SAVE THE TASMANIAN DEVIL PROGRAM

Frequently Asked Questions
Tasmanian Devils

1. What do they look like?

The world's largest surviving carnivorous marsupial, the devil has a thick-set, squat build, with a relatively large, broad head and short, thick tail. The fur is mostly or wholly black, but white markings often occur on the rump and chest. Body size also varies greatly, depending on the diet and habitat. Adult males are usually larger than adult females. Large males weigh up to 12 kg, and stand about 30 cm high at the shoulder. A typical adult female would weight 7 or 8 kg.

2. How did they get their name?

Imagine how European settlers first encountered the Tasmanian devil... Unearthly screams, coughs and growls come from the bush near a settler's hut. The settler comes to investigate with an old kerosene lamp and sees dog-like black and white animals with red ears, wide jaws and big sharp teeth. The settler gets a fright and falls over, the lamp goes out, and is left scared and disoriented, thinking they've glimpsed the hounds of hell! Aboriginal people had several names for them, one of which was "purinina".

3. Why are they black and white?

Many predators have black and white patterns like devils (another example is the orca, or killer whale). This black and white flash pattern seems to be an adaptation to break up the profile of the animal. In some respects it is a form of camouflage, making it difficult for prey to distinguish the shape of the animal.

4. Why are their heads so big?

The heads are very large in adults, particularly old males. Adult males compete with each other for females and, once victorious, they need to be able to subdue the females in order to mate with them. As their diet is mainly carrion, bone-crunching and breaking through thick skin is something older animals need to be able to do. In very old males, the head and neck can contribute nearly a quarter of the weight of the animal!

5. Why are their whiskers so long?

Not only are their whiskers long but there are lots of them. They are positioned in clumps far back on the top of the head plus in the normal 'whiskery' places. These long whiskers help when they are foraging in the dark. They also help devils space themselves from each other when they are feeding on carrion together – if devils' whiskers are not touching each other when they are feeding they are safely outside biting range.

6. How strong are their jaws?

In absolute terms, there is no good measurement because you never know how hard they are biting. That applies to most animals but we do know the relative strength. Devils have jaws of biting power as strong as a dog about 4 times their weight. So a 10 kg devil has as powerful a bite as a 40 kg dog! In this respect they are very similar to hyenas, particularly the spotted hyena.

7. How long do they live?

Very few wild devils live longer than 5 years. In captivity, they may live to 7-8 years of age.

8. Do they come out in the day?

In the wild Tasmanian devils are nocturnal (active after dark). During the day they usually hide in a den, or dense bush. Where they are not harassed by people or dogs, devils love to very quietly and discreetly sun bake. All ages do this. Devil imps have been seen out sunning themselves together with lizards, which they would usually eat, but only animals that are very desperate or sick seem to feed in the daytime.

9. Why are Tasmanian devils active during the day in zoos?

They have learnt in zoos that people or anything else will not harm them in the day and that is when they are also fed so people can see them.

10. Why aren't they scared of artificial lights?

They actually are a little scared of artificial lights at first, but eventually realise that the light is not going to harm them. When other devils are about they are more concerned with competition.

11. What is their hearing like?

Their hearing is excellent. It seems to be the dominant sense.

12. What is their sight like?

Like most nocturnal animals their sight seems to be oriented heavily on black and white vision. Black and white vision is mainly designed to detect movement, so if something moves they have good eyesight, whereas if something stays still they are unlikely to see it clearly.

13. What is their sense of smell like?

They seem to have an excellent sense of smell, although it is probably not as good as a scent hound.

14. Why do they make so much noise?

The noise is basically bluff to intimidate other animals in order to avert a fight. Powerful animals like this often have sophisticated mechanisms to avoid fighting so they do not damage themselves. The sound helps to resolve the pecking order.

15. Why are their ears red?

The ears are hairless, with very thin skin. When they are stressed or very excited the ears flush with blood, making them appear red.

16. Why do they yawn?

The yawning is generally a sign of low level stress. It is part of a displacement behaviour which means they redirect nervous energy to something that's harmless. An example is a person scratching their head when a policeman is talking to them. A yawn also serves to demonstrate that they are an animal with large teeth and a powerful jaw.

17. Why do they hold their tails up?

When they are very excited they hold their tail up, no doubt as part of the body language to demonstrate to other devils that they mean business. When they are very angry they will hold their tail almost straight up. The tail can be held in many positions and the subtleties probably have much meaning in communicating the animal's level of arousal or aggression to other devils.

18. Why do they have fat tails?

Most marsupials store fat in their tails and a fat tail is usually a sign that an animal is in excellent condition.

19. Why are some injured in the face?

Most Tasmanian devils with injuries on the face are adult males. Many of these injuries have been gained at the end of a mating period when the female fights off the male. Some of these injuries are obtained when males are fighting males for access to females. Very few injuries are caused by squabbles over food.

20. Why do some Tasmanian devils have scars on the rump or neck?

The scars on the rump are mainly caused when animals back into other animals to try and push them away from food. Basically it is safer to be bitten on the very heavily armoured, thick skinned rump than on the face. Scars on the neck usually indicate the animal is a female. The scars are caused by males holding the female to subdue them during mating.

21. Do they have predators?

In the past thylacines were no doubt predators of Tasmanian devils. Small Tasmanian devils, or imps, come out in the day; they are at risk from large birds of prey such as eagles, and very small imps are at risk at night from large owls and quolls. Almost certainly large Tasmanian devils will eat imps if they are hungry enough. Imps can climb well and this possibly helps them to escape from large predatory Tasmanian devils.

22. What controls their numbers?

The greatest current threat to numbers across Tasmania is Devil Facial Tumour Disease (DFTD). It is a fatal condition, restricted to Tasmania devils, that is characterised by cancers around the mouth and head.

In 1996, Tasmanian devils were photographed in north-east Tasmania with large tumours on their faces. Since then there has been a 95 per cent decline of average spotlighting sightings in that region, and a drop of 70 per cent across the State.

A further potential unquantified threat is the introduction into Tasmania of the red fox, which competes directly with Tasmanian devil juveniles. Both species share preferences for den sites and habitat and are of similar size.

In the past competition and perhaps predation from thylacines would partly control Tasmanian devil numbers. Other factors affecting numbers included food availability, direct persecution, competition from other devils and quolls, the loss of den sites to development, and the toll of road kills.

23. Where do they live?

Despite the decline in numbers since the early 1990s, populations of Tasmanian devils remain widespread in Tasmania from the coast to the mountains. They live in coastal heath, open dry sclerophyll forest, and mixed sclerophyll-rainforest - in fact, almost anywhere they can hide and find shelter by day, and find food at night.

24. Does artificial feeding do them harm?

As long as natural food is provided (such as dead wallabies that have not been poisoned but have died from road kill) artificial feeding does them no harm. In fact, by moving wallabies from roads to paddocks it probably saves many Tasmanian devils from being killed. Surveys of dead Tasmanian devils on one area of road showed that almost no devils were killed once dead wallabies had been removed from the road, com-

pared to up to 10 road-killed Tasmanian devils per year when wallabies were left on this section of road. It is important that feeding is not too regular or too much so that animals cannot become addicted to artificial food sources.

25. Do they have diseases and parasites?

Tasmanian devils carry a number of internal and external parasites. They often have small numbers of ticks, tapeworms, and other parasites. Of greatest concern now is Devil Facial Tumour Disease.

26. What are they related to?

Tasmanian devils are most closely related to quolls. Their next closest relationship is with smaller marsupials and a more distant relationship is with thylacines. They are more closely related to all other marsupials than placental animals such as dogs.

27. What does their Latin scientific name mean?

Their Latin name is Sarcophilus harisii. That means Harris' meat lover. Harris is the name of the man who described them in scientific terms.

28. Why do they fight so much?

Fighting – often superficial fighting without serious contact – is the basic mechanism for establishing pecking order. The famous gape or yawn of the Tasmanian devil, which looks so threatening, can be misleading. This display is performed more from fear and uncertainty than from aggression. Tasmanian devils produce a strong odour when under stress, but when calm and relaxed they are not smelly.

29. Why are they so noisy?

The Tasmanian devil makes a variety of fierce noises, from harsh coughs and snarls to high pitched screeches. A sharp sneeze is used as a challenge to other devils, and frequently comes before a fight. Many of these spectacular behaviours are bluff and part of a ritual to minimise harmful fighting when feeding communally at a large carcass.

30. Do they injure each other?

Very occasionally, mostly when they are fighting over mates or during mating. They rarely injure each other when fighting over food.

31. Why are some individuals so dominant when feeding?

Typically females with young ones to care for need lots of food and are very aggressive at social feeding encounters. Basically, the most motivated (usually the hungriest) animals are the most dominant. If all individuals were of the same hunger level the largest one would likely be the most dominant.

32. Why do some feed peacefully?

Tasmanian devils vary enormously in personality. Some individuals are very calm and tolerant, others are excitable. It is possible that some animals seen feeding peacefully together are close relatives and therefore are more tolerant of each other. It is also possible that they are not so hungry and so not motivated to fight over food.

33. Why do they eat so much?

Many predators eat large amounts, the main reason being that they may not get to eat again for some time. Basically is safer to have your food inside you rather than carry it around where it may be stolen.

34. How much can they eat?

If they are not interrupted, Tasmanian devils can eat up to 40% of their body weight in 30 minutes. They need to consume about 15% of their body weight per day in the wild so even a huge feast like that would only keep them going for 2 or 3 days.

35. What do they normally eat?

Tasmanian devils seem to eat any meat that is available. This includes birds, fish, moths, tadpoles and frogs, reptiles, and mammals such as wallabies, echidnas, platypus, and wombats. They are opportunists, eating almost anything they find.

They do have preferences. Tasmanian devils seem to very much like wombat meat, probably because of its rich fat content. This is because not as much has to be eaten for the same energy (calorie count). They prefer to eat carrion as they don't have to expend energy in hunting, however, in wilderness areas where there is not much carrion Tasmanian devils hunt a lot.

36. Do they eat stock such as lambs and sheep?

In some areas, particularly farm land, much already dead stock is eaten. Generally dead cows can only have small bits eaten because the skin is too thick for Tasmanian devils. Whole sheep can be eaten except for the large bones. Any small stock like sheep or lambs that are injured or incapacitated may be killed and eaten. New born lambs are sometimes at risk. If sheep have twins or triplets, weak members of the litters may be especially vulnerable. Poultry that roosts on the ground is also vulnerable. Most healthy stock is perfectly safe. Tasmanian devils can be beneficial to sheep. They maintain bush and farm hygiene by cleaning up carcasses, which can help reduce the risk of blowfly strike to sheep by removing food for maggots.

37. Are Tasmanian devils dangerous to people?

No, Tasmanian devils are not dangerous. They do not attack people, although they will defend themselves if attacked or trapped. Tasmanian devils, for all their appearance, are very timid, quiet animals that would much rather run away than fight. However, Tasmanian devils are very powerful and any bite could cause serious injury. Tasmanian devils are wild animals and therefore should not be trusted with small children, just as you would not trust a large wombat or a large kangaroo with a small child.

38. Do they form packs?

As far as we know Tasmanian devils do not form packs – a pack being an organised group of animals of the same species. Large numbers may hunt in the same area and may even hunt the same animal, but they do not seem to be organised. Even so, the confusion they cause may give them an advantage over the prey.

39. How many young do they have?

Tasmanian devils give birth to between twenty and forty young each year for an average of three years. Tasmanian devils generally start breeding at the end of their second year. Females have only four nipples so a maximum of four young are reared each year. More young survive in the first year of breeding, less in the second and third years. Very few Tasmanian devils breed for four years.

40. Where do they breed?

Tasmanian devils are restricted to mainland Tasmania. They breed in dry caves, hollow logs, burrows (particularly wombat burrows). They prefer dry and warm sites. They do not breed in exposed areas because the young are small and vulnerable to predators.

41. When do they breed?

Most Tasmanian devils mate in March and give birth in April. The gestation period is approximately 21 days. Around 40 young are born, but a maximum of four can be accommodated in the mother's backward-opening pouch, which has only 4 teats. Young stay in the pouch for about four and a half months, generally until April - July. The young are then denned and come out of the den gradually over October-November-December. They are weaned at 5-6 months of age and are thought to have left the mother and to be living alone by late December.

In reality the season is spread out over several months, not every animal giving birth at the same time. That is, they are not all synchronised. In some places where there is much food and not so many Tasmanian devils the breeding season is even more extended.

42. Are they territorial?

Strictly speaking, they are not territorial. A territory is a defended core of home range. Tasmanian devils have fixed home ranges and a small mobile territory they carry with them. That is, they defend a small area of personal space. Females have small territories around den sites. There is much we do not understand about how Tasmanian devils arrange themselves in the landscape.

43. How far do they travel?

Radio tracking has shown that many Tasmanian devils will travel 10 - 20 km in a night within their home range. They do not repeat the same movements every night. If they find food early they may not travel very far at all. We are not yet sure how far immature animals disperse from their parents.

Tasmanian devils roam considerable distances along well-defined trails in search of food. They usually amble slowly, with a characteristic gait, but can gallop quickly with both hind feet together. Young Tasmanian devils are more agile, however, and can climb trees. Although not territorial, Tasmanian devils have a home range.

44. Were devils always in Tasmania?

Remains of species of Tasmanian devils, including some very large ones, have been found in fossil deposits in what is now Australia. Certainly devils have been in Tasmania for a very long time.

45. Were they in any other place than Tasmania?

It seems Tasmanian devils were spread all over Australia and they may have been in Papua New Guinea. They probably became extinct on mainland Australia through failure to compete successfully with dingos or through disease, climate change or processes. The actual cause of extinction is not known.

46. Why are some individuals wary, others confident?

Like people or any other animal, Tasmanian devils vary immensely in personality traits. They also vary in experience. Animals that have not been frightened or harmed will appear very confident. Animals that have been traumatised or hurt will be wary. Like many multiple litters, Tasmanian devils can have different fathers for the same litter, therefore personality traits can vary because of different fathers.

47. How many live in Tasmania?

It is very difficult to give an exact answer, with numbers thought to be within the range of 10,000 - 100,000 individuals. There are a variety of reasons why it is difficult to be more precise. One of the biggest challenges is that there are population number estimates for only a few places across the State – most of which were chosen for trapping because they were high density before Devil Facial Tumour Disease. Good estimates for anywhere in the World Heritage Area, for instance, aren't available because there are no roads and it is hard to check traps on a daily basis.

48. Do Tasmanian devils' teeth keep growing?

Yes, but very slowly. They also keep wearing, often faster than they grow. Hence old animals can have very worn down teeth.

49. How many sets of teeth do Tasmanian devils have?

Tasmanian devils develop on set of teeth for their entire life. Their teeth develop at about 4 months of age, as they begin to eat solid food.

50. How do Tasmanian devils know which way a scent leads?

They test the air for increased intensity of smells. They know that they are getting nearer to the source as the scent becomes more intense.

51. How fast can Tasmanian devils run?

On rough terrain Tasmanian devils can run faster than a person; on very smooth terrain they cannot run as fast as a good human runner. Tasmanian devils have been 'clocked' running on a flat road at nearly 25 km/h for up to 1 km. They can run at 10 km/h for many kilometres.

52. Can Tasmanian devils climb?

Young Tasmanian devils climb very well, larger devils not so well, but they are very persistent. They have good gripping ability with their front paws even though they do not have retractable claws like cats. They use their large footpads on the hind legs as contact grips and friction pads.

53. Can Tasmanian devils swim?

Tasmanian devils can swim very well. However, if they have young in the pouch they avoid swimming for more than very short distances. Tasmanian devils actually love water and will wade and splash about, even sitting or laying down in it to stay cool. They will often dabble in water with their front paws, somewhat in the manner of racoons. Tasmanian devils will sometimes store food in water.

54. What use are Tasmanian devils?

Tasmanian devils have enormous value. They are fundamental to our ecology at the top of the food chain. As scavengers they play a vital role as nature's auditors, removing sick, slow, diseased and dead animals from the landscape.

Tasmanian devils are a very important line of defence against introduced animals, particularly feral cats and the Red Fox. Both species are devastating to native wildlife.

Tasmanian devils are intrinsic to the Tasmanian psyche, and an icon of wild Tasmania. They are a great example of wildlife succeeding against all manner of pressures, a true 'Aussie battler'.