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Tasmania's special cave dweller:
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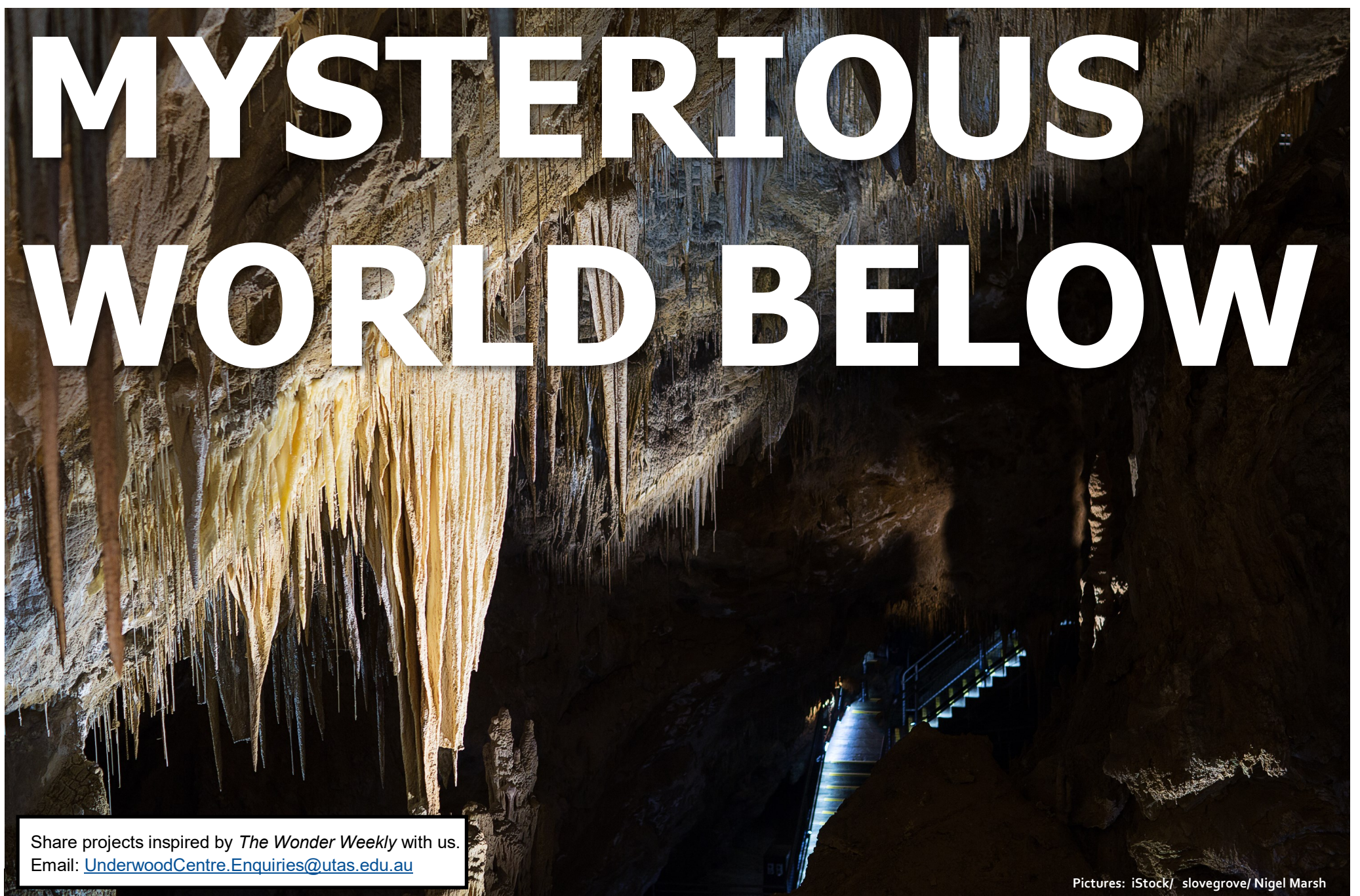
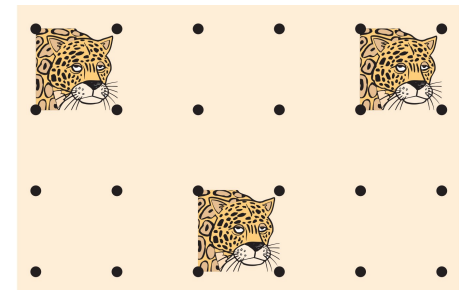


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A fun game of box the jaguars:
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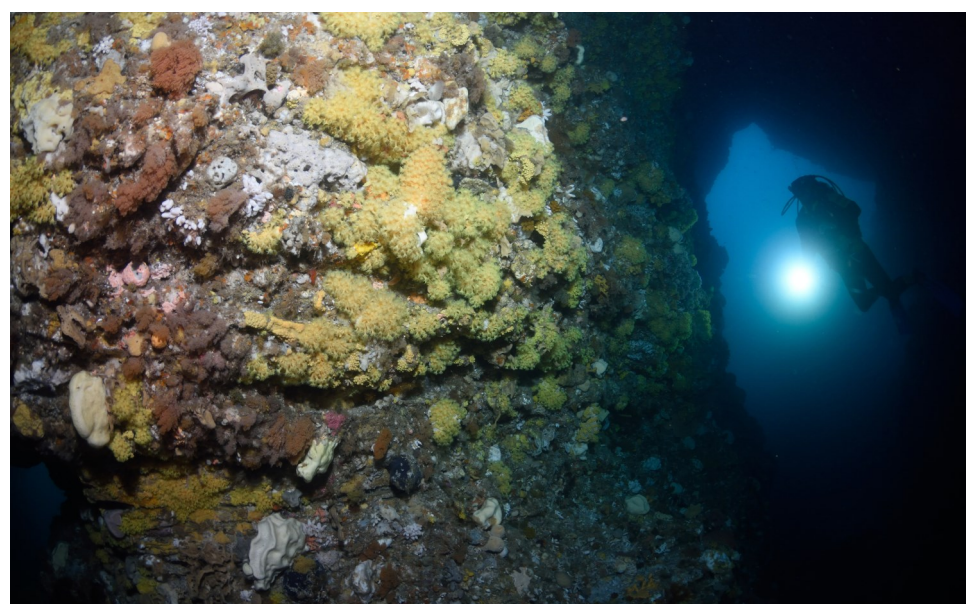


MYSTERIOUS WORLD BELOW

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Pictures: iStock/ slovegrove/ Nigel Marsh

DID you know Tasmania is home to some of the world's most amazing caves?
There are many types of caves, but in Tasmania most caves have developed in limestone and dolomite rock.
Newdegate Cave, top picture, is Australia's largest dolomite cave. Its huge chamber began forming 40 million years ago.
It is part of the Hastings Caves State Reserve in the Huon Valley.
The well-known Gunns Plains Cave, near Ulverstone in North-West Tasmania, was formed by an underground river.
In the North, the Mole Creek Karst National Park includes Marakoopa Cave and King Solomon Cave.



There are also sea cave systems on the Tasman Peninsula, including the popular dive site, Cathedral Cave, pictured above. On the edge of the Mt Field National Park, near Maydena, is possibly Australia's deepest cave.

Niggly Cave is one of a number of very deep caves in the Junee-Florentine system of about 600 caves.
It is difficult to know the exact depth of these caves because they are difficult to explore and are filled with near-freezing water.
Last year, divers from the Southern Tasmanian Caverneers, set a new cave depth record of 395m after entering Niggly Cave and navigating through an underwater maze of cave passages.
The team camped underground for four days, abseiled down ropes and crossed a waterfall on a flying fox.
Expedition leader Stephen Fordyce then went on a solo dive, wriggling through narrow gaps, all the time laying guide lines to find his way out.
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Prehistoric monster

IT sounds like the plot from a horror movie - a prehistoric monster lurking in the dark.

Tasmanian cave spiders are the size of a dinner plate, and weave a web more than a metre across.

Flies, crickets, beetles, millipedes and other spiders (but not humans) are on the menu.

It is believed they can live for decades.

Tasmanian cave spiders are one of nature's great survivors.

They date back to Gondwanaland, before South America, Africa, Antarctica, other parts of the world, and mainland Australia separated from Tasmania.

They live only in Tasmania, with their nearest relatives found in the cool forests of the Andes Mountains in South America.

That all makes them pretty special.

Tasmanian cave spiders have the scientific name *Hickmania troglodytes*.

They were named in honour of University of Tasmania Professor of

Biology, Vernon Hickman, who was an important spider researcher.

Troglodyte is a Greek word for 'cave dweller'.

They are commonly found not just at cave entrances, but in other dark, cool, sheltered places like hollow logs, under bridges and in underground drains.

Spiderlings take between 8-10 months to emerge from the egg sac, an unusually long time.

This egg sac has an inner and outer layer, and the area between the two acts like insulation to keep the eggs and spiderlings safe from changes in the outside temperature.

And a film has indeed been made about Tasmanian cave spiders, but it

Cave animals are separated into three groups - Troglonexes (cave guests), Troglaphiles (cave loving) and Troglabites (cave living). Troglabites can no longer live on the surface, and many, such as Tasmanian threatened species, the Ida Bay cave beetle, are restricted to a single karst area.



Pictures: iStock/ Hannah Stampke

isn't a horror movie.

The awesome nature documentary *Sixteen Legs* was made for Tasmanian education initiative Bookend Trust, and has won international awards.

Find out more here:

- www.australian.museum
- www.caveanimaloftheyear.org.au/2019/tasmanian-cave-spider
- www.sixteenlegs.com

Exploring the world below the surface

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The team also proved a connection between Niggly Cave and the Growing Swallet cave system, with Stephen finding a guide line he had left in the other cave system four years earlier.

There have been some major archaeological finds in Tasmanian caves.

The Kutikina Cave on the Franklin River in Tasmania's South-West Wilderness is home to thousands of Tasmanian Aboriginal tools.

Rock shelters and caves in the Rocky Cape National Park in Tasmania's far North-West, were first used by Aborigines many thousands of years ago.

Limestone and dolomite are carbonate rocks which formed under the sea 430 to 600 million years ago when tiny animal shells, algae and other sediments settled and compacted on the ocean floor.

When the sea floor was uplifted to form part of the land surface, groundwater began to penetrate cracks in the rock.

Groundwater is slightly acidic, because it contains carbon dioxide.

It therefore forms cavities in the rock - a bit like when cavities form in your teeth and require filling - because limestone and dolomite are soluble in

groundwater. Anyway, over time these cavities grow larger and join up to make cave systems with interconnected chambers.

Sometimes underground rivers develop, and undermine the rock further.

When groundwater containing dissolved limestone drips through cracks in the cave, calcite deposits form on the roof and floor of the cave.

If a small amount of this groundwater flows over rock, a thin layer of crystal is deposited.

Shawls, which hang from cave walls, are formed in this way.

They are often stained by other minerals in the groundwater, and decorate caves with their amazing colours.

Have you heard of stalactites and stalagmites?

Your challenge is to research what they are, and how they differ?

Produce a short report on your findings, and present them in a creative way.

Perhaps you might like to produce a drawing of a cave with stalactites and stalagmites.

Never enter a cave without a guide or an adult family member.

Caves can be very dangerous places.

Box the JAGUARS

A game for two players. You will need a different coloured pen or pencil each. The aim of the game is to make squares while trying to stop your opponent from doing the same. Starting wherever you like take it in turns to draw a line between two dots. Each time one of you draws a line that completes a square write the first letter of your name in it (these are worth one point each) and have another go. A box around a jaguar is worth five points. The player with the most points at the end of the game wins . . . Good luck!



Artwork: www.johnpollyfarmer.com.au



DID YOU KNOW?

Jaguars are the largest cats found in South America. They are ambush hunters, often climbing trees to wait for their prey.

