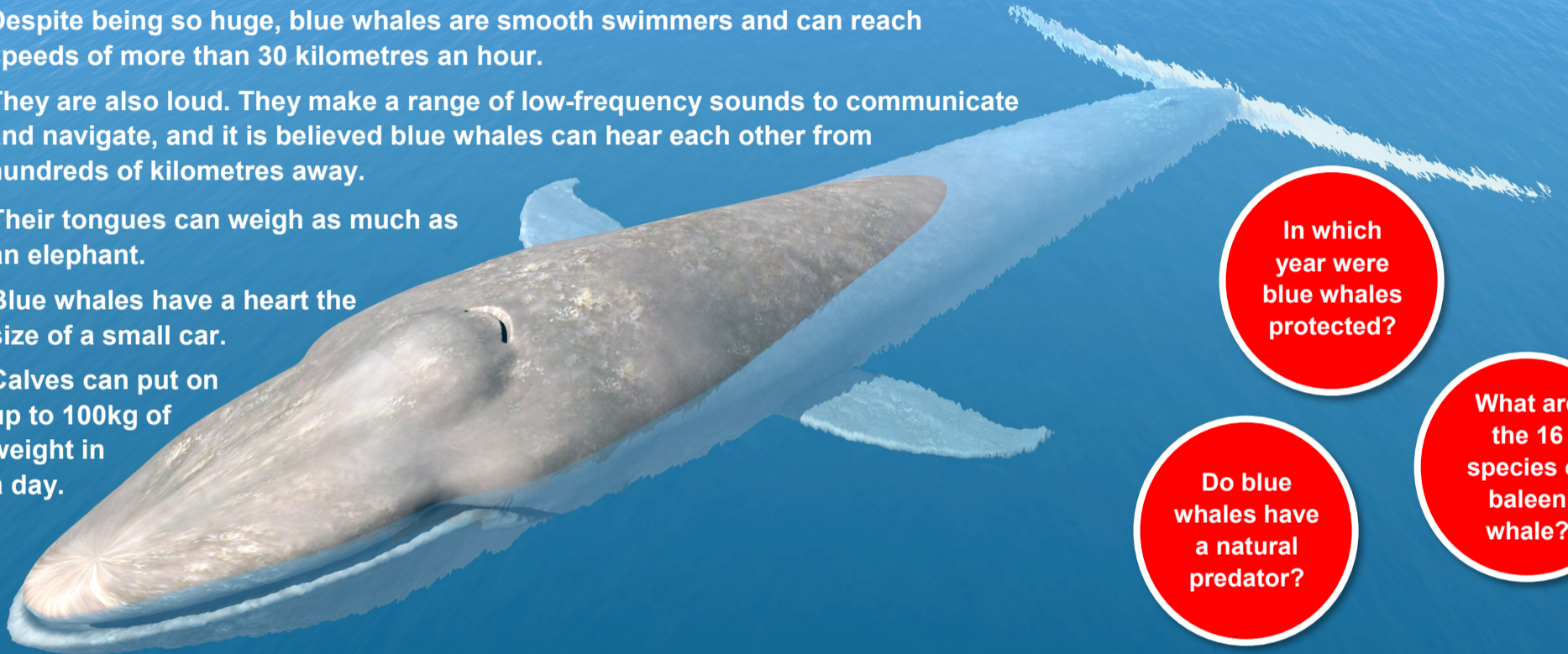




Whale watch

- Despite being so huge, blue whales are smooth swimmers and can reach speeds of more than 30 kilometres an hour.
- They are also loud. They make a range of low-frequency sounds to communicate and navigate, and it is believed blue whales can hear each other from hundreds of kilometres away.
- Their tongues can weigh as much as an elephant.
- Blue whales have a heart the size of a small car.
- Calves can put on up to 100kg of weight in a day.



In which year were blue whales protected?

Do blue whales have a natural predator?

What are the 16 species of baleen whale?

NATURE'S WAY: The survival of the largest animal in the world, the blue whale, relies on another that weighs about one gram, krill. Pictures: iStock/ MR1805/ pilipenkoD/ reisgraf

Animals, large and small, all play their part

YOU would be aware that blue whales are huge.

But just how big are they?

An average length of 25m, and an average weight of 110 tonnes, makes adult blue whales the largest animals to have ever lived on earth.

Much larger than today's largest land animal, the African bush elephant, which grows to about six tonnes.

Argentinosaurus, perhaps the largest ever dinosaur to walk the earth, is estimated to have weighed more than 80 tonnes.

While Megalodon, the largest animal to have lived in the ocean that was not a whale, is believed to have

reached a weight of about 60 tonnes.

That's a big shark!

But the average weight of blue whales today, is not reflective of just how large blue whales can be.

Sadly, whaling up until the 1970s decimated blue whale numbers, so there are not many really old and large blue whales around anymore.

They can live for more than 80 years.

The largest blue whale ever measured by scientists was 29.9 metres long, and weighed about 180 tonnes.

But many whales longer than 30-metres were recorded in the past by whalers, and their weight might have been anything up to 250 tonnes.

It is fun to compare the weight of blue whales with other animals or objects.

For example, if we use the largest recorded blue whale as our



guide, it weighed the equivalent of about 30 African elephants, or eight large school buses.

Your challenge is to come up with some weight comparisons with the blue whale of your own.

For example, how many average size humans would it take to balance the scales with our 180 tonne whale?

Present your findings in a creative way.

You might like to create a poster.

Children's University Tasmania members can earn stamps in their passports for this challenge, at the discretion of their school coordinator.

But here's some food for thought, so to speak.

The survival of the largest animal on earth relies upon one of the smallest, a one gram crustacean.

A blue whale's diet consists entirely of krill, lots and lots of krill.

In the summer months in the Southern Ocean, blue whales feast on about 3.6 million, or more than 3 tonnes, of Antarctic krill per day.

They scoop up giant mouthfuls of water, before filtering the krill with bristle-like structures in their mouths called baleen.

There are 16 species of baleen whales, including southern right and humpback whales.

Krill are the most abundant animals on earth, with an estimated 500 million tonnes swimming in the Southern Ocean alone.

That is about the same weight as all the humans on earth.

Antarctic krill can form enormous schools or "swarms" more than a hundred metres deep and tens of kilometres long, that can be seen from space.

Most large predators in the Southern Ocean - whales, seals and penguins - are dependent on krill.

Which is why scientists are so interested in understanding the environment in which krill live and how it is changing.

It is important to remember that krill depend on a much tinier lifeform for their survival - phytoplankton.

These microscopic, single-celled marine plants live in the upper sunlit layer of almost all oceans and bodies of fresh water on Earth.

Continued Page 2



It can be hard to imagine just how big a blue whale is. But this 25.2-metre skeleton which is on display at the National History Museum, in London, might help. Picture: iStock/ Peter James Samson



Live show puts heat on plastic

PLASTIC will be a dirty word in this week's episode of *UCTV Alive for Kids*.

Maree Bakker, from the Environment Protection Authority Tasmania, will discuss the impact of waste on the environment, in particular the impact of plastic on marine animals, and the ways that we can reduce, re-use and recycle our waste.



From little things big things grow

You will learn how to make beeswax wraps as an alternative to using cling wrap.

UCTV Alive for Kids is the Peter Underwood Centre's own online show, broadcast live via Zoom.

This week's episode will go to air on Wednesday, June 2, from 9:15am to 10am.

Follow this link to register: [Webinar Registration - Zoom](#)

From Page 1

Phytoplankton are at the base of the Antarctic food web.

They convert energy from the sun, are eaten by krill, which are in turn eaten by Antarctic predators, including blue whales.

But here is something really cool to think about.

Scientists are also studying whether blue whales fertilise the ocean with their iron-rich poo, which helps to grow more phytoplankton for krill to eat.

Now that is nature at work.

Phytoplankton also play a vital role for the health of the Earth by storing carbon dioxide in the depths of the ocean.

Scientists are concerned about the impact of climate change in Antarctica and the Southern Ocean environment.

Climate change is warming the ocean, altering the movement of water currents and winds, and the duration and thickness of sea ice.

Scientists are also closely monitoring the impact of commercial fishing for krill to produce fish meal and krill oil.

They are also aware that increases in carbon dioxide from human activity is making the ocean more acidic.

Earlier this year, Australian Antarctic

Program scientists, including researchers from the University of Tasmania, returned from an epic voyage of nearly 10,000 nautical miles on the CSIRO Research Vessel, *Investigator*, with new knowledge about krill and their importance to the marine ecosystem in the Southern Ocean.

The scientists used a range of clever technologies, such as echo sounders and specially-designed cameras, to study krill and krill predators, including blue whales.

You can learn more about this voyage on the Australian Antarctic Division website: www.antarctica.gov.au/news/2021/thanks-a-krillion-antarctic-voyage-delivers-breakthrough-research/

Australia is among a number of countries calling for Marine Protected Areas (MPAs) to be established in the Southern Ocean.

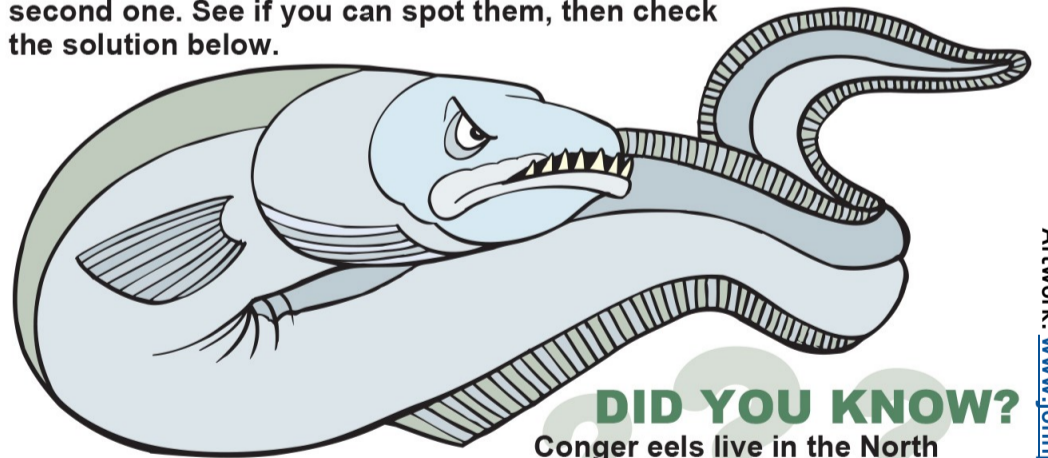
Blue whales can be separated into a number of subspecies, including Antarctic blue whales in the Southern Ocean (*Balaenoptera musculus intermedia*), and are present in all oceans except the Arctic.

But the entire population is still believed to number less than 25,000.

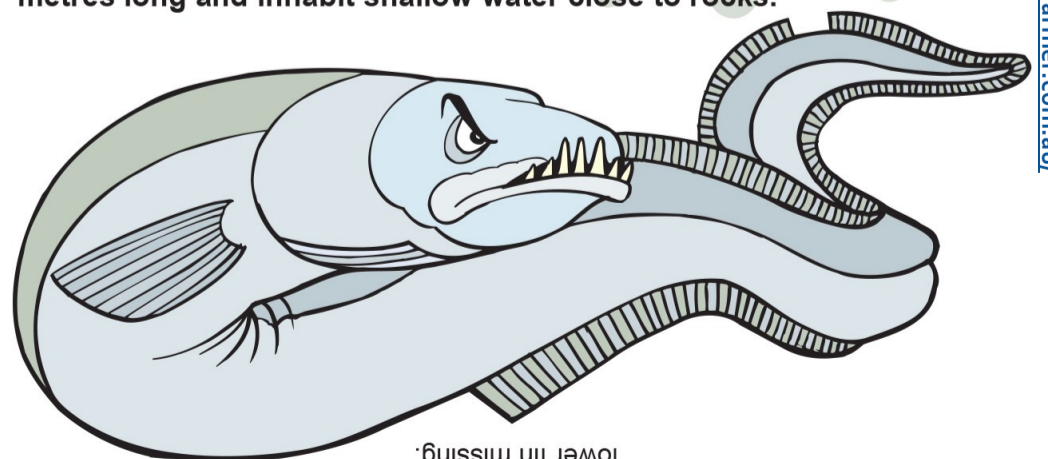
This means blue whales are one of the worlds rarest species and are endangered.

SPOT THE DIFFERENCE

There are seven small differences between the first conger eel and the second one. See if you can spot them, then check the solution below.



DID YOU KNOW? Conger eels live in the North Atlantic Ocean and in the Mediterranean Sea. They grow up to 2.7 metres long and inhabit shallow water close to rocks.



SOLUTION: 1. Eyebrow bigger, 2. Teeth longer, 3. Part of fin on tail missing, 4. Fin bigger, 5. Lines behind chin missing, 6. Shape of body changed, 7. Front of long lower fin missing.