Photo: G. Harrison

John McLennan and his co-worker Murray Potter change the transmitter on a kiwi's leg. Belle, with muzzle and bell, is a young labrador trained to scent and track down kiwis.

Entrance to a natural tunnel which serves as a daytime shelter for a radio-tagged kiwi, tracked by following the signal from her transmitter.

Photo: G. Harrison

land clearance. Once the scrub is cut, leaving a dense layer of cover just a metre or so above the ground, the kiwis will probably cease to burrow altogether. ***In that case, if they are still there at the time of the fire, they will not have a chance of escape.***

The kiwis' level of night time activity is astonishing. They emerge at dusk and return to bed at dawn. They are active all night, every night, regardless of the weather. A bird may travel 1000 metres during a single night's foraging, covering the entire length of its range in a few hours. A kiwi located on one side of its range at 2am has been found on the other side at the end of the night.

The birds' ranges are very large, covering from 14 to 50 hectares. One pair was marked, and they shared the same territory. Also marked were two females, which occupied exclusive territories — although these may overlap with a male's territory. That result is a surprise, because the only previous study — done in Northland — found territory sizes of 3 to 5 hectares. Large ranges may be a characteristic of the Hawke's Bay brown kiwis, because birds subsequently radio-tagged in nearby native forest have similarly extensive ranges.

Conclusions

The finding on range size is important for the design of kiwi reserves. In the past people have considered that 20 to 50 hectares were probably adequate for a reserve, but we now know that would hold only one, maybe two birds. Taking a minimum viable population to be perhaps 20 pairs, reserves of 500 hectares or more are necessary. Most of the existing reserves in Hawke's Bay are much smaller.

Ironically, the Waitere study is being abandoned largely because it has been so successful in finding kiwis. This population and its habitat look valuable enough to merit full preservation, and the Waitere scrub is in any case too dense to allow observation of the kiwis' behaviour.

Research has now moved to an area on the other side of the Mohaka, where a privately owned tract of native forest and scrub called Haliburton's Bush also holds a significant kiwi population. Ten birds have been identified there, and eight radio-tagged. Their range size and night time activity are proving to be similar to the Waitere birds, while the forest habitat makes fallen logs a frequent daytime shelter.

Some research will continue on the Waitere kiwis. A small area of the block is to be cleared this summer, and during the burn-off smoke levels and temperatures in kiwi burrows will be monitored. If a significant portion of the block is cleared, as the management plans proposes, birds will be radio-tagged, followed throughout the clearance and then, if necessary, uplifted before the burn-off. That research will help answer the key question of whether birds do in fact move out before the scrub is burnt.

Waitere contains a viable kiwi population. However, to make it a worthwhile reserve for kiwis, the absolute minimum area that decision-makers will have to consider setting aside is 500 hectares — and preferably a good deal more.

WAITERE DESERVES FULL PROTECTION

Species conservation does not aim simply to preserve the last survivors of a species. It also seeks to maintain viable populations of a species throughout its natural range. Not only does this preserve species diversity. It also means people may have the chance to see the species throughout the country.

While we all support efforts to preserve the kakapo in southern Stewart Island's tangled scrub, few of us will ever get to see this bird, the world's largest parrot, once widespread throughout New Zealand.

The North Island brown kiwi is still common, although under pressure, in Northland and Taranaki. In Hawkes Bay it is threatened with regional extinction because of continuing habitat destruction by Government agencies and by the private sector using taxpayer funded grants.

Waitere contains Hawkes Bay's largest recorded population of kiwis — 30 to 50 birds. Full credit is due to the people of Hawkes bay for gaining a reprieve for these birds from Lands and Survey clearance. However our efforts could be in vain if the draft management plan for Waitere is implemented.

This zones 20% of the block for immediate clearance, places the remainder only under a three year clearance moratorium and threatens to dissect the block with major roads.

The publicly owned Woodstock farm-forest development block covers 7,550 hectares, most of which is now in pines or pasture, apart from the 1,650 ha Waitere shrublands. Waitere is now an island of native vegetation amidst a sea of developed land.

A balance between conservation and development has already been struck on Woodstock. Waitere's shrublands must now be reserved in their entirety as a home for kiwis, fernbird and other native wildlife.

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