

# Grey Plover migration in the East Asian-Australasian Flyway

After each Australian summer, thousands of migratory shorebirds make a mammoth journey from their feeding grounds in the Adelaide International Bird Sanctuary and Northern Gulf St Vincent to breeding grounds in Siberia, northern China and Alaska.

The tidal flats of the Yellow Sea are vital stopover on migration.

Natural Resources Adelaide and Mount Lofty Ranges (AMLR) has been supporting shorebird conservation and monitoring for over a decade.

In conserving shorebirds it is important to understand their movements and what habitats they are using, both locally and overseas.

## Banding and flagging

As well as annual shorebird counts, a key focus of work in the AMLR region since 2012, has been to band and colour flag shorebirds.

Whilst colour flagging has been undertaken at a range of sites across southern Australia, the gulf areas of SA have had limited work to date.

Shorebirds banded in South Australia have leg lags of orange over yellow on their right leg. Engraved lags allow the identification of individuals.

The Victorian Wader Study Group and Friends of Shorebirds SE have been assisting the Adelaide and Mount Lofty Ranges Natural Resources Management Board with



Grey Plover CYA at Thompson Beach, South Australia  
Photo: Peter Owen



Grey Plovers and Ruddy Turnstones in flight, Thompson Beach, South Australia  
Photo: Tony Flaherty

shorebird banding studies along the Samphire Coast area, north of Adelaide.

## East Asian-Australasian Flyway

The work of these groups, and other volunteers over many years, has formed the scientific basis for the recent establishment of the Adelaide International Bird Sanctuary, and the recent successful nomination of the area and upper Gulf St Vincent as an East Asian-Australasian Flyway site (EAAF131).

This flagging work seeks to better understand local movements of the birds within the extensive 'terminal' southern summer feeding tidal flats and saltmarshes of the gulf, as well as migration through the EAAF.

Flag resights of Bar-tailed Godwits have been recorded in Bohai Bay and in Yalu Jiang in China and Great Knot resights on Kamchatka Peninsula in Russia.

## Tracking the birds

Ten tiny solar charged satellite trackers have been deployed on Grey Plovers in the gulf since 2015, with funding support provided through the Australian Government for the NRM board's Samphire Coast Icon Project.

These units have been attached using 'leg-loop harnesses' and programmed to a 10 hours ON / 48 hours OFF cycle.

Initial tracker deployments in 2015 and 2016 were made at Thompson Beach some 60 km north of Adelaide, and in December 2016, transmitters were also deployed on a number of birds at Bald Hill.



Transmissions from these Bald Hill birds were lost on migration, but they made stopovers in Sulawesi, Indonesia rather than direct flights to the Yellow Sea.

Transmission was received of a male bird which stopped over on the Kimberley Coast, but it returned to Bald Hill over winter and departed in 2017, with transmission lost off the northeast coast of Borneo.

## Growing knowledge

Knowledge of Grey Plover migration in our flyway is limited.

Over 600 Grey Plovers have been banded in Australia since 1960, with few recoveries and no Australian-marked birds recorded in the breeding range.

Grey Plovers have demonstrated high site fidelity to locations in the non-breeding areas.

Successful northward migration to Arctic Siberia was observed for two SA birds in 2016. They used stopover sites on the Chinese coast for over 50 days.

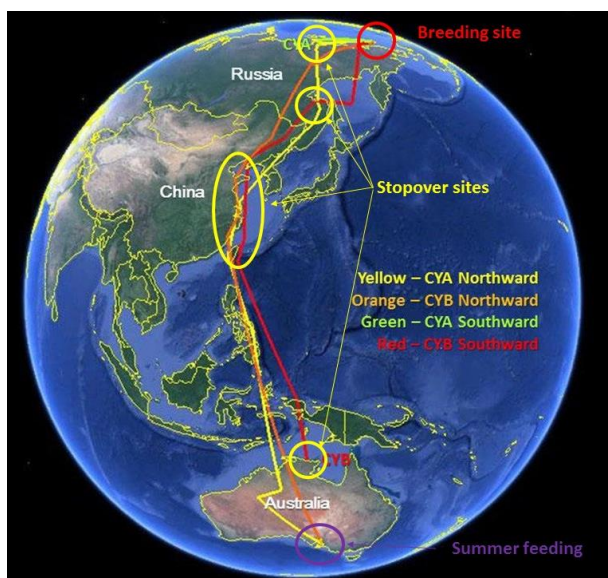
From the Yellow Sea, the birds were tracked to the Yakutia coast of eastern Siberia. Then the SA lagged birds flew east to Wrangel Island in the Arctic Ocean.

These are the first records of any Australian-marked bird on Wrangel Island.

Other migratory species on Wrangel, such as Red Knots and Lesser Snow Geese, utilise the American Pacific Flyway.

Prior to a single 2014 sighting of a bird flagged on Wrangel Island, in Jiangsu Province, East China, there was no flyway information for Grey Plovers breeding on the island.

This confirms Grey Plover use of the EAAF.



Northward and southward tracks of Grey Plovers, CYA and CYB from South Australia to Wrangel Island



Maureen Christie and Clive Minton attach a PTT to a Grey Plover

Photo: Tony Flaherty

The two Thompson Beach birds continued transmissions throughout the breeding season, and appear to have hatched eggs successfully.

One SA bird was successfully tracked back to Australia.

It used the same northern Bohai Bay location in China for a stopover and on departure, as well as a brief prior stop at Ul'banskiy Bay in eastern Russia.

The bird successfully skirted super typhoon Meranti as it hit the Taiwanese coast.

It was not tracked back to Thompson Beach, but landed on the northern Australian coast near Maningrida, where it remained for some time before transmission was lost.

Areas of the Northern Territory coast east of Darwin are important for Grey Plovers, with particularly large roosts of them and other shorebird species being recorded in earlier aerial surveys.

