Birds NZ Summary article for BirdsNZ magazine – November 2020

Satellite tracking New Zealand Bar-tailed Godwits to support conservation management, especially in the Yellow Sea

International migratory shorebirds have been widely documented to be declining, including in New Zealand. Godwits from New Zealand have a prolonged stopover in one of the most threatened areas globally for shorebirds, the coasts of East Asia including the Yellow Sea. There, extensive land-claim, along with site-specific food declines, may be threatening the ability of birds to refuel successfully on migration. With funding from BirdsNZ we embarked on a satellite-tracking project of godwits from Pūkorokoro-Miranda near Auckland, to better understand their habitat use and movements while staging in Asia. The plan was to feed real-time information to colleagues in Asia in order to target on-ground research activities. Of course, COVID halted field activities during the migration season in Asia but incredible insights into migration were gained from the tracking.

Perhaps most notably, all legs of the migrations were affected at times by very unfavourable wind conditions. Several birds were beset by headwinds on the way to Asia, including from a cyclone off eastern Australia and through strong winds blocking the mouth to the Yellow Sea. In an extreme example of dealing with a bad situation, one bird was 2500 km into its flight when it hit the cyclone, which it fought for a day, then gave up and bailed back to Pūkorokoro-Miranda – 6000 km of flight, taking a week, only to be back where it had started from. We presumed that was it for the year for that bird so were astonished when 2 weeks later it took off again and flew direct to the Yellow Sea! Between Asia and Alaska one bird got stuck beneath a low-pressure system that was tracking across the Pacific and was unable to head northwards towards the Yukon-Kuskokwim Delta. Instead it traversed the entire North Pacific Ocean and eventually landed just past the Canadian border in southeast Alaska. After backtracking to the breeding grounds, it had covered 12 000 km rather than the 6500 km a direct flight should have taken. Finally, persistent easterly airflows restricted the abilities of several birds to migrate directly from Alaska to New Zealand, and stop-offs in Melanesia (New Caledonia and New Ireland) and Australia reinforce the importance of islands as emergency drop-out sites for migrants.

Some birds did make it back to New Zealand directly, generating considerable media coverage. The long-standing endurance flight distance record set by E7 in 2007 (and which is in the Guinness Book of World Records) was broken twice in one weekend, with one bird being tracked flying about 12,200 km. Of course, long flights are easier with wind assistance, and the physiologically even more impressive achievement may be a bird that flew for over 10 days non-stop before reaching New Zealand. In addition to learning much about godwit migration, we also discovered how news can spread on the internet. A well-written article in the Guardian was quickly deconstructed and reconstructed globally, with translation gems such as “The angel left Alaska on September 1 after feeding the baby or worms for two months” and “Fully raised bar-powered deities range in length from 37 cm to 39 cm”.

With tags from 8 birds still transmitting we hope to continue monitoring these migrations in 2021, so keep your eyes on the tracking website: https://www.globalflywaynetwork.org/flyway/east-asian-australasian-flyway/map

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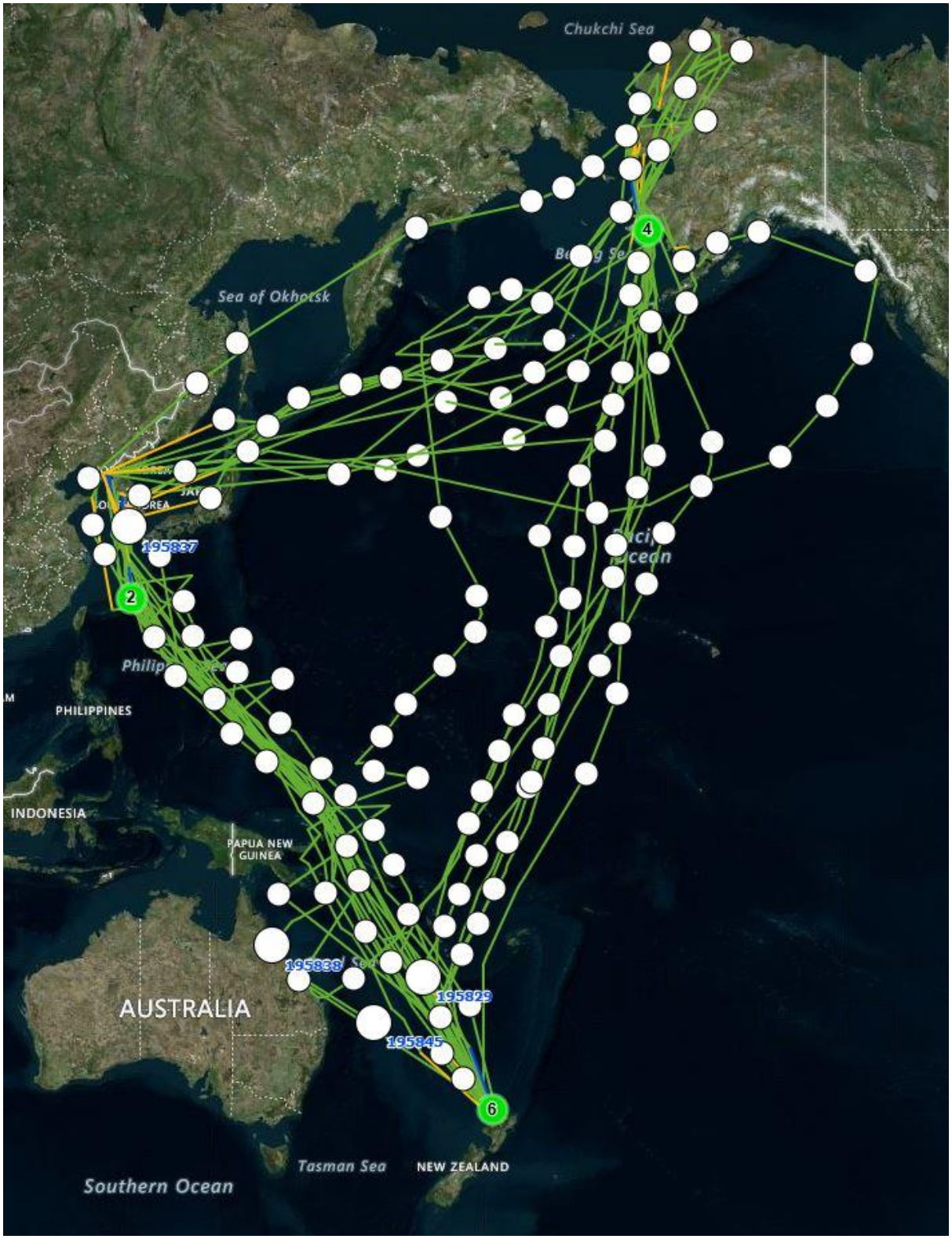
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