

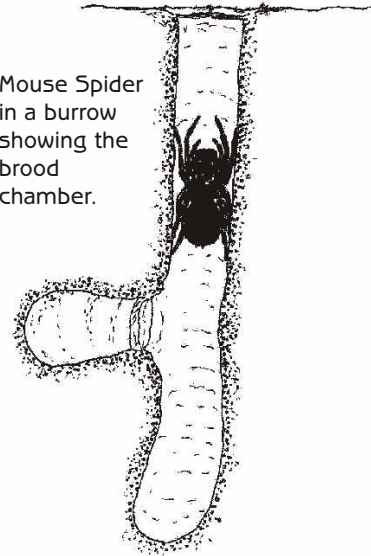
Junior Ranger Nature Notes



MOUSE SPIDERS

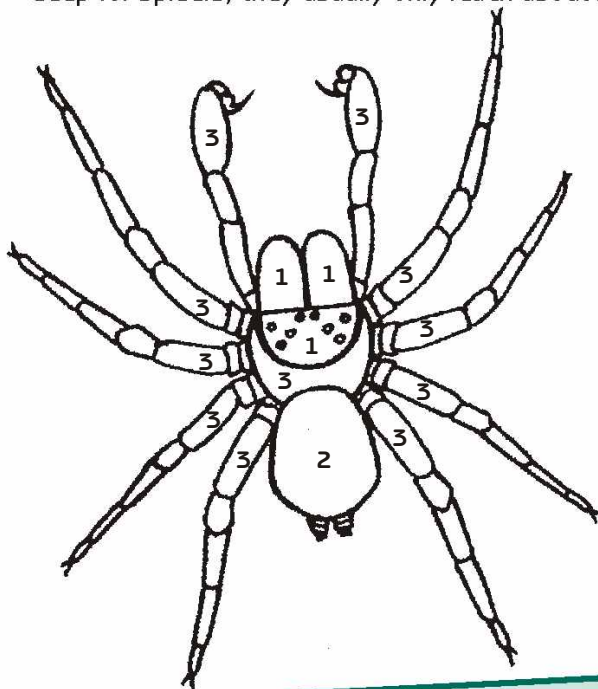
Australia has eight species of Mouse Spider. At least two are found in the Northern Territory, the Northern Mouse Spider, *Missulena pruinosa* and the Red-headed Mouse Spider, *Missulena occatoria*. All are bulky trap-door spiders which can grow as big as a fifty cent piece.

Mouse Spider in a burrow showing the brood chamber.



DIGGING DEEP

Like other trap-door spiders, Mouse Spiders live in burrows in the ground. They are common in many suburbs, but are hard to find because their burrows are well hidden. They get their common name 'Mouse Spider' because it was incorrectly thought that this spider could dig a mouse-like burrow up to 1 metre deep. Although Mouse Spider burrows are unusually deep for spiders, they usually only reach about 30 centimetres.



Colour this picture of a male Red-headed Mouse Spider using the following numbers.
 1 = red
 2 = blue
 3 = black

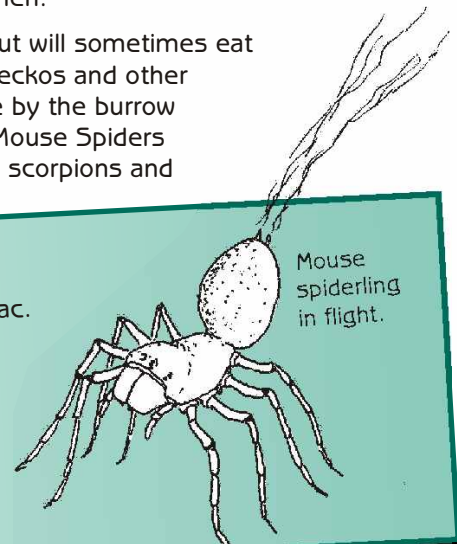
TRUE COLOURS

Female Mouse Spiders have a wide body and are black in colour. You can easily identify the male Red-headed Mouse Spider by their bright red jaws and 'head' and gun-metal blue abdomen. The brightly coloured male can be so different from the female that for many years scientists thought they were two different species, until a pair was discovered mating! The Northern Mouse Spider has a dark head and legs with an obvious white or bluish-white abdomen.

Mouse Spiders mostly eat insects but will sometimes eat small creatures such as frogs and geckos and other spiders. Prey is usually caught close by the burrow entrance at night. Predators of the Mouse Spiders include parasitic wasps, bandicoots, scorpions and centipedes.

ARACHNID AERONAUTS

After mating with the male spider the female lays 60 or more eggs within an egg sac. She places them into a chamber off the side of the main burrow where it can be kept safe. The spiderlings hatch from the egg sac over summer (Dec-Feb). They remain with their mother until autumn (March) when they leave to start their own burrows, and to avoid being eaten by their brothers and sisters! On a warm day with light winds, the spiderlings float through the air on strands of silk drawn out from their spinnerets, just like in the children's story *Charlotte's Web*. This is called 'ballooning'. Mouse Spiders are the only trap-door spiders that do this.



Mouse spiderling in flight.

BITE LIKE A BULL TERRIER

Females usually remain in or near their burrows for their whole life, so they hardly ever come into contact with people. Male Mouse Spiders can be found wandering around at night especially after rain searching for a mate. Males will try to make themselves look as frightening as possible if disturbed. They will tilt back their body and raise their front legs so that you can easily see their long fangs. They do this to warn an enemy to leave them alone.

A Mouse Spider bite has been described as being like a bite from a 'bull terrier'. They bite very hard and deep and they don't let go. Scientists believe their venom is very toxic, but is rarely injected. Only one serious bite has been recorded. Most other bites recorded have not caused serious reactions.

Although Mouse Spider venom is intended to kill insects and small prey, not humans, it is best to avoid being bitten.



A male Red-headed Mouse Spider takes a defensive position when threatened. Photo by: Alan Henderson, Museum Victoria.

SCIENCE SNIPPET

Scientists have a lot of special words that describe different parts of a spider. Take a look at the picture below to discover some of these 'spider science' words

Chelicerae – jaws which have fangs.

Cephalothorax – combined head and thorax (chest).

Abdomen – carries the reproductive, breathing, and digestive organs.

Pedipalps – used in mating by males and for sensing and moving objects

Spinnerets – silk-producing organs or spinning tubes.

DID YOU KNOW?

- Mouse Spider mating usually takes place in the females burrow.
- Mouse Spider burrows can have a single or double trap-door.
- Trap-door spiders may live for up to 20 years in their burrows.
- Trap-door spiders can grow new palps, fangs and spinners when they moult (shed their skins).
- Scientists believe the first spiders lived about 400 million years ago.

TOXIC TALES - MILKING THE MALES!

Scientists have recently been studying spider bites in the Top End, and are now working with scientists from Victoria to find out more about the venom of the Northern Mouse Spider.

However collecting the venom (called 'milking') has proved to be difficult, with only tiny amounts collected from each male. This appears to support the theory that most bites from a Mouse Spider tend to be 'dry' or only contain tiny amounts of venom.

Want to learn more about Mouse Spiders?

Check out the book *Spiderwatch: a guide to Australian spiders* by Bert Brunet.