

WADERS, WIND AND WATER: THE NORTH-WEST AUSTRALIA WADER EXPEDITION 1988

Jacque & Nigel Clark



The 'Shorelines' feature in *BTO News* (the newsletter of the British Trust for Ornithology) features a series of articles about wader work from various parts of the world. Here we continue our practice of reprinting, with the editors's agreement, articles from Shorelines that may be of interest to the worldwide Wader Study Group membership. This report, by past WSG Membership Secretaries Jacque and Nigel Clark, first appeared in *BTO News* 157 (July-August 1988).

The recent upsurge in wader studies in Australia led to the discovery, in 1981, of huge concentrations of waders in north-western Australia, between Broome and Port Hedland; a finding that completely changed our understanding of the East Asian/Australian flyway. Since then there have been several follow-up expeditions to the area to count and catch waders and thus widen our knowledge of this key migration site.

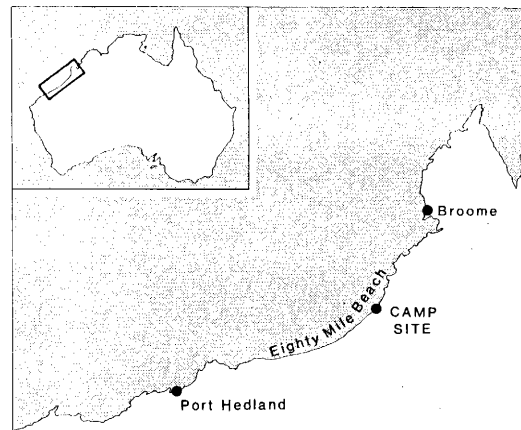
In 1988, a three-week expedition was planned to catch waders on their northward migration. Five members of the Wash Wader Ringing Group flew from Britain on 17 March to join the trip. The British contingent consisted of Graham, Couchman, Phil Ireland, Daphne Watson and ourselves. Much of our 20-hour journey was spent discussing what we might experience in Australia but nothing turned out quite as we imagined.

Our arrival at the saltworks at Port Hedland in the middle of the night was our first experience of Australia - we managed to see two species of wader on the way from the airport before rolling under mosquito nets to sleep. Sleep did not last long for at dawn we realised that we were on the edge of a salt pan which was covered with birds. The strange calls soon got us out of bed for our first views of Australian Avocets, Black-winged Stilts, Sharp-tailed Sandpipers, pelicans and lots more. The rest of the team gradually joined the mad Brits and we were able to meet the 15 Aussies (including expatriate Clive Minton), two Thais, a Malay, a New Zealander and a Canadian, with whom we were to share the experiences of the next three weeks.

That first day taught us what to expect from the Australian weather, with temperatures well up into the forties (centigrade) making work difficult. We did, however, manage to set mist-nets and that night had our first Australian birds in the hand. It was difficult for anyone to go to bed as new species were brought back from successive net rounds through the night - the first Terek Sandpiper was immediately followed by the first (and only) Asiatic Dowitcher.

Whilst at Port Hedland we made our first cannon-net catch of 15 birds, including eight Banded Stilts, our target that day. Cannon-netting in high temperatures makes the task quite different from in Britain. At home we are always working quickly to keep the birds warm; in Australia we were working quickly to keep the birds cool. Very large, airy keeping cages, occasionally dampened to keep them cool, held the birds waiting to be ringed. Shades were also erected over the keeping cages and we often had shades over the birds being extracted from the net as well.

After three highly successful days at Port



Hedland saltworks, we packed up camp and drove to Broome, 600 km to the north. The journey will forever stick in our minds. Temperatures were in the high forties and we were unable to use the air-conditioning in our vehicle as the engine would have overheated. Four of us drank 25 litres of water between us on the trip! The road was straight and empty, there were two Roadhouses (one appropriately called Sandfire) en route and we saw less than 30 other cars all day. We began to understand why all the vehicles had two spare wheels and various other spare parts on board.

We arrived in Broome as the first visitors to a new bird observatory, set up by the Royal Australasian Ornithologists' Union. Here, we spent a week catching an array of species which formed huge, mixed flocks. The most exciting catch was of 550 birds, including two foreign controls. There is nothing quite as amazing as taking a juvenile Bar-tailed Godwit out of a cannon-net in Australia, thinking its ring looks familiar and to find it is British! Via a complicated series of telephone calls, we later heard from the BTO Ringing Office that the bird had been ringed in Hong Kong by Dave Melville in the previous autumn. In the same catch was a Japanese-ringed Terek Sandpiper, the origins of which we have yet to learn.

Each evening, at the Meteorological Station in Broome, we had a small team watching the radar over the migration period. Very few departures were noted as the birds were held up by the weather out at sea - they usually leave when there is a tail wind. The birds reached very high weights and almost every adult bird caught was bulging with fat.

Our next stop was Eighty Mile Beach, the place we really wanted to see. We had heard so many stories of the endless white sand, a tideline of enormous and beautiful shells, the blue sea (full of sharks) and, most of all, the waders -

Top ten species of waders caught on the
North-West Australian expedition, 1988.

Terek Sandpiper	1 005
Bar-tailed Godwit	955
Great Knot	856
Curlew Sandpiper	802
Knot	722
Grey-tailed Tattler	579
Greater Sand Plover	570
Red-necked Stint	391
Broad-billed Sandpiper	336
Turnstone	140

mixed flocks stretching to the horizon. Here, the phenomenon of mixed wader flocks continued to surprise us, as it had done at Broome. Nowhere did we see the large flocks of Knot, so characteristic of British estuaries. There were indeed thousands of Knot, but they were in flocks which comprised Red-necked Stints, Sand Plovers, Curlew Sandpipers, Great Knot, Terek Sandpipers, Grey-tailed Tattlers, Bar-tailed Godwits and Curlews. Leg length was the only thing that tended to sort out the flocks, those with short legs being pushed up the beach first by the incoming tide. Mixed flocks make counting much more difficult than in Europe as the flock size alone cannot be estimated - the proportions of each species within that flock need to be estimated. This leads to under-counting of the smaller species, e.g. Curlew Sandpiper. The mixed flocks also made catching more complicated. As the birds are removed from a cannon-net, they are taken back to the keeping cages and sorted into compartments of different species. This is easy in Europe where a catch comprises probably only three or four species, but is far harder when there are ten species - and when one has to think about what the bird in the hand is!

Eight Mile Beach (in reality it is much longer) was everything we had expected - and a little more besides. Whilst there a tropical storm passed by, depositing 185 mm of rain on us in 24 hours. High winds accompanied the rain and caused problems with the camp - we held down our 'kitchen' shelter through one squall but suffered worse damage during the next, when everyone had either gone to bed or disappeared inland to look at the effects of the storm. By morning, the rain had eased and the floods were receding. Whilst our equipment was drying out, we made a count of 20 km of Eighty Mile Beach and found 86 000 waders, including over 6 000 Terek Sandpipers, more than had previously been counted in the whole of Australia. Remarkably, by afternoon most of the water had vanished from our area, though a radio report told of the highway being flooded near Port Hedland and that it would be several days before it would be passable.

The storm affected the birds more than it did us. The state of plumage on the birds was fascinating - for instance, the juvenile birds' feathers were so worn and had become so wet during the rain that they were starting to disintegrate and the birds were obviously incapable of migrating to the breeding grounds in their first year. Some of them had moulted the outer four or five primary feathers while others had not done so and some of these found it difficult to take off. After the storm the winds became favourable for migration and overnight about a third of the waders left. Our catches after that point contained a higher proportion of juveniles, as well as adults at lower weights.

Following the successful visit to Eighty Mile Beach, we returned to Broome for a few days before driving back to Port Hedland to spend our last two nights mist-netting on the saltworks. This time we chose a different area as the water level was still high after the floods. One evening we caught almost 300 Broad-billed Sandpipers - surely some kind of world record!

By the end of the trip, a now very tired (but happy) team had caught over 6 000 waders of 24 species - the top ten are listed in the table. Among these were two birds ringed outside Australia. We are expecting many of the birds ringed this spring to be recovered. Indeed, as we wrote this article, news reached us of two Great Knot from north-west Australia retrapped near Shanghai, China, in early April. The hard, but extremely satisfying work of our three weeks 'down under' is already proving its worth.

