

Kawakawa Bay Weka Surveys 2014.

Tawhitokino Block

A series of three call counts were carried out in our core block on the 22nd and 29th of March and the 5th of April as they have been in previous years. Enough counters were available to cover all of the sites in the core block on each count. The weather on the first two counts was calm but wind affected counts on some ridge top sites on the third count enough to reduce the likelihood of detecting more distant calls.

Results

Numbers of Weka were clearly well down with observers returning having heard no birds from eight counts over the three surveys and at Site 7 no Weka were heard on any of the counts. Over the three counts 42 Weka were heard from 35 positions, with 7 pairs (20%) and 28 singles recorded. In 2013 99 birds were recorded from 71 positions so in 2014 less than half (42%) of the number of birds counted in the previous year were recorded from only 59% of the number of positions. This is the second major decline in a row.

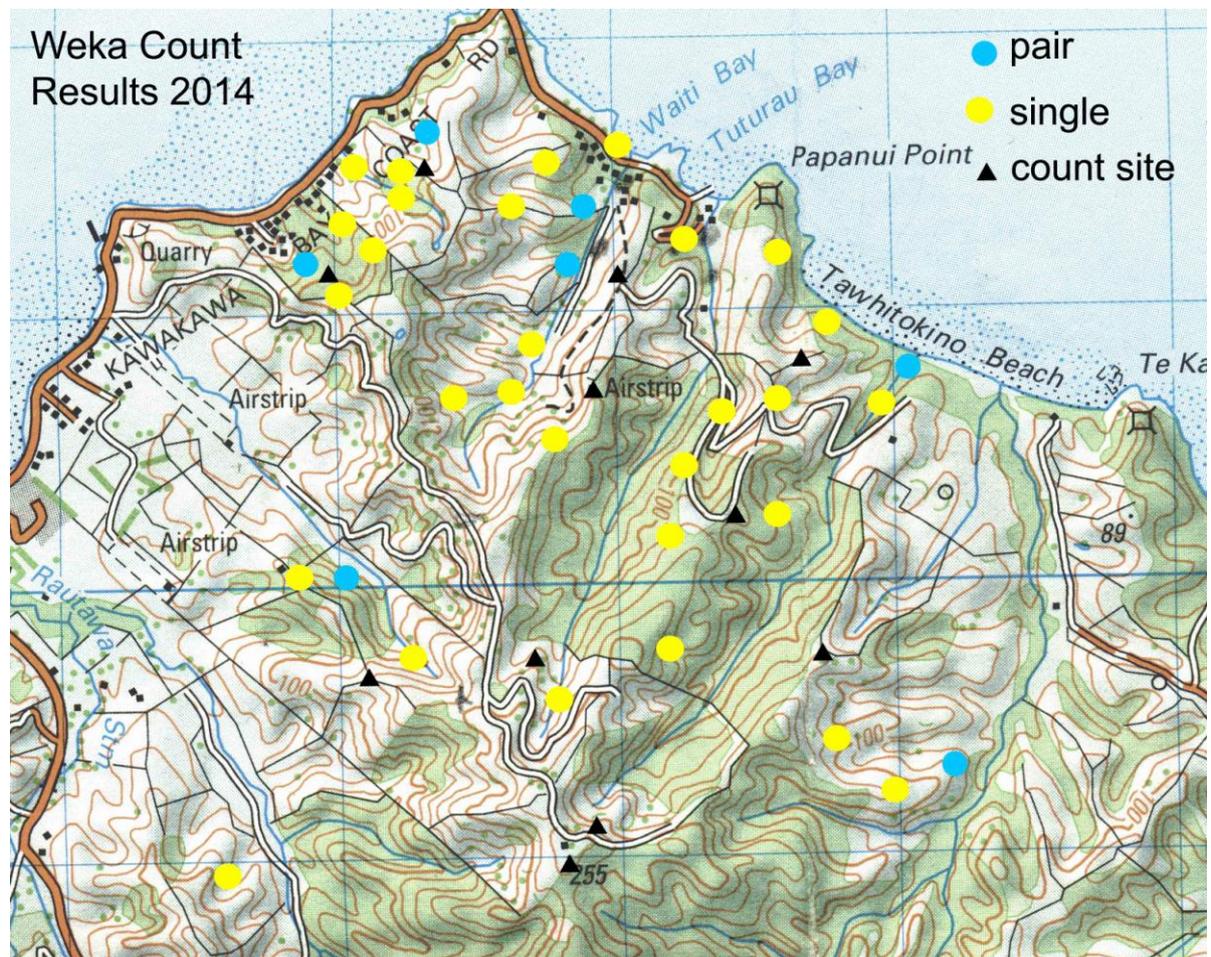


Figure 1. The Tawhitokino Block showing the numbers of Weka counted in the core study area.

Not all observers noted the sexes of the birds they heard but of those Weka where sex was known, apart from the recorded pairs, four males were recorded for each female. Looking at the records in more detail a few of these females were recorded in about the same positions as known pairs with no

indication that they were not those birds and three females in very close proximity to males might also have been paired although they were not duetting. This could potentially give two further pairs in Waiti valley heard from site 4 and another near the coast from site 2. When these birds are taken out there is just one remaining female that appears to be single. Using the same criteria there 14 definitely single males spread throughout the survey area.

It is notable that most of the birds (18 singles, 5 pairs) were found within one kilometre of the coast with just half as many (10 singles, 2 pairs) between one and two kilometres back. Highest numbers were heard near houses along the coast from sites 1-3 (11 singles, 4 pairs). These birds along with those in the Waiti Stream catchment and along Tawhitokino Beach (Another 11 singles and one pair) are within the trap lines run by Wekawatch so almost 75% of all the birds recorded in 2014 were in areas protected from predators to some degree. Possibly this is more due to our placing traps in the best areas for Weka rather than any impact of the traps themselves but it is comforting to know that they are there.

Other sites

We are having trouble finding enough counters to add Richardson's Block on to our main set of counts but we were able to monitor two sites that covered most of the area within the trap line there during the second count on March 22nd (Figure 2.). We were also able to count most of the sites behind the township of Orere Point that we have counted in the past on April 12th (Figure 2.). These sites included all of those from which Weka have been heard in the past.

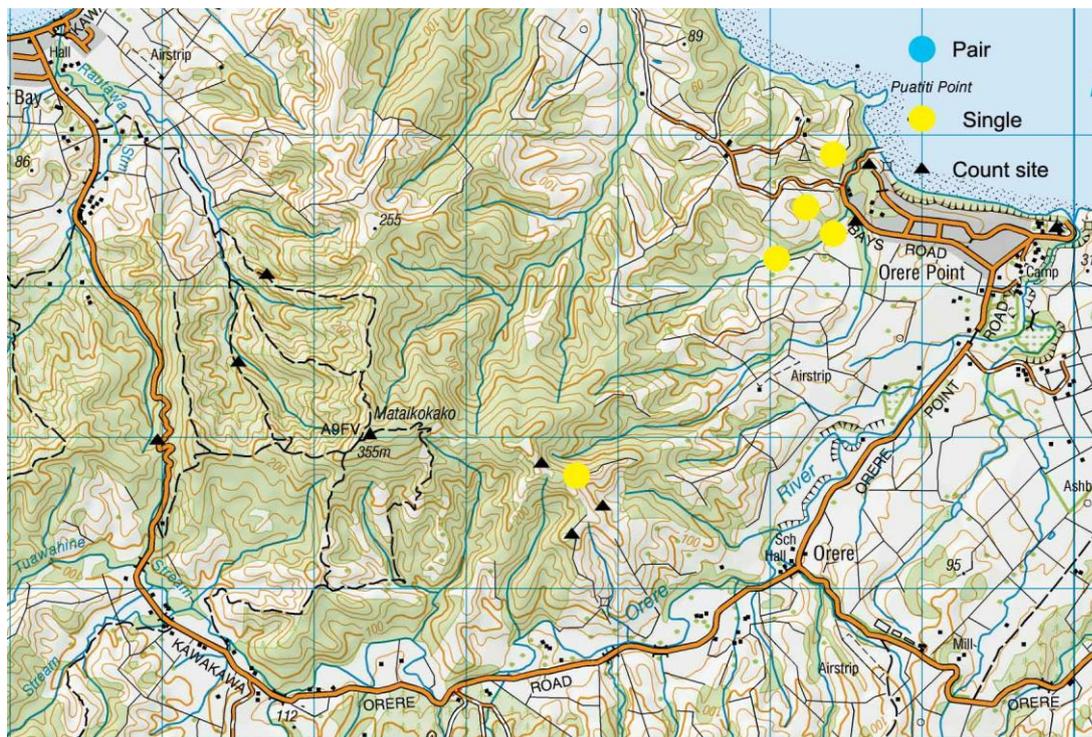


Figure 2. The where Weka were counted during the the surveys of Richardson's Block and Orere Point (not including the trig) and the birds that were recorded.

No Weka were heard on the Richardson's Block and they had thinned out markedly at Orere compared to last year's counts. Four single birds were heard in a bush reserve and on farmland on the western end of the town and another was heard on a high ridge behind the school.

In 2013 on the Richardson's Block we counted three pairs and eight single birds, there were six single birds recorded from the high ridges and three more pairs and two singles near Orere Point. Then we observed a marked increase compared with results from 2012 in contrast the obvious decline in the core study area. It was suggested that many of these birds had moved over the hill in search of better food. It appears that with the second period of drought these birds may have moved further or succumbed to the adverse conditions. With just single counts we could easily miss birds and pairs of birds have been seen on the Kawakawa Bay – Orere Point Road and at Orere Point so there is capacity for recovery if conditions become favourable.

Discussion

The way we count Weka and collate the results is more pragmatic than precise but the large change in the count results suggests that we have seen a marked decline. It is possible that the dry weather affected the calling rate of Weka making them harder to detect. Within a week of the last count good rain fell at the Cotman's and it has continued. Casual observations at Te Papa Rd give the impression that initially there was no obvious increase in calling rates but by early May resident birds do seem to have been calling more often. While this may give grounds for optimism that there will be more birds present than we detected and there are more birds known around Te Papa Road than were counted at the nearby Site 1 during this monitoring session. Unfortunately it gives no reason for believing that numbers have not declined because the 2013 count was also carried out under very similar drought conditions. If the reduction in calling rates was merely a behavioural response and numbers of birds hadn't changed we would not expect to have seen this large a decline.

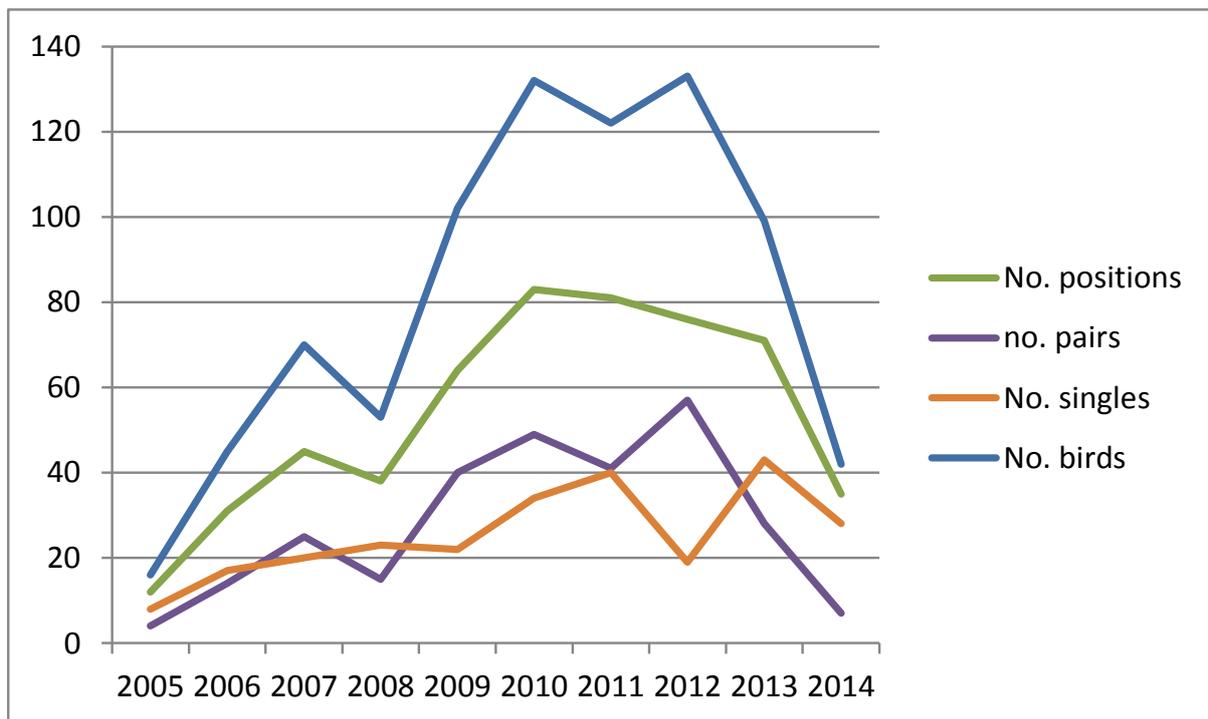


Figure 3. A summary of the count results from the same set of sites on the Tawhitokino Block during the ten years we have counted Weka.

Considering the trends over the whole period we have counted Weka (Figure 3.) it is easy to see a steady increase in the beginning, punctuated by a short lived decline in 2008 following another

drought. From 2010 to 2012 numbers appear to have been more or less stable at about 130 birds but two years of severe decline has seen this fall to about a third of this total. The decline observed in 2013 appears to have continued at a similar rate in 2014 from the lowered base population. What this implies is that there has been no significant recruitment of young birds into the breeding population from the 2013/14 breeding season and further losses of established adults have occurred.

The number of positions from which calling birds have been heard has been a bit more stable than the number of birds, declining only a little after single dry summers in 2008 and 2013 but much more following the second consecutive drought in 2014. This suggests that in many sites previously occupied by calling Weka the impact in the first dry year was mainly the breakup of pairs with many sites remaining occupied by single birds instead of pairs. In the following year many of these single birds disappeared and there was further breakup of pairs.

At the time of these counts the numbers of Weka heard are about as low as they were in 2006 but then the Weka population expanded rapidly so it is quite possible that they will do so again. The population that has established around Orere Point remains viable, if small, so this is an important gain since that time. With the much smaller population now, the Kawakawa Bay Weka population has lost much of its resilience to adverse events. Even small setbacks will have greater consequences now than the same events would have two years earlier and the risk of local extinction is now much greater than it has been since the earliest years that we began to monitor Weka. It is that old curse – we are living in interesting times.

Acknowledgements

As with every count I am grateful to all of the people who turned up to help, especially the old hands who now seem to know what they are doing. It is hoped that the people who came for the first time will return as experienced counters next season as the workload has been growing and we need all the help we can get.

The following people have helped with the counts this year. Dave and Ruth Reffin, Joyce Frost, Ian Southey, John Cotman, Janie and Kevin Vaughan, Gillian Vaughan, Linda and Noel Knight, Barbara and Helen Kay, Trish and Graeme Simmonds, John Oates, Phil and Nova Coory, Darron and Adelaide Gedge, Gerry Romley, Warren Turnwald, Barbara Strong, Ans Bloem, Ralph Davidson, Michelle, Tony Beauchamp, Basil and Anne Graeme, Anna Morton, Stuart Raureson, Elaine Tasker and Jill MacMillan.

Our local hosts, and particularly Rosemary, Trish, Barbara and Joyce deserve further thanks for dealing with the logistics and supplying Weka cake for the debriefs. We are especially grateful to the landowners who allowed us access to count on their land.