



# Mammal Tracks

Most of Tasmania's native animals are nocturnal. However, the careful observer may find clues to the presence of many creatures in the bush. One such clue is the discovery of tracks. With a little practice, you can identify animals by recognising their footprints and gaits (pattern of footprints).

## Footprints

An animal's foot, like the rest of its body, is adapted to give it the best chance of survival. The shape of its foot and therefore its footprint can tell us much about the animal's lifestyle and identity. Remember that the size of the foot will vary with the age of the animal. The footprints illustrated on the back of this notesheet have been grouped according to the functions of the animals' feet. Within these groups similarities in foot structures can be seen, even though the animals might not be closely related.

The footprints on this notesheet are all from marsupials, except for the echidna and domestic dog. The footprints of the thylacine, Tasmanian devil and spotted-tail quoll all have separate toes on their hindfeet, although they may be reduced in number from five to four. A feature of the other groups is that the second and third toes are joined together so that in some tracks these may appear as one toe with two claws.

In the 'hoppers' the first toe is usually missing, and the fused second and third toes are greatly reduced in size. Many marsupials with these fused toes use them for grooming themselves. The very long, curved claw on the hindfoot of the echidna is used for grooming between its spines, which frequently leave their marks in tracks as sharp furrows.

## Walking and running

Wombats, platypus, echidnas and possums are 'plantigrade', i.e. they walk like people, with the heels of their feet in contact with the ground. Animals that walk this way are slow moving, and do not pursue prey, nor do they depend on speed to escape from predators. The animals which do depend on speed are 'digitigrade' i.e. they walk on their toes. This gives the leg the extra length necessary for fast movement.

## Diggers

Wombat and echidna feet are broad, and most of their toes have long claws, for digging. Wombats feet tend to point inwards and those of the echidna point out.

## Hoppers

When kangaroo-like animals (macropods, meaning 'big foot') move at slow speeds, they use their tails and forefeet to support their bodies while their hindfeet are brought forward. Thus their tracks will show the imprints of the large fourth and fifth toes and long soles of the hindfeet, the forepaws with widespread fingers, and sometimes the broad scrape of the tail between the footprints. Macropods have evolved an unusual method of achieving sustained speed. They 'bounce' on their hindlegs, and leave only the prints of the strong claws and pads of the fourth and fifth toes. The tremendous power needed for this type of movement is partly supplied by energy stored in leg tendons which act like springs.

## Climbers

Good climbers such as possums have broad feet, but the innermost toes on their hind feet are adapted for grasping; like our thumbs. The spotted-tail quoll (unlike the eastern quoll) can climb quite well and has a small thumb and special gripping pads on all feet.

## Swimmers

Seals, platypus and water rats are all aquatic and all have webbed feet. The first have complete flippers, the second have paddles and the third have webbing between their digits.

## Gaits

Other important information needed for understanding tracks is the gait or pattern of footprints. Many species have characteristic gaits. For instance, even if individual prints are unclear, a Tasmanian devil can be identified from its trademark pattern. During a walk, many species' back feet tread on the prints from their front feet. This overlay can cause confusion in interpreting tracks. The measurements of gait which aid in identification are those of stride (distance between imprints of the same foot) and straddle (width of a gait).

## Contact

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*Tasmanian devil*



*Eastern quoll*



*Thylacine*



*Domestic dog*

