

FAUNA of NGILGI CAVE, WESTERN AUSTRALIA

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Tiny white cave spider, inset for scale.
Photo: Dominique Trouchet

Ngilgi Cave is a self-guided tourist cave, offers guided adventure cave tours and is located near Yallingup in the southwest of Western Australia. This article will provide some information about the cave fauna that can be seen in the cave.

With the diminishing volumes of water entering Ngilgi Cave, there has been a massive reduction in the number of species existing within the cave.

In addition to this, the grate over the entrance has prevented a variety of species from entering the cave, either by choice or falling into the entrance, reducing food sources for cave dwelling species.

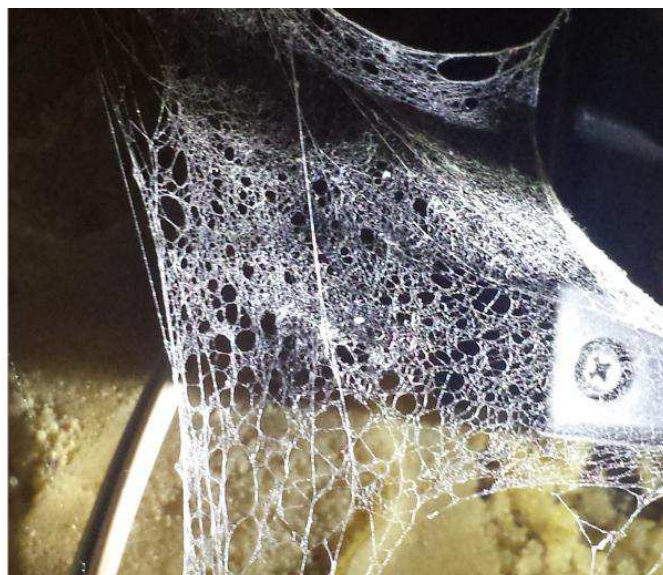
As with most caves in the area, at the entrance is a thriving colony of cave daddy long legs, *Pholcus phalangioides*. They are equally proportioned on cave walls and the jarrah staircase.

Although the cave has volumes of large and impressive webs throughout the first two chambers, most of these

are relics from the past whose creators no longer exist. A variety of spiders is enjoying various aspects of the cave infrastructure.

The diminutive, tiny white cave spider, whose scientific name I have been unable to find, can be found throughout the board-walked sections of the cave. They are so small I have only ever seen a couple by chance. While some of their webs are located directly on formation, there are many more occupying small niches in the recycled plastic boardwalks and fittings. The underside of the plastic boardwalk provides an ideal habitat for these little spiders.

We also have the cave spider *Baiami tegenarioides* throughout the cave, though they are less prevalent than their smaller counterparts and tend to look undernourished. They tend to be located on and around LED light fittings. Occasionally you find *Baiami tegenarioides* off the boardwalk in the unlit sections of



Spider, species not known and a web in Ngilgi Cave.

Photos: Dominique Trouchet

the cave. You also see them on formations on both ceiling and floors.

The Ancient Riverbed Chamber, which has more off-boardwalk action than any other chamber, has a large population of isopods. There are centipedes and the occasional spider, though the isopoda are the dominant species.

Considering this chamber is utilised in all of our off boardwalk adventure tours, we are commando crawling through their domain on a regular basis. We as guides are proud of our ability to coexist with them and they are incorporated into all our off-boardwalk tours. Our visitors love the isopods, their fragility and their obvious adaptations are an important aspect of our tours and we interact in an up close and personal manner. As they live on our crawl track they have to be gently retrieved and returned to the safe side of our no go limestone barrier.

The isopoda exist in all the off-boardwalk chambers, the Ancient Riverbed Chamber has a beautiful array of roots from the peppermint tree *Agonis flexuosa* and these hair like roots provide a constant and viable food source which is why the isopoda are most prolific in this chamber. We observe their predilection for old roots or younger roots through their visible digestive tracts. We have isopoda in all stages of development, so they are successfully breeding at all times.

The Ancient Riverbed Chamber also has the largest number of centipedes as their main food source is the isopods. Consistently the prey continues to outnumber the predator indicating a fairly healthy little ecosystem.

An unwanted species, *Rattus rattus*, has in the last couple of years made it into this chamber and had a direct and rapid impact. These are very smart creatures and they disappear and reappear in other sections of the

cave making it very difficult to apprehend them. The rats appear to predate on the larger isopods leaving the population reduced and a little lost. You see an increase in centipedes post rat invasions as obviously their food source has diminished and they need to be more active to secure nourishment.

In other off-boardwalk chambers a couple of interesting carapaces from species which no longer exist serve to remind us of the multitude of species that previously existed within Ngilgi's walls.

The communication borehole into the main chamber has its own temporary inhabitants. Spiders and slugs make the downward journey over summer and congregate around the hole, when above ground moisture returns they exit and return to their normal habitats.

Cockroaches of the local bush varieties can be found throughout the show cave but in very small numbers and of course the more unexpected visitors are frogs and the occasional, once every ten years or so, snakes which through misadventure or desire make their way in.

The majority of fossils found in the cave belong to small reptiles, marsupials and birds.

Two complete thylacine skeletons and two additional skulls and a wonderful collection of other animals, over 35 species, have tumbled down the entrance and become part of the underground ecosystem.

Ngilgi had colonies of possums throughout the cave prior to the installing of the gridded gate. In fact one of the major motivations behind the entrance grid was to prevent possums from entering as they damaged and destroyed formations. In the past Ngilgi would have had an incredible array of splendidly adapted creatures to marvel at and learn from.