

# Kākāriki Karaka Recovery Monthly Status Report: May 2022

Reporting Period: 30/4/2022 – 31/5/2022

## Recovery Programme Status: How are we tracking to our goal “Preventing Extinction”?

### Overall:

- The establishment of a new population at Brook Sanctuary is continuing to look positive. Final translocation for the 21/22 breeding season was completed 29<sup>th</sup> April, post release monitoring through May was positive with birds remaining anchored to the release site.
- The population in the South Branch Hurunui appears to be experiencing a severe decline and will likely require more intensive monitoring and protection to persist under the current conditions.
- There is still a significant vulnerability to this population for rapid decline during beech mast events – a priority for 2022 was determining the next sites to establish new populations. At the Recovery Group hui on 11/3/2022, it was agreed to recommend that the Hawdon Valley be our focal release site for season 22/23.
- COVID response continues to create uncertainty regarding translocations/releases, as well as day to day management of the species in the wild and captivity. Contingency plans are in place and Kākāriki Rangers have been trained to support captive operations if required.
- There is a Critical Issue regarding how to sustain progress (and ideally momentum) in the programme once J4N funding ends. This needs to be a focus for the Governance Group in 2022.

## Milestones from this month

### Milestone

- Total twelve confirmed nests in the Brook, with six successful nests, one unknown outcome, two unsuccessful and three remaining active through May.
- Large mixed flocks (31 birds seen in one flock) of unbanded and banded kākāriki karaka have been seen in the Brook Sanctuary.
- Work has begun in the Hawdon Valley to accommodate next seasons releases; this includes prepping the release site and establishing cat trapping networks.
- Cat trapping has begun in the Hawdon Valley and South Branch Hurunui (total 4 cats removed to date).
- Meeting with DOC, Issacs and Orana Park staff for an end of season debrief on the captive breeding programme.
- Birds are still breeding at Issacs and Orana Park which will mean possible releases planned for the end of September – start of October 2022
- Initial meetings between iwi, University of Canterbury, and DOC to establish post-graduate iwi students studying the effects of predation on kākāriki karaka.
- RFID bands were attached to six chicks at ICWT with the possibility of more chicks banded.

## Project Issues (new actions bold and italicised)

Critical Issues	Priority	Action Required	Owner	Date First Raised
HT ensure Blumine island Orange-fronted parakeet population understanding and protection is obtained?		Understand how J4N roles can most effectively support Blumine priorities	Director NSI	27/02/2019 <i>To be resolved as J4N plan developed.</i>
How to increase aviary capacity for the Orange-fronted parakeet captive breeding programme?		Support construction of additional aviaries at Orana Park as supported by Governance and Recovery groups.	Director ESI	27/02/2019 <b><i>New aviaries being established at Orana and Isaacs</i></b>
How to ensure that work is not being compromised by access constraints, including elevated river levels and restrictions imposed by adjacent leaseholders?		Build relationships and understandings with Mt White, Eskhead and Lake Taylor stations to establish greater security of access.	Director ESI	28/10/2020 <b><i>Still a live issue, access restrictive for some valleys</i></b>
How to ensure that COVID responses, such as Traffic Light Setting changes and interregional travel restrictions, do not impact translocations?		Support travel required to enable translocation as required.	Director ESI	5/11/2021 <b><i>No current issue</i></b>
<i>How to bring post-graduate research students on board to support addressing data deficiencies for Orange-fronted parakeets?</i>		Continued research into existing knowledge gaps to be supported by J4N positions that need to be recruited asap.	Director ESI	30/3/2022 <b><i>Looking at establishing post-graduate positions.</i></b>
<b><i>How to resource the two new release aviaries required in the Hawdon Valley (total cost ~\$13k)?</i></b>		<b><i>New aviaries required to enable translocations this summer, but Bio-Capex bids not submitted and cannot use Opex for their purchase.</i></b>	Director ESI	1/6/2022
<b><i>How to sustain progress made and momentum in the programme gained during J4N funding boost?</i></b>		<b><i>Need to determine funding path going forward to maintain baseline recovery programme actions</i></b>	Director ESI	1/6/2022

## Actions for GG Consideration (updates bold and italicised)

Team	Issue	Context	Recommended Actions	Risk of not proceeding	Status
Eastern South Island	Increase captive breeding capacity	<ul style="list-style-type: none"> <li>There is currently not enough captive breeding capacity to meet the needs of the Kākāriki Karaka.</li> </ul>	<p>Governance Group to mandate the following:</p> <ul style="list-style-type: none"> <li>Find solution to resolve standoff with building new aviaries whilst go cart issue is being worked through.</li> <li>Funding and install aviaries at Orana Park.</li> <li>Complete Isaac/DOC operational Plan to build new aviaries and secure 10-year tenure for captive breeding</li> <li>Investigate alternative funding options for IVL bid</li> </ul> <p>Current Task assignment for this with ESI Director: <a href="#">DOC-6144305</a></p>	<ol style="list-style-type: none"> <li>Population declines and extirpation of populations in some valleys - the survival of the species is reliant on captive released birds</li> <li>Species persistence</li> <li>Species extinction</li> <li>Loss of primary captive facility for the species</li> <li>Compromised captive breeding programme</li> </ol>	<p>GG agreed on recommendation during GG meeting. 27/8/20</p> <p>Anne and Mark engaged with Orana and have confirmed with Orana Park CEO that aviaries can be constructed there. Quote has been provided by Orana Park as to what it would cost them to construct the aviaries.</p> <p>Now require confirmation of funds and agreement on design. 27/8/20</p> <p>Nic Toki, Wayne Beggs and Andrew Grant met with Rob Clarke (Chair TICWT) re MOU and ongoing relationship with TICWT 1/7/2021</p> <p>Draft for 2021-2026 MOU has been completed and is with Dir ESI for consideration and signing with TICWT</p> <p>NZ conservation fund is in talks with Orana Park as of March about aviary expansions.</p> <p>The Janszoon aviary are arriving April at Isaacs and along with the Ashburton aviaries, will be assembled over Autumn. These will give us another 2 breeding aviaries and 9 holding aviaries for juveniles.</p>

## OPERATIONS REPORT

### Population situation (includes captive and wild sites)

SITE	Situation
ORUAWAIRUA/BLUMINE ISLAND	<ul style="list-style-type: none"> <li>• <b>Approximately 81 birds</b> (based on survey conducted in August 2020) <ul style="list-style-type: none"> <li>○ 10 nests confirmed this season (at least 1 unsuccessful)</li> </ul> </li> </ul>
BROOK WAIMĀRAMA SANCTUARY	<ul style="list-style-type: none"> <li>• <b>Approximately 69 birds</b> (based on sightings over the past 4 months) <ul style="list-style-type: none"> <li>○ 104 birds released to date</li> <li>○ 69 birds detected over the past 4 months</li> <li>○ 11 additional birds were previously detected, but not in the past 4 months</li> <li>○ 19 birds have not been detected since their release</li> <li>○ 5 birds have been found dead</li> <li>○ 12 nests confirmed this season (at least 4 unsuccessful)</li> </ul> </li> </ul>
HAWDON VALLEY	<ul style="list-style-type: none"> <li>• <b>Likely no birds</b> <ul style="list-style-type: none"> <li>○ Surveys undertaken in 2021/22 have not detected kākāriki karaka.</li> </ul> </li> </ul>
POULTER VALLEY	<ul style="list-style-type: none"> <li>• <b>Likely no birds</b> <ul style="list-style-type: none"> <li>○ Surveys undertaken in 2021/22 have not detected kākāriki karaka.</li> </ul> </li> </ul>
SOUTH BRANCH HURUNUI	<ul style="list-style-type: none"> <li>• <b>Approximately 142 (118-166) birds</b> (based on mark-resight analysis in Fig. 1) <ul style="list-style-type: none"> <li>○ Population appears to experiencing a severe decline</li> <li>○ 10 nests confirmed this season</li> </ul> </li> </ul>
NORTH BRANCH HURUNUI	<ul style="list-style-type: none"> <li>• <b>At least 2 birds</b> (based on 2021/22 searches) <ul style="list-style-type: none"> <li>○ 3 localised OFP sightings (2 sightings of a male OFP and 1 of a female OFP) recorded over two days in July 2021</li> </ul> </li> </ul>
ISAACS CONSERVATION & WILDLIFE TRUST	<ul style="list-style-type: none"> <li>• <b>20 adults, 7 chicks</b> <ul style="list-style-type: none"> <li>○ 10 breeding pairs.</li> <li>○ 2 pairs have hatched 1 chick and 6 chicks.</li> <li>○ 2 pairs not breeding, have swapped aviaries and birds around to see what happens.</li> <li>○ 1 non-breeding pair has been released</li> </ul> </li> </ul>
ORANA WILDLIFE PARK	<ul style="list-style-type: none"> <li>• <b>10 adults</b> <ul style="list-style-type: none"> <li>○ 1 older pair (on display)</li> <li>○ 2 pairs breeding</li> <li>○ 2.2 birds for flock mating</li> </ul> </li> </ul>
AUCKLAND ZOO	<ul style="list-style-type: none"> <li>• <b>6 adults</b> <ul style="list-style-type: none"> <li>○ 2 breeding pairs, 1 non-breeding pair</li> </ul> </li> </ul>
MT BRUCE	<ul style="list-style-type: none"> <li>• <b>2 adults</b> <ul style="list-style-type: none"> <li>○ 1 pair on display</li> </ul> </li> </ul>

<b>TOTAL POPULATION ESTIMATE</b>	<b>Current Total ≈ 339 birds (including chicks in captivity)</b>
	• Captive ≈ 45 (38 adults and 7 chicks)
	• Wild ≈ 294
	<b>2020/21 Total ≈ 351 birds</b>
	<b>2019/20 Total ≈ 304 birds</b>
<b>2018/19 Total ≈ 180-230 birds (pending revision)</b>	

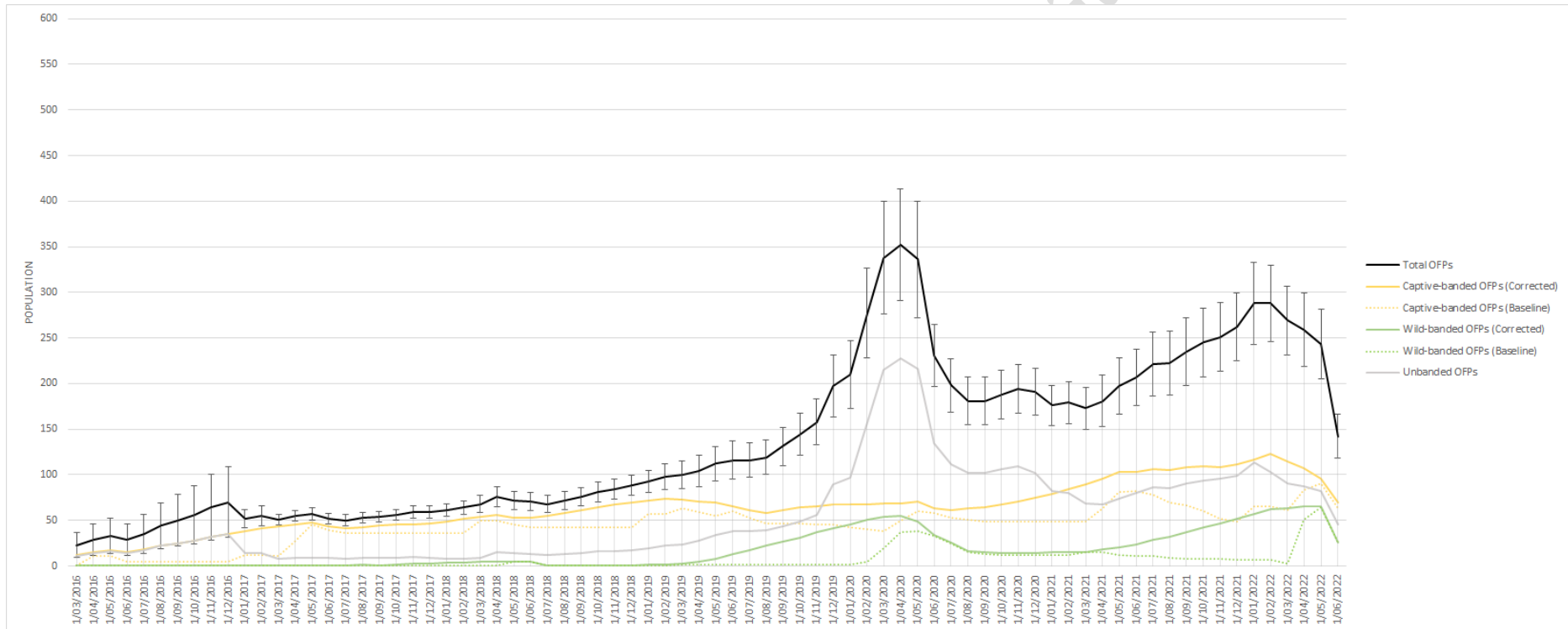


Fig. 1: Rolling population estimate for OFPs in the South Branch of the Hurunui, based on mark-resight survey data collected in the year leading up to each date. Error bars represent 95% confidence intervals. The analysis includes a 2-month pre-survey period to determine the baseline number of banded birds present. The impact of releasing birds in the wild is only fully realised in surveys that commenced after the date of their release. An interim correction factor has been applied to account for this.

## Trapping Update

Table 1: Total pests caught in DOC150, DOC200, DOC250 and cat traps. This represents all predators caught in traps the Hawdon, Andrews, Poulter and South Branch Hurunui valleys.

Month	Cat	Ferret	Hedgehog	Mouse	Rat	Stoat	Weasel	Other
Jul-21	0	0	2	0	41	1	0	2
Sep-21	1	1	3	1	231	7	2	0
Oct-21	0	0	0	27	262	13	3	3
Nov-21	1	1	1	3	118	5	0	4
Dec-21	0	0	8	45	80	8	5	2
Jan-22	4	1	33	16	425	61	8	7
Feb-22	3	0	3	24	195	17	10	0
Mar-22	1	0	20	4	99	13	3	0
Apr-22	0	0	2	2	2	0	0	0
May-22	4	0	6	4	72	12	6	0
<b>Total</b>	<b>14</b>	<b>3</b>	<b>78</b>	<b>126</b>	<b>1525</b>	<b>137</b>	<b>37</b>	<b>18</b>

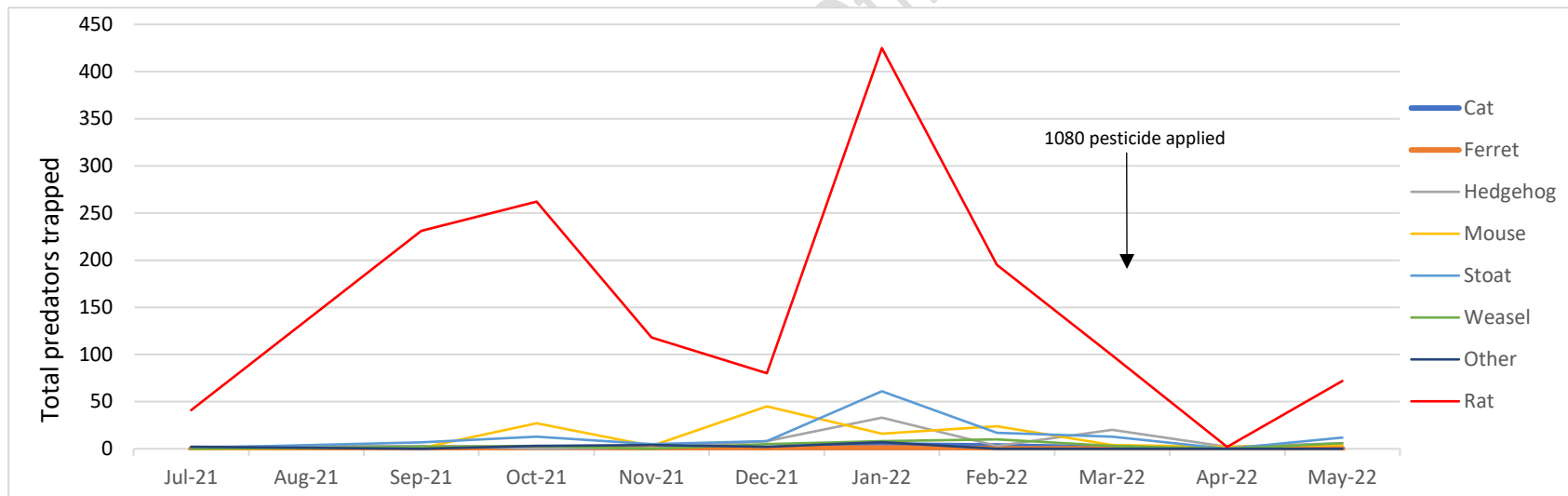


Fig. 2: Total pest catch broken down by month, starting at the beginning of the financial year. This represents all predators combined caught in the Hawdon, Andrews, Poulter and South Branch Hurunui valleys.

## Work programme (includes captive, operations, and research)

SITE	Last Month – <i>What happened since last report?</i>	Next Month – <i>What is planned for next month?</i>
<b>Rangiora</b>	<ul style="list-style-type: none"> <li>Bait station lines flagged in the Hawdon</li> <li>Track cutting by contractors in the Hawdon for these lines</li> <li>Bait station preparation and installation in the South Branch and Hawdon Valley</li> <li>Trap checks in all valleys</li> <li>Seed catchers to be built and placed under feeders (prototypes have been designed)</li> <li>Radio tracking birds in the Brook</li> <li>Setting up research on Blumine</li> <li>Te Tatai Atawhai training</li> <li>Flying aviaries from the Poulter to the Hawdon</li> <li>Aviaries set up in the Hawdon</li> <li>Cat trapping</li> </ul>	<ul style="list-style-type: none"> <li>Bait station installation in the Hawdon Valley</li> <li>Clearing sites around the Hawdon Biv so two additional portacom Units can be installed – used for accommodation and storage 22/23</li> <li>Monitoring RFID banded chicks</li> <li>Cat trapping</li> <li>Aviaries set up in the Hawdon</li> <li>End of season debrief for the whole team</li> <li>Servicing feeder cameras</li> <li>Servicing trunk cameras</li> <li>Need feed trials</li> </ul>
<b>Oruawairua</b>	<ul style="list-style-type: none"> <li>Monitoring of all nests</li> <li>Feeder cameras installed</li> <li>Monthly trap and device checks</li> <li>Public access track cut</li> <li>Resource consent work for 2x Portacom units</li> </ul>	<ul style="list-style-type: none"> <li>On-island implementation of research plan from Rangiora staff</li> <li>Monthly trap and device checks</li> <li>Biodiversity track cutting from volunteers</li> <li>Nest searching</li> </ul>
<b>Science</b>	<ul style="list-style-type: none"> <li>Field research described above</li> <li>No further monitoring of nest predator activity – camera network removed by Ops supposedly due to capacity issues</li> <li>Provided guidance on banding, RFID tech, tracking tunnels, transmitters, monitoring, data entry, volunteers, budget planning, etc.</li> <li>Progressed discussions on RFID bands, feeder modifications, transmitters, captive breeding, post-graduate students, etc.</li> <li>Circulated status of research initiatives</li> </ul>	<ul style="list-style-type: none"> <li>Field research described above</li> <li>Complete RFID band and reader trials</li> <li>Refine and test feeder modifications</li> <li>Modify cameras to reduce issues with condensation during damp and rainy periods</li> <li>Modify app to record more detailed data on other threatened species</li> <li>Continue to update summary graphs and charts</li> <li>Revise history of nests in Hawdon and Poulter</li> <li>Plan digitisation of historic data</li> <li>Provide guidance for surveys, nest monitoring, feeder monitoring, etc.</li> <li>Update list of potential release sites</li> </ul>
<b>Captive</b>	<ul style="list-style-type: none"> <li>Some breeding continuing, chicks will be held over winter.</li> </ul>	<ul style="list-style-type: none"> <li>Construction of additional aviaries.</li> </ul>