natural and human environments.

Their natural and preferred habitat is forest, where they nest in tree hollows. They will also cohabit with humans in cities and towns where they seek shelter, warmth and protection in the dark recesses of buildings. A favoured spot is between the ceiling and the roof and this can be a problem to some people. They can damage crops and gardens because they are partial to exotic plants, pasture grasses and vegetables as well as native plants.

Each year the Parks and Wildlife Service receives hundreds of calls for assistance to solve these possum problems and the following notes provide practical information to satisfy the house and landowner without harming the animal. Remember, brushtail possums are **protected by law** and cannot be bought, sold, taken or harmed except by permit.

Possum Life

The brushtail possum is a nocturnal marsupial spending the daytime asleep in its nest and feeding at night. It is the size of a domestic cat with a pointed face, long oval ears, pink nose and bushy black tail. The Tasmanian brushtail has 3 main colour variations: silver grey, black and gold. The very dark possums inhabit denser, wetter forests than the grey. Pure golden possums are the result of a genetic mutation and most do not survive long in the wild because they are conspicuous to predators.

They are an arboreal (meaning tree-living) animal and so are well adapted for climbing with their sharp claws; a hand-like back foot for grasping and a strong flexible (prehensile) tail for curling around branches. Brushtails also spend some time on the ground searching for food.

Diet

Brushtail possums are herbivores or plant-eaters. In the bush they feed mainly on leaves of trees and shrubs, but they also enjoy succulent herbs, grasses, and garden plants. Meat or fat may occasionally be scavenged.

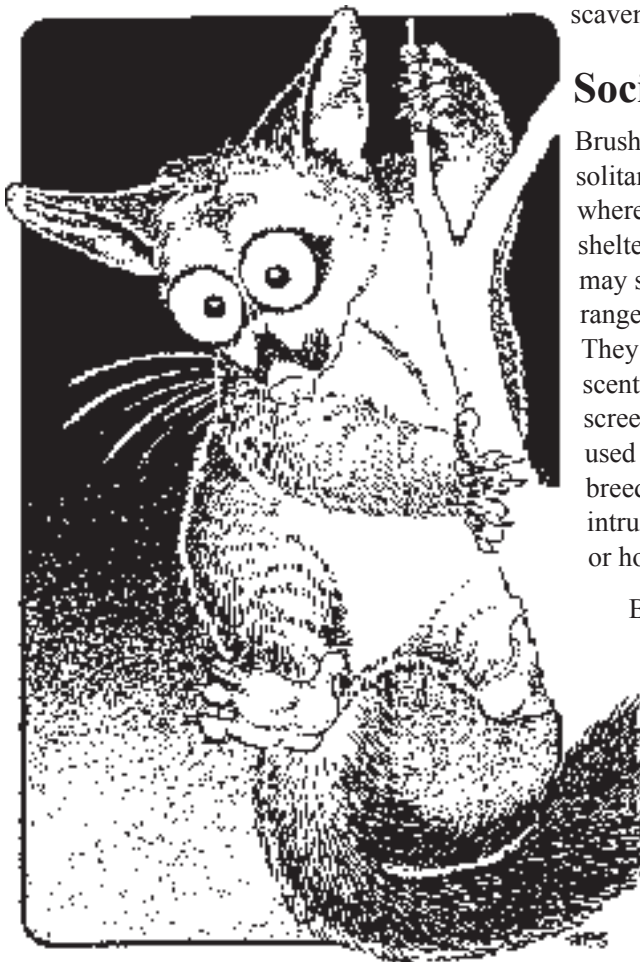
Social life

Brushtail possums lead a largely solitary life. However in areas where numbers are high and shelter is in short supply several may share sleeping places. Home ranges vary from 1 to 15 hectares. They communicate by sound and scent. Those ferocious sounding screeches and guttural growls are used often, particularly in the breeding season, to ward off intruding possums near the nest or home range.

Brushtails rub secretions from glands under their chin; on the chest and near the anus to mark home ranges and define occupancy of a homesite. If a homesite is vacant or undefended because the occupant has died or been removed then another brushtail will claim it.

Breeding

In Tasmania, the main breeding time is autumn. Most females breed annually after their first year. A single young is born 17–18 days after mating and spends 4–5 months in the pouch, attached to one of two teats. A further 1–2 months are spent suckling and riding on the mothers back until fully weaned. You will see this from September to November.



Like many of our native animals, mortality is high once the young brushtail possums leave the pouch to establish their own home range. The majority of brushtails killed on our roads are young males.

Their main predators are owls and devils but, if lucky, a possum can live to 11 years old!

Possums in your home

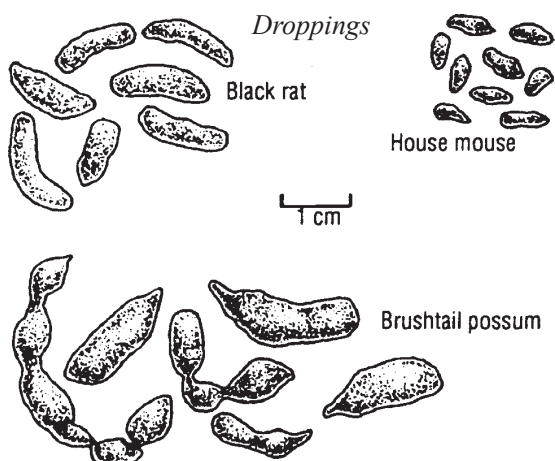
Is that noise in the ceiling a brushtail possum? Many times, the intruder turns out to be an introduced rat or mouse, which are declared pests. Sometimes both types of animals are involved and separate action is required. The following signs might help:

Rats and mice make scratching, chewing and skittering noises. They have distinctive droppings; do not defecate where they are nesting and may chew electrical wiring. Rats also collect seeds and grasses, but Brushtails do not. They make loud heavy, thumping sounds when walking, and distinctive guttural growls, screeches, hisses and coughs when disturbed. You can find out for sure by looking inside the ceiling with a flashlight during the day or observe your house just on dark when the brushtail emerges to feed.

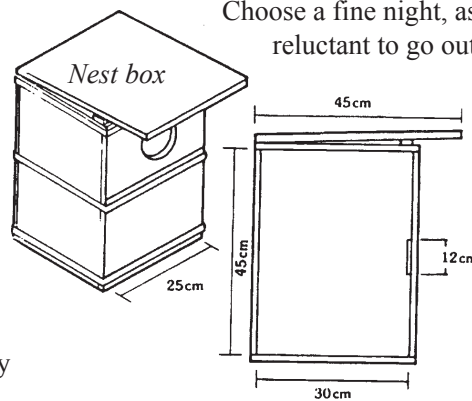
Possum proofing

Catching and removing the animal never works — not because the brushtail finds its way back but because it is replaced by another from nearby. We could go on removing them forever! Brushtails are strongly attached to their homesites and those which have been removed usually face a slow death, either because the release area is unsuitable or it is occupied by another brushtail which will defend its territory vigorously. Conflict for food and shelter usually means that the released possum dies.

Whilst people object to brushtails living in ceilings or under floors, most wish them no harm. Since possums' chances of survival are best in their own territory, the following more humane solution is suggested:



- Find where the brushtail is getting in and out. More than one place may be involved. you will need to watch and listen for the animal's movements. Look for holes under eaves; loose tiles or roofing iron; or access from underneath a house up through wall cavities to the roof. Brushtail possums can squeeze through a nine-centimetre gap!
- Make the necessary *temporary* repairs (prepare something during the day) to prevent re-entry after the possum has gone out to feed at night (they usually leave their shelter about an hour after sunset).



Choose a fine night, as possums are reluctant to go out if it is wet or

windy (they may leave much later).

Permanent repairs can be made during daylight hours in the next couple of days when you are sure that no animal has

returned or is trapped inside (you will need to listen for several days, if the brushtail has been trapped inside, its noisy attempts to escape will alert you). Repairs need to be sound as brushtails are quite strong and will work hard to re-enter their shelter site. Young brushtails always ride in their mother's pouch or on her back.

- Alternatively, repairs can be done during the day. The brushtail(s) must then be trapped inside the ceiling. Use sliced apple with a dash of vanilla as bait. Don't forget the necessary permit (see trapping and relocation over the page).
- Once the animal(s) no longer have access, liberally wash the old entry areas with a strong smelling substance such as disinfectant or bleach, and place camphor or naphthalene in the area to disguise the scent trails and hopefully prevent other possums following.
- Undertake preventative measures to stop access to your roof, for example, remove branches from trees that provide access; use metal to make a disc to place around pipes to prevent them climbing, or place broad metal bands around support beams for structures that they may climb for access. Possums may also be attracted to your property by open compost in which they may scavenge for scraps or for cat and dog food left outside. A closed compost system and the removal of left over food for pets may make your property less attractive to them.

- Brushtails can be encouraged to stay in your yard by providing a nesting box, either a hollow log blocked at one end or a home-made nest (see diagram). It should be waterproof and placed four to five metres above the ground. The entry hole needs to be just under the overhanging lid and doesn't need to be circular. Drainage holes (less than 10 mm diameter) should be drilled near each corner of the floor of the box. Do not use chipboard, as it will disintegrate quickly. Some nesting material (dead leaves, natural wood shavings) would provide extra insulation.

Possums on the farm and in the garden

The Service encourages people to try preventative methods before more drastic methods of brushtail possum removal are allowed. If these methods fail, and serious economic damage is occurring, permits may be issued to shoot or poison.

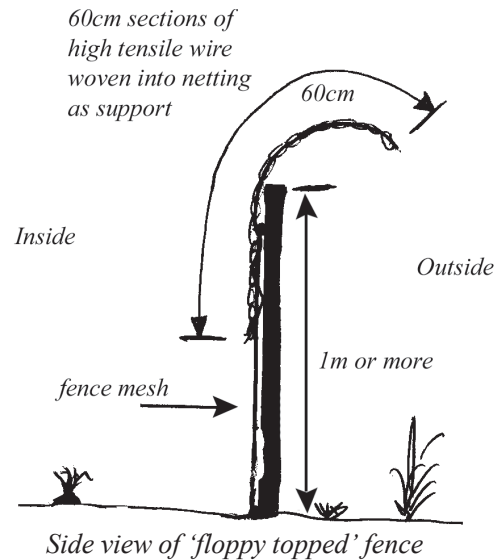
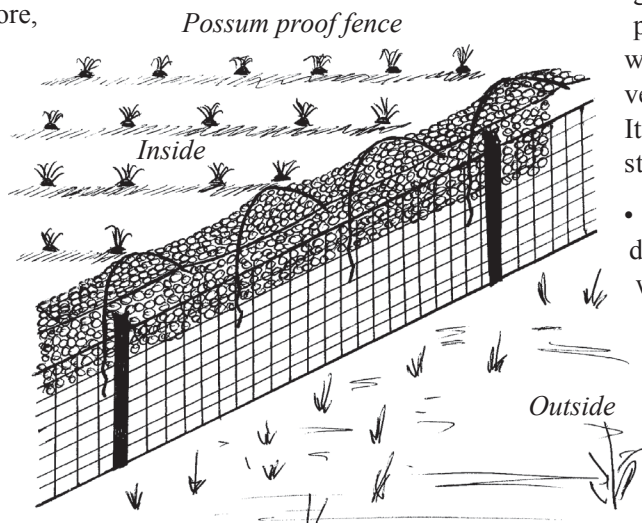
Preventative planting

If planning a garden, try to select plant species which are unpalatable to brushtails such as prickly and spiny grevilleas and hakeas; tough and woody banksias and melaleucas (tea-tree) and plants with smelly foliage such as chrysanthemums, mint bushes, geraniums and daisies.

Roses and fruit trees can be devastated unless protected. Trees can be protected by attaching a broad 40 cm band of metal around the trunk, 50 cm above the ground. Make sure that the brushtail cannot gain access from nearby trees!

Possum proof fencing

Possums readily climb fences but many can be possum proofed. Brush possums can only jump about 1 m vertically and cannot climb sheer walls. Therefore, a well made tin or paling fence (with the frame on the inside and the palings butted but not overlapped) about 1.5 m high will keep them out. Wooden fences will of course need a tin section - at least 33 cm wide and 80 cm from the ground - around the corners. A simple 'floppy-topped' fence has proved very effective against



possums climbing over ordinary fences.

This is based on a netting, picket or other fence that possums cannot get through. The fence is fitted with a netting top that overhangs on the outside. As the possum (or cat or quoll) attempts to climb the overhang, it bends down and the possum will let go and fall to the ground. The floppy top then springs back to the original position (it is set on high tensile wire) ready for another assault.

Repellents

There are a range of chemical repellents which can be applied to individual trees or shrubs for temporary protection against brushtail and other possums. They are applied to the bark or foliage depending on the type of repellent used. It must be remembered that repellents give only short-term protection and give no protection to new growth. Repellents will never work on plants that are very attractive to animals.

The most common repellents are:

- SCAT. A commercial product now on the market that may assist in repelling wildlife from gardens. This product is a powder that is mixed with water and sprayed onto vegetation or along fences etc. It is available from hardware stores.
- Egg powder. Mix 200 g dried egg powder per litre of water with wetting agent and spray plants. This treatment is more effective than most but may cause leaf death if the plants are suffering from water stress.
- Blood and bone. Place it at the base of plants. This

substance may attract dogs to the area because they like to eat the blood and bone.

- Mutton fat and kerosene. Mix nine parts melted fat with one part kerosene and leave to cool. The mixture is wiped lightly onto the stem and lower branches. Avoid the leaves as this treatment may cause browning on some species.
- Quassia chips extracts. Add 100 g of chips to 400 ml boiling water. Leave to stand for five minutes then add one litre of cold water and leave chips soaking for 24 hours. Strain and add wetting agent. Spray mixture onto plants.

The two most effective repellents available are egg powder and mutton fat mixed with kerosene even though both can cause some damage to the plants.

Trapping and relocation

Possums may be trapped and relocated if all else fails, but remember, if buildings are in good repair and possum-proofed then brushtails will be denied access and potential problems avoided.

Extensive research has shown that most relocated possums quickly die, so we now prefer not to do it.

A permit is required for any trapping and there are animal welfare conditions on these permits that relate to the animal and the trap used. Permits can be issued by contacting the Nature Conservation Branch or your nearest Parks and Wildlife Service office.

Orphaned or injured brushtail possums

Orphaned or injured brushtail possums are often found. There are a network of carers to rehabilitate these animals if you cannot do so yourself. The Service has also produced a booklet about caring for injured and orphaned wildlife. For this and any assistance, contact the Nature Conservation Branch (see contacts).

Handle with care

Remember; brushtail possums are wild animals and though they look cuddly they can bite and scratch severely, especially when injured or afraid.

Wear protective gloves or restrain the possum in a blanket or towel if you need to handle it.

Roles and values

Because brushtail possums are common and not too shy of humans they provide a wonderful link between urban people and the natural world.

Their antics and acrobatics are a delight to watch and are educational. They are easy to see with a spotlight at night.

They are our most common possum species and largest arboreal marsupial herbivore.

Their fur is prized for its thickness and warmth and there is a small possum skin industry in Tasmania.

Possum conservation

Conservation is important even for common animals like the brushtail possum. This species occurs in all our National Parks.

You can help by retaining areas of natural bush on your land and by learning to live with these animals.

The Parks and Wildlife Service is monitoring the population by conducting regular surveys around the State.

Further information

Kerle, A. *Possums, The Brushtails, Ringtails and Greater Glider*. UNSW Press.

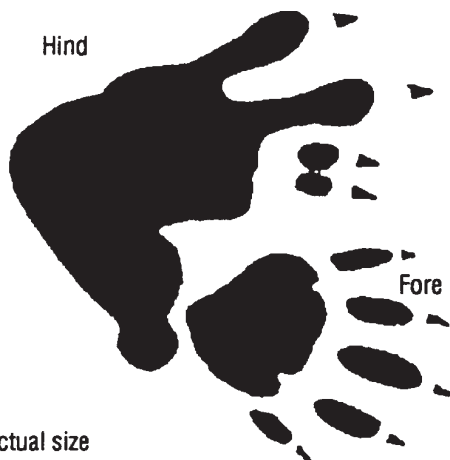
Smith, B. *Caring for Possums*. Kangaroo Press.

Strahan, R. (ed) (1995). *The Mammals of Australia*. Reed Books, NSW.

Contact and permits

For more information or to obtain a permit please contact:
Nature Conservation Branch:DPIWE
134 Macquarie St, Hobart. 7000.
Phone: (03) 6233 6556
Fax: (03) 6233 3477

Our thanks to the A.C.T. Parks and Conservation Service, for use of artwork and information from their Living with Possums brochure.



FURTHER INFORMATION

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