

Studying the wild diets of young kiwi using environmental DNA techniques

We all know that kiwi eat worms, grubs, invertebrates, leaves and berries, but do we know what kinds, and how much of each are eaten by hatchling aged kiwi?

Do they eat whatever invertebrates they first encounter? Do they eat more worms than grubs? Do they select particular berry species, and specifically search those out from within their surroundings?

Across 2024-2025 we have been generously supported by the Birds New Zealand Research Fund to investigate the wild diet of very young kiwi. We have been working with our dedicated collaborators from the Department of Conservation, local iwi, the Whakatane Kiwi Trust, Wild Solutions, & Manaaki Whenua/Landcare Research to find and collect faecal samples from young kiwi chicks, and use eDNA techniques to identify what animals and plants the samples contain.

While kiwi have been successfully raised in captivity from egg to juvenile as part of Operation Nest Egg (ONE) for two decades on beef-mince, cat-biscuit and vegetable-based diets, the specific nutritional needs and dietary preferences of kiwi chicks has not been investigated.

Our research will help improve of the captive diets fed to young kiwi raised in ONE, and ensure that they have the best start for their lives in the wild.

We are still in the midst of our exciting research program. We have iwi consultations underway, new hapu-led kiwi-diet discovery collaborations inspired and initiated, and roughly half the samples collected.

Our plan is to try and identify the wild diets of both rowi and Eastern Brown Kiwi-nui, two kiwi whose chicks are frequently raised in ONE. But those in the kiwi world will know that after a couple of seasons of back-to-back breeding, 2024/2025 was a very quiet breeding year! Happily, our hardy specimen collectors are willing to continue collecting this coming season to ensure adequate sampling, and lab work could commence in autumn.

In addition to the kind assistance we have received from technical collaborators and iwi experts, we have been supported in engaging the Birds New Zealand community by Ngāi Tahu Tourism's National Kiwi Hatchery Aotearoa. In January the National Kiwi Hatchery, New Zealand's largest and longest running ONE facility, allowed us to host an exclusive behind the scenes tour of their incubation and creche facility for Birds New Zealand Members. After their tour, members were and hosted by keepers Jessica Flamy and Nell Masters in the kiwi creche & viewed two juvenile kiwi-nui receiving their pre-release health checks.

Kiwi Keeper Sarah Uhl also made a delicious morning tea for the group, which we enjoyed together discussing the project and kiwi conservation.

We are very grateful to the generous support of Birds New Zealand and all involved and we look forward to updating members on our findings in 2026.

Lindsey Gray & Megan Jolly.

