

PANGOLINS



There are eight species of pangolin, four of which are found in Africa, namely, the giant pangolin, Temminck's pangolin, white-bellied pangolin and long-tailed pangolin. The four species found in Asia are the Chinese pangolin, Indian pangolin, Philippine pangolin and Sunda pangolin.

DSWF works to protect the Temminck's pangolin (also called the ground pangolin) and white-bellied pangolin (also known as the tree pangolin) in Zambia, so we will focus on these species in this factsheet.

LATIN NAME:

- Temminck's pangolin (*Smutsia temminckii*)
- White-bellied pangolin (*Phataginus tricuspis*)

POPULATION: Unknown

DIET: They are insectivores, this means that they only eat insects; lots and lots of insects! A pangolin can eat 23,000 ants and *termites** every day, that's around 70 million a year!

WHERE TO FIND THEM:

- Temminck's pangolin: Angola, Botswana, Burundi, Central African Republic, Chad, Ethiopia, Kenya, Malawi, Mozambique, Namibia, Rwanda, South Africa, South Sudan, Sudan, Tanzania, Uganda, Zambia and Zimbabwe.

- White-bellied pangolin: Angola, Benin, Burundi, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Nigeria, Rwanda, Sierra Leone, South Sudan, Tanzania, Togo, Uganda and Zambia.

HABITATS:

- Temminck's pangolin can be found in the savanna grasslands, woodlands and on the open floodplains of Africa.
- White-bellied pangolin occur in the trees of lowland tropical forests.

IUCN STATUS:

- Temminck's pangolin – *Vulnerable**
- White-bellied pangolin – *Endangered**

The IUCN Red List is a critical indicator of the health of the world's biodiversity.

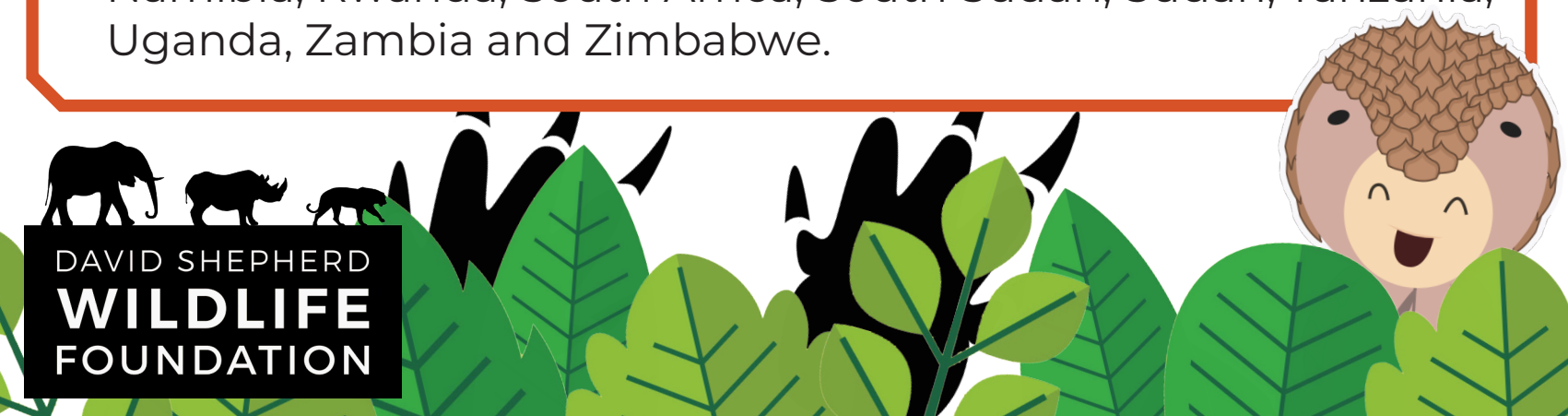
EX	EW	CE	EN	VU	NT	LC
EXTINCT	EXTINCT IN THE WILD	CRITICALLY ENDANGERED	ENDANGERED	VULNERABLE	NEAR THREATENED	LEAST CONCERNED

LIFESPAN: Because they are shy and little studied it is not known how long they survive in the wild. Pangolins generally do not thrive in *captivity*.*

SIZE:

- White-bellied pangolin measures about 46cm (excluding tail) and weighs up to 2kg
- Temminck's pangolin measures from 34-61cm (excluding tail) and can weigh from 7-18kg.

PREDATORS: Pangolins' natural predators include leopards, lions and hyenas.



PANGOLINS

BEHAVIOUR:



FOR YOUNG READERS: Most types of pangolin are nocturnal (they come out at night), some types like to live in the trees and are very good at climbing, others live on the ground and do not climb trees. Pangolins are good swimmers.

Nocturnal: most pangolins are nocturnal and only come out at night-time. The long-tailed pangolin is the only pangolin that is active during the day (diurnal).

Tree living pangolins: the white-bellied pangolin can hang from branches using their *prehensile** tails. The claws on their front feet and hair instead of *scales** on the lower part of their front legs, help them to climb. They also have sensory pads at the tip of their tail. They sleep in tree hollows during the day.

Ground based pangolins: sleep in burrows, they either dig these themselves, or they may use burrows which have been made and then abandoned by other animals like spring hares or anteaters. They can either walk on all fours or just on their hind legs with their front paws slightly raised off the ground. During the summer they are nocturnal, but in the winter they are more active in the daytime.

Swimmers: pangolins are good swimmers - they can inflate their stomachs with air to help them to float.

LIFECYCLE:



FOR YOUNG READERS: Pangolins prefer to live by themselves, unless they have a baby which is known as a pangopup. A pangopup rides around on its mum's tail for the first few months of its life.

Solitary: pangolins are solitary creatures and prefer to live on their own, unless it is a mother pangolin with her baby.

Pangopups: baby pangolins are born after 140-150 days (depending on the species), they are about six inches long and are known as pangopups. Most species of pangolin have one pangopup a year, they are born with soft, pale scales but these harden and darken in the first couple of days. For 2-3 months they feed on their mother's milk, after a month they will also start to eat insects, which they find when they ride around on their mum's tail. She will also roll around it while it sleeps.

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ADAPTATIONS:



FOR YOUNG READERS: Pangolins are covered in tough scales that look like armour. If they are scared, they roll into a ball (like a hedgehog) and their scales protect them, even from animals like lions.

Pangolins like to eat lots of insects, mainly ants and termites, they have long strong claws on their front feet which they use to break open insect nests, then they put their long sticky tongue inside and slurp up the insects! Pangolins don't have any teeth, so they swallow the insects whole and grind them up in their tummies.

Pangolins also produce a stinky smell when they want to protect themselves.

The word 'pangolin' comes from the Malay word 'pengguling' meaning 'to roll up'

ADAPTATIONS:

SCALES:

Walking pinecones: sometimes called walking artichokes or pinecones on legs because of their scaly appearance, pangolins are the only mammals on the planet to be covered in scales. These scales are made from a protein called *keratin*,* the same stuff as human fingernails and rhino horns are made from.

Growth: the scales grow throughout the pangolin's life. The pangolins wear down their scales in day-to-day life, for example when they dig burrows.

Protection: when a pangolin feels threatened or scared it rolls into a ball (a bit like a hedgehog) and these tough scales protect it from predators, even lions! The parts of the pangolin which are not covered in scales: the face, snout and stomach, are all protected safely inside the ball.

Pangopups: if a pangolin has a pangopup, she will roll around it to protect it too.

PANGOLINS HAVE SOME BRILLIANT ADAPTATIONS FOR EATING INSECTS:

Smell: an amazing sense of smell helps them to sniff out ants' nests and termite mounds. They don't have great eyesight, so a good sense of smell is important.



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ADAPTATIONS:

Tongue: they have a sticky tongue as long as their head and body put together! Their tongue is attached way back in the body, between the pelvis and the last set of ribs, when they are not using their tongue it rests in a pouch inside the pangolin's throat.

The pangolin makes a hole in the insect nest with its strong claws and pokes its tongue into the holes, the insects get stuck to the tongue and slurped back into the pangolin's mouth.

Claws: super strong claws to break into the insects' nests and termite mounds, which can get very hard as they are made of mud which bakes in the sun.

Protection: to protect them from insect attacks whilst they eat, the pangolin has special muscles that they use to close their nostrils and ears to stop insects getting in, and thick eyelids to protect their eyes.

No escape: muscles in the pangolin's mouth close to stop the insects escaping.

No teeth: pangolins don't have any teeth, and their jaws are fused together so they can't chew. Instead the insects go down into the pangolin's stomach whole, in the stomach there are spines made of keratin, along with small stones which they swallow - these help them to grind up the insects so that they can digest them.

Defence: to defend themselves, as well as having tough scales and the ability to roll into a ball to protect itself, the pangolin can also lash out with sharp scales along the edges of its tail. It can hiss and puff and give off a horrible smell from its anal glands to put off any potential predators.

Pangolins have huge front claws so they have to use their back legs for walking.



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WHY PANGOLINS ARE IMPORTANT:



FOR YOUNG READERS:

Pangolins are very special, there is no other animal in the world like them.

They help farmers by eating the insects that would otherwise eat their crops. When pangolins make burrows and dig into insect nests, they help make the soil better which helps plants to grow.

Unique: pangolins are unique, they are the only mammal in the world to be covered in scales, there is no other living creature quite like them!

Farmer's friend: due to their enormous appetite for ants and termites, they are important in controlling insect numbers and keeping insect populations in balance. To some people they are known as the 'farmer's friend' as they keep down insect populations which otherwise would attack crops.

Soil improvers: when pangolins dig into insects' nests or create burrows, they are helping to *aerate** the soil, improving the soil quality and encouraging plant growth.

WHY DO PANGOLINS NEED OUR HELP?



FOR YOUNG READERS: There are not many pangolins left because some people think that pangolin scales can be used as a medicine, even though they don't have any medicine in them. Also, some people like to eat pangolins.

Poaching: despite having excellent defence against natural predators such as lions and leopards, the pangolin's defences do not work against *poachers** who simply pick them up and walk off with them.

Sadly, pangolins are the most illegally *trafficked** (or traded) mammals in the world and their populations are in severe decline, it has been estimated that a pangolin is taken from the wild by a human every five minutes. A million have been illegally captured and sold in the last 10 years alone.

Some people believe that pangolin scales and parts can be used as a medicine to cure lots of different illnesses, even though they are made of the same protein as our fingernails and hair, and there is no scientific evidence that they have any medicinal benefit. In some Asian countries pangolin meat is considered a delicacy. In Africa pangolins are eaten as part of the *bushmeat** trade.

Habitat loss: due to farming, roads and towns being built in areas where pangolins live.

Pesticides: used by farmers to control insect populations can harm pangolins.

Electric fences: used to protect crops accidentally electrocute and kill pangolins.

Cars: pangolins are hit by cars while crossing roads



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HOW DOES DSWF HELP?

DSWF funds a pangolin protection programme in Kenya and Vietnam, helping return pangolins to the wild after they have been stolen by poachers.

The programme also helps raise awareness for pangolins amongst local people so they understand why we should be protecting Kenya and Vietnam's precious pangolins.

HOW YOU CAN HELP:

ADOPT - by adopting a pangolin you will directly fund DSWF's ground-based work protecting pangolins

USE YOUR VOICE - to let others know about the problems pangolins are facing and how they can help protect them.

BE MORE GREEN - there are lots of things that we can all do to help the planet and it's incredible wildlife, [click this link](#) to find out what you can do!

*GLOSSARY:

- *Aerate*: making holes in the soil so that air, water, and nutrients can get in and improve the soil's quality.
- *Bushmeat*: the meat of wild animals used as food.
- *Captivity*: held by humans and prevented from escaping, for example in a zoo.
- *Endangered*: at very high risk of becoming extinct in the wild.
- *Keratin*: a fibrous protein which makes up hair, fingernails, horns, talons, hooves, claws, scales and feathers.
- *Poachers*: people who illegally hunt or capture wild animals.
- *Prehensile*: capable of grasping.
- *Scales*: overlapping plates made from keratin.
- *Termites*: a type of insect.
- *Trafficked*: illegally bought and sold/traded.
- *Vulnerable*: facing a high risk of extinction in the wild.

World
Pangolin Day
is celebrated
annually on 15
February.