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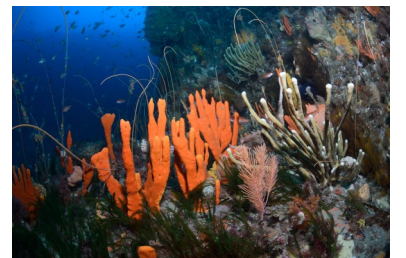
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February 21, 2022

Create an ocean environment from your imagination

HAVE you ever put on a mask and snorkel and viewed a coastal reef in Tasmania? If you have, you will know about the amazing world which exists below the surface. Even rock pools around our shoreline can be teeming with life. You might like to create your own ocean scene using disposable items you have around the house. Perhaps start with a large piece of paper, a shoebox or an egg carton and paint it a deep blue. Then you can use other items (cardboard, wool, scrap plastic gift wrapping, cotton wool etc) to design objects which look like coral, seaweed, fish and other marine creatures and glue them to the background. Have fun!



The Tasman Fracture is a four-kilometre long and very deep ocean trench.



REVEALED

IMAGES: iStock/ Byrondad/ Nigel Marsh/ Karen Gowlett-Holmes

DEEP BLUE SECRETS

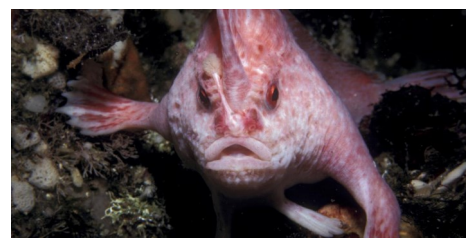


PROFESSOR Finn could hardly be more excited following the surprise sighting of the very rare and threatened pink handfish (*Brachiopsilus dianthus*).

You may remember that the Professor, the Peter Underwood Centre mascot, is a red handfish, one of the rarest fish on the planet.

Red handfish are critically endangered and are currently known to exist in just two small patches of rocky reef in waters near Hobart.

Until recently pink handfish had not been seen since 1999, near the Tasman Peninsula, and had only ever been recorded four times.



However, a very observant marine scientist recently made an exciting discovery while watching footage from an underwater camera in the wild and remote Tasman Fracture Marine Park, off south-west Tasmania.

This footage is part of a survey of the marine park by Parks Australia and the University of Tasmania.

Associate Professor Neville Barrett, from the Institute of Marine and Antarctic Studies (IMAS) at the University of Tasmania, said the biggest surprise was finding a pink handfish at a depth of 120 metres.

"This is an exciting discovery that offers hope for the ongoing survival of the pink handfish, as clearly they have a wider habitat and distribution than previously thought," he said.

You can watch the video footage and read the full *Research to Reality* story here: www.utas.edu.au/news/2021/12/23/1191-pink-handfish-seen-for-the-first-time-in-22-years/

The Tasman Fracture Marine Park protects waters near Mewstone.

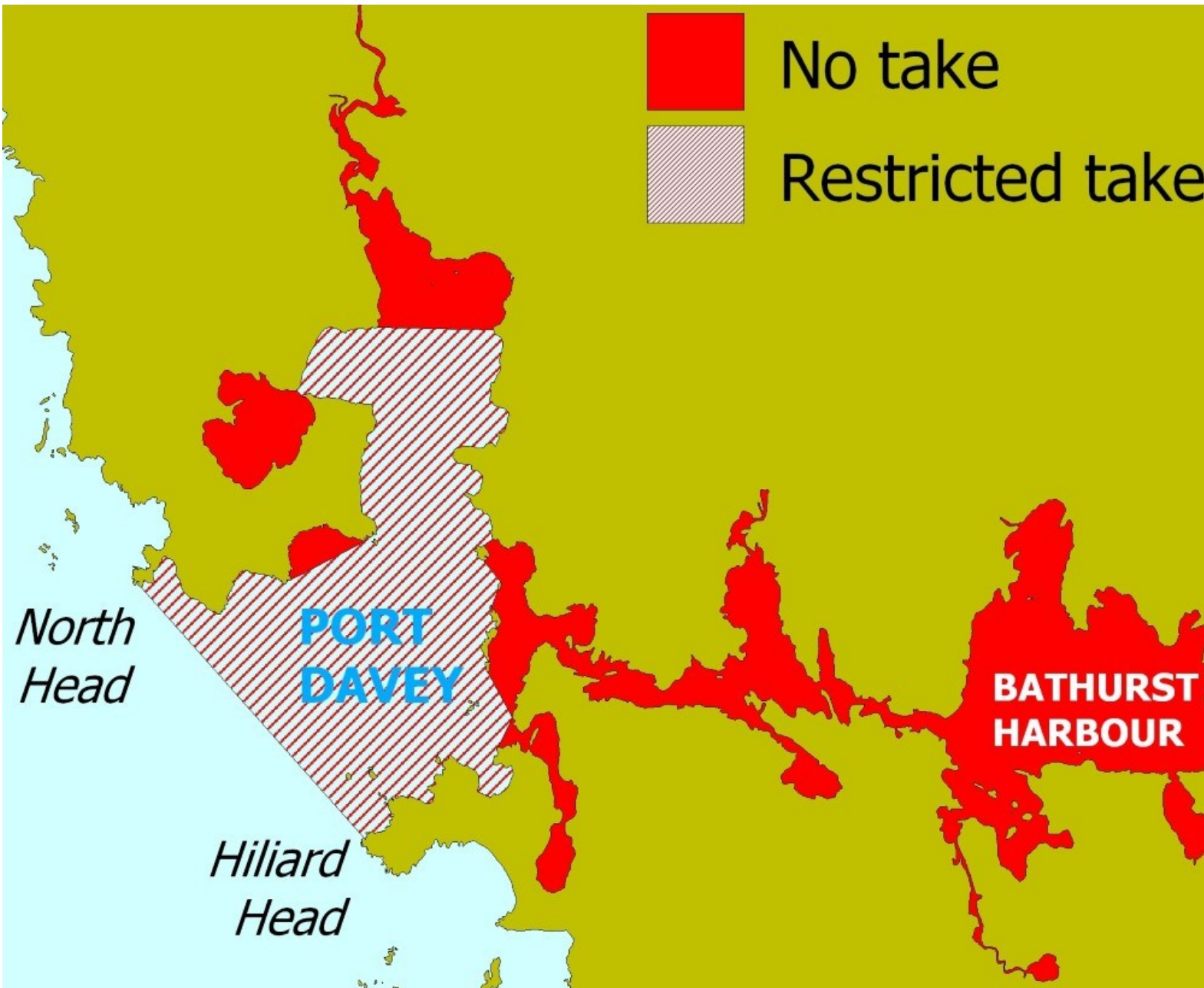
This rocky island lies just 22 kilometres off the Tasmanian mainland, and is one of just three islands off Tasmania where shy albatross breed.

Other shorebirds and protected marine predators, such as white sharks, also feed in the surrounding waters.

From Mewstone, the park extends thousands of kilometres into the Southern Ocean, and covers a total area of 42,501 square kilometres.

Continued Page 2

Underwater wonder



WE need marine parks and reserves for the same reason we need national parks on the land.

They protect precious animals and plants.

Perhaps you might like to find out more about a marine park or reserve near you, and present your findings in a creative way.

You could research questions like:

- Where is it?
- How large is it?
- What species of animals and plants does the marine park/ reserve protect?

You might like to draw a picture of a pink handfish, a shy albatross or a white shark, or any other threatened species which can be found in Tasmania's marine parks or reserves.

Here are some links to find out more information:

- parksaustralia.gov.au/marine/
- parks.tas.gov.au/explore-our-parks/marine-reserves
- nre.tas.gov.au/conservation/threatened-species-and-communities/lists-of-threatened-species/threatened-species-vertebrates

Children's University members can earn hours in their passports for any of the challenges in this edition, at the discretion of their school coordinators.

From Page 1

That's a big area, when you consider Tasmania has a land mass of 68,401 square kilometres.

The Australian Government has established 60 marine parks around the country.

They cover 3.2 million kilometres, an area the size of India.

The parks are divided into zones, and for each zone there is a set of rules about what activity can take place there.

Green zones protect important habitats like breeding and feeding areas.

In this zone, you can watch wildlife - snorkel, dive and do research, but not fish.

In other zones, commercial fishing is allowed, providing it doesn't disturb the sea floor.

The Tasman Fracture Marine Park was established in 2007, and is one of several in waters surrounding Tasmania.

It is best known for the Tasman Fracture, a four kilometre long crack in the Earth's crust.

Marine life has been found to four kilometres below sea level in this deep sea trench.

The park also contains offshore sea mounts (undersea mountains).

The nearby Huon Marine Park is home to more than 120 sea mounts, the result of extinct volcanoes.

Seamounts are important habitats for deep sea corals reefs.

Scientists on board the CSIRO research vessel *Investigator* studied seamounts in these two marine parks in 2018, by towing around high-tech camera systems at depths of 1900 metres.

They discovered more than 100 unnamed species of corals, lobsters and molluscs.

Given that scientists have only explored very small sections of the world's oceans, it is exciting to think about what might exist that we don't know about.

The Australian Government manages waters 5.5km off shore.

Twenty-one marine reserves have also been established in Tasmanian state waters.

These reserves are divided into seven marine nature reserves (where fishing is generally off limits or restricted) and 14 marine conservation areas (where fishing is allowed).

The map above of Port Davey Marine Reserve on Tasmania's West Coast shows where fishing is not allowed, and where it is restricted.

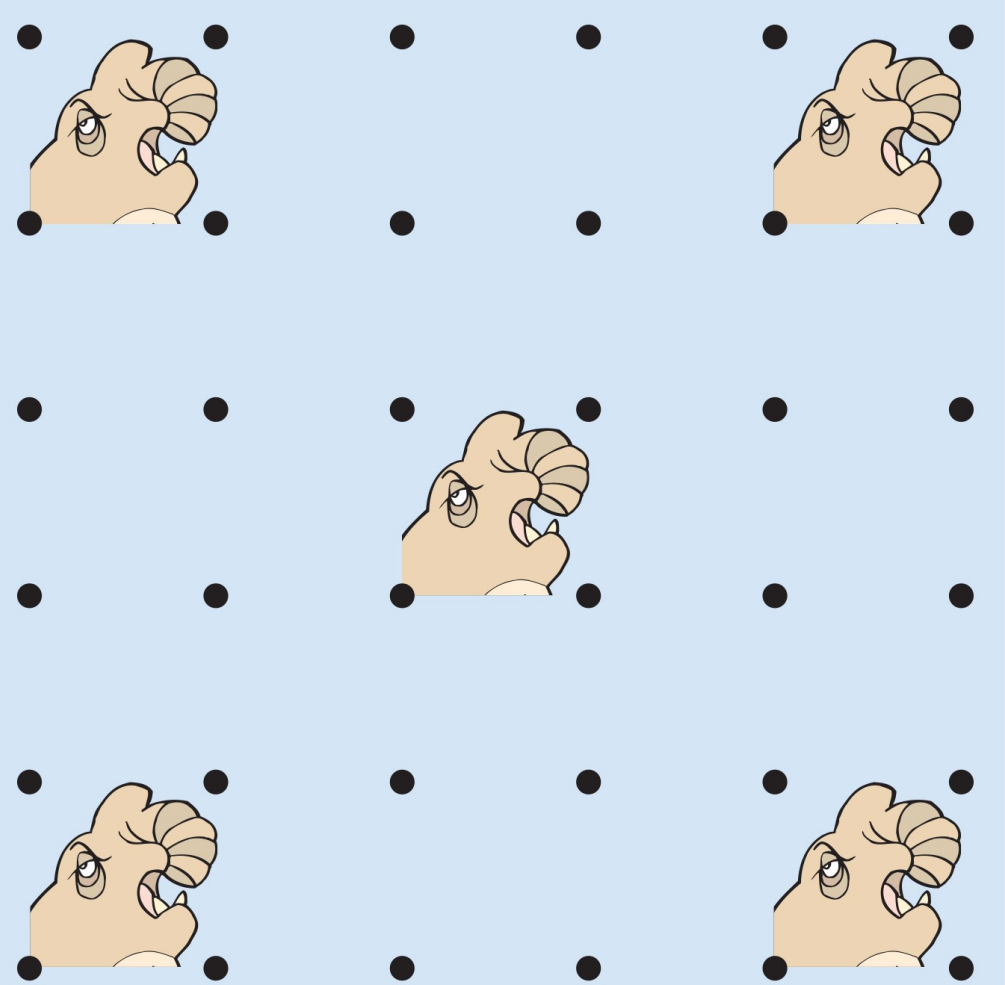
There are also areas where diving and anchoring ships is not permitted.

This reserve protects an unusual underwater landscape, and a diverse collection of marine invertebrates.

Since the first marine reserves were established 30 years ago, IMAS researchers have been able to compare marine biodiversity within the reserves and in the areas outside them which remain open to fishing.

Box the ELEPHANT SEALS

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 Ernie the southern elephant seal is worth five points. The player with the most points at the end of the game wins . . . Good luck!



Artwork: www.johnpollyfarmer.com.au/