**An estimate of the total population of *Limosa lapponica baueri* in 2019/2020 in the breeding and non-breeding areas**

Dan Ruthrauff, scientist with the United States Geological Survey, will make a presentation about the status of Bar tailed Godwit (*Limosa lapponica baueri*) at the up-coming East Asian Australasian Flyway Shorebird Science Meeting (May 5-8, in South Korea). USGS completed a successful aerial count of the birds prior to the birds leaving Alaska in 2019 and a further detailed count of the population in the Southern Hemisphere may help to shine light on knowledge gaps for the species in our flyway.

Bar-tailed Godwit numbers in New Zealand have declined significantly from about 100,000 to about 75,000 birds between the mid-1990s and 2004 (Sagar *et al.* 1999). Counts in New Zealand indicate that the population has apparently stabilized since 2004, but an estimated adult survival of ~0.84 would lead to an estimated population decline of 5–6% per year (Conklin *et al.* 2016). Such disparity between population trend and estimated adult survival requires an urgent update of the best field information.

More years of surveys in New Zealand, combined with up-coming counts from Australia and recent successful surveys from Alaska warrant an additional synchronized count with Australia to establish whether further declines have happened.

Uncertainty about the rate of decline has resulted in the potential overestimating the population. Wetlands International (2019) estimated that the total population of the Alaskan breeding population of Bar-tailed Godwit at 133,000 birds, based on ‘expert opinion’, including Bamford *et al*. (2006), Garnett *et al*. (2010) and Watkins *et al*. (2012). This estimate came with a note that ‘*Substantial rates of population decline documented across flyway but no new estimate has been published. WPE5 estimate is much lower than for WPE4 (some experts suggest an even lower estimate) and it is derived from preliminary analysis pending outcome of ongoing comprehensive analysis by University of Queensland*’ (Wetlands International 2019).

Hansen et al. (2016) apparently calculated population estimates separately for *baueri* and *menzbieri* (on the breeding grounds), but only present a combined total population for Bar-tailed Godwit (325,000).

The Australian census in January 2020 will focus on selected sites over a month to be compared to previous numbers at those sites. Some sites will not get counted and big concentrations e.g. Corner Inlet and Gulf of Carpentaria are likely not part of survey as there are not enough people.

To obtain the most accurate estimate of the population we propose a New Zealand count to coincide as closely as possible with that in Australia. For New Zealand, the best protocol to estimate the population will be to obtain accurate counts at sites which support large flocks.

A national godwit census will take place in early February 2020, during a prolonged high tide series between 8th and 14th February 2020. There are 34 sites with >0.25% of the population in the country, 20 in the North Island and 14 in South Island. Such approach allows for an estimated 97% of the national population to be counted.

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**Proposed Areas for Survey:**



These areas are the main sites but ALL other counts from other sites are very much appreciated as well.

 **References**

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