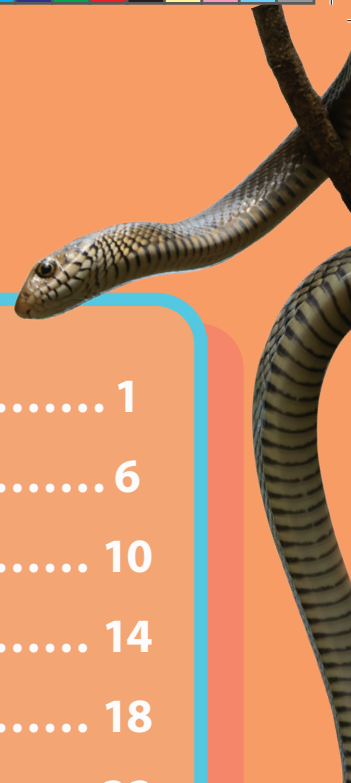


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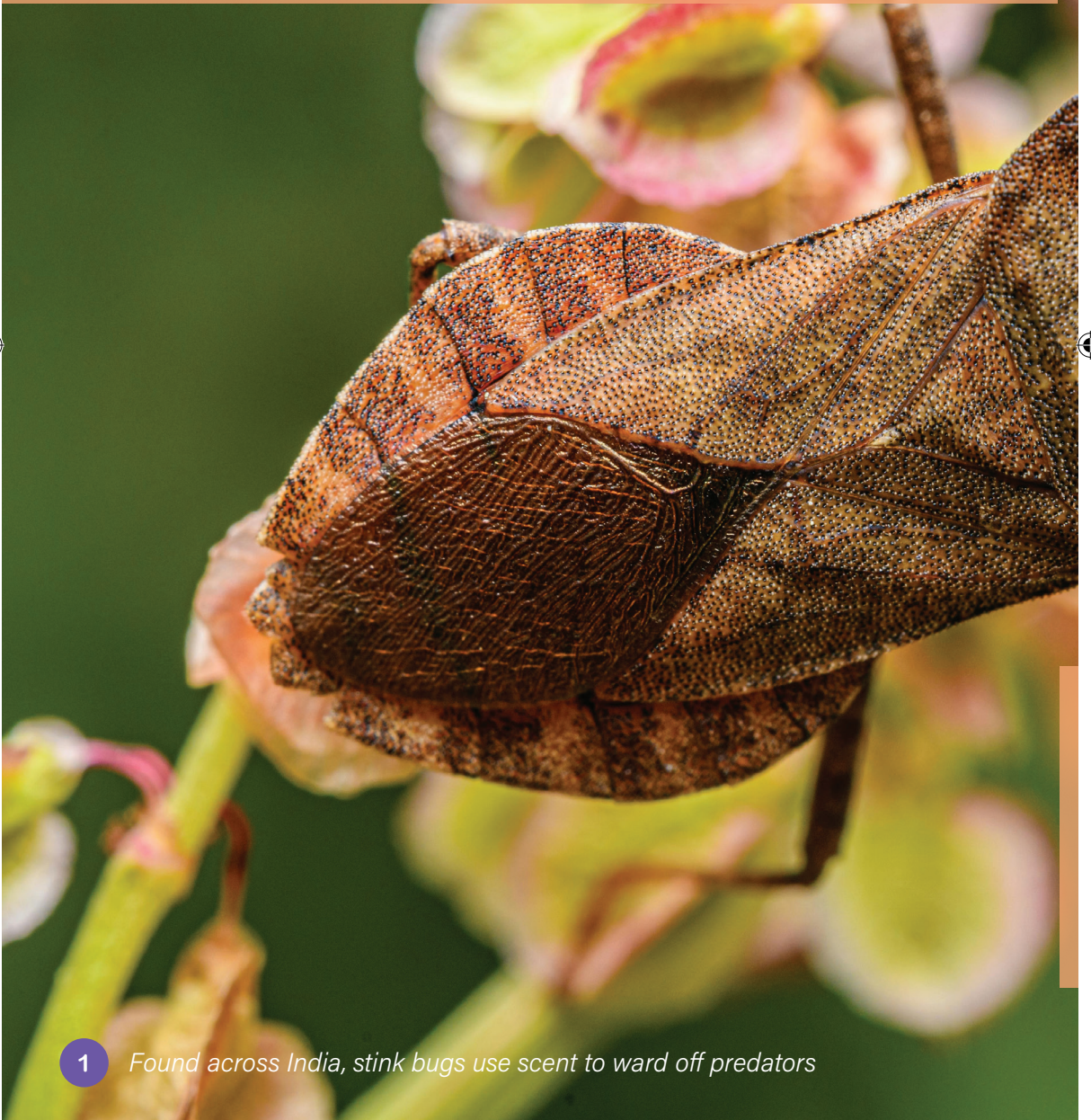
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## Whiff of the Wild

In the animal kingdom, smells are a superpower. Some animals have such stinky scents that they make you want to run away. Others use their strong odours to entice mates from near and far. Whether it is to communicate, mark territories or protect themselves, the smelly signals help animals survive in the wild in some pretty amazing ways!

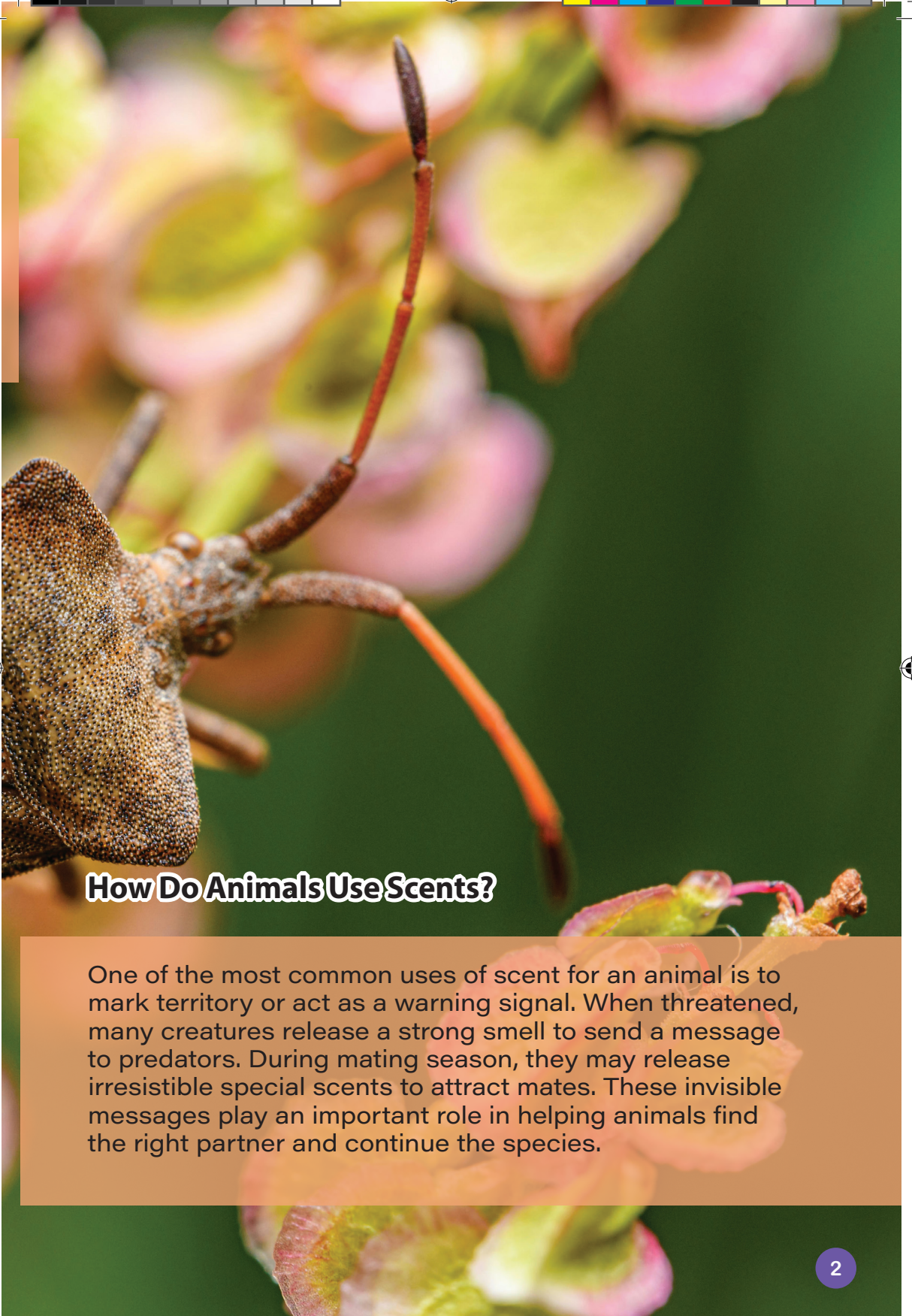


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*Found across India, stink bugs use scent to ward off predators*







## How Do Animals Use Scents?

One of the most common uses of scent for an animal is to mark territory or act as a warning signal. When threatened, many creatures release a strong smell to send a message to predators. During mating season, they may release irresistible special scents to attract mates. These invisible messages play an important role in helping animals find the right partner and continue the species.







## How Are Animals Such Incredible Sniffers?

The secret lies in their olfactory systems, which are special organs designed to detect scents. Dogs, for example, have about 300 million scent receptors in their noses, making them super sniffers, whereas humans only have about 5 million. Dogs also have a much larger portion of the brain dedicated to smells. This gives them the ability to smell and identify specific items, food, people or even hidden dangers from very far away.







## Do All Animals Use Noses to Smell?

Some animals like snakes don't have regular noses. Instead, they have a special organ on the roof of their mouth. This is called the Jacobson's organ. When a snake flicks its tongue, it picks up tiny scent particles from the air and brings them to the Jacobson's organ to "taste" them. It also helps them stay focused on a scent, which is very useful when they're on a trail to find food. So, if you catch a snake flicking its tongue, you know it's simply sniffing out its next meal.

*Rat snakes, commonly seen in India, also emit a foul smell when in danger*







## Can Fish Smell Underwater?

Fish have small holes in front of their eyes, known as the olfactory pit. Water flows through special folds in the olfactory pit and chemical signals are sent to the brain, where the scents are decoded. From locating suitable sea anemones to call home to evading predators, underwater creatures rely on smells for all kinds of purposes.







# Millipede

Find Me Here!

In the lush forests of the Western and Eastern Ghats, during the monsoon when the ground is moist.

## CRITTER STATS

**Scientific name:** *Spirostreptus* spp.

**Size:** 10–30 cm – like a long comb

**Weight:** 0.1–0.3 kg

**Lifespan:** 7–10 years

**Habitat:** moist leaf litter and decaying wood

**Conservation status:** not evaluated



**Found crawling through the soil on their many legs, millipedes are fascinating little critters. They are often mistaken for insects but are actually arthropods – creatures with jointed limbs and shell-like bodies.**



The slightly creepy looking but harmless millipede is the jungle's 'clean freak,' feasting on dead plants. It is not venomous, and does not even sting or bite when provoked!

However, when you are that small, you need special defence strategies. When it feels threatened by a bird or spider that might prey on it, a millipede will curl up dramatically.







This critter is also a pro at chemical warfare. Special glands produce foul-smelling chemicals. The millipede fires its chemical guns from ozopores – tiny openings on the millipede's body.



The smell is known to be a strong and bitter one and that can last for a few hours! It stuns hungry foes and buys the millipede just enough time to scurry away into the dark, damp undergrowth.



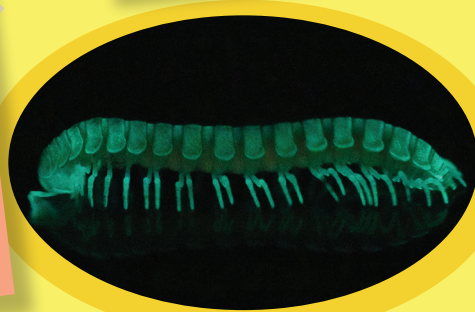


# DID YOU KNOW?



Millipedes are older than dinosaurs! Over 300 million years ago, their giant ancestors (some as big as cars) roamed the earth. Although they have gone extinct, well-preserved fossils prove their existence.

Some millipedes use chemicals to light up and glow in the dark – this is called bioluminescence.



Some chemicals these leggy insects produce may be new to science and could have human applications, including in sunscreen!





A close-up photograph of a Bombardier Beetle (Brachinus crepitans) on a green leaf. The beetle has a bright orange head and thorax, and iridescent blue-green elytra. Its long antennae are extended forward.

# Bombardier Beetle

Find Me Here!

Under logs and rocks in the Western Ghats, Himalayas and even the Thar Desert.

## CRITTER STATS

**Scientific name:** *Brachinus crepitans*

**Size:** 1–2 cm – like a paper clip

**Weight:** <0.01 kg

**Lifespan:** 1–3 years

**Habitat:** damp soil, under leaf litter or stones

**Conservation status:** not evaluated



**At first look, the bombardier beetle looks like an ordinary insect, that likes to hide under leaves, logs and rocks in the day, and emerges at night to hunt small insects and ants. But looks can be deceiving!**



This critter gets its name from an impressive ability to fire out a seething hot, yucky-smelling spray from its back end when in danger. This 'hot bomb,' going up to 100°C, can even cause bad burns on its enemies!

When attacked, the beetle's body becomes a lab inside which it cooks up a deadly chemical bomb. That's how it gets its name.

