

KERERU NEWS No. 49 (1 August 2005)

Snippets of news about kereru

1. Kereru (and tui) nesting in predator-controlled environment - Warren Agnew

We have had a pair of kereru nesting in the same acmena tree (lillypilly) for probably 10 years or so. We can't be certain that the pair have remained the same birds but the nest is always at about 6 metres and in pretty much the same position. This past year they raised 2 chicks. We live in an area where there has been total possum eradication, with ongoing work to control rats. We have the Black Trakka tunnels at 6 sites on our 1 acre section. If rats are detected we use an American trap, the Kness Big Snap E. It fits inside the trakka tunnel, kills rats regardless of their direction through the tunnel, and has a kill bar that only travels through 60 degrees; available at Garrards in Auckland. We feed tui and have seen our population increase from a few birds to today they drink 6-7 litres of sugar-water per day. [If you want to see a neat pic of the tui (several) at the feeder, reply and I'll send it as an attachment - Ralph]. At any one time there are probably 50 to 60 birds sitting in trees near to the feeder. They nest at times within 5 metres of our house which is at Scotts Landing, on the coast from Warkworth.

2. Kereru drown in a water tank - Helen Moodie

Yep, much to our heartbreak we found two dead kukupa in a rainwater drum (plastic 44 gallon drum equivalent). It was under reasonably thick cover of mature totara trees, and things were really dry up here in Northland at the time. However, we still seem to have a pair of kukupa in the puriri trees by our house (saw them on Sunday nibbling away at the kowhai down by the creek). We are hoping that it was juveniles (for the first year we have been pretty good about rat control all summer), and that our pair can do their stuff again next year. The tank is now fitted with a protective cover.

3. Kereru in native forest remnants in the Auckland region – Heidi Stevens

As part of my PhD research I investigated the effects of landscape and remnant variables on kereru abundance in forest remnants within the Auckland region. Five-minute bird counts were conducted in 36 native forest remnants (ranging in size from 0.4 to 82.3 ha), and in four sites within continuous native forest, in summer (November-January) and winter (May-July) from November 1999 to July 2001. Remnants were located within both urban and rural landscapes. Continuous forest sites were located within the Waitakere Ranges (>15,000 ha). Data were analyzed using generalized linear modeling.

Kereru were most abundant in remnants within rural landscapes, followed by continuous forest, and were least abundant in urban forest remnants. Kereru abundance did not differ significantly between summer and winter. Overall, kereru abundance was significantly higher in the second year of the study. This was due to a significant increase in kereru abundance within continuous forest and in forest remnants within rural landscapes. Forest remnant size had no significant effect on abundances of kereru. Kereru abundance in remnants within urban landscapes was significantly positively affected by surrounding landscape 'linkage' (degrees of the horizon occupied by woody vegetation, where the horizon was taken as a 1 km radius from the edge of the remnant).

A range of within-remnant characteristics were found to significantly affect kereru abundance. Native plant species richness, percentage native plant cover, percentage cover of vegetation between 5 and 10 m in height, and relative native plant species richness had a positive effect on kereru abundance. Introduced plant species richness, percentage introduced plant cover, level of human impact, and remnant exposure negatively affected kereru abundance. The relationships found, and the strength of the relationships, varied between differing seasons and

surrounding landscape types. Introduced bird abundances and relative abundances of rodents and mustelids were not significantly negatively related to kereru abundance.

The spatial distribution of kereru among native forest remnants was significantly positively affected by native fruit availability (summarized by a Food Availability Index). Temporal variation in kereru abundance within individual remnants was not significantly related to temporal variation in fruit availability.

4. Collision injuries - Brett Gartrell (New Zealand Wildlife Health Centre, Massey University) and **Christine Mander** (practising vet in Hutt Valley)

I (Ralph P.) recently read a paper entitled "Comparison of fatal bird injuries from collisions with towers and windows" [2005, C.J. Veltri & D. Klem, Journal of Field Ornithology]. The last sentence was interesting because I thought it may be of use to people around the country dealing with kereru that have flown into windows or vehicles. "Those treating survivors have had some success in administering the drug dexamethasone sodium phosphate as much as 6-8 hours after impact to help limit brain swelling." As a result I got in touch with Brett & Christine for their comments about the use of this drug when dealing with injured kereru. Here are their replies:

Brett: Dexamethasone causes severe suppression of the immune system and in birds a single injection can do this for 6-8 weeks, leading to increased chance of aspergillosis, slower wound healing and more chance of secondary bacterial infections. Absolutely not recommended and would not have got past the reviewers in a veterinary journal. The best recommendations are good supportive care, fluids, food and if severe, a veterinarian can prescribe a non-steroidal anti-inflammatory drug called meloxicam which is given orally at 0.2mg/kg twice a day.

It is also worth mentioning that most kereru see these obstacles and tend to pull up at the last moment so most of the trauma patients we see are chest trauma rather than head trauma. Internal haemorrhage into the lungs, shoulder (coracoid, scapula and clavicle) and humeral fractures are the most common injuries. If you can convince your vets to get an xray of these birds it will help you sort out which ones are going to make it.

Christine: Dexamethasone is a prescription drug (can't be handed out for use in the field) and birds are so susceptible to severe and prolonged immunosuppression from a single injection that I can't even remember when I last used it in a bird.

I have seen at least 5 kereru that have suffered fractured clavicles or a displaced coracoid (the ventral end shunted backwards off its attachment to the sternum, resulting in hematomas adjacent to the heart) after collisions. Presumably this chest-first impact happens when they

see the obstacle and attempt to pull up at the last minute. These birds will often flap their wings at you and appear superficially to be OK. Two of my cases were diagnosed post mortem after they died instantly when I crop tubed them with warmed fluids; the intention had been to stabilise them before proceeding with xrays etc. Their hearts were so badly bruised by the displaced end of the clavicle that they probably never stood a chance.

The ones that come in with bent beaks or other signs of head-first impact (less common in my experience) probably are at risk of increased intracranial pressure (swelling of or around the brain). Some people think that some of these cases MIGHT benefit from dexamethasone but I prefer to err on the side of caution. Fluid therapy, supportive care and in some cases supplemental oxygen and diuretics will be more important in achieving the best possible outcome for these birds. Fluid therapy (by crop needle if conscious and alert, subcutaneously if moribund), hand feeding (if conscious and alert), a minimally stressful environment (and remember to avoid overheating of head injury cases) and protection from predators (i.e. defer release) for at least 48 hours are the only aspects you can reasonably be expected to provide in the field.