

## Arrowsmith South Ashburton River Bird Survey 2021

Date: 18<sup>th</sup> and 19<sup>th</sup> November 2021

Surveyors: Three surveyors took part including Donna Field, Joe Todhunter & Jean Jack.

The 2021 river bird survey on the South Ashburton River from above Boundary Creek Hut to the headwaters of the South Ashburton River was undertaken on November 18<sup>th</sup> and 19<sup>th</sup>. The survey was undertaken as a priority action of the 2016 Ashburton River / Hakatere shorebird habitat management strategy. The reach had been surveyed previously by the Department of Conservation (DOC) in 2010. During the two-day survey flows at the Mt Somers gauge held around 14cumecs and the weather was cool, calm, and sunny. This flow allowed for safe river crossings by the team who linked up on most crossings, particularly on the reach downstream of KM9 (Wildmans Hut).

Counts of river birds were recorded against a set of predetermined kilometre markers (Figure 1). On day one the three surveyors covered from KM marker 15 upstream to marker KM 9. The following day surveying continued in an upstream direction, covering KM8 to KM2 inclusive. Bird counts are shown in Figure 2. Waders included (in order of abundance) banded dotterel, South Island pied oystercatchers and spur-winged plover. As in 2010, no pied stilt nor wrybill were recorded. Unlike the 2010 count no black-fronted terns or Southern black-backed gulls were recorded although a single tern was seen at Wildmans hut after the survey was completed. In 2010 terns were recorded in both the upper and lower sections of the survey. This survey did not cover the lower reach below KM marker 15 and it is possible terns are inhabiting this lower area.

Figure 3 presents total river bird counts made during the survey against counts made in 2010. The 2010 survey covered approximately four kilometres more than the 2021 survey (below KM marker 15). This may explain the lower numbers of birds counted in 2021, although Figure 4 which splits the counts as recorded in 2010 upstream and downstream of Top Hut (between KM6 & 7 markers) shows that banded dotterel numbers were lower and black-fronted tern absent in 2021 within the same upper reach of the 2010 survey.

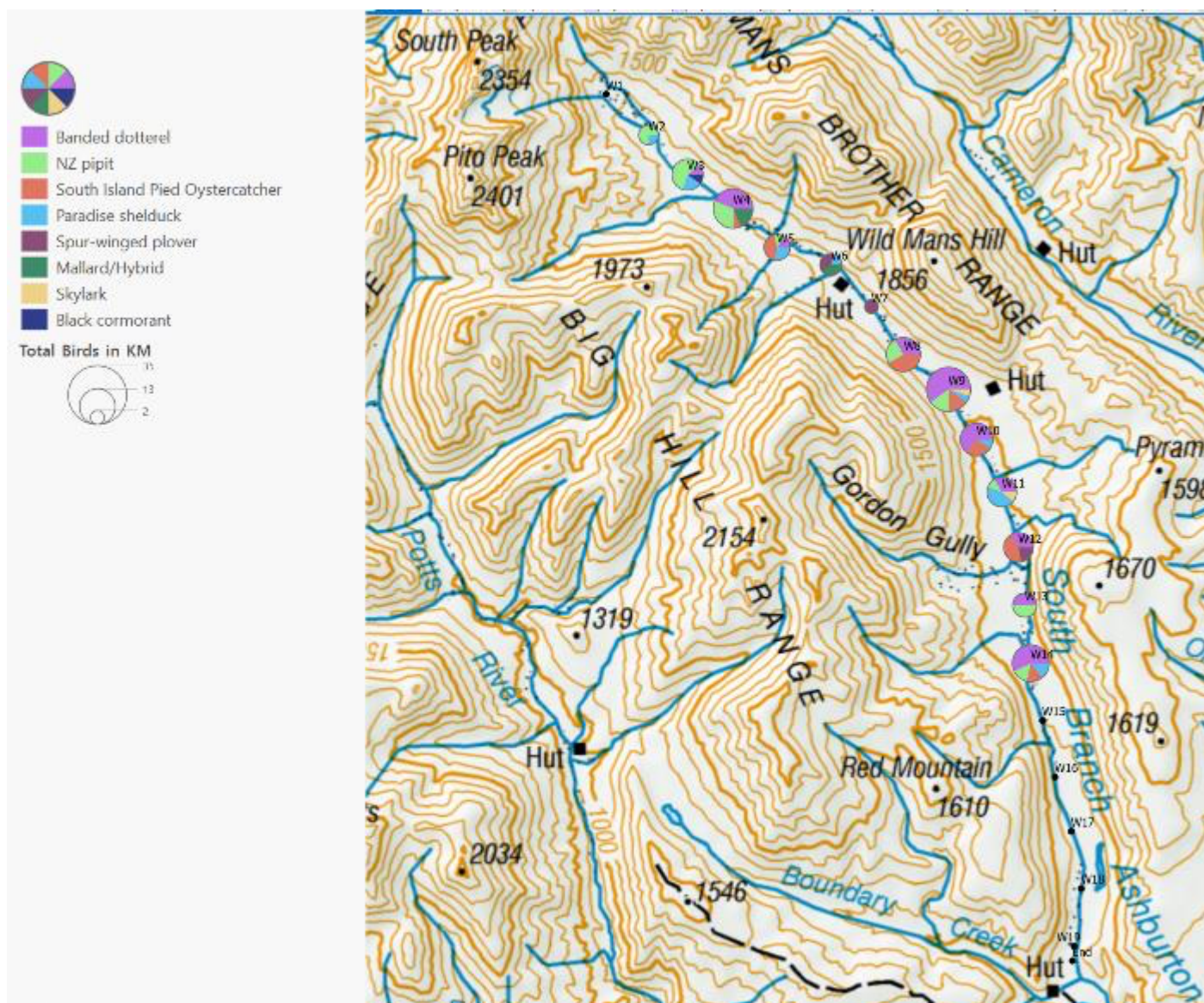
Habitat for shorebirds appeared to be good, particularly for banded dotterel with extensive cushion fields (see images below). The survey team noted suitable wader habitat with slow moving back water areas, however often no footprints of waders were observed. Predator abundance is unknown, however feral cat prints and scat were observed.

The riverbed remains relatively weed free, and while the flow regime keeps the main channel aggregates turned over with little invertebrates evident, these animals which provide food to river birds were found in side-channels and slower moving channels throughout the area.

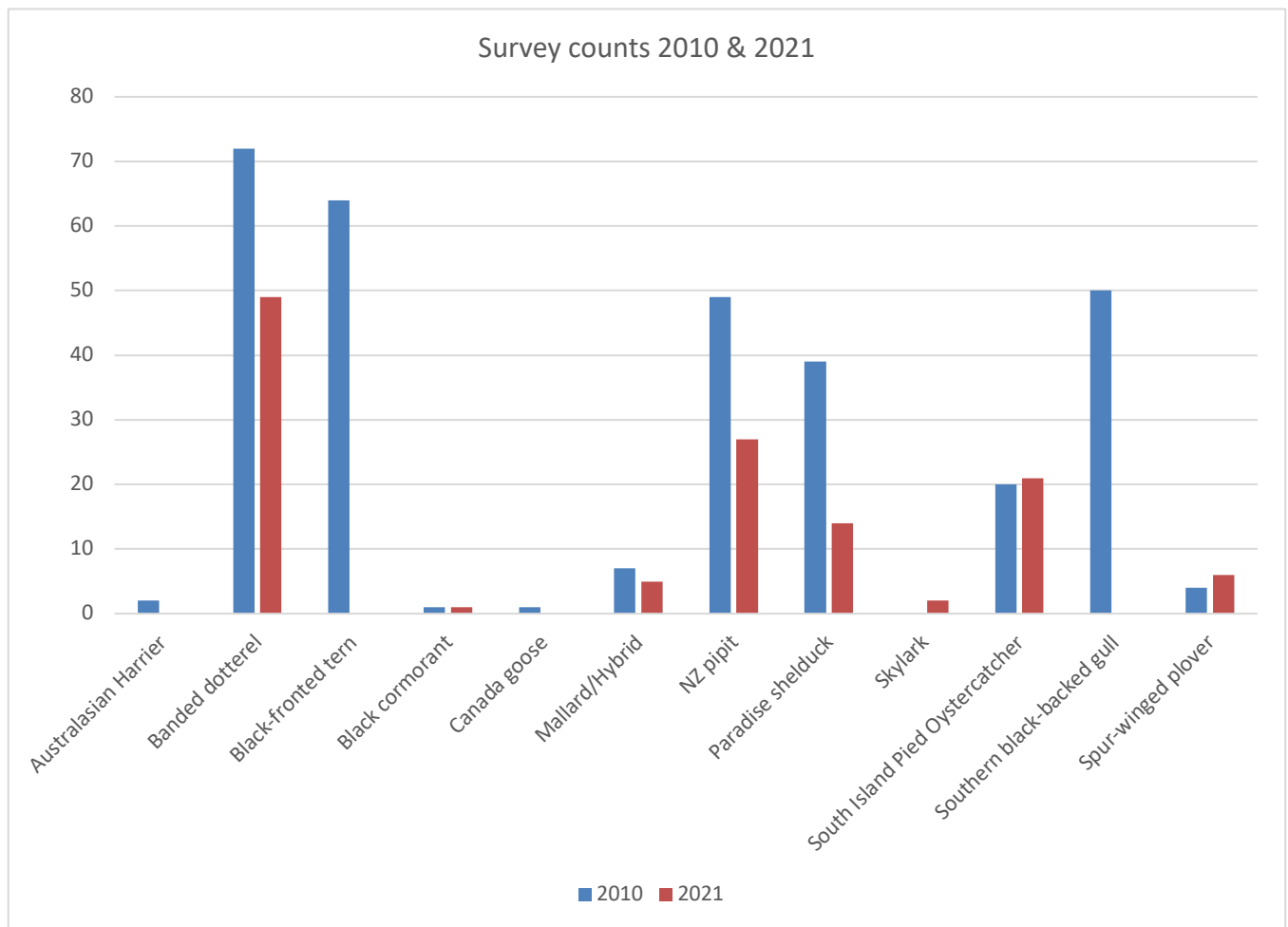
It is recommended that a three yearly cycle of river bird surveys is adopted and led by Council (or DOC) to ascertain whether bird numbers are declining within what appears to be high quality habitat. As recommended by the 2016 Hakatere shorebird strategy, weed surveillance should continue with an eradication policy for willow, broom, sweet briar, gorse, Russell lupins and false tamarisk. Predator control within this relatively remote habitat presents difficulties. However, liaison with landowners, DOC and or relevant four-wheel drive clubs may precipitate a predator control operation that is feasible.



**Figure 1** Aerial image of the survey terrain. Birds were counted in an upstream direction from KM marker W15 to W2 during the 2021 river bird survey.

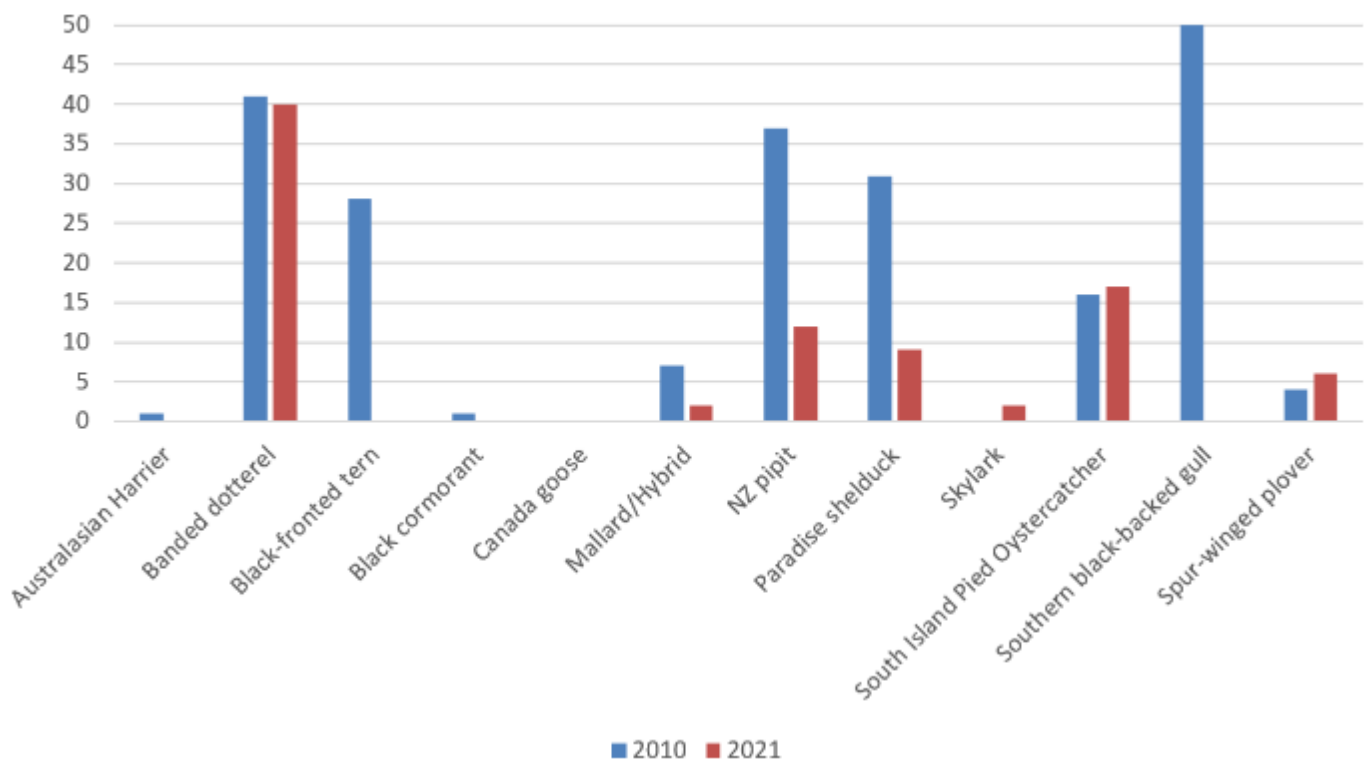


**Figure 2** 2021 Counts of river birds from the Arrowsmith South Ashburton River in 2021. Counts are shown against the KM markers and refer to counts made from that marker downstream to the next marker. The survey covered from KM2 (W2) to approximately KM15 (W15).

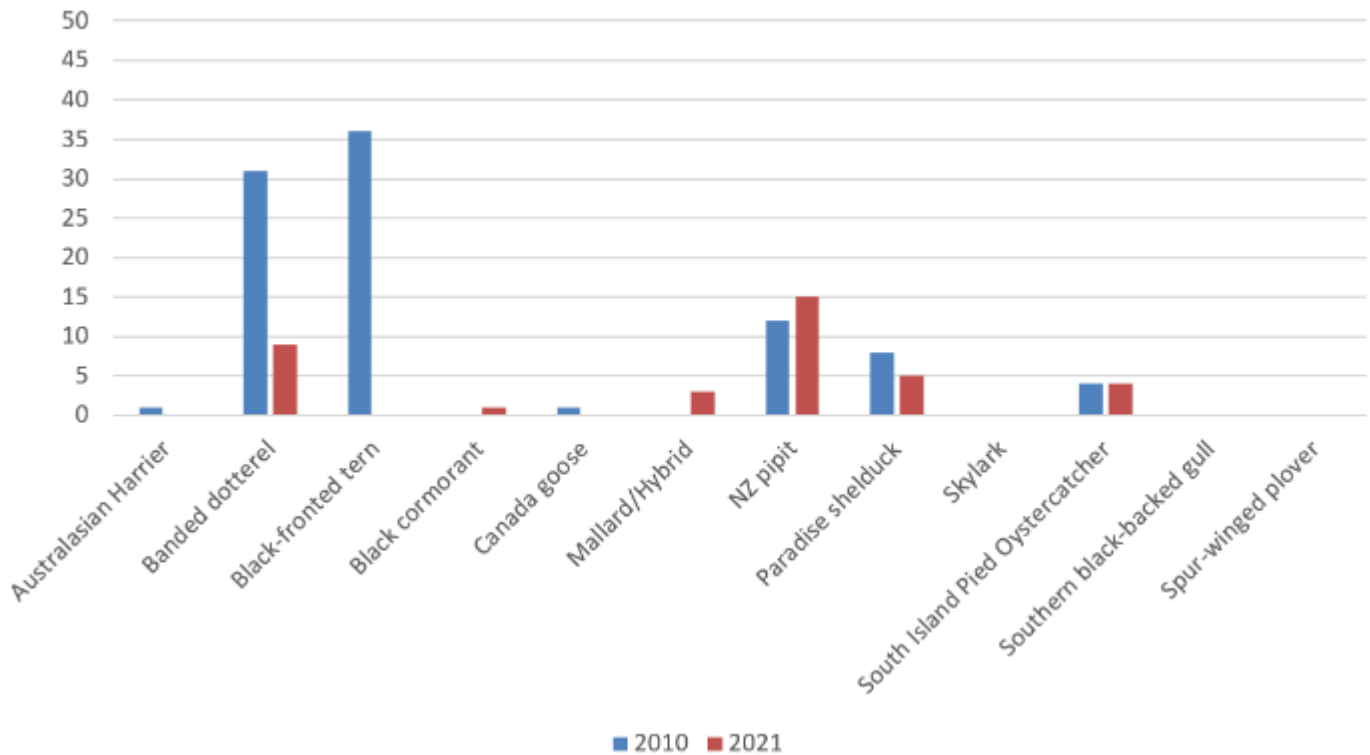


**Figure 3** Total count of river birds during the 2021 survey alongside 2010 counts recorded by Colin O'Donnell et al. (DOC). The 2010 survey covered an additional four kilometres downstream of KM marker 15.

Counts 2010 & 2021 Downstream of Top Hut



Counts 2010 & 2021 Upstream of Top Hut

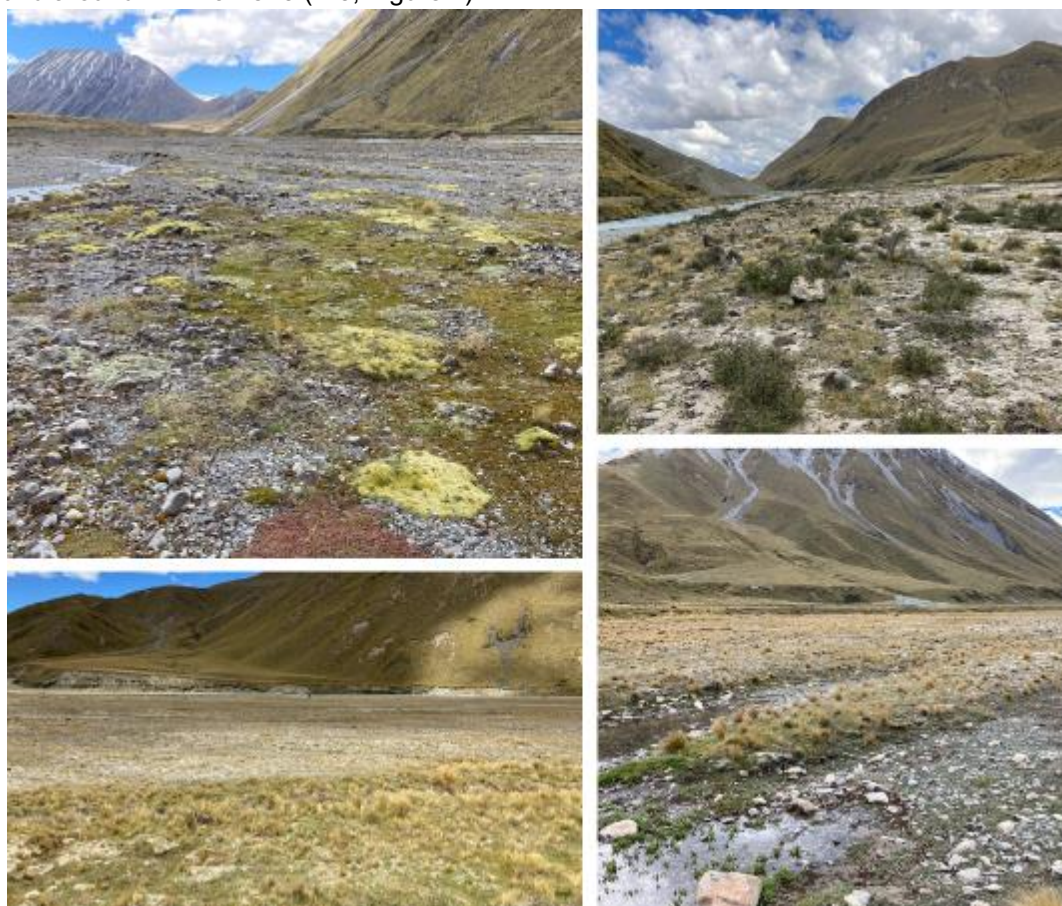


**Figure 4:** Counts split by counts downstream and upstream of Top Hut as recorded by the 2010 survey.

## Survey Images



**Above:** Images of the surveyed reach from the headwaters (KM2) down to KM9 near Wildmans Hut. The feral cat prints were found around KM marker 5 (W5, Figure 1).



**Above:** Images of the lower surveyed reach from KM14 up to KM9 during the first day of the survey.