

Counting dots - the Far North's airborne contribution to estimate the total population of *Limosa lapponica baueri* in 2019/2020 in the non-breeding areas

USGS completed a successful aerial count of the birds prior to the birds leaving Alaska in 2019 – the first such count since 1997. This provided an ideal opportunity to try to assess the total population of the *baueri* godwits by comparing the Alaskan count with the austral summer populations in New Zealand and eastern Australia.

A national godwit census took place in February 2020, incorporating a prolonged high tide series between 8th and 14th February 2020. All regions of Birds NZ with godwits participated in the survey. Northland poses particular challenges due to the large area of estuaries with potentially high populations of godwits, difficulty of access, and relatively few Birds NZ members. The most effective way to cover the Northland estuaries is by air.

The Birds NZ Project Assistance Fund granted the Far North District funds to make a helicopter survey of its main shorebird harbours on 14 February 2020, to assist them in meeting this objective. The weather was perfect, tides were at an ideal time, and the Robinson R44 helicopter was available from Salt Air, so it was all go. After a brief stop at Kaitia Airport to pick up Kevin Matthews, take off the doors of the helicopter for better photography, and to strap ourselves in, we took off.

First photos were at Walker Island in Rangaunu Harbour at 11:44 and last photos at Parengarenga Harbour at 12:47 with a fly bye of the Kowhai Beach flock on the way for that population. From more than 1000 photos, thirty-three were selected for analysis, and then the hard work started. Kevin Matthews uses a Microsoft PC and Paint as his analysis tools. They were quite different from the Apple MAC computers and Adobe Photoshop software I use. For me, it was; 1) load the photos into Lightroom; 2) sort the photos and select the best one; 3) load each of these

individually into Photoshop Elements; 4) count the Bar-tailed Godwits by putting a dot on the legs of each bird, stop after 100 birds, change the colour of the dot, and count the next 100. Kevin likes Paint better.



This is a photo of the birds on the beach from the helicopter.

Photo showing the coloured dots:

And an enlargement showing the Ruddy Turnstone scattered throughout the flock.



The Bar-tailed Godwit results were:

Rangaunu Harbour: 2646

Kowhai Beach: 658

Parengarenga Harbour: 2380

Results of the counts of other species are posted on eBird.