

However, four of the 10 species represented, including kakapo, have not been recorded in other collections from the cave (Worthy 1998). Analysis of photographs and measurements of the bones indicate they are correctly identified (Fig. 4), however closer examination of the bones is required to determine whether their origin is likely to have been Earnscleugh Cave, or if they have been mislabeled.

The only other record of kakapo from Central Otago is three coprolites from a cave on Old Man Range (Otago Museum, AV10436). However, the size and shape of these coprolites suggest they are likely to be from an upland moa (*Megalapteryx didinus*). Feathers and coprolites from this moa species are common in caves and rockshelters throughout the region.

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SHORT NOTE ► Kakapo in Maori lore

ROB TIPÁ

770 Portobello Road, Portobello,
 Dunedin, New Zealand.
 robtipa@clear.net.nz

In Maori lore, there is an old story about the kakapo that has survived the test of time. Legend has it that toroa, the great ocean wandering albatross, was once a land bird but, because of its brilliant white plumage, it was conspicuous and vulnerable on land. So it swapped places with the kakapo, which was once a seabird, and soared out to sea, its markings blending beautifully with the foaming white crests of the southern ocean swells. Meanwhile, the kakapo vanished into the twilight forests of Aotearoa, its mossy green plumage perfect camouflage for its new home. Until the arrival of humans, it had few natural enemies. It was so safe

in the depths of the bush, it eventually lost its ability to fly. Its greatest defence was its colour, nocturnal habits, and instinct to freeze rather than flee.

This survival strategy served it well until the arrival of the Polynesian kuri (dog) that relied on scent rather than sight to flush out game. Kakapo were sitting ducks, so to speak. And kuri grew fat on kakapo when an iwi settled in a new area.

The kakapo is one of a number of native New Zealand birds regarded as taonga (treasured) species to the Ngai Tahu iwi. It was hunted for its meat, skin and feathers. The meat was a great delicacy for tangata whenua, but it had a "strong and slightly stringent flavour", according to western tastes. The bird was plucked and skinned before eating. Some were preserved in their own fat in baskets made from the inner bark of totara trees or in poha (bags) made from kelp. Bundles of kakapo tail feathers were attached to these containers for decoration and to identify the contents.

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Feathers from the kakapo, kaka, kakariki, koekoea and ruru were also used to decorate the head (te reke) of the taiaha, but this decoration was removed during warfare. Kakapo skins with their feathers intact were softened and used to make beautiful kahu kakapo (dress capes) and kakahu (cloaks) for wives and daughters of leading chiefs. Sometimes feathers were individually woven into ceremonial cloaks, a slow and painstaking task. Some of these highly prized garments are preserved in museum collections today. The ceremonial cloak worn by New Zealand team flag-bearer, Beatrice Faumuina, at the Athens Olympics had feathers in it from a range of rare native birds, including kakapo.

The birds were easily caught by dogs, snares and pit traps, cornered on moonlit nights when a food source was abundant or when birds assembled on their whawharua (breeding hollows). One of the most detailed accounts of traditional methods used to catch kakapo comes from ethnographer Elsdon Best (1925), who recorded the following tale from the Tuhoe iwi in the Ureweras. At night the birds congregated at a whawharua (hollow place) and began a strange ritual by beating their wings on the ground, uttering a weird cry [known as booming] and forming a pokoroa (hole) in the ground with its beak. Each whawharua had its leader, known as the tiaka, Best wrote. This bird walked around the outer edge of the whawharua like a sentry and did not join in the activities. At dawn this smaller bird led the flock back to their hiding places. During this mating ritual, hunters captured the birds by approaching from downwind and waiting until the dance started. Obviously, the birds had a keen sense of smell. Provided the tiaka was captured first, the rest could be caught by hand. If the tiaka escaped, so did the rest of the birds.

For several hundred years southern Maori relied on moa from the inland plains of Te Waipounamu and seals on the coast as their primary food source. As these sources declined about 1350 AD, permanent settlements based on these hunting grounds split up and the emphasis switched to a more transient lifestyle, fishing, and seasonal hunting forays into the bush for smaller species such as kakapo.

The birds may have been well camouflaged, but they left plenty of evidence of their movements. Southern ethnographer James Herries Beattie (1994) recorded that the birds had a refined taste for the best aruhe (bracken fern root) and left plenty of sign of gnawed pieces behind them. They only ate the inner part of the best roots and

rejected the stringy fibre. Where this refuse was found, Maori learnt to search closely nearby for the best aruhe. This was a starchy survival food for them during hard times and food shortages.

Another common sign of kakapo activity in an area was when harakeke (flax) blades had been chewed into strips. When this sign was observed, the birds lost condition (maiki or maieke) and the flesh tasted kaua (bitter), according to Beattie's contacts. "The kakapo lives in rua (holes) made like umu (ovens), only deeper", he wrote. "The bird is only sought when it is fat, otherwise it is no good. It has a habit of jumping into its hole and shaking itself and the old people said it was trying to shake the fat out of itself and make itself maiki".

According to Maori folklore, when Polynesians first arrived in Aotearoa over 1000 years ago, kakapo were found throughout the country. Bones found in caves and middens confirm the species was once widely distributed throughout the North and South Islands. By 1843, they were almost extinct in the North Island. In Nelson, Westland and Fiordland were small population strongholds, but the species was already in serious decline in the south as well. European settlement greatly accelerated this decline, with increasing hunting pressure, forest clearance and the introduction of mammals that became kakapo predators and competitors for the same foods. In 1899, Westland explorer Charles Douglas recorded the birds were caught simply by shaking the bush on which they were feeding and they would fall to the ground (Langton 2000)

Sprung by a dog with no recollection of its last meal, the cornered parrot of the night had one last line of defence - a kick like a mule. "Ka kiki te waewae" might have won it the odd battle with a young, inexperienced dog, but kakapo were already losing the war of survival.

GLOSSARY

Localities: Aotearoa – Maori name for North Island but now commonly used as the Maori name for New Zealand; Te Waipounamu - Maori name for South Island; Birds: toroa – albatross (*Diomedea* sp.); kakapo – *Strigops habroptilis*; kaka – *Nestor meridionalis*; kakariki – parakeet (*Cyanoramphus* sp.); koekoea – long-tailed cuckoo (*Eudynamis taitensis*); ruru – morepork (*Ninox novaeseelandiae*); moa – collective name for large flightless birds of Order Dinornithiformes (Family Emeidae and Dinornithidae); Plants: harakeke – flax (*Phormium tenax*); bracken fern – *Pteridium esculentum*

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