

BLOOD

SOME ANIMALS ARE REAL—LIFE VAMPIRES THAT LIVE OFF OTHER CREATURES' BLOOD. WHICH ARE THE MOST BLOODTHIRSTY ANIMALS IN THE WORLD?

2

VAMPIRE BAT



Deep in the dark and gloomy caves of South America lurks one of the world's most bloodthirsty creatures – the vampire bat. At night, it flies out in search of victims. The little vampire can hear big animals breathing from a long way off and sneaks up on its sleeping prey. Its nose can sense tiny differences in temperature, helping it find its way to a blood vessel full of warm, flowing blood. Then it makes a little cut with its razor-sharp teeth and licks up the blood. Although its bite isn't usually dangerous, the vampire bat can spread a scary disease called rabies. On the plus side, vampire bat spit may also be able to help us to find new medicines. The spit stops blood from clotting and may help relieve blocked blood vessels.

30 ml
(2 TABLESPOONS)

1

NORTHERN LAMPREYS

The northern lamprey is a fish that already existed long before the dinosaurs appeared. This monster fish from the dim and distant past has a round suction-cup mouth with row upon row of hooked teeth. It clamps onto other sea creatures with its teeth and sucks up their blood. Although it often kills its unlucky victim, the northern lamprey can save lives too. As well as having useful spit – like vampire bats and medicinal leeches – northern lampreys are experts at repairing their own bodies. They can even grow back a totally broken spine. If scientists can find out how Northern lampreys do this, maybe they can help the human body get better at repairing itself too.



250 ml
(A BIG GLASS OF BLOOD)

4

TICK

It's hard to find anything nice to say about the tick. This tiny blood-sucking mite spreads dangerous diseases to humans and other animals. Still, it does make itself a little bit useful by being food for birds, mice and frogs. No other animal drinks more blood in relation to its size than the tick. It can suck up 200 times its own body weight! It's lucky for us that the tick is so small. Even the greediest tick can only guzzle down just under 9 millilitres of blood. That's less than a tablespoon.



9 ml
(LESS THAN A TABLESPOON)

3

MEDICINAL LEECH

Medicinal leeches are almost never dangerous. In fact, they're handy helpers in hospitals! If a person loses a finger, skilled surgeons can sew it back on again. If the finger turns blue, that's a danger sign. And then the surgeons need some help from a slimy pal! The medicinal leech clamps on to the finger with its teeth and spits into the wound. Its spit makes the blood flow properly and helps the leech suck out the blood that has collected in the finger. Once it has drunk around ten times its own weight, it is full up. Luckily, that's just a tablespoon of blood. Thanks to the medicinal leech, the finger's colour goes back to normal and it can get on with the job of growing back onto the hand.



15 ml
(1 TABLESPOON)

SWEAT

WHAT'S THE POINT OF SWEATING, AND WHICH ANIMALS SWEAT THE MOST?

SUNSCREEN SWEAT

Sometimes when a hippopotamus is on land a red substance may ooze out of its skin. In the olden days, people thought they sweated blood but the stuff that comes out is actually the hippo's very own sunscreen! This red substance keeps the hippo's skin moist, protects it against bacteria and stops it from getting sunburnt.

HIPPOPOTAMUS



STRANGEST COOLING FLUID

Storks can't sweat so they've found another clever way of cooling down. When they get overheated, they simply poo on their own legs. The wet poo trickles down their legs, cooling off their bodies. It's more or less the same thing that happens to us when we sweat. Our body sends out a wet, cooling substance too – although not from our bottoms, thank goodness!

STORK



WORST SWEATY REPUTATION

Have you ever heard somebody say they're sweating like a pig? It's actually a pretty weird thing to say because pigs hardly sweat at all. They don't roll around in the mud because they're filthy beasts but because they're too hot. Pigs are so bad at sweating that they have to cool themselves down with wet mud instead.

PIG



HARDLY SWEATS AT ALL!

DOG

ANTI-SLIP SWEAT

Dogs have a lot of sweat glands on the bottom of their paws. The sweat provides food for bacteria but instead of making a stink, the bacteria make a scent that's just like nachos! When sweat forms on the dog's paws, they get less slippery. That stops the dog from sliding when it runs. The moist sweat can also cool its body down, but only a little bit. When a dog overheats, it has to puff and pant with its tongue hanging out.

NACHO PAWS



WHO HOLDS THE WORLD RECORD FOR SWEATING? →

WORLD RECORD FOR SWEATING



3

HORSE

Horses are among the few animals that sweat a lot to cool down. But their sweat is very different to ours. Horse sweat contains a soap-like substance that gets frothy if you rub it. The soapy sweat spreads nicely through the horse's coat and cools it down so well that it can run for ages.



2
PATAS MONKEY

Patas monkeys live on the African savannah, where they eat plants and insects. In this open landscape the monkeys have to keep an eye out for lions and other predators. That's why they've become really good at two things: running and sweating. Because even a ravenous lion can't hunt for long in the scorching sun. When the lion gets so hot that it starts to puff and pant, it has to slow its pace. It can't make enough sweat to cool down. The patas monkey, on the other hand, can just keep on running as the sweat pours off it. Only one other animal has taken sweating even further...



1

HUMAN

Congratulations! This record goes to us humans: we're the animals that are the very best at sweating.

We can sweat several litres and have hardly any fur at all. That makes it easier for our sweat to dry, helping cool us down even more quickly than patas monkeys. Scientists think sweating was a big advantage for our ancestors who lived on the African savannah. They could hunt other animals in the roasting sun until their prey got so hot it conked out.

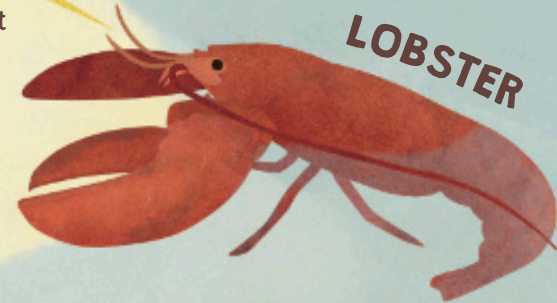
PEE

ANIMALS PEE IN LOTS OF DIFFERENT WAYS. WHICH ANIMAL HAS THE THICKEST PEE AND DOES ANY PEE SMELL GOOD?

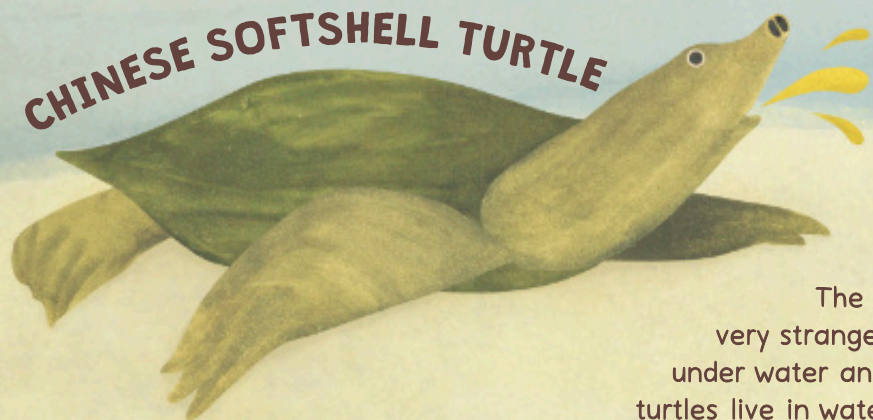
TOUGHEST PEEING

Lobsters can squirt pee straight out of their faces. They do it when they flirt and when they're angry. So a splash of lobster pee can mean either 'Wanna fight?' or 'Hey, cutie!', depending on how it smells. Male lobsters spray pee in each other's faces when they fight and the one that pees most is often the winner. The female keeps an eye on the battle and picks the toughest lobster as her partner. And what does she do to impress her new beau? She sprays a loving squirt of pee out of her face.

To the male lobster, it smells absolutely irresistible.



CHINESE SOFTSHELL TURTLE



STRANGEST PLACE TO PEE FROM

The Chinese softshell turtle has a very strange habit. Sometimes it sticks its head under water and pees out of its mouth! A lot of softshell turtles live in water that is slightly salty and if they drink the water they swim in, they might take in too much salt. So it's important for them to save the water in their body. By peeing out of their mouths, they can get rid of their bodily waste without losing too much water.

POO AND PEE COMBINED

Birds get rid of the whole lot in one go! What we call bird poo is actually poo and pee combined. The white stuff is the pee and the dark patches are the poo.



BEST-SMELLING PEE

The binturong is a hairy black animal that looks like a cross between a bear and a cat. It eats pretty much anything it can lay its hands on in the way of fruit, birds and insects. And yet its pee smells as if it lived off one thing and one thing only: popcorn. Scientists believe this popcorn smell is caused by bacteria in the binturong's body. Thanks to these bacteria, the animal gives off that lovely cinema smell! Binturongs use their popcorn pee to mark their territory and send messages to each other.



LIGHTEST PEE

Woodlice don't have liquid pee. While we humans get rid of stuff we don't need in drops of pee, waste flies right out of woodlice in the form of gas! It's a bit like farting pee out of their whole body.

WOODLOUSE



KANGAROO MOUSE



THICKEST PEE

Many animals that live in the desert have very thick, syrupy pee. This is because they're experts at surviving droughts. Their bodies have to suck up as much water as possible and let out as little as possible. So they mustn't pee too much! One animal that is a champion in this field is the kangaroo mouse. It can get by on tiny amounts of water from the seeds it eats. On the rare occasions when it pees, all that comes out is a few thick drops that are hardly liquid at all.

WHO PEEES THE MOST? →

WORLD'S LARGEST LOO

THE OCEAN IS FULL OF FISH AND WHALES THAT SWIM AROUND PEEING AND POOING ALL THE TIME. IT'S QUITE SIMPLY THE WORLD'S LARGEST LOO!

WORLD PEEING RECORD

Whales are world champions at peeing. Since it isn't easy to collect all the pee produced by a whale in the wild, scientists have had to use what they know about other animals to work out how much the big whales pee. They've calculated that the fin whale pees almost 1,000 litres every single day! That's enough to fill six big bathtubs. The blue whale, which is even bigger, probably pees even more – although nobody has yet worked out just how much.

1,000 LITRES OF PEE



FIN WHALE



BLUE WHALE

ECO-POO

Whales do a really important job every time they do a number two because their poo acts as fertiliser for tiny little algae that live in the sea! The algae are very important because they trap a climate gas called carbon dioxide from the air and at the same time they make oxygen, which we can breathe in. A lot of the algae get eaten by marine animals but some of them sink all the way to the bottom of the sea and stay down there. This means that the carbon dioxide is stored in the algae on the bed of the ocean instead of being in the air. And that's good for the climate!

WORLD'S BIGGEST POO?

Nobody is sure who poos the most but we have good reason to believe that the blue whale deserves this record. A scientist who flew over a school of blue whales in California managed to snap a photo of what may be the world's biggest poo. Since whale poo spreads out across the sea, it is difficult to measure just how big it is. But at any rate, the orange patch of poo on the picture was almost as big as the whale itself.

PEE FERTILISER

Scientists have found that coral reefs struggle in the places where we humans fish too much. Corals can't survive if they don't have enough fish peeing on them! The pee is full of substances that the coral reefs need to grow. So how about if we humans peed in the sea instead? Sadly, that's no solution. It turns out that only fish pee has the perfect mixture of substances that the coral reefs need.

MORE POO RECORDS →

POO

SOME ANIMALS NEVER POO, OTHERS POO SO MUCH THAT WE CAN SEE IT FROM OUTER SPACE! HERE ARE THE WEIRDEST POO WORLD RECORDS.

BIGGEST COMBINED POO

Adélie penguins have especially interesting poo: they eat so many crustaceans and krill that their poo turns pink! To keep it at a safe distance, they shoot it out at top speed. When an entire colony of Adélie penguins in the South Pole shoots out its pink poo, it creates an area of poeey pink snow that is so enormous you can see it on photos taken from outer space. These images are very useful for scientists, who can use them to check where the penguins have settled.

ADÉLIE-PENGUIN



WOMBAT

STRANGEST-SHAPED POO

The wombat can hardly see but makes up for that by having a wonderful sense of smell! If it wants to leave messages for other wombats, it has to use something that smells. And what could be more practical than poo? Since the message mustn't roll away, it makes sense for it to be square. The wombat's gut is specially designed to squeeze out perfect cubes and every night the hairy creature deposits between 80 and 100 stinking messages.

MOST IMPORTANT POO MEAL

Rabbits eat their own poo! Maybe that sounds disgusting but it's totally necessary. Rabbits make two different kinds of poo and only eat one of the two types. The poo meal comes from a special sac in the rabbit's tummy where lots of bacteria live, chowing down on all the grass the rabbit eats. The rabbit itself doesn't get any nutrition from the grass - but the bacteria do! The bacteria and all the nutrition they make end up becoming a super poo that the rabbit eats as soon as it comes out. The super poo then takes a different route through the rabbit's tummy. In the end, the last useless leftovers come out in the form of dry balls of poo. By then, the rabbit is already busy nibbling on more grass.

RABBIT



MOST PERILOUS POO HABITS

Sloths only poo once a week. Everything in their body happens incredibly slowly to save energy. When they eventually do have to poo, it's a major project. Sloths usually live in trees but when their tummies get full, they climb down to the ground. Why they climb down, nobody quite knows. After all, there are loads of dangerous animals down there! But after a week, the sloth has built up a monster poo in its tummy that just has to come out. The poo can be so big that the sloth is several kilos lighter afterwards!

SLOTH



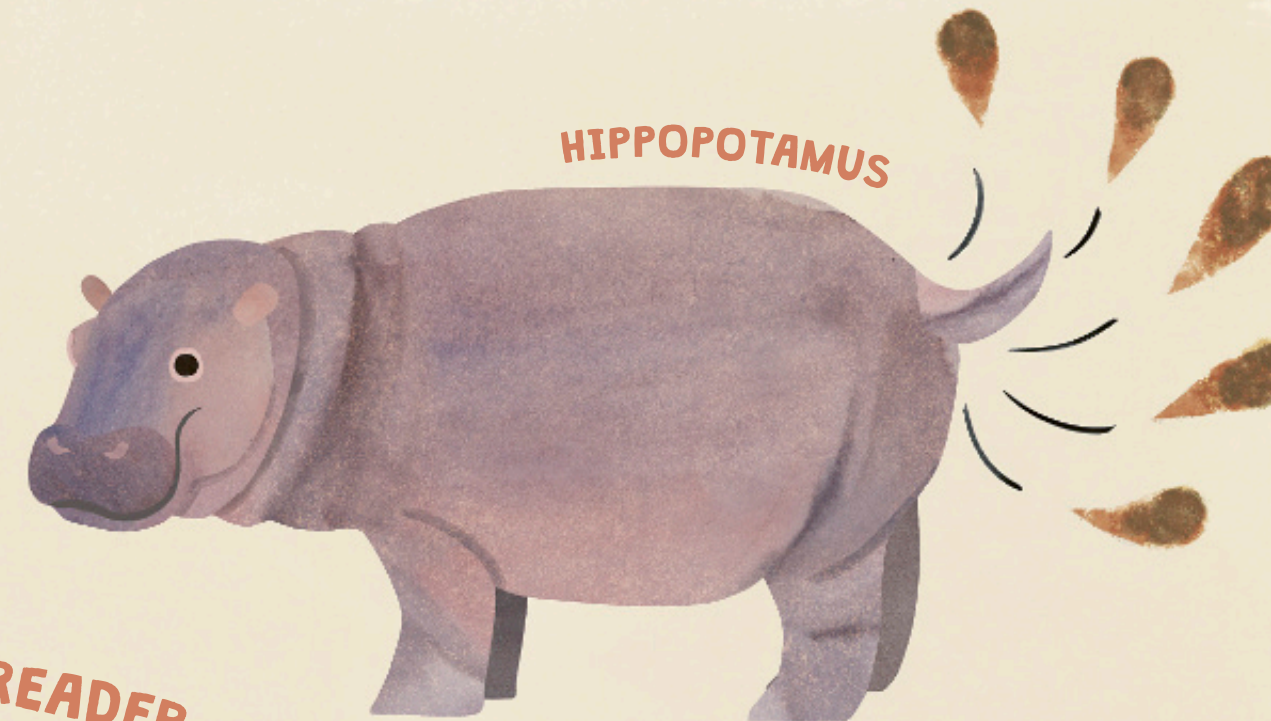
WORST POOPER

A tiny number of animals never ever poo. One of them is the teeny-weeny eyelash mite, a critter that lives on the face of every single human being! All the poo it will ever make in the whole of its life is simply stored inside its tummy. It may be nice to know that nobody's pooing on your face, but that's not much of a comfort in the end. When the eyelash mite dies, you see, all the poo comes out in one go. Luckily both the animal and its poo are extremely small and almost never bother us.

EYELASH MITE



HIPPOPOTAMUS



BEST POO SPREADER

When a hippopotamus poos, it twirls its tail around and around like a propellor, making the poo fly out in all directions! Even if you're standing as far away as ten metres, the hippo poo can still come flying up and smack you in the chops. The point of this pooing technique is to send a clear signal: 'I live here. Keep away!'

LOVE

ANIMALS DO A LOT OF STRANGE STUFF FOR LOVE. HERE ARE THE WORLD'S MOST ROMANTIC ANIMALS.

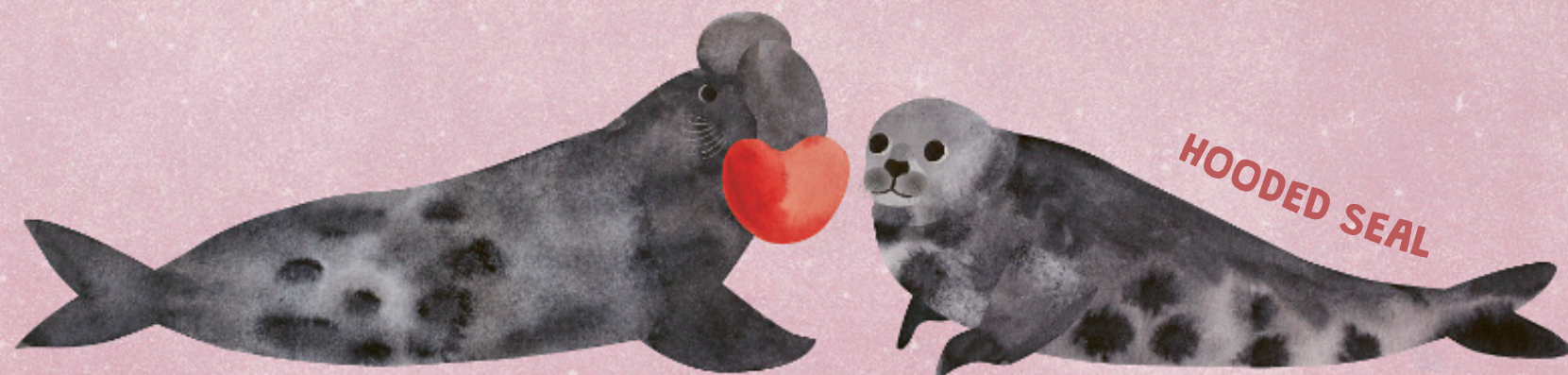
BIRD OF PARADISE



BEST LOVE DANCE

On the island of New Guinea live birds of paradise, which have all kinds of crazy pick-up tricks. Some of them tickle each other in the face with long tail feathers, others focus all their effort on their appearance, with rainbow-coloured feathering and bright blue feet. Competition is tough and the females only accept the most impressive males. Many birds of paradise flirt by dancing but one of the dancers really stands out from the crowd.

The Carola's parotia male has to go through a long sequence of dance steps before he'll have a chance with the ladies. First he has to clear a stage, with a low branch that will serve as a tribune where the female can sit. After dancing five fixed steps, it's time for his big number: he spreads his wings around his body like a tutu then trips elegantly across the stage, just like a real ballerina! Concentration counts here: One misstep and the female will fly away.



HOODED SEAL

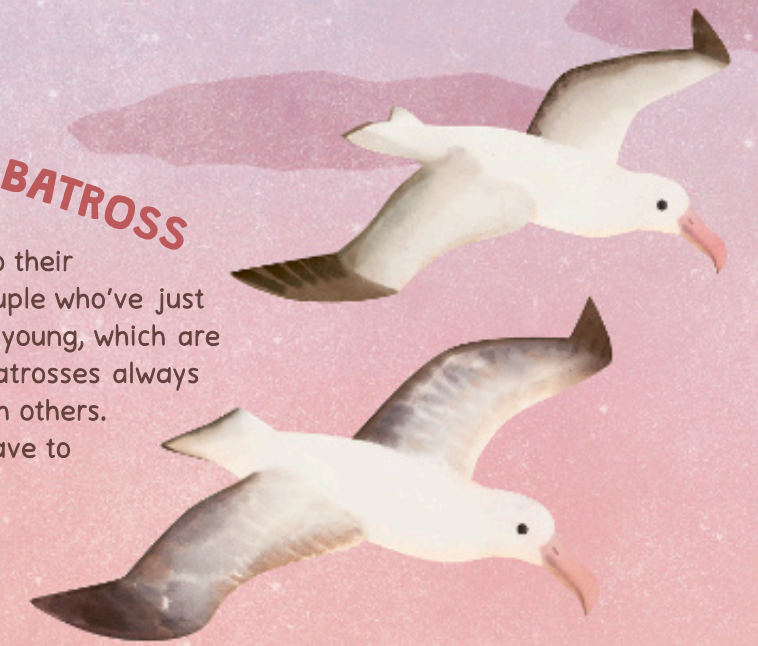
STRANGEST PICK-UP TRICK

The hooded seal is a big seal that lives in the north of the Atlantic Ocean. The male is almost twice as big as the female and has a two-lobed hood on his head, which he blows up when he wants to flirt. He also has another even more peculiar pick-up trick: when he wants to impress his love object, he blows up a membrane in his nose, so it pokes out of his nostril like a big red heart balloon!

MOST FAITHFUL

Many birds switch sweethearts every year but albatrosses stay together for life. Every year, after months at sea, these great seabirds find their way back to their beloved. They often sit together, heads bent close, like a couple who've just fallen in love. The two birds work together to care for their young, which are totally helpless when they hatch out of the eggs. Although albatrosses always return to their partners, that doesn't stop them flirting with others. Albatross couples often consist of two females, so they have to find a male to fertilise their eggs. But they always go back to their one true love in the end.

ALBATROSS



NURSERY WEB SPIDER



MOST (AND LEAST) ROMANTIC GIFT

Nursery web spiders never fail to take a gift with them on a date. The male finds a delicious morsel of food he thinks the female will like and wraps it up in white spider silk. While she is busy opening the package, he seizes his chance to mate with her. The problem with a well wrapped gift is that you can't see whether there's anything nice inside until you've opened it. Some sneaky male spiders have learnt to exploit this. They wrap useless twigs in beautiful silk and mate with the female before she has a chance to realise she's been tricked. But the fraudster is living dangerously. If the female works out that there isn't a tasty snack in the package, she'll sometimes end up eating the cunning male spider instead.

MOST COMPLICATED FLIRTING

Seahorses take flirting seriously. When a couple have found each other, they meet up every day after sunrise to dance together. The seahorses brighten, hold each other's tails and gently swing around one another. After a couple of days, they take the flirting to the next level. First they rock back and forth together for almost an hour. The male seahorse shows off by puffing up his belly, while the female stretches, points her snout upwards and swims to the surface. Finally, she lays her eggs in a pouch in the male's belly - because the seahorse dads are the ones that keep the babies in their tummies! Between 10 and 25 days later, hundreds of tiny little seahorses burst out of the dad. After that the kids have to take care of themselves.

SEAHORSE

