

This article is more than **1 year old**

Human-sized penguin fossil discovered in New Zealand

New species said to have been four times heavier than emperor penguin

Patrick Barkham

14 Aug 2019 13.53 BST

A giant penguin that stood as tall as a person has been identified from fossil leg bones discovered by an amateur palaeontologist on New Zealand's South Island.

At 1.6 metres and 80kg (12st), the new species, *Crossvallia waiparensis*, was four times as heavy and 40cm taller than the emperor penguin, the largest living penguin.

The penguin joins other oversized but extinct New Zealand birds including the world's largest parrot, an eagle with a three-metre wingspan, 3.6 metre-tall moa birds and other giant penguins.

Enormous penguins are believed to have rapidly evolved in the Palaeocene epoch - between 66 and 56m years ago - after the dinosaurs disappeared and large marine reptiles also vanished from southern hemisphere waters that were much warmer than today.

The giant penguin was identified as new to science by a team from Canterbury Museum in Christchurch and Senckenberg natural history museum in Frankfurt after bones were found by Love, an amateur palaeontologist, at Waipara.

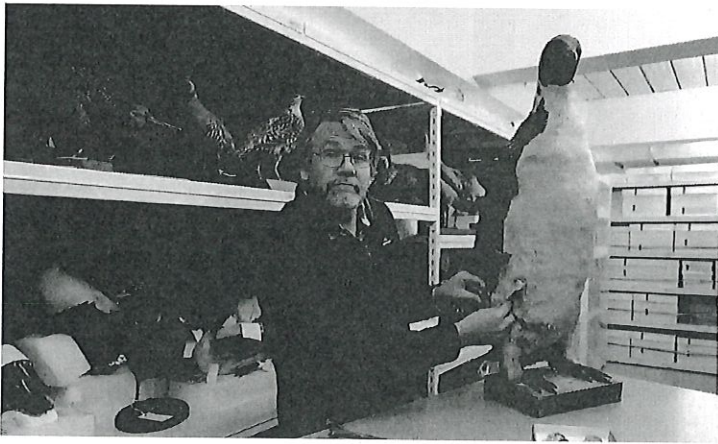
It is the fifth ancient penguin species described from fossils uncovered at Waipara, where a river cuts into a cliff of greensand.

According to researchers, the penguin's leg bones suggest its feet played a greater role in swimming than those of modern penguins.

It is not clear why the giant penguins disappeared from the oceans millions of years ago but it may be linked to the arrival of large marine competitors such as seals and toothed whales.

The new species is similar to another prehistoric giant penguin, *Crossvallia unienwillia*, which was identified from a fossilised partial skeleton found in the Cross Valley in Antarctica in 2000.

Dr Vanesa De Pietri, a natural history curator at Canterbury Museum, said the discovery of a second giant penguin from the Palaeocene was further evidence of the large size of ancient penguins. "It further reinforces our theory that penguins attained a giant size very early in their evolution," she said.



Dr Paul Scofield, from Canterbury Museum, holds the fossil, next to a similar bone of an emperor penguin in Christchurch, New Zealand. Photograph: Mark Baker/AP

Dr Paul Scofield, the senior curator of natural history at Canterbury Museum, said finding closely related species in New Zealand and Antarctica showed the connections between the now-separated land masses.

He added: "When the *Crossvallia* species were alive, New Zealand and Antarctica were very different from today - Antarctica was covered in forest and both had much warmer climates."

Since you're here ...

... joining us from New Zealand, we have a small favour to ask. You've read 32 articles What's this? We would like to remind you how many Guardian articles you've enjoyed on this device. Can we continue showing you this? Yes, that's OK No, opt me out Please note you cannot undo this action or opt back in in the last eleven months. And you're not alone; millions are flocking to the Guardian for open, quality news every day, and readers in 180 countries around the world now support us financially.

The crises we've experienced in 2020 have underlined why factual information is indispensable. We're determined to provide journalism that helps each of us better understand the world, and take actions that challenge, unite, and inspire change. With no shareholders or billionaire owner, our journalism is free from political and commercial bias - this makes us different. We can give a voice to the oppressed and neglected, and stand in solidarity with the struggle for truth, humanity and justice.

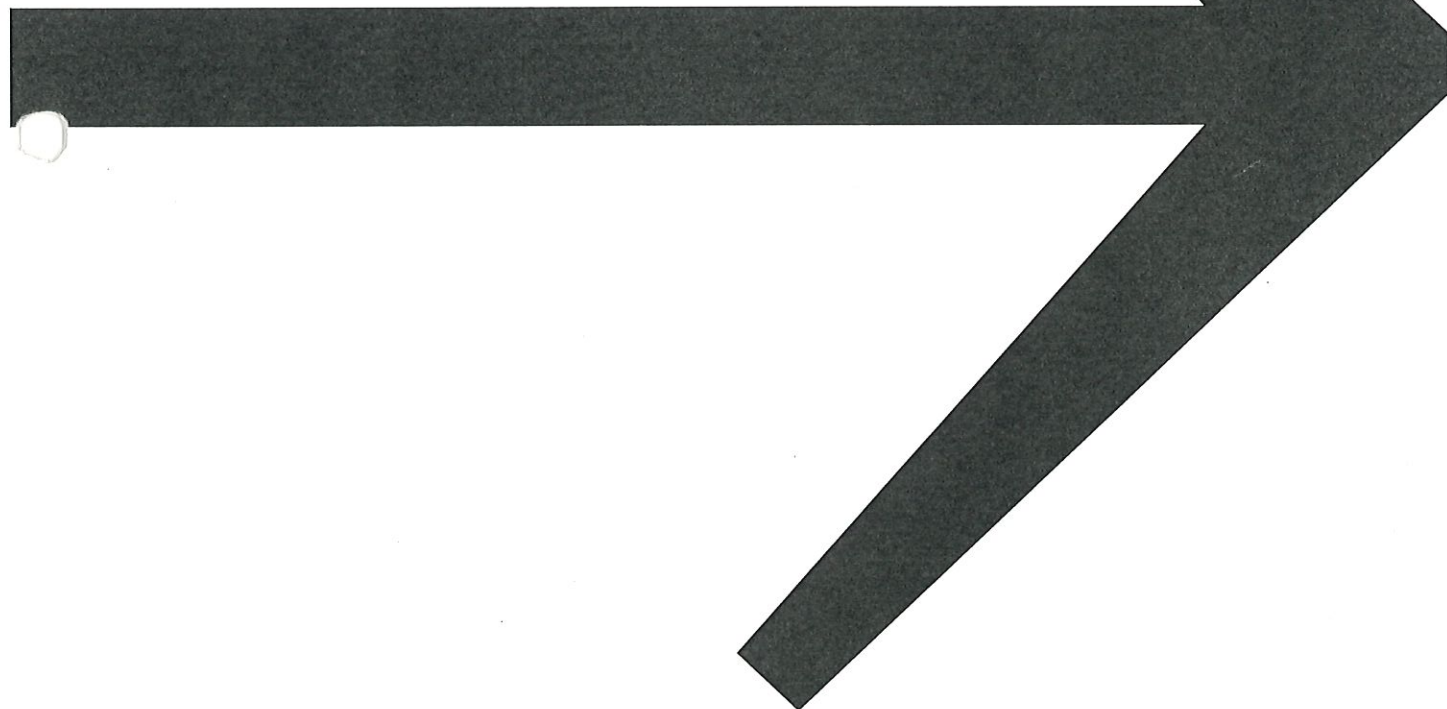
Supporting us means investing in Guardian journalism for tomorrow and the years ahead. The more readers funding our work, the more questions we can ask, the deeper we can dig, and the greater the impact we can have. Your support protects our editorial independence and autonomy, which allows us to fearlessly investigate and interrogate those with political and commercial power - and help bring about a brighter, fairer future.

Your support means we can keep our journalism open, so millions more have free access to the high-quality, trustworthy news they deserve. So we seek your funding not simply to survive, but to grow our journalistic ambitions and inform more people. If there were ever a time to join us, and help accelerate our growth, it is now. You have the power to support us through these challenging financial times and enable real-world impact.

Every contribution, however big or small, is so valuable for our future. **Support the Guardian from as little as NZ\$1 - and it only takes a minute. Thank you.**



Support the Guardian



Remind me in October

VISA

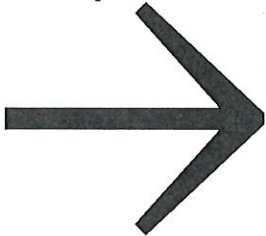


PayPal

Remind me in October

Email address

Set my reminder



We will use this to send you a single email in October 2020. To find out what personal data we collect and how we use it, please visit our [Privacy Policy](#)

We will be in touch to invite you to contribute. Look out for a message in your inbox in October 2020. If you have any questions about contributing, please contact us [here](#).

Topics

- Extinct wildlife
- Archaeology
- New Zealand
- Museums
- Zoology
- Asia Pacific
- news