

TAGGING 2023, BROOME, AUSTRALIA

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Acknowledgements

Usually, the acknowledgements section goes at the end of the report.

Here in Broome the work that happens would never happen without the input of the volunteer team and therefore to us it makes sense to put those volunteers front and centre. The team for Tagging2023 was a mix of volunteer and professionals and here we thank them all.

Adrian Boyle, Charlotte Burgoyne, Dianne Bennett, Franky O'Connor, Helen Macarthur, Ho-bun Yu, Jasmin Pratt, John Curran, Ka-man Or, Kerry Hadley, Marcel Klaassen, Maureen Christie, Maurice O'Connor, Michelle Willie, Mike Dawkins, Mo Verhoeven, Naiwen Zhang, Roz Jessop, Shang-xiao Cai, Teagan Fitzwater, Val Burgess, Yang Wu, and Ziyou Yang all for field work skills, dedication, and a great attitude throughout the hard and hot work.



It's all about teamwork! From setting up keeping cages (top left) and cannon net (top right) before catch, to processing of birds caught (bottom left) and folding up the shade cloth properly with everyone's hands on (bottom right).

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We acknowledge the Yawuru People via the offices of Nyamba Buru Yawuru Limited for permission to catch birds on the shores of Roebuck Bay, traditional lands of the Yawuru people, particularly Jason Fong and Dean Matthews.

Thank you to Ben, Jasmin, Lachlan and Olivia of Broome Bird Observatory for hosting us and being continually helpful with all and any requests, these were many and varied and were always met with a smile and a yes.

We thank Adrian, Helen, Kerry and, Maurice for the use of their cars. Maurice and George Swann for equipment loan. Helen and Kerry for supplying cakes, biscuits, fruit, and some meals.

We particularly thank Mike for running the catering.

And, a particular thanks to Roz for taking on the role of 'mentor leader' and being there as a support for Chris and Katherine.

The main funding for the project came from Beijing Normal University and Princeton University.

Further financial support came from Deakin University and the overseas and interstate participants themselves.

The motivation for this project came from the desire of Chris and Drew (Bingrun) to further explore the life history of the *melanuroides* subspecies of the Black-tailed Godwit *Limosa limosa*. And after discussions with Tong Mu, it was decided this was the perfect opportunity to further Tong's studies on shorebirds use of mudflats. See appendix 1 and 2.



Black-tailed Godwit 2LYYY of the *melanuroides* subspecies is now carrying a GPS transmitter, ready to reveal its life to us. © NWA Tagging 2023 Team

Field Work

The team gathered in the few days prior to catching commencing. The usual necessities of a big field work operation were conducted during those days, sorting gear, shopping for food, setting up a base camp. In this case outside the BBO Chalet with additional shade erected to attempt to keep the extremely high temperatures at bay! As BBO had a bird watching course on and needed the shadehouse. Our team moved into the shadehouse after the course had finished.



Gathering outside the chalet.

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Dessert time at the shadehouse.

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Additional and important operation for Drew and Tong were to make the harnesses for their 110 trackers!



Drew making harnesses for his trackers (top); Shang-xiao adjusting the tracker harnesses in the field (bottom left); Shang-xiao and Yang smiling happily with their “plates” of trackers (bottom right).

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The day before catching started was dedicated to a short practical demonstration of what to do when arriving at a fired net with birds in it. And presentations on the two tagging projects, 'Enhanced surveillance for HPAI Avian Flu', moult and aging of shorebirds and cannon netting and all its myriad safety issues for birds and people.



Various indoor and outdoor talks before the real operations.

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Due to an early tide the cages and shade for the first catch were set up in the late afternoon of that first day, another way to keep us out of the heat of the middle of the day.



We went out to set net early in the morning before the day "heats up" (left), but seems the mossies think the same (right)!

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Catching birds in Roebuck Bay, while more difficult than it has been in previous years as the birds become more nervous from drones, birds of prey, and changing beach topography, it is still easier than some locations around the world.

However, that is if you are trying to catch 'shorebirds'. Catching a single species, in this case Black-tailed Godwits, is considerably more difficult. We knew this and so our first days were to be dedicated to trying to catch Black-tail Godwit.

Day 1; was unsuccessful for Black-tails, we fired on an ebbing tide over a small flock of Pied Stilts but they were too far away and we only got 2 and 2 Silver Gulls. All birds were bled and swabbed for AI. Only the stilts were banded and flagged.

Day 2; was unsuccessful for Black-tails but we got 100 small species so at least the Deakin University avian flu team were happy.

Day 3; 'OK just one more go for Black-tails'. Nope.

Day 4; was 'all in for Black-tails' with a net set of 2 nets side by side way below high tide. High risk high reward. But in this instance just the high risk. We didn't fire as we couldn't get birds in front of the net.



All in for Black-tails at Minton's Straight: Adrian and Kath discussing where to set the net (top left) while Mo and Tong passing equipment down the cliff (top right). The double nets set (bottom).

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Day 5; A day off for the birds and the team. A deep breath.

Day 6; Our attention turned to Bar-tails, Great and Red Knot. And finally, success. Tags from Tongs study were deployed on Bar-tails (15), Red Knot (13).

Day 7; Another attempt for the three species we were successful with on Day 6. And once again success we had. Tags from Tongs study were deployed on Bar-tails (1), Great Knot (30), Red Knot (16).

Day 8; OK it's now or never for the Black-tails. Once we had caught on Day 7 Adrian and Drew had gone off to reccy for Black-tail catching opportunities. The news was 'where they have been all the time'. Well yes, but we haven't been able to get them in front of the net there! Still, that's where they were and so to the east end of Wader Beach we went. To say that Drew and I were nervous would be something of an understatement. But perseverance paid off and we caught 31 of them due to Kath counting very carefully through her scope, and Chris monitoring safety and flying birds. Drew

had 30 tags! It was all carefully planned, there's no luck involved! Tagging for this day was Black-tails (29), Bar-tails (2), Great Knot (1).



Tagging of Bar-tail (top left) and Black-tail (top right) Godwits in operation. Tagged Red Knots resting in the keeping cage ready for release (bottom). © NWA Tagging 2023 Team

Overall, it was a huge success. The team's hard work enabled us to deploy 107 of 110 tags, band, and flag or colourband 681 birds, and bleed and swab 536 birds for AI studies.

In total we had 1,003 birds under the fired nets but due to heat and for bird welfare we released some at the net. All birds were checked for bands and flags and no marked birds were released without their flags recorded.

SPECIES	NEW	RETRAP	Age 1 1st Year of Life	Age 2	Age 2+	Age 3+ 3rd year of life or older	TOTAL
Bar-tailed Godwit	58	12	2	5	0	63	70
Black-tailed Godwit	28	3	0	5	0	26	31
Broad-billed Sandpiper	13	0	1	2	0	10	13
Curlew Sandpiper	98	4	2	3	0	97	102
Greater Sand Plover	12	15	2	1	0	24	27
Great Knot	198	30	1	20	0	207	228
Grey-tailed Tattler	3	0	0	1	0	2	3
Lesser Sand Plover	3	0	0	1	0	2	3
Pied Stilt	2	0	1	0	1	0	2
Red-capped Plover	1	0	0	0	1	0	1
Red Knot	45	11	2	4	0	50	56
Red-necked Stint	122	5	16	11	0	100	127
Ruddy Turnstone	1	0	0	1	0	0	1
Sharp-tailed Sandpiper	10	0	0	1	0	9	10
Terek Sandpiper	7	0	0	1	0	6	7
TOTALS	601	80	27	56	2	596	681
BIRDS CAUGHT BUT NOT PROCESSED							
Greater Sand Plover	30	0	na	na	na	na	30
Great Knot	120	2	na	na	na	na	120
Red-necked Stint	170	0	na	na	na	na	170
Silver Gull	2	0	na	na	na	na	2
	322	2	0	0	0	0	322

The tags were deployed over three days.

TAGS DEPLOYED				
SPECIES	16/10/2023	17/10/2023	18/10/2023	TOTAL
Bar-tailed Godwit	15	1	2	18
Black-tailed Godwit	0	0	29	29
Great Knot	0	30	1	31
Red Knot	13	16	0	29
				107



The AI surveillance team (left). Roz with one of the Pied Stilt (right).

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Scanning

On the day off and after catching had finished some dedicated scanning for flags and bands was undertaken. Over 390 colourbanded birds from the GFN long-term study were logged and 1,020 Broome ELFs and 26 of birds marked away from Broome representing birds from Chongming Dongtan (Shanghai), Taiwan, Hong Kong, Bohai Bay, Kamchatka, and South Australia.

Tibetan Sand Plover

On day 2 we caught a total of 13 sand plovers, 11 Greater Sand Plovers and 2 Lesser Sand Plovers. The Lesser Sand Plover has always been a complicated species with different 'groups' and different subspecies proposed, accepted and rejected over the years. It is now generally accepted that Lesser Sand Plover (sometimes called Mongolian Plover) is 2 distinct species, Siberian Sand-Plover and Tibetan Sand-Plover. Siberian is the one that is commonly recorded, generally in small numbers, here in Broome. Tibetan has never been reliably recoded here. Until now. On October 12 Adrian was banding the sand plovers and called Chris over. The conversation went something like this.

Adrian – Holding the bird up for Chris to see. I just banded this as a lesser.

Chris – umm I think in the field I might go past that as a greater.

Ady – well it's clearly not a greater.

Chris – well it's clearly not a Siberian.

Pause!

Both – Well, it's a Tibetan then!

They showed the bird to Kath, who is familiar with them, and she looked and said quite casually 'yeah that's a Tibetan'.

We look images and extra measurements. Subsequently Nigel Jackett has done some analysis of the measurements, and it seems very likely it is indeed a Tibetan Sand-Plover. But they are not easy to pin-down. We will need to submit the record to Birds Australia Rarities Committee. If needed, we have a blood sample so that will tell us once and for all. It's expensive to get that done though so we will decide on that in due course.



Siberian Sand-Plover vs Tibetan Sand-Plover (left). Confusing? Just look for the flag "SK" in the field (right).

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This research was carried out with authorisation from:

The Western Australian Government Department of Primary Industries and Resources, Wildlife Animal Ethics Committee, Permit number: WAEC 23-08-52.

The Western Australian Government Department of Biodiversity Conservation and Attractions, Regulation 25, licence # FO25000260-4.

The Western Australian Government Department of Biodiversity Conservation and Attractions, Section 40, licence # TFA 2020-0011-3.

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9 other participants held A class licences and 14 held C class licences.

This was a collaborative project between the Australasian Wader Studies Group, Beijing Normal University, Global Flyway Network, and Princeton University.



Base camp at Quarry Beach, 16 Oct 23.



Moving the gazebo in the strong breeze (left); Lesser Sand Plovers paparazzi (right).



Chefs Mo and Drew at the barbecue (left); Tong trying to “connect” with the tagged Knots.

Further Reading

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