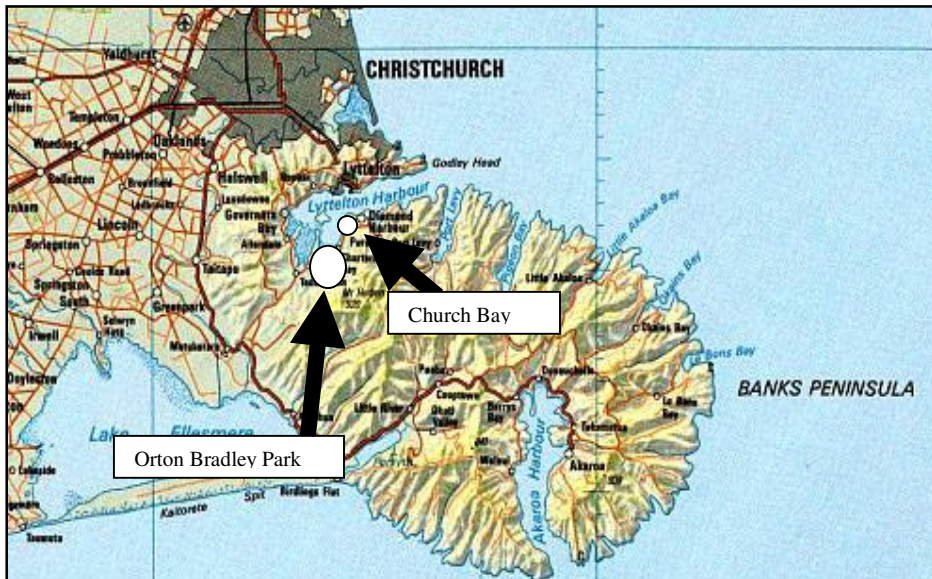


'Habitat use of kererū in a rural / urban / patchy remnant forest habitat matrix on Banks Peninsula, New Zealand'

Introduction

Maaike Schotborgh joined Kaupapa Kererū mid way through 2003 and is studying towards her M. Sc in Ecology and Conservation at Lincoln University. Maaike began her fieldwork in January 2004 by capturing 18 kererū in Orton Bradley Park (Charteris Bay) and Church Bay with the assistance from the Department of Conservation. Captured kererū were banded with metal leg bands and color-coded jesses. Radio transmitters were mounted onto the birds with nylon cord weak-link harnesses.

Figure 1: Map of Orton Bradley Park and Church Bay.



For each kererū captured the following data was recorded (see table below);

- Length and width (to the nearest millimeter) of beak, tail feathers and wing
- Weight of the kererū
- Tx channel, fine tuning, band number, and jesse code were recorded

Table 1: Information on kererū captured from Orton Bradley Park and Church Bay.

Capture date	Tx	Band no.	Jesse code	Measurements (mm)				Catch site
	channel			Weight	Tail	Wing	Beak	
22/01/2004	10 +1.0	13859	R-yellow L-green R-	653	193	252	18.2	CB
28/02/2004	12+0.9	80595	yellow	613	198	255	16.8	OBP1
20/01/2004	14+0.9	13851	R-blue	568	184	258	14.9	OBP1
20/01/2004	16+0.3*	13856	L-red	723	186	262	23.4	OBP1
28/02/2004	18+0.5	80592	L-yellow R-red	654	200	261	16.1	CB
20/01/2004	20+1.0	13853	R-green	648	186	249	16.9	OBP1
20/01/2004	22+0.1	13852	L-yellow	663	200	265	15.3	OBP1
20/01/2004	24+0.9	13854	R-red	718	187	255	17.9	OBP1
28/02/2004	26+1.0*	80596	L-green	624	203	257	12.3	OBP1
20/01/2004	28+0.5*	13855	L-blue	603	198	246	23.2	OBP1
21/01/2004	30+1.0	13857	L-blue R-red	708	200	257	16.9	OBP1
21/01/2004	32+0.3	13858	L-red R-blue L-yellow R-	687	192	260	18.0	OBP1
28/01/2004	34 -1.0	80594	green	524	170	227	14.2	CB
21/01/2004	36+0.9	80591	green-green	603	175	249	18.4	CB
28/02/2004	38+0.5	80593	L-blue R-yellow	794	188	260	19.9	CB
9/03/2004	16+0.5	80598	L-red	643	206	260	18	OBP2
9/03/2004	26+1.0	80599	Orange-Orange	594	163	259	16.1	OBP2
9/03/2004	28+0.5	580597	L-blue	705	191	259	18.4	OBP2
Mean				781.7	228	306.1	20.99	

Key

Catch sites:

* = bird found dead and transmitter redeployed on an other bird on 09/03/04

L = left; R = right

OBP1 = Orton Bradley Park (plum tree Manager's house)

OBP = Orton Bradley Park (poroporo patch on Andersons Rd)

CB = Church Bay (plum trees)

Feather samples were taken to determine the sex of each of the radio tagged kererū by DNA extraction. We are currently discussing how to best use these feather samples and whether analysis of the genetics will add more value to the kererū data base. As kererū genetics are not a purpose of my thesis, we are discussing what best to do with Manaaki Whenua and the Department of Conservation.

Update of the radio tracking results (February–August 2004)

15 radio tagged kererū have been tracked for 5 consecutive days per fortnight since February. During this time the location of all birds was recorded at least once per day during a fieldtrip for most kererū.

Preliminary Results: Deaths

In January Maaike encountered one radio tagged kererū dead in the proximity of Orton Bradley Park. Examination of the bird showed a broken collarbone, presumably caused by flying into a branch, window or car. During radio tracking in February, two of the tagged kererū were found dead in a poroporo patch on Orton Bradley Park. The birds had been foraging on the poroporo berries. Closer examination of the site revealed another six carcasses within the same poroporo patch. The birds are thought to be predated on by either a cat or a stoat.

Preliminary Results: Movements of Kererū @ Orton Bradley Park

Movement patterns of radio tagged kererū vary between the different birds (see map below). On the map, the coloured arrows show general movement patterns of the 15-tagged kererū.

Small movements: Four kererū have stayed within a couple kilometers of the catch site. These birds have switched the use of plant species during

this time, but have not traveled away (see map below; green arrow).

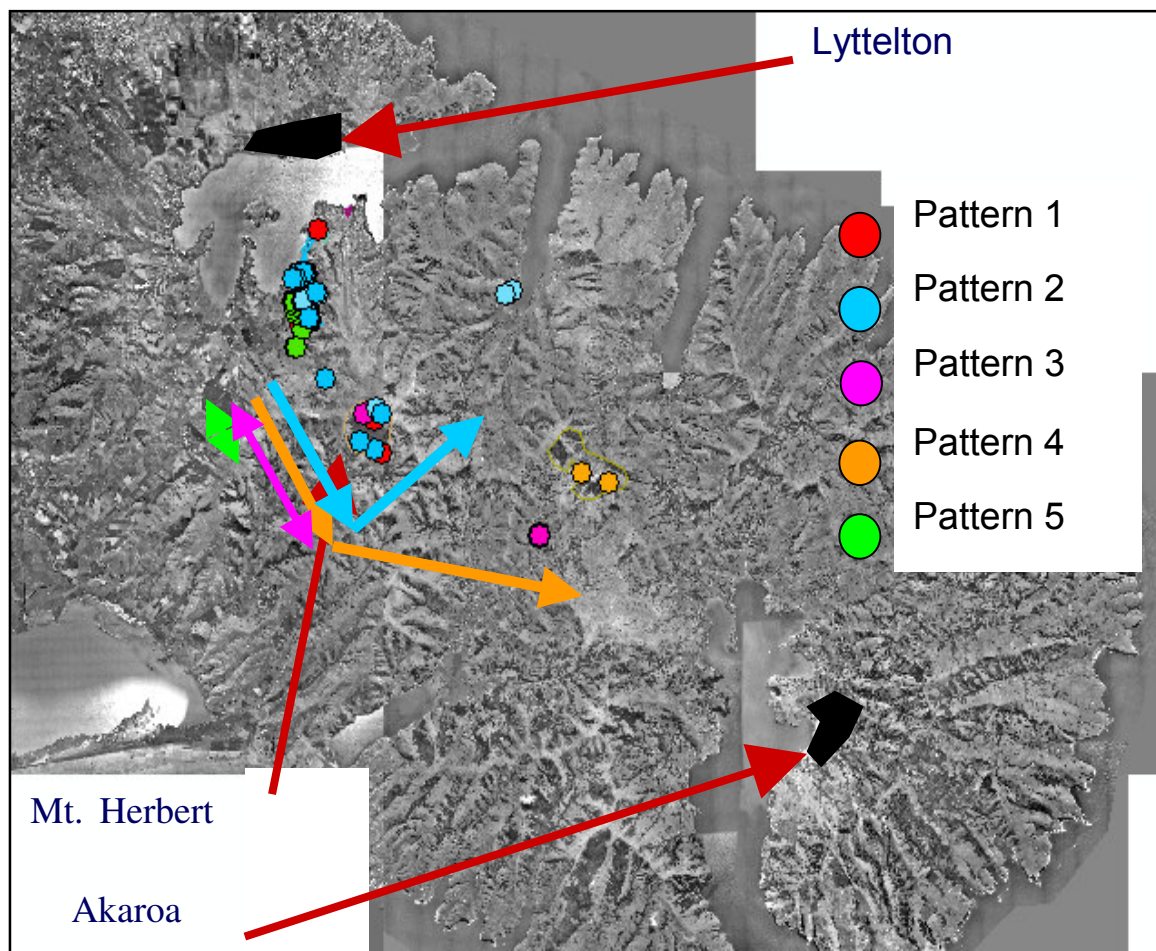
Middle movements: In March, four kererü have traveled to the Mt Herbert Reserve which is about 6 kilometers from the catch site. All these kererü, except one who is still in the Reserve, have returned to Orton Bradley Park (occurred in June; see map below; purple arrow).

Large movements: Two birds traveled to the Mt Herbert Reserve in March with the 'middle movement' kererü. In June these birds continued on to Port Levy (blue arrow on map) and to Cooptown (Little River area; orange arrow on map). The total travel distance for these kererü is about 15 km.

Preliminary Movements of Kererü @ Church Bay

All five kererü have been located within the Church Bay area since the start of the radio tracking. An exception was one kererü (Tx10) who flew to the Mt Herbert Reserve during one week but returned within the same week and has been recorded in Church Bay each tracking day since. Two other kererü have been recorded about 200m away in Diamond Harbour for a day. These have returned to Church Bay and have not been recorded outside of the area again.

Figure 2: Map Showing The Preliminary Results For Movement of Kererü.

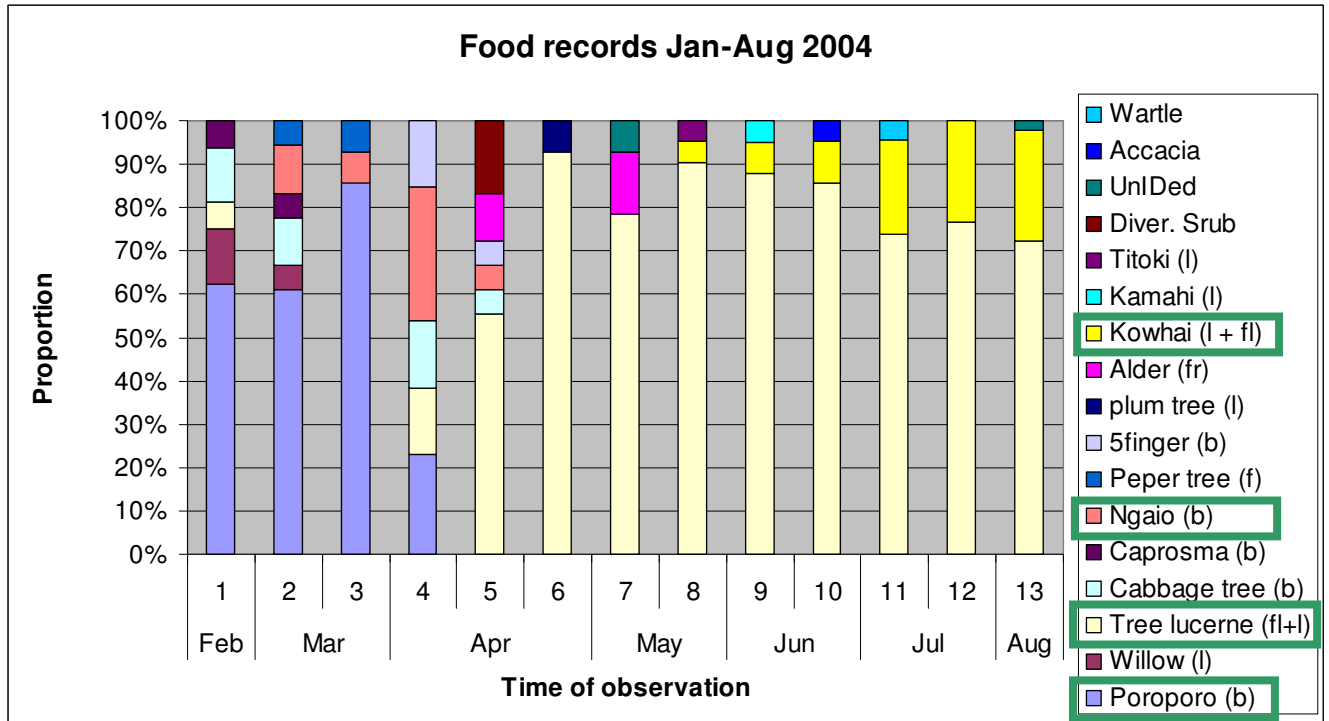




Preliminary Results: Foods

When encountering kererü during fieldtrips (tagged and non-tagged), records of the food sources used are kept. The chart below shows the preliminary results; poroporo, ngaio, tree lucerne and kowhai seem to be the most significant food sources so far.

Figure 3: Chart Showing the Preliminary Results for Foods used by kererü.



 : Significant foods (February–August 04)

b/fr: berry or fruit

l: leaf

fl: flower

Preliminary Results: Kererü numbers

During the fieldtrips a record is kept of the number of kererü encountered. At this stage it is too early to estimate the number of kererü within the study area.