

Te Ara Mörehu

He Rautaki Whakaora Kākāriki Karaka Kākāriki Karaka Recovery Strategy

2024-2034

He mihi

This mihi (greeting) celebrates the resilience of kākāriki karaka and calls for those fortunate to work with this treasured manu (bird) to act with integrity in their actions and decision-making.

This mihi was composed by Ariana Stevens, a descendant of Poutini Ngāi Tahu, founder and tumu (expert) for Reo Māori Mai. It captures the depth and breadth of the revitalisation of kākāriki karaka.

We are guided by a whakataukī (proverb): ko te mea tuatahi ko te kākāriki karaka – the holistic wellbeing of kākāriki karaka is at the centre.



Ka tākiri te ata	Th
ki te wao nui a Tāne	in
Ka korihi ngā manu	Th
kua roa nei e ngū ana	th
He pō, he pō, he ao, he ao	Ма
Ka awatea	Th
E ai ki te kōrero,	Ac
'ahakoa he iti, he pounamu'	'al
Nei te iti pounamu, nei te kākāriki karaka	He
E tuku nei i te reo pōwhiri	Se
Nau mai ki tōku ao,	We
nau mai, tautoko mai	CO
Kei te kapu o te ringa	lt i
te oranga tonutanga o tēnei taonga, ā,	th
mā rau ringa tēnei whāinga	an
e tutuki ai	ef
Ko te mahi tahi tērā,	Th
he tohu rangatira	as
Heoi anō tā tātou, he whai,	Al
he whai i te mahi a te manu nei	fo
Arā, ka manaaki tētahi i tētahi,	Na
ka ū tonu ahakoa ngā piki me ngā heke,	re
ka pōwhiritia hoki ngā haumi	an
Kia mihia e te anamata,	То
me upoko pakaru,	we
me kanohi kainukere,	We
me manawa kākāriki karaka	We

- he morning dawns
- the realm of Tāne
- he birds sing
- nose who have long been silent
- larking a shift from darkness to light
- he dawn has arrived

ccording to the proverb, Ilthough something may be small, it is treasured' lere calls the treasure, the kākāriki karaka ending forth the call of welcome Velcome to my world, ome in and help

is within reach ne survival of this taonga nd it is through the combined fforts of the many that it will be achieved hat is through collaboration, sign of true leadership

Il we have to do is follow ollow the actions of this manu lamely, care for one another, emain steadfast through the highs and lows, nd welcome our allies to support us

o be appreciated by future generations, ve must be determined, ve must be perceptive, ve must be resilient like the kākāriki karaka

Motuhia te poria

e te manu e rere, i tō kōhaka, āhuru mōwai e

papakihia ō parirau ka piki ka kake ki kā raki ātea

kākāriki karaka whakakā i te kakara o te kahere, nei Waonui-a-Tāne

> me te pīpī paopao hua nāia te wā whakaputa

makere ana, ō here o neherā motuhia te pōria ka wātea

kapekapetau ō parirau ketekete tō reo kia paoraki e!

Mōteatea

Ariana Tikao (Kāi Tahu) is a celebrated national and international singer, musician and author, and a proud advocate for Te Ao Māori. This moteatea (lament) was written by Ariana to support the kaupapa (initiative) of kākāriki karaka.

Motuhia te Poria alludes to the manu (bird) being tethered by a metaphorical poria a leg-ring made of bone, wood or stone. In essence, 'motuhia te poria' means 'the pōria has been cut', so the manu is no longer tied to captivity. It is a freedom song. The lyrics encourage the manu to go forth and explore their forest home, using their wings to reach new heights. To use the instincts passed through generations, just like a baby bird tapping the shell to release itself from the egg.

In Ariana's words, "There is a message for us in this moteatea, that we have the tools we need within us to live more connected to nature, and to tap into our own whakapapa and knowledge we carry from our ancestors, for the betterment of all."

fly oh bird from your nest your sheltered haven

flap your wings ascend the great heights of the open sky

kākāriki karaka breathe in the forest's pure scent 'tis the great realm of Tāne

> like a hatchling striking the egg this is your time to break out

take off your shackles of the past sever the bond of the tether, be free

> flap your wings let your chattering voice resound!

Ash Murphy (Department of Conservation) and Yvette Couch-Lewis (Te Rūnanga o Ngāi Tahu), with contributions from Courtney Bennett (Kete Planning Consultancy Ltd) and the Kākāriki Karaka Recovery Group.

Te Ara Mōrehu He Rautaki Whakaora Kākāriki Karaka Kākāriki Karaka Recovery Strategy 2024-2034

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Illustration artist details

Caine Tauwhare is a contemporary Māori artist and master carver from Te Hapū o Ngāti Wheke. His work often reflects his heritage, the natural environment, and the stories of his people. Many of his works have been commissioned for various public spaces particularly around Lyttelton and Whakaraupō and are celebrated for their craftsmanship and cultural significance. Caine contributed the whakairo designs on the cover and pages 20, 22, 24 and 26.

Cover illustration: Caine Tauwhare Contents page photo: Sean McGrath

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Te Ara Morehu is an aspirational rautaki (strategy) to support the health and wellbeing of kākāriki karaka, a species of immense cultural and spiritual significance. Ancient pūrākau (narratives) tell us that this manu (bird) plays an important role in te ao Māori by delivering messages and teachings from te ao wairua – the spiritual realm, to te ao kikokiko – the realm of the living. For example, when kākāriki karaka are released into the wild, their new kāhui (flock) greets them in ways that reflect the traditional powhiri process, reminding us of the importance of these tikanga. This rautaki underpinned by our wawata (vision) statement and commitment to work in a Tiriti-centred, evidencedbased and collaborative way – is an opportunity for us to learn from and practice these teachings and to do our part in welcoming kākāriki karaka back into their kāinga, their native forest homes.

Despite being twice declared extinct in the wild, this species has endured. Small, remnant kāhui (populations) of kākāriki karaka are ready to welcome more of these manu back into the wild. It is our responsibility, together with mana whenua, other experts, not-for-profit organisations, businesses and donors, and the wider community to ensure they have both healthy manu to welcome home and safe homes to be welcomed into.

> Kākāriki karaka are endemic to Aotearoa New Zealand and are classified as Nationally Critical.

A static te kakariki karaka

Te Ara Morehu represents the voices of many people who care for kākāriki karaka and it builds on past efforts. In 2019 it was recommended that kākāriki karaka would benefit from a conservation approach that was 'manu-centric'. We have adopted this as: ko te mea tuatahi ko te kākāriki karaka - the holistic wellbeing of kākāriki karaka is at the centre. This shows how tikanga Māori and the teachings of this manu can inform our approach to its recovery.

In this strategy, a kākāriki karaka-focused wawata (vision) is supported by several mātāpono (guiding principles) that help us keep the best interests of this manu at the centre of our decision-making. This framework informs whainga matua (strategic priorities) that will be enabled via implementation of the Five-Year Action Plan. The Kākāriki Karaka Recovery Group have identified these priorities as critical for achieving the future kākāriki karaka deserve: one where they have been welcomed back into the wild and are thriving in their traditional homes.

Te ao o te kākāriki karaka Ecology

Kākāriki karaka – also known by their English name of orange-fronted parakeet and Latin name *Cyanoramphus malherbi* – are small, green, forestdwelling birds with an orange strip above their beak. They are Aotearoa New Zealand's rarest parakeet. Kākāriki karaka are closely related to the kākāriki kōwhai (yellow-crowned parakeet, *Cyanoramphus auriceps*) and kākāriki (red-crowned parakeet, *Cyanoramphus novaezelandiae*). Kākāriki karaka are more threatened than their relations, being listed as Nationally Critical, one step away from 'extinct'.

Kākāriki karaka currently live almost exclusively in tawhai (beech forests). They typically feed on seeds at the tops of tall trees, but can also be found amongst low vegetation or on the ground bathing and eating flowers, buds, fruits and invertebrates. Reports from the 1800s show that kākāriki karaka (along with other native parakeets) were once found throughout Aotearoa New Zealand. Similar reports from this time describe kākāriki as being so abundant they formed great kāhui that would irrupt from native forests to feed on colonial orchards and wheat fields. The distribution and number of kākāriki karaka has reduced dramatically over the past century, with extinction being declared twice: once in 1919 and again in 1965. Their decline is attributed to introduced mammalian predators, habitat loss and degradation. Other factors, including intentional culling in agricultural settings, have also had a significant impact. Today, kākāriki karaka remain susceptible to predation, especially by rats and stoats, and other introduced pests, such as possums and cats. In addition, human activities and browsing pests, such as deer, have significantly reduced the extent and quality of their habitat.

Following their rediscovery in Waitaha (Canterbury) in the 1980s, and the establishment of a dedicated captive kākāriki karaka breeding programme, four kāhui mohoao (wild populations) are now known. Wild kākāriki karaka kāhui are difficult to count, due to the behaviour of these manu. It is estimated, however, that probably fewer than 500 mature kākāriki karaka exist across all four sites. Additionally, a small number of the manu are living in captivity. With such a small gene pool, concerns exist about the species' lack of genetic diversity and the risk this poses to their future.

South Branch of the Hurunui Valley, Lake Sumner Forest Park Re-established 2016–2021

Hawdon Valley, Arthurs Pass National Park Re-established 2022–2024

Lost and found

Kākāriki karaka has been declared extinct twice – first in 1919 and again in 1965.





Brook Waimārama Sanctuary, Whakatū | Nelson Established 2021–2023

> Ōruawairua | Blumine Island, Tōtaranui | Queen Charlotte Sound Established 2011–2012



Te hononga Mana whenua relationship

Kākāriki karaka are a taonga to Ngāi Tahu whānui, particularly for whanau who are mana whenua in Waitaha (Canterbury). Some whānau see them as messengers, providing a number of teachings around tikanga and kawa that we can learn from. Whakapapa binds Ngāi Tahu together with kākāriki karaka and te taiao (the natural world). As mana whenua, Ngāi Tahu are committed to fulfilling their responsibilities as kaitiaki for this manu. The ability of Ngāi Tahu to make decisions relating to te taiao, and those species that live within it, is fundamental to retaining mana and upholding their kaitiaki responsibilities. An ongoing, active connection between Ngāi Tahu, kākāriki karaka and te taiao is essential for the holistic wellbeing of this manu, and the transfer of matauranga to future generations of Ngāi Tahu.

This relationship is reinforced by legislation. Kākāriki karaka are a Taonga Species under the Ngāi Tahu Claims Settlement Act 1998, in which the Crown acknowledges the cultural, spiritual, historical and traditional association of Ngāi Tahu with this manu. Te Ara Morehu is committed to upholding a Tiriti partnership between the Crown and Ngāi Tahu, enabling the rangatiratanga of Ngāi Tahu and the exercise of kaitiakitanga by mana whenua in relation to kākāriki karaka.

Along with their intrinsic value and the many teachings they can provide, kākāriki karaka are also valued by Ngāi Tahu as mahinga kai. This concept is integral to Ngāi Tahu cultural identity. Ngāi Tahu harvested manu, their eggs, feathers and bones according to traditional management practices and guided by tikanga passed down through the generations. Ngāi Tahu aspire to return to these practices, which are anchored in sustainability. For this reason, cultural harvest of kākāriki karaka is a generational aspiration for mana whenua, and will not be pursued until this manu is thriving in abundance in the wild.

Te mahi tahi Strategy partners

Everyone who is involved in kākāriki karaka recovery, or who uses the wild spaces where these manu live, has an important part in welcoming them home, now and in the future. This includes the Crown (particularly the Department of Conservation Te Papa Atawhai), mana whenua, private conservation organisations, researchers, volunteers and community groups, landowners, local authorities and the wider community.

Te Ara Morehu has been prepared by the Kākāriki Karaka Recovery Group with advice from key experts and recovery partners. The Recovery Group comprises representatives from four organisations, each of which have an important role in leading kākāriki karaka recovery.

Te Rūnanga o Ngāi Tahu is the Crown's Tiriti partner and supports Ngāi Tahu whānau, hapū and Papatipu Rūnanga to exercise their rights and responsibilities as kaitiaki for kākāriki karaka.

The Department of Conservation Te Papa Atawhai (DOC) has responsibilities under the Conservation Act 1987 and Wildlife Act 1953 that guide its actions in relation to kākāriki karaka.

The Isaac Conservation and Wildlife Trust is a notfor-profit organisation leading the kākāriki karaka captive breeding programme. Orana Wildlife Park is a partner of the captive breeding programme.

The University of Canterbury | Te Whare Wananga o Waitaha is an important research partner, with researchers particularly providing expertise on management of the genetic diversity of kākāriki karaka.

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Te wawata Vision

Kākāriki karaka are established and thriving independently in the wild. This manu is a common sight in our native forests, and is sometimes even spotted in our urban green spaces as they move freely across the landscape.

This wawata describes the future kākāriki karaka deserve, one where these manu have been welcomed home and are thriving where they belong. It is intentionally aspirational, providing all who take up the responsibility of caring for kākāriki karaka with a shared goal to work towards.

Ngā whāinga Goals

The current trajectory of kākāriki karaka recovery is positive. At every captive release, more and more manu are present to welcome their whanaunga (relatives) home. It is imperative that this positive momentum and support continues. We can make rapid progress in kākāriki karaka recovery by acting boldly, growing our knowledge base and securing new sites for these taonga to thrive in. We have identified 5-year and 20-year goals that move kākāriki karaka intentionally towards the future described in our vision.

Five-year goals

- A best practice approach to establishing new kākāriki karaka has been identified and implemented.
- The number of wild kākāriki karaka populations established within the Ngāi Tahu takiwā has doubled from two to four.
- Kākāriki karaka have moved out of the highest threat category of Nationally Critical to Nationally Endangered.

AND A CONSTRUCTION OF A CONSTR

populations within habitats occupied by other kākāriki species

Twenty-year goals

• Ten wild populations of kākāriki karaka are self-sustaining within the Ngāi Tahu takiwā.

 All wild kākāriki karaka populations are growing in size, increasing in distribution and maintaining genetic diversity.

 Some wild kākāriki karaka populations are now connected, creating a meta-population.

Ngā mātāpono Guiding principles

Kākāriki karaka are known to share teachings about tikanga and kawa, and our care for them reflects these teachings by being guided by our own tikanga and kawa. Five interconnected mātāpono provide a foundation for this strategy in the same way kawa directs tikanga. They make our values clear to those who might want to contribute to the future of this manu and help guide our decision-making across all aspects of kākāriki karaka recovery.

None of these mātāpono should be considered in isolation. Instead, they should be used as a framework against which all decisions should be tested. If a proposal does not align with all five mātāpono, then it may not be in the best interests of kākāriki karaka and should be reconsidered.



S

Manu-first thinking

The wellbeing and needs of this taonga is put above all else when making decisions, undertaking actions and navigating relationships as part of this strategy.

Tirohanga Māori

All aspects of kākāriki karaka recovery are considered through a Māori worldview (tirohanga Māori) to ensure appropriate tikanga is followed and the mana of this manu is always upheld.

Innovation

We work to continually incorporate new understandings, realities and methods into kākāriki karaka care and recovery. Similarly, we acknowledge what is currently unknown and strive to be effective in this uncertain context through innovation.

Evidence-based decision-making

The latest research and best practice – including science and teachings from mātauranga Māori sources – underpins all decisions made regarding kākāriki karaka. Where evidence is unavailable, steps are taken to build the knowledge to inform future decisions.

Inclusive leadership

We treat our responsibility to support kākāriki karaka with the gravity it deserves. Our decisions are brave and decisive, made with all the right people in the room, and with thought given to how others who care about kākāriki karaka can be involved and contribute their skills to support recovery.

Ngā whāinga matua Strategic priorities

Whāinga matua will address the gap between where kākāriki karaka are now (current state) and where they deserve to be (future state), and the tikanga we will follow to help welcome these manu back home. These whāinga matua are divided into four themes:

Te whanaungatanga Strengthening relationships

> **Te noho hei manu mohoao** Establishing wild populations

No hierarchy exists between these themes. Given the nature of kākāriki karaka recovery, whāinga matua from all four themes will be addressed concurrently, progressing in different sequences as appropriate.

Te tiaki kōhanga Safeguarding captive populations

> **Te manaaki manu mohoao** Sustaining wild populations

Te whanaungatanga Strengthening relationships



Future state

We aspire to a future where kākāriki karaka recovery continues to be built on an ever-strengthening foundation of whanaungatanga: strong, good-faith and mutually beneficial relationships.

Kākāriki karaka will be cared for in a way that is reflective of a true Tiriti-based partnership. This includes visible and meaningful mana whenua involvement throughout the recovery programme and increased opportunities for Ngāi Tahu to strengthen their relationships with this manu.

Relationships with organisations such as the Isaac Conservation and Wildlife Trust, Orana Wildlife Park and Brook Waimārama Sanctuary, will be strengthened, their vital work acknowledged and celebrated, and their contributions future-proofed.

Ngā whāinga matua | Strategic priorities

- Foster relationships with mana whenua and Te Rūnanga o Ngāi Tahu to achieve their desired participation in kākāriki karaka recovery.
- Ensure effective relationships are maintained with key individuals and organisations to ensure progress is achieved in kākāriki karaka recovery.

Current state

Mana whenua – Ngāi Tahu whānui – have a deep relationship with this manu through their whakapapa and associated kaitiaki responsibilities. While Ngāi Tahu are represented on the Kākāriki Karaka Recovery Group and Governance Group, they desire a deeper and more hands-on role in caring for their taonga.

Several not-for-profit organisations have critical roles within the Kākāriki Karaka Recovery Programme. Prominent among them are the Isaac Conservation and Wildlife Trust, which leads the kākāriki karaka captive breeding programme with support from Orana Wildlife Park. Our relationship with these organisations is strong, with a focus on mutual respect, and an appreciation for the skills and investment these husbandry experts make for the benefit of this manu. We hold a similar relationship with the Brook Waimārama Sanctuary, who manage a pest-free environment for kākāriki karaka. Experts from the University of Canterbury | Te Whare Wānanga o Waitaha and other universities, Crown Research Institutes and DOC undertake essential research that informs best practice for kākāriki karaka conservation. Philanthropic organisations and corporate donations are essential for funding this research and ongoing kākāriki karaka recovery tasks. These groups and their contributions are vital to our ability to care for kākāriki karaka now and in the future, so they are gratefully received.

Finally, our relationship with the general public is important. Historically we have struggled to promote kākāriki karaka within the public psyche, however several passionate community-based volunteer groups invest considerable time and energy into kākāriki karaka conservation efforts. Relationships with landowners are also an area of special focus, because some current and prospective kākāriki karaka habitats are difficult to access without crossing private land. Photo: Sean McGrath

We will also maintain and grow mutually beneficial relationships with research partners and philanthropic groups. By anchoring these relationships in our ngā mātāpono (guiding principles), we can ensure the best interests of kākāriki karaka are what bind us together.

We envision a future where members of the public are building their own relationships with this special 'underbird'. Kākāriki karaka will become more widely recognisable as one of Aotearoa New Zealand's special native species, and Waitaha (Canterbury) communities especially will develop an affinity with this local manu as a result of advocacy, education and engagement. In particular, landowners who can provide access to potential kākāriki karaka habitat will grow a sense of ownership and pride in their involvement through practical collaboration in kākāriki karaka recovery.

- Communicate clear management, research and funding priorities to researchers, volunteers and funders to guide their engagement in kākāriki karaka recovery.
- Build a public profile, effectively communicate conservation values and celebrate important relationships to drive public support for kākāriki karaka recovery.

Te tiaki kōhanga Safeguarding captive populations



Future state

In the future, we will be less reliant on captive breeding to maintain kākāriki karaka kāhui. The captive breeding programme, however, will still be important for establishing and supplementing kāhui mohoao, retaining specialist knowledge and advocating for kākāriki karaka amongst the general public.

Captive breeding partners will continue to be valued and supported for their essential mahi. These organisations will be well supported and connected with both DOC and mana whenua resources, to ensure captive manu have a secure future. Plans will be developed and implemented to proactively mitigate the effects of climate change and risks of natural disasters and other events.

Ngā whāinga matua | Strategic priorities

- Ensure the knowledge gained from the captive breeding programme is effectively documented, to inform kākāriki karaka recovery in the future.
- Create a resilient captive breeding programme that is well placed to manage significant future risks, such as climate change and disease.

Current state

Breeding kākāriki karaka is a challenging and complex task. The captive breeding programme is led by a captive breeding coordinator based at the Isaac Conservation and Wildlife Trust and supported by the Orana Wildlife Park. Without the safe kohanga (nest) that this programme and the organisations that run it provide, it is unlikely this manu would still exist today.

Staff across these organisations hold a wealth of knowledge and experience in breeding and caring for these manu. While some of the knowledge gained to date has been documented, much of it is held only by a small number of husbandry experts. Despite this expertise, some captive breeding challenges remain and others are likely to arise in the future. Both captive facilities have strong disease management protocols, but new diseases remain a threat to this species.

Ensuring that the remaining kākāriki karaka genetic diversity is retained in the captive and kāhui mohoao (wild populations) is a key part of the breeding programme, and significant research has been undertaken to enable this retention. However, more needs to be done to maximise the genetic diversity of the manu.

The Isaac Conservation and Wildlife Trust and Orana Wildlife Park both own and manage important infrastructure for captive kāhui, such as aviaries spread across their adjacent Ōtautahi (Christchurch) sites. Their co-location allows for easy collaboration and logistics between the sites. However, concentrating the captive kāhui also heightens the threat of local events on the recovery of the species. These risks include disease, significant weather events, natural disasters and the place-based impacts of climate change. Mitigation to manage these risks is required.

The knowledge and experience of staff will be documented, reducing the risk of it being lost. Husbandry practices will be continuously refined to ensure the mana of captive kākāriki karaka is upheld and their mauri is healthy. Disease management plans will be regularly reviewed and updated as needed. Research or other approaches will be undertaken to address husbandry challenges, health issues or other concerns.

With the support of our genetic experts at the University of Canterbury | Te Whare Wananga o Waitaha, we will explore new and innovative approaches to maximise the genetic diversity of the captive breeding population and ensure this best supports kākāriki karaka recovery.

- Understand how to address husbandry issues and best care for captive kākāriki karaka in a mana and mauri enhancing way.
- Maximise the genetic diversity of the captive kāhui (population) through research into new and innovative approaches.

Te noho hei manu mohoao Establishing wild populations



Current state

After years of work to bring this manu back from the brink of extinction, we are now welcoming kākāriki karaka back into the wild. One way we can support this tikanga is to help prepare the location where these manu will be welcomed back to. However, a major challenge is identifying appropriate release locations for kākāriki karaka. Release sites need to be safe from predators, have appropriate food sources throughout the year and provide adequate nesting hollows. Few sites meet these requirements, and significant gaps exist in our understanding of the full extent of conditions kākāriki karaka can thrive in. This includes concerns about establishment and coexistence with kākāriki kōwhai that require further investigation.

Of all site selection criteria, making sure release sites are safe for kākāriki karaka is the highest priority. For mainland sites, this always requires significant investment in predator control.

This is because we cannot, as responsible kaitiaki, release these precious taonga into habitats where they will be preyed upon. The resourcing required to undertake ongoing predator control at potential release sites is a major barrier to returning more kākāriki karaka to the wild. Even at fenced sanctuaries, significant resources are required to monitor and maintain the fence and rapidly respond to any breaches. Fortunately, the Brook Waimārama Sanctuary has a dedicated group of volunteers who support this work.

Once kākāriki karaka have been released, significant monitoring is needed to track kahui growth, to determine if the manu are establishing successfully, and if not, why not? Monitoring kākāriki karaka is complex due to the challenging behaviour and habitat of these manu. This complexity exacerbates resourcing issues and limits our ability to fill knowledge gaps.

Future state

In the future, we will be better equipped to prepare the right places for these manu to be welcomed back to. This will include a mix of predator-free offshore islands, predator-fenced mainland sanctuaries and unfenced mainland sites. We will have a greater understanding of the environmental requirements for kākāriki karaka kāhui establishment and will continuously update our site selection process as our knowledge grows. One area of growth will be enabling the coexistence of kākāriki karaka and kākāriki kōwhai, in line with relevant tikanga and kawa.

Additional resourcing and new partnerships will allow for the most effective site preparation and comprehensive monitoring of establishing kāhui mohoao. This will build our

Ngā whāinga matua | Strategic priorities

- Identify the most effective locations for establishing additional kāhui mohoao (wild populations) of kākāriki karaka.
- Investigate ways for new kākāriki karaka kāhui (populations) to coexist in balance with any pre-existing local kākāriki kōwhai.

understanding of how best to support kākāriki karaka to establish in the wild. Improved monitoring will build confidence within our kākāriki karaka recovery community that captive manu are being released into safe environments where they can successfully establish themselves.

We will use the understanding we have gained to establish further kāhui mohoao of kākāriki karaka across mainland Te Waipounamu (South Island). Ultimately, many of these kāhui will become connected in a meta-population, reflecting the historic population ecology of the manu and enabling it to thrive and become self-sustaining in the future.

- Secure the funding needed to support the preparation and ongoing management of new kākāriki karaka release sites.
- Increase the number and distribution of wild kākāriki karaka to progress the recovery of this manu.

Te manaaki manu mohoao Sustaining wild populations



Current state

We are committed to the long-term care of kākāriki karaka, to ensure they never again face extinction. A dedicated DOC team manages the four existing kāhui mohoao, which include a predator-free offshore island, a predator-fenced mainland sanctuary and two unfenced mainland sites. DOC is supported by captive breeding partners, mana whenua and on-the-ground volunteers (particularly at the Brook Waimārama Sanctuary). This management includes predator control and biosecurity, population monitoring, supplemental feeding and provision of artificial nest-boxes. However, uncertainties exist surrounding ideal habitat requirements and best practice long-term care of kāhui mohoao.

We know significant, landscape-scale predator control is required to ensure these (and future) unfenced mainland locations are safe for these manu, while stringent biosecurity is essential at island and fenced sites. However, we are uncertain of the most effective predator control methods and the maximum predator densities these manu can tolerate. Long-term population information is also scarce due to both the infancy of these kāhui mohoao and the unique difficulties of monitoring kākāriki karaka.

Kākāriki karaka numbers fluctuate significantly in response to the boom-and-bust nature of food availability in their tawhai (beech forest) habitats. When combined with predation pressures, this can cause kākāriki karaka kāhui numbers to drop to unsustainably low levels. When this happens, kāhui are artificially 'topped up' by releasing captive-bred manu, in an effort to retain the kāhui mohoao. To ensure genetic diversity is maximised, occasional 'genetic top ups' of captivebred birds are also undertaken to inject new diversity into established kāhui.

Future state

In the future, kākāriki karaka will be selfsustaining in the wild. We will still, however, uphold the tikanga of manaakitanga as we care for these manu long-term. Captive breeding programmes will be retained, but releases will only be required intermittently to support genetic diversity and population demographics.

The growing kāhui on the mainland will naturally start to mix with those at neighbouring release sites to create metapopulations reflective of a more natural species range. The public will begin to spot kākāriki karaka while on bush walks or during other outdoor adventures.

Ngā whāinga matua | Strategic priorities

- Build a more in-depth understanding of the causes of decline and best practice management to address threats to safeguarding wild kākāriki karaka.
- Ensure effective management is undertaken to sustain each kāhui mohoao (wild population) long-term.

We will have expanded the data obtained from kāhui mohoao monitoring and other research on the causes of decline of wild kākāriki karaka. This will allow us to make more informed decisions on how to support kāhui mohoao. Our understanding of best practice management of mammalian predators and other threats, such as habitat degradation, diseases and climate change, as well as the boom-and-bust impact of beech mast events, will grow significantly. Our management will be adaptive best practice and much less intensive than it is today, enabling input at lower levels but over much larger scales.

- Build a clear understanding of long-term trends and dynamics of all wild kākāriki karaka kāhui (populations), to enable their effective management.
- Retain dedicated kākāriki karaka management skill sets.



Te whakatinanatanga Implementation

Te Ara Mōrehu is the overarching strategy for kākāriki karaka recovery, providing direction and guidance for those involved in kākāriki karaka recovery.

The actions necessary to achieve the strategic priorities are outlined in the Five-Year Action Plan, which is a supporting document for *Te Ara Mōrehu*. The actions in the plan will be SMARTT: specific, measurable, achievable, realistic, time-bound and Tiriti compliant.

Successful implementation of the Five-Year Action Plan will rely on both the efforts of the Kākāriki Karaka Recovery Group and the ongoing commitment of the wider kākāriki karaka recovery community throughout the range of the manu. Additional supporting documents, typically in the form of protocols, will provide detailed direction and set the tikanga and kawa for managing specific issues, such as monitoring kākāriki karaka in the wild.

A tirohia hauora (health check) of the Kākāriki Karaka Recovery Programme will be undertaken every 5 years. This will measure progress against the Five-Year Action Plan, 5-year and 20-year *Te Ara Mōrehu* goals and strategic priorities. It will also assess whether kākāriki karaka recovery is being undertaken in accordance with the appropriate mātāpono (guiding principles).

Te herenga | Accountability

Guided by ngā mātāpono, DOC and Te Rūnanga o Ngāi Tahu are committed to working together to champion *Te Ara Mōrehu* and the Five-Year Action Plan.

A governance framework has been established to give life to this partnership. This framework is led by the Kākāriki Karaka Governance Group, consisting of representatives from the two partners. The Kākāriki Karaka Governance Group provides strategic direction for the overall Kākāriki Karaka Recovery Programme. This includes implementing *Te Ara Mōrehu* and ensuring coordination of actions across the two organisations and more widely for the recovery of kākāriki karaka.

The Kākāriki Karaka Recovery Group provides support and advice to DOC's Kākāriki Karaka Operations Team, the Kākāriki Karaka Governance Group and all others involved in the recovery programme. The Kākāriki Karaka Recovery Group is accountable for developing and reviewing the actions in the Five-Year Action Plan and supporting the achievement of these by relevant parties.

Pūtea | Funding

Resourcing for kākāriki karaka conservation currently comes from the existing work programmes of all the Kākāriki Karaka Recovery Group member organisations and sponsors, including NZ Nature Fund, RealNZ, Christchurch Helicopters, MainPower and Foot Science International. However, we recognise that implementing *Te Ara Mōrehu* will require additional resourcing for some projects. In addition to reviewing resource allocation from organisations on an annual basis, we are committed to ongoing advocacy for additional resources from other sources.

The Kākāriki Karaka Governance Group and Kākāriki Karaka Recovery Group deeply value the contribution of resources (including technical and cultural advice, voluntary labour and funding) from non-governmental organisations, community groups, whānau, hapū, iwi and landowners. These contributions are vital to the success of kākāriki karaka recovery.

It is our hope that *Te Ara Mõrehu* improves collaboration between everyone invested in the future of this manu, and allows us to share kākāriki karaka recovery guiding principles and strategic priorities with potential new supporters.

Arotakenga | Review

The Five-Year Action Plan that supports the implementation of *Te Ara Mōrehu* will be reviewed annually. *Te Ara Mōrehu* will be reviewed in full in 10 years, unless significant events warrant an earlier review.

Kupu aroha | Acknowledgements

The Department of Conservation Te Papa Atawhai and Te Rūnanga o Ngāi Tahu acknowledge the significant mahi and support of a wide range of groups, organisations and individuals who have contributed to the conservation of kākāriki karaka. Without this support, this manu would now be extinct. These contributors include, but are not limited to: Ngāi Tahu whānui whānau members, the Isaac Conservation and Wildlife Trust, Orana Wildlife Park, Pūkaha National Wildlife Centre, Auckland Zoo, Brook Waimārama Sanctuary, Wildbase Hospital at Massey University, University of Canterbury | Te Whare Wānanga o Waitaha, RealNZ, Christchurch Helicopters, MainPower, Foot Science International and many others.

Papakupu | Glossary of te reo Māori terms

Hapū – Māori kinship group, subtribe connected through shared ancestry

Iwi – Māori kinship group, tribe connected through shared ancestry

Kāhui - Flock/s, population/s

Kāhui mohoao – Wild flock/s or population/s

Kaitiaki – Someone or something with a whakapapabased responsibility of care and protection to a place or resource

Kaitiakitanga – The practice or embodiment of the role of kaitiaki

Kawa – Māori protocol/s

Kōhanga – Nest/s, a safe place for young manu to grow and develop

Mahi – Work

Mahinga kai – The practice of sustainably harvesting natural resources. Mahinga kai includes the places where these activities take place, the transmission of knowledge that occurs, the methods and tools used, the sustainability and kaitiakitanga considerations, and the physical gathering, preparing and using of these resources

Manaakitanga – The practice of care, consideration and/or hospitality

Mana – Prestige, authority, control, power, influence, status

Mana whenua – People who have tribal authority over a location based on ancestry and occupation

Manu – Bird/s

Manu mohoao – Wild bird/s

Mātauranga / mātauranga Māori – Knowledge grounded in traditional Māori understandings including science and intergenerational experiences

Mauri – Life force and essence

Ngāi Tahu – The Māori collective that holds tribal authority over a large area of Te Waipounamu (South Island). Ngāi Tahu consists of individuals who descend from the primary hapū of Waitaha, Ngāti Māmoe and Ngāi Tahu being: Ngāti Kurī, Ngāti Irakehu, Ngāti Huirapa, Ngāi Tūāhuriri and Ngāi Te Ruahikihiki

Ngāi Tahu whānui – The people of Ngāi Tahu

Papatipu Rūnanga – The Tribal Councils of Ngāi Tahu whānui referred to in section 9 of Te Rūnanga o Ngāi Tahu Act 1996

Powhiri – Welcome ceremony (typically on a marae)

Pūrākau – Narrative, perspective, account

Rangatiratanga – Authority, self-determination

Rautaki – Strategy

Taiao – The natural environment, nature

Takiwā – Area, region

Taonga – Treasure

Te Tiriti o Waitangi – Te reo Māori version of The Treaty of Waitangi, signed between the Crown and a number of Māori chiefs in 1840

Tikanga / tikanga Māori – Māori customary rules guiding the correct ways of conducting yourself within a Māori worldview

Tirohanga Māori – Māori worldview

Tirohia Hauora – Health check, a review of the health and soundness of the Recovery Programme

Whakapapa - Genealogy

Whanaunga - Relative/s

Whanaungatanga – Relationship, kinship, sense of family connection; can extend to include a relationship through shared experiences and working together that provides people with a sense of belonging and connection







Department of Conservation *Te Papa Atawhai*



Te Rūnanga o NGĀI TAHU

For more information: www.doc.govt.nz/kakariki-karaka