Tāpui Aotearoa

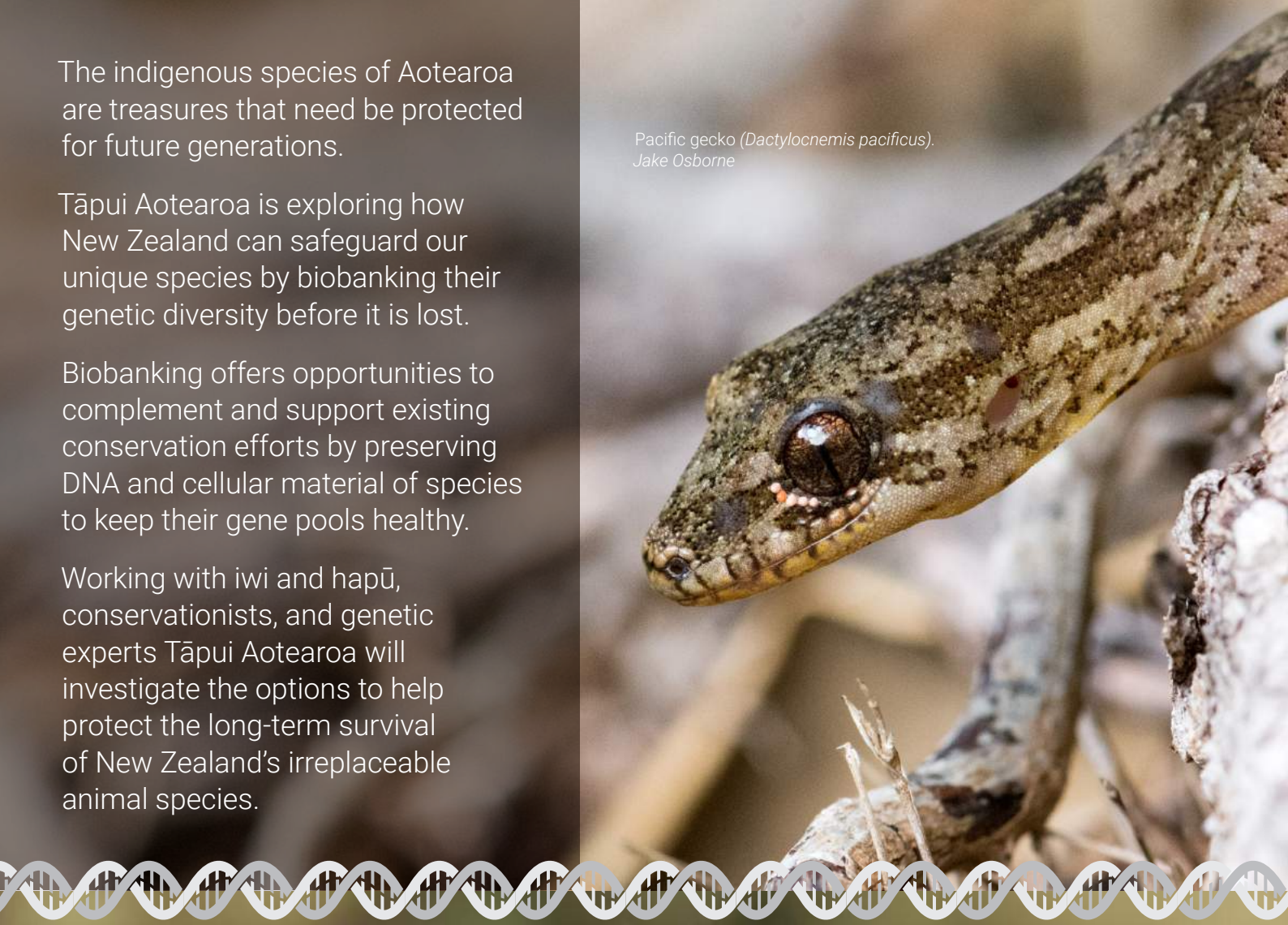
SAFEGUARDING OUR UNIQUE SPECIES
TE TIAKI I Ō TĀTOU MOMO AHUREI

The indigenous species of Aotearoa are treasures that need be protected for future generations.

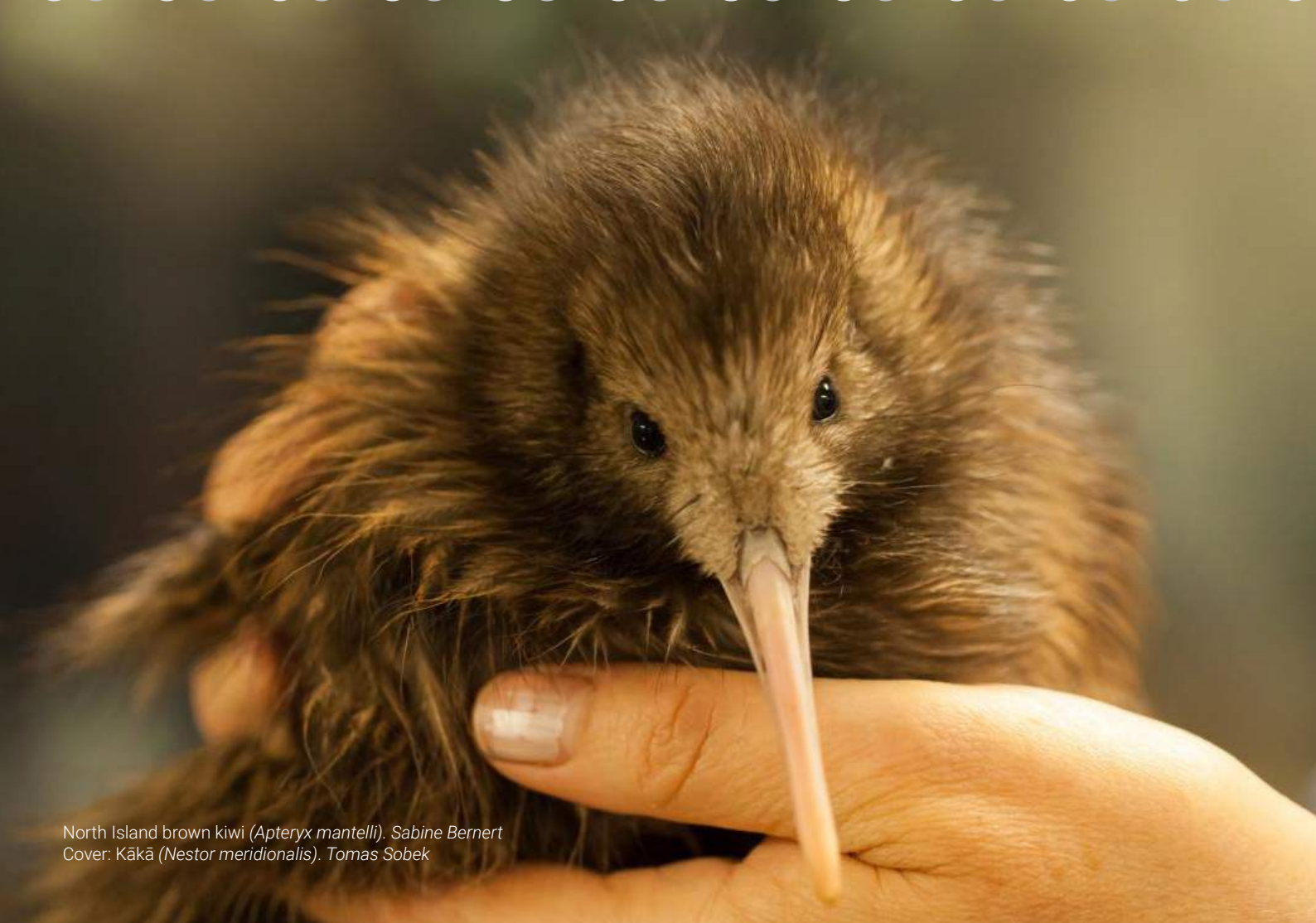
Tāpui Aotearoa is exploring how New Zealand can safeguard our unique species by biobanking their genetic diversity before it is lost.

Biobanking offers opportunities to complement and support existing conservation efforts by preserving DNA and cellular material of species to keep their gene pools healthy.

Working with iwi and hapū, conservationists, and genetic experts Tāpui Aotearoa will investigate the options to help protect the long-term survival of New Zealand's irreplaceable animal species.



Pacific gecko *(Dactylocnemis pacificus). Jake Osborne*



North Island brown kiwi *(Apteryx mantelli). Sabine Bernert*
Cover: Kākā *(Nestor meridionalis). Tomas Sobek*

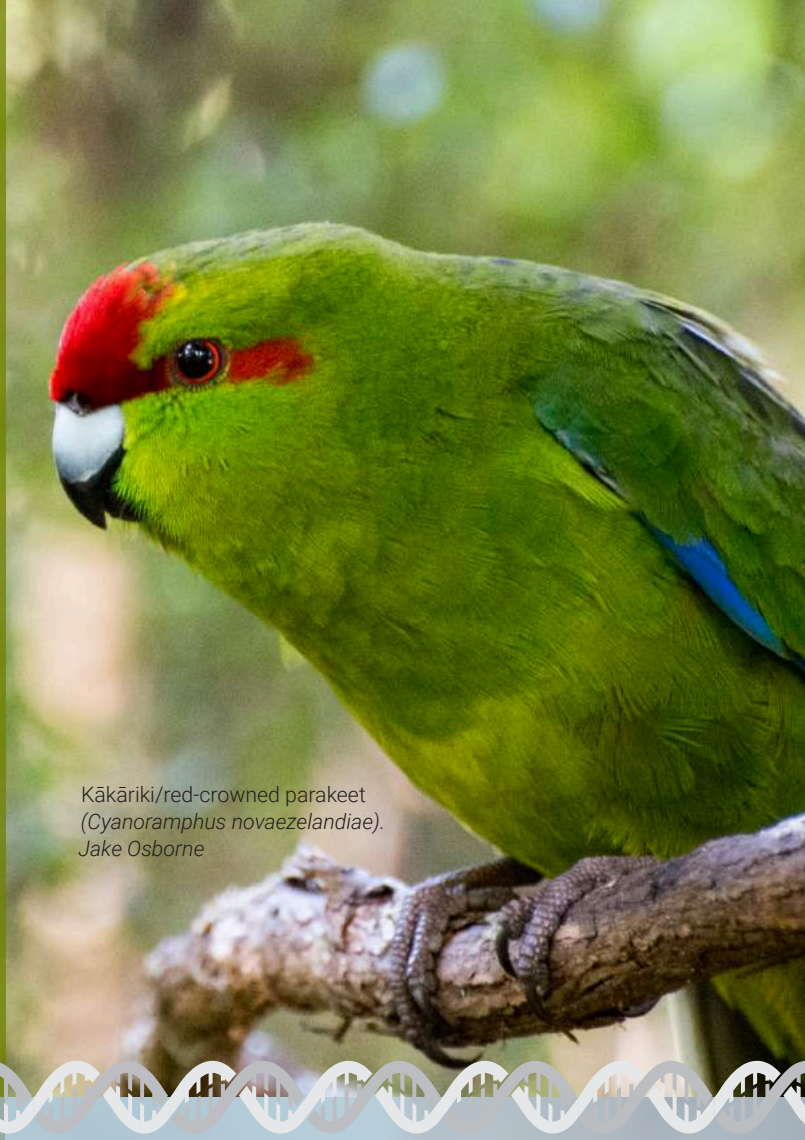
Why do we need it?

Aotearoa is a country with an extraordinarily rich natural heritage. Many of our plants and animals are found nowhere else in the world, including more than half of our bird species.

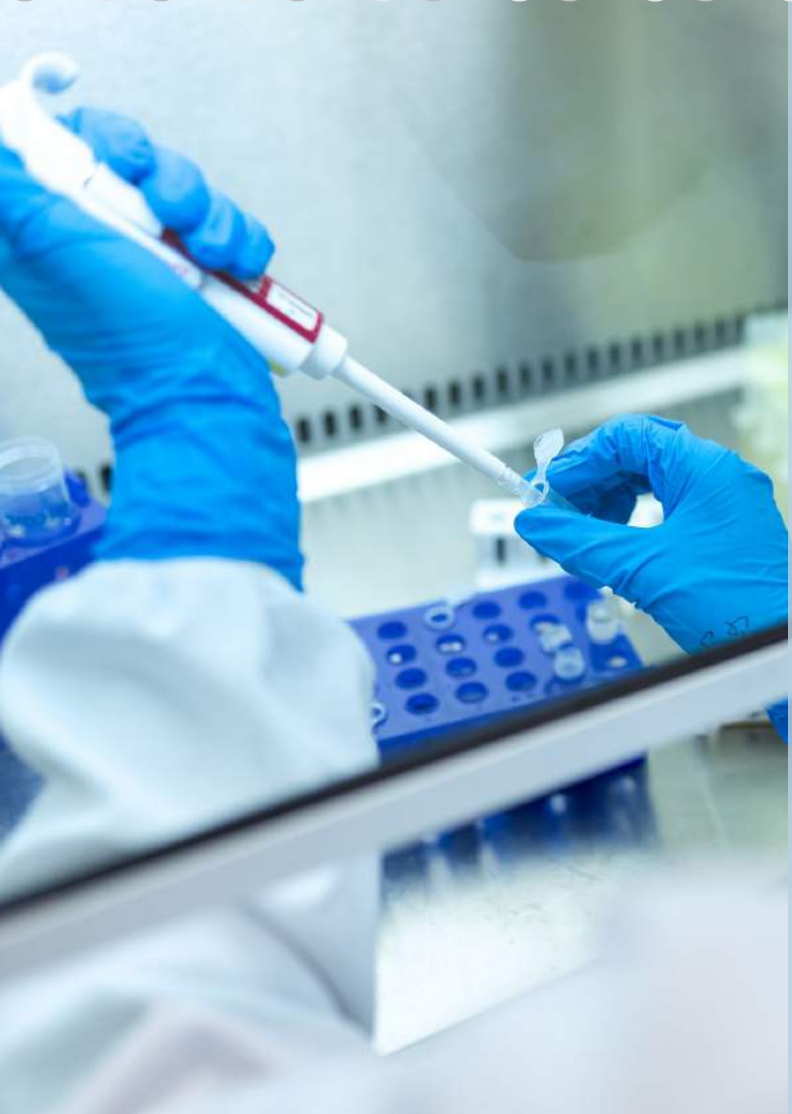
We are also a country of extinctions. Many of our native birds like the moa, the Haast eagle and the huia, have gone forever. Of the 168 bird species that remain, 80% are in trouble, and some are close to extinction.

Many populations of animals are at risk from predation, disease, and the effects of climate change. Loss of animals reduces the genetic diversity of populations and increases their risk of becoming inbred, making them less resilient to these threats and reducing their chances of long term survival.

Biobanking genetic material helps preserve genetic diversity, giving us the opportunity to avoid the extinction of our unique animals.



Kākāriki/red-crowned parakeet *(Cyanoramphus novaezelandiae). Jake Osborne*

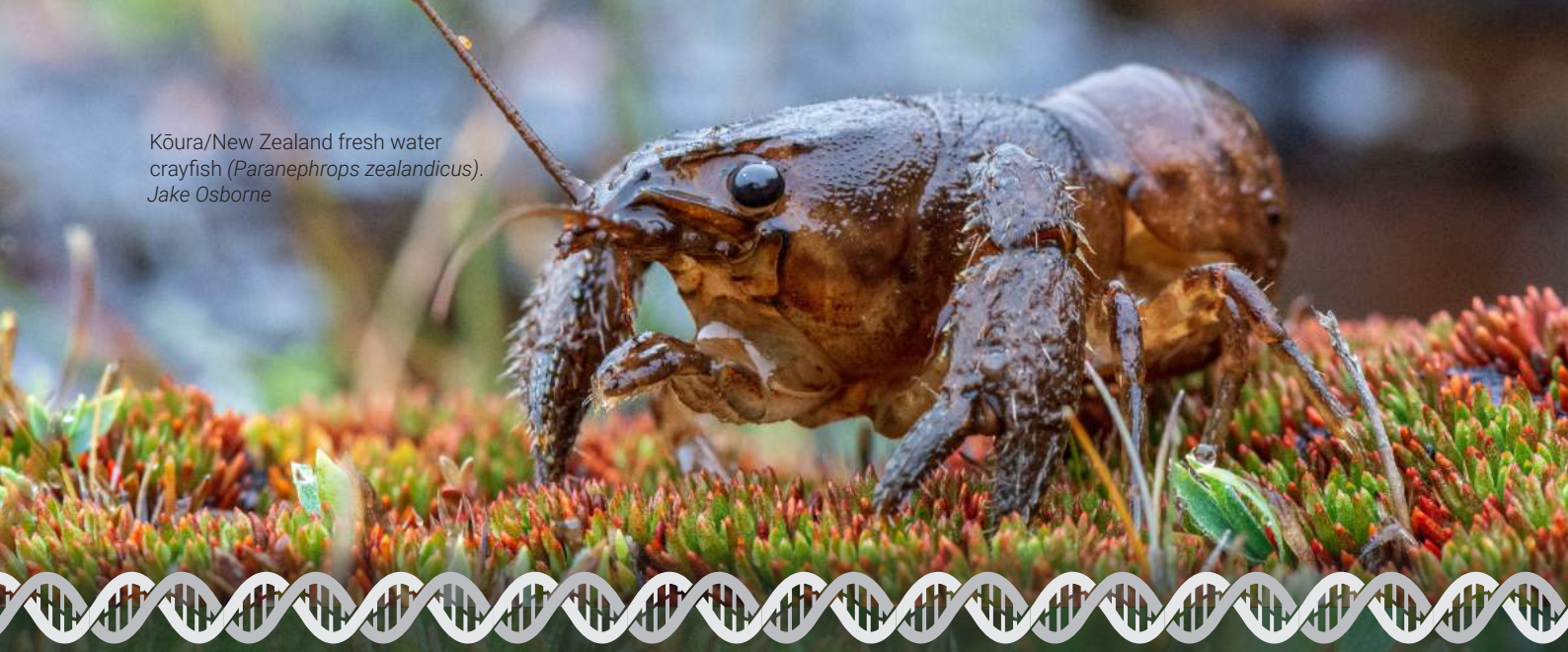


What's happening internationally?

Biobanks and frozen zoos have been established around the world to bank the tissues, cells, and DNA of some of the world's most endangered animals.

These programmes are preserving genetic and cellular material, such as DNA, eggs and sperm, or live cells so they can potentially be used in future conservation breeding programmes to diversify the gene pool and maintain healthy resilient populations.

Aotearoa is unique in that Māori are the kaitiaki of taonga species. Therefore, research practices involving these species must recognise and provide for tangata whenua rights and interests. The long-term success of this initiative is dependent on building partnerships with iwi and hapū that embed the principles of Te Tiriti o Waitangi (The Treaty of Waitangi) and mātauranga Māori throughout the design and implementation of the project.



Kōura/New Zealand fresh water crayfish *(Paranephrops zealandicus)*. *Jake Osborne*

The questions

Tāpui Aotearoa was launched in 2021 to investigate the possibility of establishing a biobank for New Zealand's unique animal species.

We are talking to iwi and hapū, scientists and other experts, and New Zealanders generally to investigate issues like:

- Will biobanking help us better protect the unique animals of Aotearoa?
- How do we ensure tangata whenua rights and interests in these species are recognised and protected?
- What species could we collect?
- What type of samples could be collected?
- How are we best to preserve and store the genetic material?
- Where should the collection be stored?
- Who will be responsible for caring for the collection?
- How should the genetic material be used in the future?

Moko kākāriki/ jewelled gecko *(Naultinus gemmeus)*. *Wikimedia Commons*

Who are we?

Funders

Governance Group

Dr Andrea Byrom — Environmental consultant
Dr Peter Dearden — Genomics Aotearoa
Karen Fifield MNZM — Wellington Zoo Trust
Mark Fitzpatrick — Department of Conservation
Melanie Mark-Shadbolt — (Ngāti Kahungunu, Ngāti Porou, Te Arawa, Te Ati Awa) – Te Tira Whakamātaki
Devon McLean — NEXT Foundation
Aroha Mead — (Ngāti Awa, Ngāti Porou) – Research Director
Daniel Patrick — NZ's Biological Heritage National Science Challenge, Ngā Koiora Tuku Iho
Dr Dan Tompkins — Predator Free 2050
Dr John Rodger — FAUNA Research Alliance

Project Director

Dr Libby Caygill — libby@tapuiaotearoa.org

The Project Director and Governance Group are supported by a Treaty Working Group who provide advice and guidance regarding the protection of the rights and interests of Māori in the design of the project.

Rako/Buller's shearwater *(Puffinus bulleri)*. *Blake Matheson*

Translated by Piripi Walker