



## **Ashley River Braided River Bird Nesting**

Attached are several graphs and maps that illustrate temporally and spatially the nesting of braided river bird species over the last few years on the Ashley. All wrybill, PS, SIPO, BFT and BD nests were located with GPS – using QField on a smartphone or tablet, and collated in QGIS.

We have less accurately (but still usefully) located nests and colonies (Nick Ledgard data) going back many more years.

This is the first draft of an ongoing study.

Figure 1 collates when nests were found by week of the year – starting in 2017. Some comments:

- The date a nest was found is obviously usually not the same as the date it was made. Some of the known instances of nests found well after being made have been deleted from the data, but too much about nest timing shouldn't be read into this graph.
- The relative timing of nesting of each species is however probably correct.
- The numbers of BD nests found in no way represent the numbers of individuals of this species on the river. We haven't made a concerted effort to find BD nests, and this is extremely difficult to do on the river. At the Ashley estuary BD are strangely much more cooperative.
- There are few SIPO nesting on the Ashley and I've been reluctant to find their nests as I've suspected that this has caused abandonment on a couple of occasions.
- The very long nesting season of the BFT will be at least partly due to the problems they have with predators and floods – causing several nesting attempts.
- It isn't possible to display BBG nests on the same graph as the other species – their nest numbers often grossly outnumber those of other species. But on several occasions I have counted nests at intervals of a few days from drone photos during the nesting period and there are illustrations of this in our annual reports. What is shown on Figure 1 is the date when the first nest in a colony was found – since 2016.

Figure 2 shows the percentage of nests of each species that were made on islands. All but the BD (of which we don't have a large enough sample) prefer islands over the edge of the fairway. On some occasions the river around the islands went dry later during the nesting season.

Figure 3 shows BFT colony locations, and a few scattered individual nests, from 2018 to 2023. The river is barely braided in the upper and lower few kilometres of the map area, but when a suitable island appears, it is often used. Last season there were two good colonies just upstream from the Okuku junction, these are not shown. Since floods of the last few years the area between the Okuku junction (western edge of Figure 3) and the gorge has become more attractive to birds. There usually is also a small colony where the river meets the estuary – again not shown.

Figure 4 shows wrybill nest locations. There are two notable clusters of these – near the Rangiora airfield (the best braided section of the river) and halfway between Rangiora and SH1. Perhaps a new cluster is developing several kilometres upstream from the airfield. It is common for birds to nest very close (within tens of metres) to where they did the previous season – we have 11 banded wrybill to monitor. Last season we had a report of a young wrybill chick being seen just below SH1, this might be a first in our experience. Also there was a hint that a wrybill may have nested above the Okuku junction, also a first. Wrybill tend to gather in the estuary in the first two weeks of August before moving weeks later up rivers to nest. This year a pair was seen flying well up the Ashley on 12 August – the approximate date of arrival of wrybill in the estuary.

Figure 5 shows PS nests, no special effort is made to find these. Many were located around the margins of BFT colonies, closer to water, and they often occur as loose colonies.

Figure 6 shows BBG colonies since 2016. Some of them were GPS located on the ground, others show actual nests as recognized and counted from drone images – some during occupation, others after the birds had left. Colonies shown are only the successful ones, there were many trial runs where hundreds of birds gathered, mating occurred, nests were made and some eggs were laid before mysterious abandonment. And others where nests were washed out before chicks had hatched. Such failed colonies aren't shown. All colonies in this period have been downstream from Rangiora, this hasn't always been the case in the past. The 2016 colony in an irrigated dairy farm paddock is shown. BBG often move in on BFT and sometimes displace them.

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### Ashley Braided River Bird Nest Timing by Week, 2017 - 2023 Data

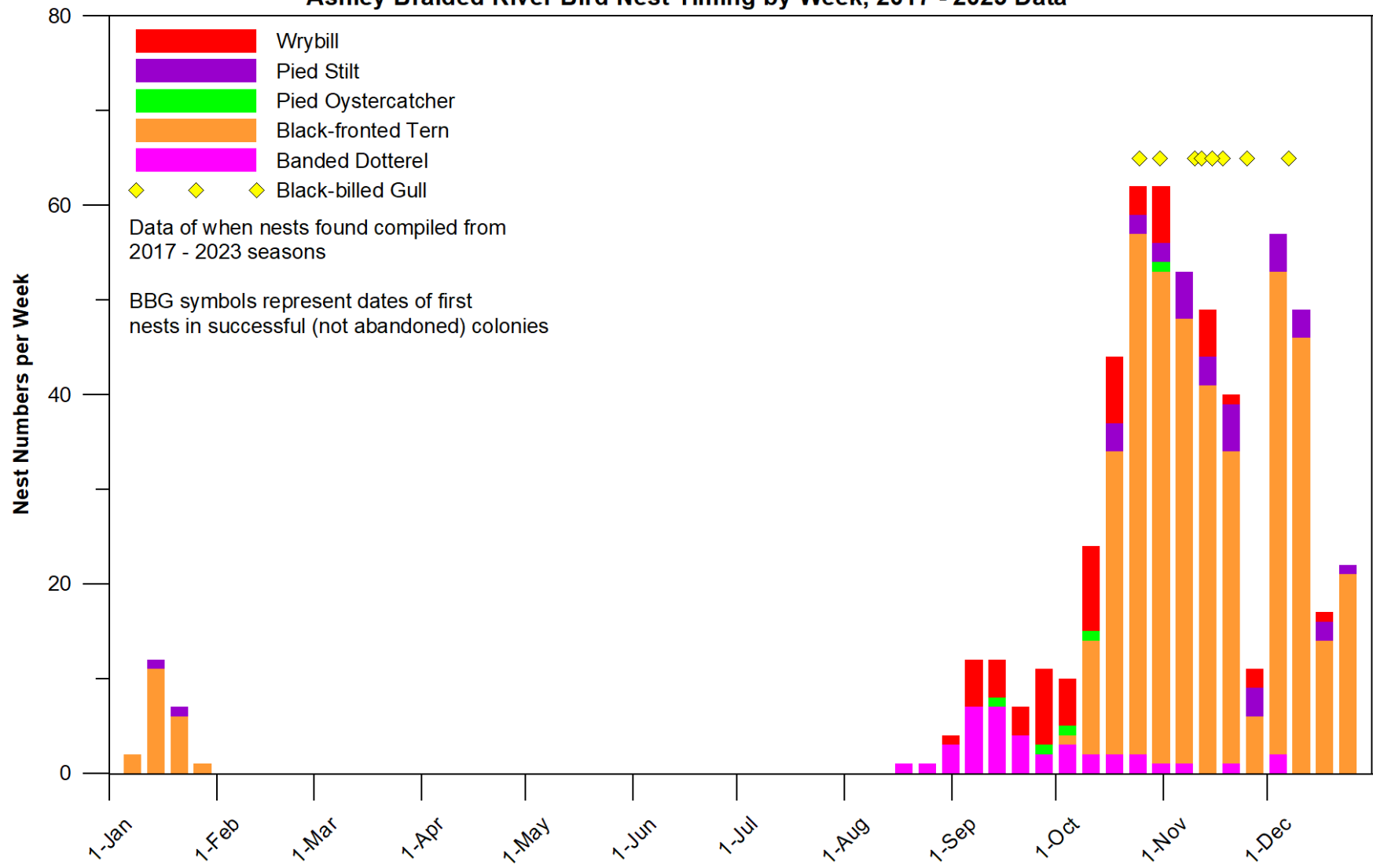


Figure 1. Nest timing by week

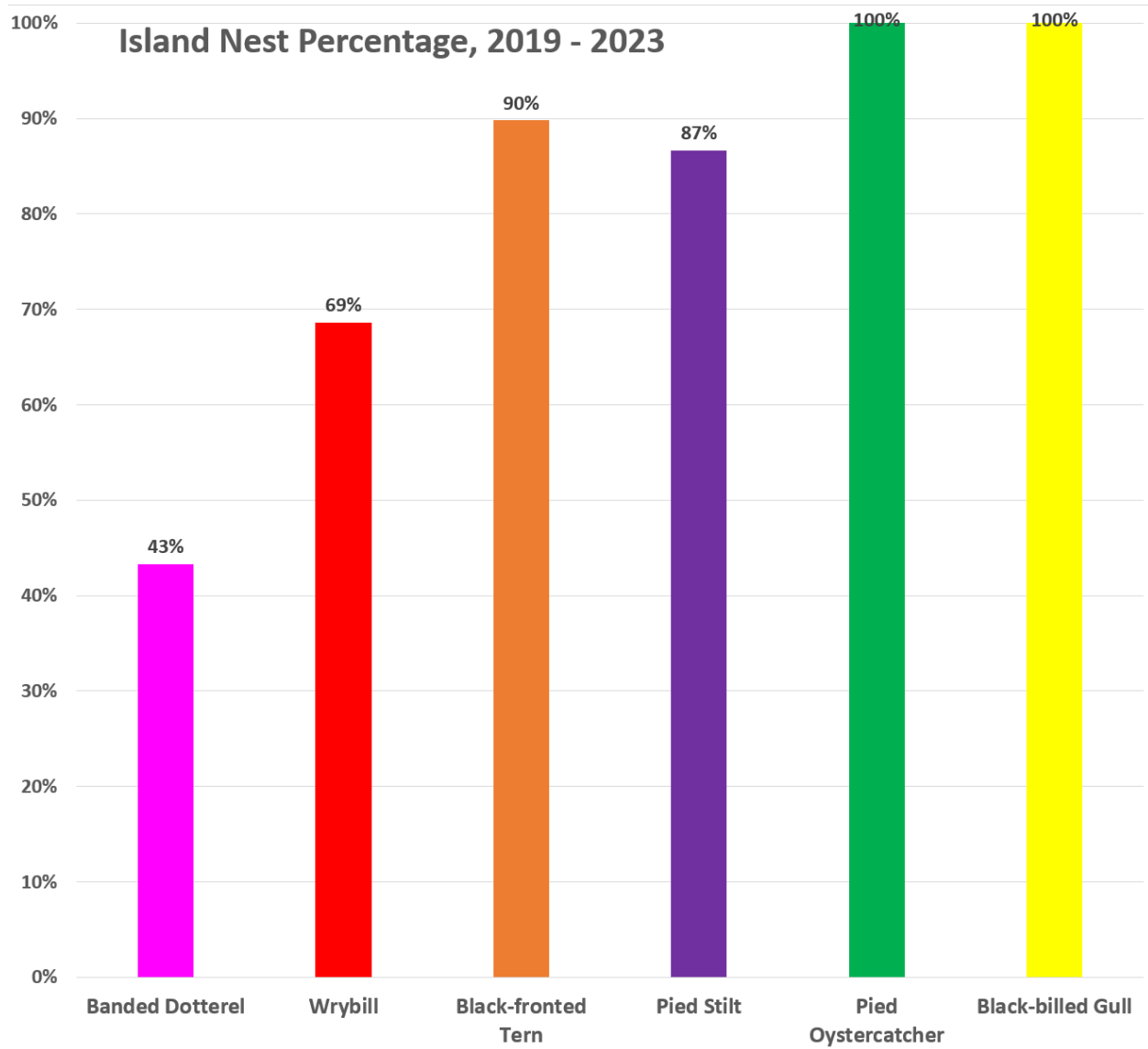


Figure 2. Percentage of nests of each species found on islands

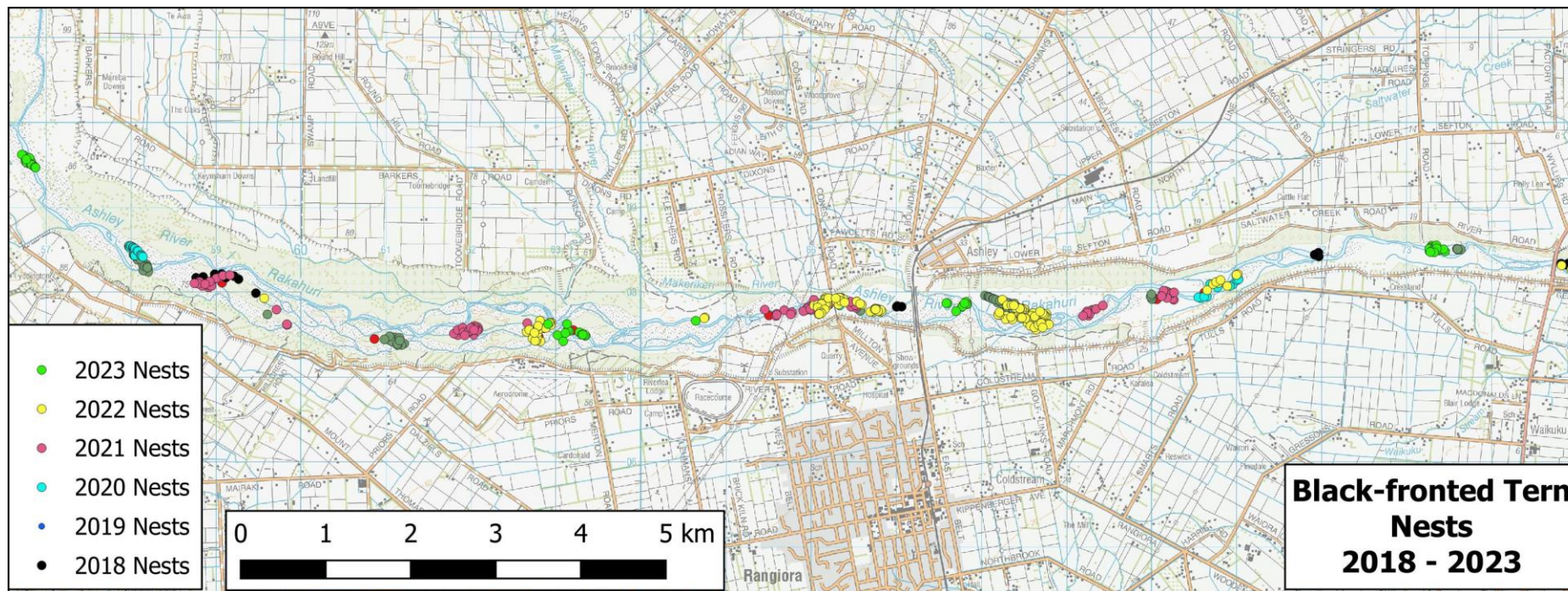


Figure 3. BFT nest locations, 2018 - 2023

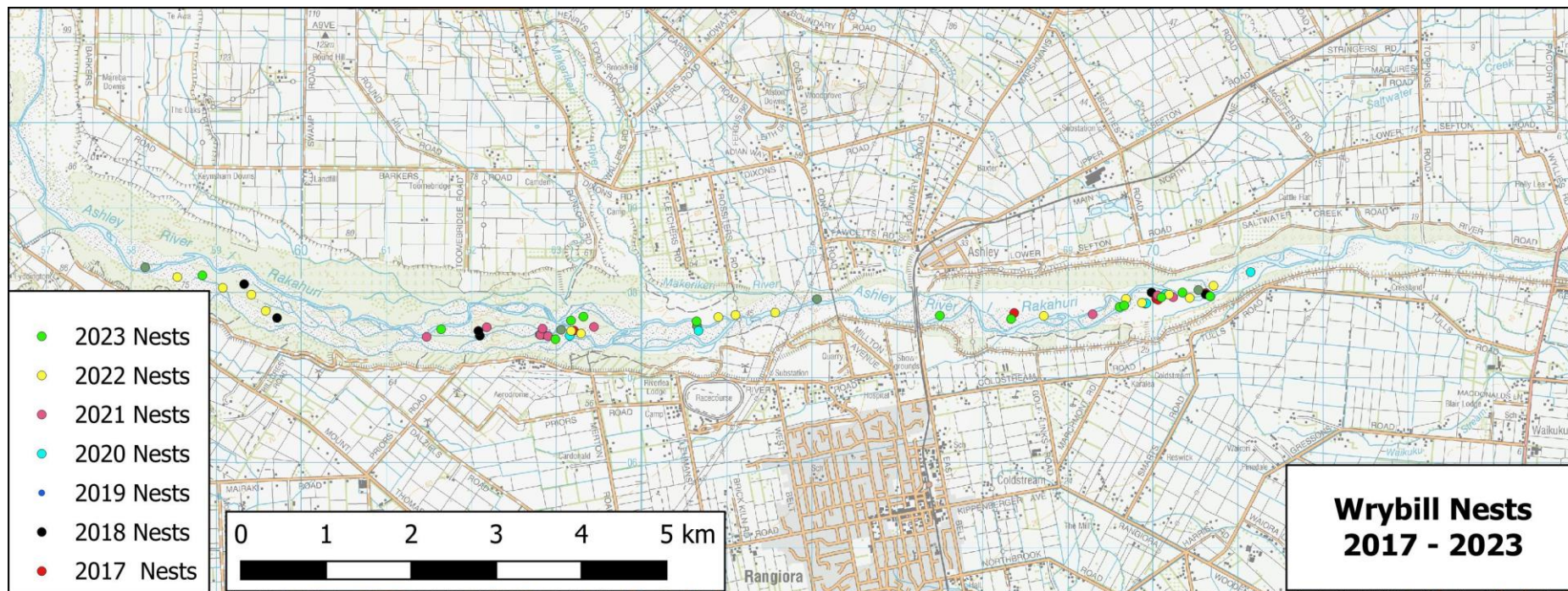


Figure 4. Wrybill nest locations - 2017 to 2023

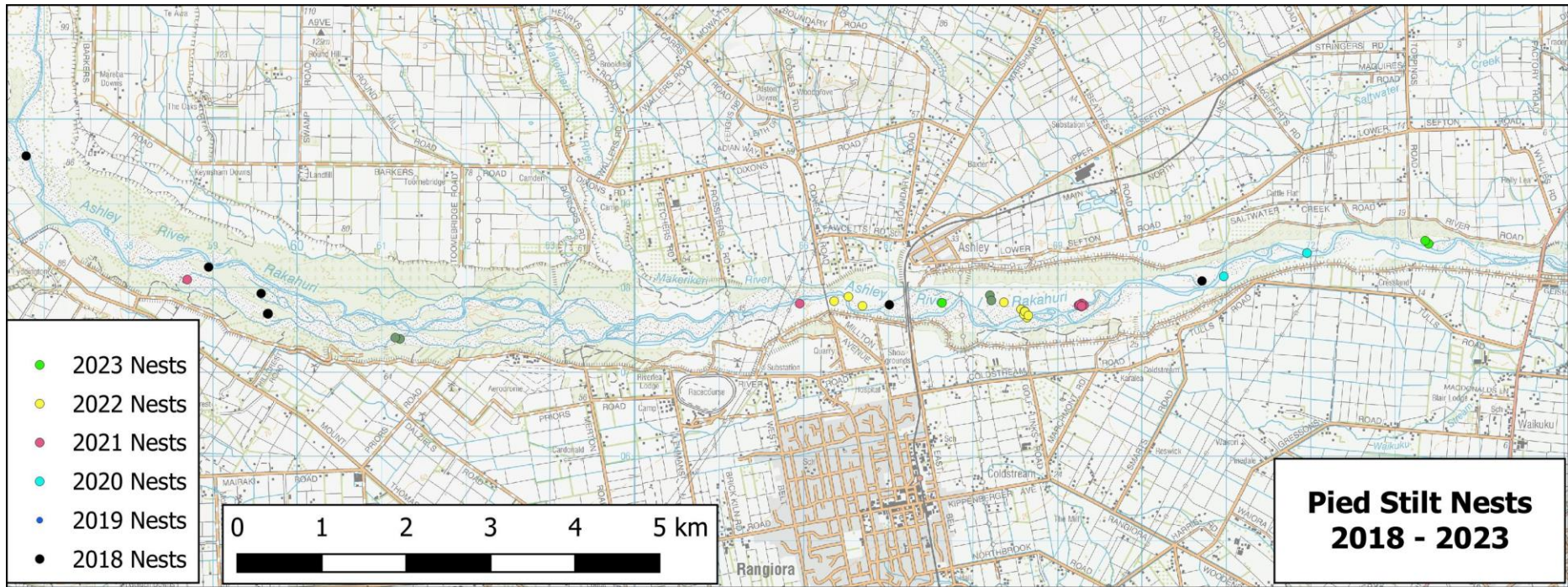


Figure 5. Pied stilt nests, 2018 - 2023

