

PTT 36 LIKES TO BE PHOTOGRAPHED

The idea with satellite transmitters (also called PTTs) is that once you have attached them to your study subject you don't need to see the bird again as the PTT is tracking it on your behalf.

When we put PTTs on birds in Roebuck Bay, however, we expect to resight them as the bay is an excellent site for resighting work with large flocks easily observable from low cliffs and sand dunes. And indeed we do resight tagged birds often, and are able to assess the status of the birds and their PTTs.

But what we wouldn't expect is to have one individual Great Knot carrying a PTT resighted and **photographed** at four different, widely separated, locations during its documented 18,569 km annual trip. And, if we can confirm it back in Roebuck Bay, a 24,269 km round trip. Another aspect of the trip we wouldn't expect was for some of those images to be taken in Alaska!

But this is indeed what happened with one Great Knot from the Global Flyway Network's satellite tracking project.

Great Knot 6RRBR, PTT 36 was banded 11 October 2015 as an adult bird (3+, a minimum of three years old). The bird was seen regularly for the next 6 months on the Roebuck Bay roosts and the PTT sent good signals.

The last sighting in Roebuck Bay was March 21 and the PTT tells us the bird left on migration at about 1600 hrs on March 26.

A non-stop flight to Hong Kong of 4,570km over about 4 days was its first leg of northward migration. The bird was actually seen and photographed on the Mai Po Marshes mud flats.



In mudflats at Mai Po, Inner Deep Bay, Hong Kong.

Image: Wa Tsai.

The bird left Hong Kong on April 7 and 'hopped' up the east coast of China in four short journeys of 690, 260, 760 and 740 km before settling on the tidal flats of Yingkou Liaoning Province. The bird arrived there on April 22 and stayed until April 30. Next was a very short hop east (and south!) to Yalu Jiang National Nature Reserve, traditionally a site for 10's of thousands of Great Knots. The Yalu Jiang mudflats were home for three weeks.

Next it was off to Kamchatka Peninsula. A 3000 km journey across NE China, SE Russia, Sakhalin Island and the Sea of Okhotsk. Just 3 days at a river estuary before a short trip of 590 km to NE Kamchatka. From here the last leg of the journey to reach its breeding site, a 1,210 km leg across Chukotka, Far East Russia and the Bering Sea.

The bird was at its breeding site for 35 days. This is enough time to complete the breeding cycle of pairing, mating, laying, and incubation, and depending on the sex of the bird, some chick rearing. Males usually do the chick rearing in the sandpiper family.

We were watching all this from the comfort of our offices via the satellite technology. We fully expected the bird to head back south after the breeding was over, but to our great surprise it instead proceeded due east a mere 140 km to the furthest east it could be in Russia. After a day on the Chukotka coast it continued across the Bering Strait to Seward Peninsula in Alaska! Not a regular route for Great Knots.



A distant image but it couldn't be another bird! Image: Bryce Robinson

We were able to contact some Alaskan colleagues working nearby and they promptly tracked down the bird in Safety Sound and photographed it for us. The bird was 'on holiday?' there for a week and then set off on its return towards Roebuck Bay.

This bird continued to be an 'explorer' and visited two new sites in Far East Chukotka that were different to the breeding site and others that it visited on northward migration. This included a day at one site before moving just 28 kms! Less than 30 minutes in the air probably.

Next was a flight of 1,670 km to the Khaiusovo River Estuary on the West Coast of Kamchatka (40 km north of the site used on northward migration). This site has been well documented in the last few years by Russian researcher Dmitry Dorofeev and is important for many species including Great Knots and Black-tailed Godwits from Roebuck Bay.

This year Dmitry had 4 AWSG researchers working with him and they took a photograph of the bird, of course!



On the mudflats of the Khaiusovo River Estuary.

Image: Hazel Watson.

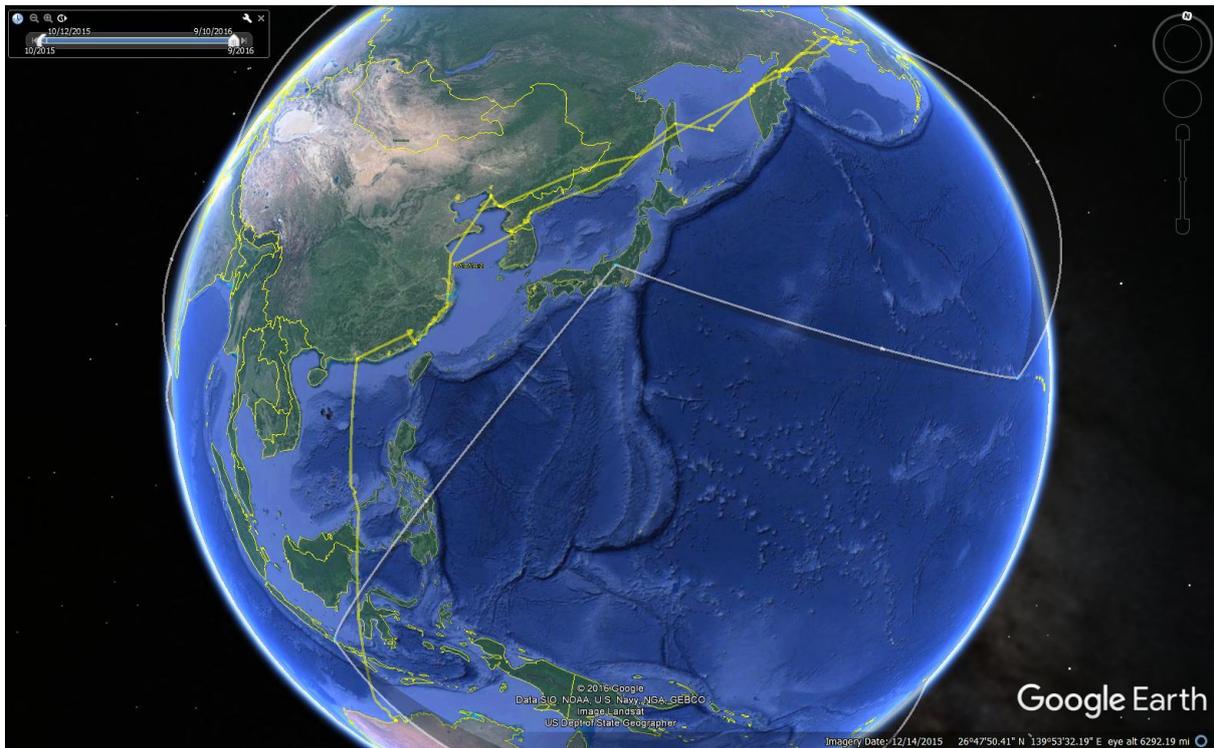
This site was used for 19 days and then the bird continued southwards. A trip of 1,050 km to the mid-East Coast of Sakhalin Island. And 6 days enjoying another remote coastal location and then off to North Korea. This flight was at least 2055 km and appeared to be broken up by a day at a river! Another very unusual thing for a Great Knot to do. The site in North Korea was in the Far South West Coast adjacent to the border between North and South Korea.

It is here that unfortunately there seems to have been a problem with the PTT. The signals to the satellite become intermittent. The next signal put the bird 690 km from the coast of North Korea and just 50 km from Rudong, a famous shorebird area on the Yellow Sea Coast.

And just to top off the remarkable story of this fantastic bird, a shorebird researcher in Rudong (Mr Zhang Lin) got an image of it! This was the fourth time it had been photographed since leaving Roebuck Bay. Unfortunately, the image showed that the PTT had slipped to the side of the bird, presumably because the harness had broken and this may explain the intermittent signals we were receiving. The last signal we received from this transmitter was on October 17 and indicated that the bird was flying south offshore of the Philippines. It remains to be seen if the broken harness will hinder its flight. However we hope to see the bird back in Roebuck Bay soon, so we know it has completed its journey safely.

This information has really opened our eyes to how many sites a Great Knot may use during one round trip migration from Roebuck Bay, in this case, 20 sites including Roebuck Bay and the breeding site. At some sites the bird was on the ground for only one day and at others... 21 days the longest at any one staging area and 35 days at the nest site. The bird was quite capable of flying 4,500 km but sometimes choose to fly 28! Whether this bird has a particularly explorative nature we don't know, but it bodes well for this individual in a rapidly changing world (loss of habitat) that it can be

versatile and will now have prior knowledge of many and various sites. It was likely already aware of some or all of the sites it used this year.



NOTE. This 'story' is an interpretation of the data received from the PTT and has had no rigorous statistical analysis applied to it.

The trip at a glance.

SITE	DISTANCE KM TO	SITE
Roebeck Bay, north west Australia	4,570	Mai Po, Hong Kong
Mai Po, Hong Kong	686	Haitan Dao, Fujian, China
Haitan Dao, Fujian, China	260	Wenzhou, Zhejiang, China
Wenzhou, Zhejiang, China	760	Binhai, Jiangsu, China
Binhai, Jiangsu, China	740	Yingkou, Liaoning, China
Yingkou, Liaoning, China	160	Yalu Jiang NNR, Liaoning, China
Yalu Jiang NNR, Liaoning, China	3,000	West Coast Kamchatka, Russia
West Coast Kamchatka, Russia	590	North East Coast Kamchatka, Russia
North East Coast Kamchatka, Russia	1,210	Breeding Area, Far East Chukotka, Russia
Breeding Area, Far East Chukotka, Russia	145	Far Far East Chukotka, Russia
Far Far East Chukotka, Russia	290	Alaska Coast, USA
Alaska Coast, USA	90	Safety Sound, Alaska, USA
Safety Sound, Alaska, USA	575	Far East Chukotka, Russia (new site)
Far East Chukotka (new site)	28	Far East Chukotka, Russia (another new site)
Far East Chukotka, Russia (another new site)	1,670	Khaiusovo River Mouth, West Coast Kamchatka, Russia
Khaiusovo River Mouth, West Coast Kamchatka, Russia	1,050	Mid-East Coast Sakhalin, Russia
Mid-East Coast Sakhalin, Russia	2,055	South West Coast, North Korea
South West Coast, North Korea	690	Rudong, Jiangsu, China
Rudong, Jiangsu, China	?	Roebeck Bay, north west Australia?

Thank you to the dedicated re-sighters from the EAAF.

The PTT Team

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