Nest minding kakapo chicks on Whenua Hou

Kirsty Chalmers and Deidre Vercoe, Auckland Zoo, New Zealand

In February and April this year, two Auckland Zoo staff, Deidre Vercoe and Kirsty Chalmers were lucky enough to travel to Whenua Hou (Codfish Island) to nest mind kakapo chicks, as volunteers on the Department of Conservation's Kakapo Recovery Programme. Whenua Hou is just off the north west coast of Stewart Island, and is home to most of the world population of kakapo, one of the world's rarest species of parrot. The kakapo population has been decimated by introduced mammalian predators (such as cats and stoats) and this, along with their very slow breeding rate, has seen them plummet to the brink of extinction. Until this year's bumper breeding season, there were only 62 kakapo in the whole world!

The last breeding event occurred in 1999, so hopes were high for the 2002 season. When Kakapo Programme staff realised last year that the rimu trees on Whenua Hou (the main food supply for female kakapo rearing their chicks) were "masting," producing a much heavier fruit crop than usual, their hopes rose even higher, and they moved all potential breeding birds to the island. Even they were surprised when 20 out of 21 females nested, producing 67 eggs, and 26 chicks. Chick production and survival was boosted by fostering fertile eggs to females with infertile clutches, to allow more fertile females to re-nest, and fostering eggs between nests to match chicks of similar ages. Female kakapo are "solo mums" so many of them were trained to take supplementary food to ensure that they had enough food for their chicks. 24 chicks have survived, boosting the kakapo population by an amazing 39% in just one season. DNA sexing of chicks has confirmed that 15 are female, raising the total number of females from just 26 to 41 (47% of total population).

One of the young breeding females, 10-year old Hoki, has a special connection to Auckland Zoo. She hatched under her mother, Zephyr, on Whenua Hou in 1992. However, the rimu crop on the island failed, and Zephyr could not find enough food for her chicks. So, at the age of 5 weeks, Hoki was flown business class to Auckland Zoo, where she was successfully reared by dedicated Zoo staff – the first kakapo ever to be handreared! When she reached fledging age, Hoki moved to Maud Island (in the Marlborough Sounds), where she lived for 5 years before returning to her birthplace, Whenua Hou. She bred for the first time ever this year, laying one fertile egg which, unfortunately, died in the early stages of development. Determined to give Hoki a chance to practice her mothering skills, Kakapo Programme staff gave her a fertile egg from another female, Alice. Despite being hand-reared herself, Hoki demonstrated that she knows just what to do when it comes to raising chicks. She successfully reared the male chick, named Al, which is now out of the nest.

As volunteer nest minders, our primary duties while on the island were to monitor the kakapo nests at night and to notify Kakapo Programme Staff of any problems. Our working day began at 4:00 P.M. with the rush for a hearty dinner. A hugely full stomach and an hour later, nest minders had packed their gear and set out.

There were always a few groans heard as the 12 kg batteries were loaded into bulging backpacks, along with raingear, sleeping gear, woollen hats and midnight snacks. Some were setting out to familiar nest sites, where they felt a bond developing with the bird under their care; others were enjoying the challenge of exploring different areas of the island in which their next nest was situated.

In the first few days on the island, the climbs to the nests were a shock for some, but muscles soon adapted to the extra weight and activity. Nest sites were reached with enough time before dark to settle in and prepare. The nest minders' tents were pitched about 50 metres away from the bird's nest. Within it the nesting mother was constantly watched by a tiny video camera that was being played and recorded within the nest minders' tent. When she left the nest to forage, she broke a sensor beam, which alerted the nest minder – very LOUDLY – to her departure.

A female sitting on a clutch of precious eggs usually only left them for 1 or 2 short periods during the night. The nest minding in this case was relatively easy and could be done by a single volunteer. However once chicks arrived on the scene, mothering became a full time chore, and so did nest minding! She could be out for 2-3 hours at a time, often returning to quickly feed her growing chicks before venturing out once more. The majority of these nests had 2 volunteers who would work nest-minding shifts.

The loud awakening 'ding dong' signalled the start of such a shift. After rousing ourselves and checking the video monitor to confirm the bird had left, we would call the nest controller at Codfish base and dress up warmly to slowly head out to the nest. Tuning into the radio frequency of the mother bird, the nest minder Photos courtesy Gideon Climo / Aukland Zoo



When the ben leaves the nest for food, "nest minders" step in and provide heating pads to keep the rare chicks warm. Here Deidre Vercoe stands in for the mother Kakapo.

can estimate in which direction and how far away the bird is. Heat pads would be gently placed over the nest contents, keeping them snug from the night chills until Mum returned.

No heat pads were provided for the nest minders, who would sit through chilling wind, driving rain and the occasional hailstorm, to protect 'their' kakapo. Yet in the moments when the weather was at peace, and you had managed to gain some comfort from the rotten log you were snuggling up to, it was all worthwhile. The island was abuzz with life at night, seabirds flying around like lawnmowers in the sky, kakapo males booming to potential mates, morepork silently approaching to inspect you, and the occasional bat almost brushing your cheek as it tore by. There were no cars, no lights, no noisy neighbours, just a fantastic escape that refreshed the spirit. Sooner or later the bird would come crashing through the underbrush to return to her duties. Nest minders would then retreat to what now seemed like the 5 star luxury of their bedroll and tent, and catch as much sleep as possible before the next outing.

Eventually morning came and all over the island sleepy nest minders would pack up and head back to base. The only duty during the day was to watch a condensed 24 hour video tape of the nest you had just left, recording female absence times, heat padding times, and amount of feeding time the mother devotes to each chick. The remainder of the short day was filled with eating, swimming, enjoying



1 adult Kakapo stepping out for a midnight snack.

the beautiful island scenery, napping, laughing and more eating. Very quickly 4:00 P.M. would roll around once more.

The nest minding work was generously supported by Kakapo Recovery Programme sponsor Comalco New Zealand, who met the costs of transporting nest minders to Whenua Hou, and paid for their food while on the island.

For additional information:

www.kakaporecovery.org.nz.