

Mysterious **centipedes**

Photos and words
by Jiri Lochman





After photographing Australian wildlife for more than 40 years, Jiri Lochman has had more interesting encounters than you can imagine. He is fascinated by the living natural world and has had the rare opportunity to view the incredible world of centipedes up close.



Previous page

Main Little long-tailed dunnart (*Sminthopsis dolichura*) battling a large scolopendrid centipede.

Above Oscar Range, Wunaamin Conservation Park.

Inset top Centipede consuming a trapdoor spider (*Idiopidae* sp.).

Inset above Jiri Lochman taking macro photography

Photo – Marie Lochman

Of all the land-based creatures, only snakes and spiders are likely to cause more havoc in the human psyche than centipedes. There is even a technical term for the pathological fear of centipedes—scolopendrophobia.

Sufferers of scolopendrophobia usually give one of two reasons for their affliction. One is the same as in the case of snakes and spiders—fear of the venom. The second one is a less rational one; it is the large number of legs centipedes have that make people cringe and apparently even faint. But try to explain to a scolopendrophobe that the affliction is irrational; after all, all phobias are, aren't they? But is it justified in the case of centipedes?

It is and it isn't. All centipedes possess venom delivering organs. Whilst all other legs are used for locomotion, the first pair of legs has been modified for the purpose of envenomation. They have enlarged, and became equipped with sharp, hollow spurs at the tips that are connected to the venom glands inside the swollen segments of the modified legs.

These false fangs, if you like, are used for injecting venom and thus dispatching the prey. But, more often than not, the prey is a fellow arthropod, or other invertebrate, not a human. On the other hand, I have personally experienced a centipede bite so I recommend avoidance and can confirm that the bite of a large

centipede is unpleasantly painful. On the bright side, the pain usually subsides relatively quickly. Still, there are very few reports of centipede bite fatalities globally and none from Australia. So, don't unduly fear a centipede, but don't provoke it either as its bite might ruin your day.

CURIOUSER AND CURIOUSER

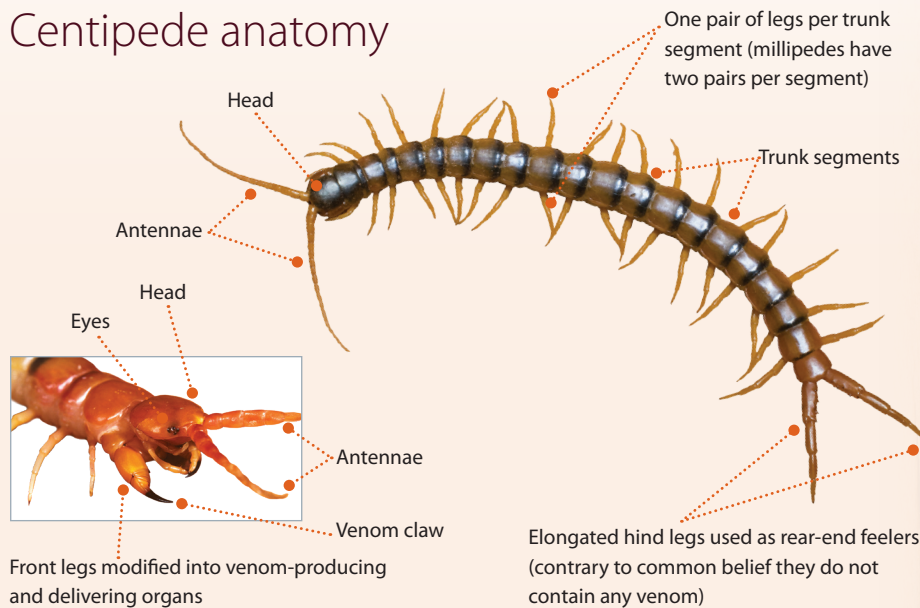
We can outweigh our disappointment from not encountering a monster by looking at the real centipedes, what they do and how they live, because it is here where the real excitement of the discovery resides.

The most readily encountered are the scolopendrid, also known as the giant, or desert, centipedes. There are 28 described species of these 42-legged centipedes known to occur in Western Australia.

These are also my favourites, not only because they are big and often quite colourful and hence photogenic, but because of their interesting behaviours like their maternal care. Scolopendrid centipedes guard and otherwise take care of their eggs with some species taking care even of the newly hatched offspring. They are also the fiercest predators of all centipedes. Simply put, scolopendrid centipedes are quite astonishing.

The world's largest centipede, the over 30-centimetre long Amazon giant centipede (*Scolopendra gigantea*) from Central and South America, belongs

Centipede anatomy



here. It is known to catch bats in flight by hanging by its hind legs, upside down, from a ceiling at the cave entrance and grabbing by its front legs the bats flying in or out of the cave. If this is not an amazing feat conceived by an invertebrate brain, then nothing is.

The largest Australian centipede, at about half of the *gigantea* size, is still a sizable creature, as there are not many 16-centimetre-long terrestrial invertebrates one can readily encounter in the Australian bush.

EAT AND BE EATEN

All centipedes are predatory flesh eaters consuming primarily invertebrates, but reptiles, frogs, birds and small mammals are all known to feature on the scolopendrid centipede menu.

It is not a one-way road though; it is a two-way exchange of proteins. As much as other critters are on the centipede menu, centipedes are on the menu of many animals large and small. Fish, reptiles, frogs, birds and mammals are all known to consume centipedes, as are the ground beetles, ants, spiders, and scorpions.

One group of arthropods also known to consume centipedes are the centipedes themselves. It can be between different species, or cannibalistic and can happen even among the closest of relatives.

But to return to the centipede diet. During the 40 years I have been photographing Australian wildlife I have made two exceptionally interesting observations of scolopendrid centipedes in action. The first one I regrettably can

only describe, but not illustrate. But the second one, which is significantly more remarkable, I fortunately can, as without photographic evidence no chilopodologist (zoologist specializing in centipedes) would ever believe it.

IN FLAGRANTE

While searching for nocturnal creatures in the Kimberley, I came to an overhang under which lay a large, but quite emaciated King Brown (*Pseudechis australis*) snake. I started photographing it without at first noticing that the snake was being simultaneously attacked by a large, though miniature in comparison, centipede. The centipede was actually in the process of ringbarking the snake's tail on which it was hanging. When I noticed this behaviour, I immediately realised that



"...there are not many 16-centimetre-long terrestrial invertebrates one can readily encounter in the Australian bush."

Above Centipede consuming a moth in the safety of a fissure in a dead tree.

Left Centipede overpowering a thick-tailed gecko (*Diplodactylus conspicillatus*).



it was vastly more interesting than the pictures of the snake itself.

Although the centipede was doggedly performing its daredevil's act, I could not get close enough to the snake's tail, as I did not want to be bitten even by a wasted King Brown. And the snake was reluctant to move, likely being too weak and finding 'safety' under the overhang irresistible. The photographic proof I have is unfortunately unpublishable, so, I have to be satisfied with a picture of the scolopendrid centipede overpowering a gecko, which I took near Sandfire Roadhouse. It is worthwhile noting that in both instances the centipedes were biting and injecting their venom into the reptiles' tails.

The second occasion when I caught a centipede so to say *in flagrante*, or according to our textbooks behaving in an un-centipede-like manner, was when I was looking for nocturnal creatures in a flowering coastal heath east of Albany. While photographing some pollinating moths I spotted something that made me absolutely baffled—a centipede feasting on a eucalyptus flower.

This was a true discovery, a behaviour that had never before been observed. There are in the technical literature few notes about centipedes consuming foodstuffs other than flesh, such as fruits, butter, or coconut, but these observations were of captive centipedes. It means that these food items were presented to the

centipede by people. After all, how else would a wild centipede get an opportunity for consuming butter?

It is a well-known fact to every zookeeper that you can entice captive animals to eat something they would not readily consume under natural conditions. You leave it in the cage long enough for a bored, captive animal to play with and it will eventually try to eat it.

Mine was a completely different story. This was a wild centipede, photographed in the wild, feasting on flower nectar. I took a series of similar pictures of this centipede poking its head into eucalypt flower nectaries. Under no circumstances did I want to disturb it, so I waited to find out what its next move would be.

After some time, it quite abruptly withdrew its head and then climbed rapidly to another flower where it resumed its feeding. I could not photograph it there, as that particular flower was partly obscured by the foliage. So, I waited and hoped that it would pick, for me, a more accessible flower. But as it

was visiting flower after flower it instead retreated further and further away from me; shine of my headlamp being the likely culprit.

I suspect that this centipede was not just a nectar thief, but that it actually might have been a pollinator. It must have picked up a lot of pollen on its many legs and the underbelly, as it crawled on the anthers, which it then fairly likely deposited on the stigma, as it slid over it in its search for more nectar. Nectar thief or pollinator, it doesn't really matter; this was the most incredible encounter with a centipede I have ever had.

.....
Above left Female centipede guarding her eggs.

Above Centipede feeding on the nectar of a eucalyptus flower.

Below *Scolopendra morsitans*, known as the Tanzanian blue ringleg or red-headed centipede.



Jiri Lochman is a renowned Australian wildlife photographer together with his wife Marie. He is a co-recipient of the coveted Australian Geographic Award for Excellence in Photography and an author, or co-author of seven books. Jiri's photographs have featured in all but three *LANDSCOPE* magazines ever published. He can be contacted at lochman@iinet.net.au