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Topic: Funnel-web spiders

Funnel-webs are one of the most amazing creatures. They're only found in Australia. They have relatives in South America, in New Zealand and throughout Asia and some are actually even in Europe. But the amazing thing about them is that when the males go wandering in search of the females it only happens in the summer and that's something very different for trapdoor and funnel-web, or tarantula-type spiders in Australia.

They're of course most spectacular for their venom and it's the male that causes the problem because the male goes wandering looking for the females on the darkest of nights. When the male encounters the female, he goes into an attack position, fangs up into the air. The female goes into attack position. She actually grasps the male and the male has got to set himself up so he doesn't get killed in the process.

The spiders are able to kill humans and have killed human in as little as 15 minutes. The amazing thing about the venom is that the venom is not toxic to smaller animals like mice, guinea pigs. The venom does the absolute opposite to us as it does to, for example the prey, which are millipedes. What it does to us is it causes us to fibrillate – every muscle, every bone, every nerve just starts to tremble and we slowly die filling the lung with fluid.

Now we've got to be very careful with these guys but they usually remain in their burrow. This is a smallish female and she's very, very angry. You can actually see that she's got drops of venom on the tips of her fangs and we know that one of the drops is able to kill two or three people. We've had children bitten by these after it's actually dropped some of the venom and lost most of it, and the fact is that the spider's still very, very potent.

This is what happens when the male comes to meet her and the amazing thing about this is that she's actually attacking something she can't see because her eyes are on the top of the head looking back. There's the disturbance in front of her.

So there are about 40 different species of funnel web in Australia, and each one of them has a very different venom. Once the female has fed or she's actually used venom, she actually goes into a retreat kind of situation. They can only get venom once a month out of these things because the venom takes time to regenerate.

She's just given me the venom. There's enough venom on that drop to figure out what species she is and where she came from, very, very specifically. So the taxonomic research we're doing on the funnel web at the Queensland Museum is very, very beneficial both to man, and to the spider. We're looking at these spiders, the toxicity of the venom, the characteristics of it and looking to use it in terms of pharmacological purposes.

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