

WHITE-HEADED STILT (*HIMANTOPUS LEUCOCEPHALUS*) NOW AN INTERNATIONAL MIGRATORY WADER?

CLIVE MINTON¹, CHRIS HASSELL², ROHAN H. CLARKE³ AND NIGEL JACKETT⁴.

¹ 165 Dalgetty Road Beaumaris, Victoria 3193, AUSTRALIA.

Email: mintons@ozemail.com.au

² PO Box 3089, Broome, Western Australia 6725, AUSTRALIA.

³ School of Biological Sciences, Monash University, Victoria Australia 3800 Email: rohan.clarke@monash.edu

⁴ Broome Bird Observatory P.O. 1313, Broome, Western Australia 6725, AUSTRALIA.

The Black-winged Stilt genus (*Himantopus* sp.) has a worldwide distribution with populations occurring on all continents except Antarctica (del Hoyo *et al.*, 1996). Some populations are sedentary; others are migratory (or at least partially so). In Australia the local species, recently reclassified as White-headed Stilt *Himantopus leucocephalus* (e.g. Gill and Donsker 2017), is regarded as resident (Higgins & Davies, 1993).

Banding and flagging have now shown that this species regularly makes long distance movements (up to 1750 km) within Australia (Table 1). Long movements have also recently been found to occur in two other species which share similar habitats in Australia – the Red-necked Avocet *Recurvirostra novaehollandiae* (movements up to 3000 km – VWSG & AWSG unpublished data) and the Banded Stilt *Cladorhynchus leucocephalus* (movements up to 2300 km – Minton *et al.* 2015, Pedler *et al.*, 2017).

The recent sighting of a Broome-flagged White-headed Stilt in Indonesia has potentially changed its Australian status from ‘resident’ to ‘international migrant’. This note details this flag sighting and summarises current knowledge of movements of White-headed Stilt in Australia and over waters between Australia and Indonesia. It attempts to assess whether a part of the population makes regular migratory movements or whether this new record is just an extreme example of the more random dispersals previously reported for this species.

White-headed Stilt 083-24871 had an engraved yellow flag LKA on its right tibia and was marked as an adult – **not** a juvenile as first reported (CM *Pers. Comm.*) – in a cannon-net catch of 125 White-headed Stilts at a

high-tide roost on the northern shores of Roebuck Bay, Broome, Western Australia (17° 58’ S 122° 20’ E), on 24 June 2017. It was subsequently observed by Iwan Londo, an experienced Indonesian ornithologist who specialises in waders, on 9 September 2017 at Sidoarjo Fish Ponds in East Java (7° 27’ S 112° 44’ E). This is 1573 km NNW of the banding location. This is the first recorded overseas movement of a White-headed Stilt marked in Australia (David Drynan, Australian Bird and Bat Banding Scheme *Pers. Comm.*).

There have previously been nine recorded long-distance movements within Australia of flagged White-headed Stilts, all also involving birds originally marked in the Broome region of north-western Australia (Table 1). Eight of these birds moved to the south-western part of Western Australia, to the area just south of Perth, with movement distances between 1705 and 1765 km (south south-west). They had all been banded in the June-July period and were subsequently reported in the August / January period. These movements all conform with the well-established pattern of large numbers of White-headed Stilt occurring in suitable habitats in northern Australia because of flooding during the January-March wet season. Most of these birds disperse as the dry season (April-November) advances. An additional long-distance movement from Broome was a White-headed Stilt that moved east to Tennant Creek Sewage Ponds (1256 km), where it was seen in late October.

The scale of these seasonal movements in Australia is large. At Roebuck Plains, for example, tens of thousands of White-headed Stilts sometimes occur towards the end of the wet season in March / April. In some years, the majority of these will disperse widely

Table 1. Flag sightings of White-headed Stilts marked at Broome in N.W. Australia

Date	Marking Location (Age, Moults)	Flag (ELF)	Resighting date	Location of sighting	Distanced moved
*	-	Yellow	08.10.94	Peel Inlet	1748 km SSW
	-	Yellow	13.10.07	Lake McLarty	1765 km SSW
	-	Yellow	30.10.10	Tennant Creek, N.T.	1256 km E
10.12.09	Taylor’s Lagoon (2+, 5 ¹⁰)	Yellow (20)	01.11.10	Thomson’s Lake	1705 km SSW
	-	Yellow	29.11.10	Lake McLarty	1765 km SSW
	-	Yellow	17.01.14	Lake McLarty	1765 km SSW
17.07.10	Broome (Juv., J ¹⁰)	Yellow (50)	30.12.15	Goegrup Lake (Near Mandurah)	1745 km SSW
17.07.10	Broome (2+, 5 ¹⁰)	Yellow (83)	30.12.15	Goegrup Lake	1745 km SSW
04.07.12	Broome (1+, 6 ² 5 ⁸)	Yellow (AR)	29.12.16	Lake McLarty	1765 km SSW
24.06.17	Broome (2+, 5 ⁷ 0 ³)	Yellow (LKA)	09.09.17	Sidoarjo, East Java, Indonesia	1573NNW

*Date of marking not known.

All sighting locations in south-west Western Australia unless stated otherwise.

Date of marking not known for birds with plain yellow flags

over the plains and nest. On Anna Plains, adjacent to 80 Mile Beach (180 km to the south-west of Broome), flooding is much less frequent. But in 1999 and 2000 the ‘flood of the century’ created a lake some 120 km long (Mandora Marsh) and an estimated 200 000 White-headed Stilts nested there in each year (Halse *et al.* 2005). Outside the wet season White-headed Stilts are only thinly and widely dispersed in these northern regions of Australia, with the greatest concentration usually being 400-800 birds which feed in Roebuck Bay and roost on the northern shores of the bay at high tide close to the Broome Bird Observatory at Crab Creek.

Further evidence of long movements by White-headed Stilts is demonstrated by the quite frequent records obtained from islands situated in the Timor Sea between northern Australia and Indonesia (Table 2). For example, during ten shorebird surveys at Ashmore Reef (12° 20' S 123° 0' E; 630 km north of Broome and 325 km off the Kimberley coast) White-headed Stilts were detected in five occasions, with one flock containing 21 individuals (Clarke and Herrod 2016). On the basis that such locations are typically only visited two to three times per year by ornithologists, and that records demonstrate White-headed Stilts are usually only present on an island for one or two days at a time, these observations support the notion that small numbers of White-headed Stilts regularly traverse marine waters between north-western Australia and Indonesia.

On 11 November 2017, a flock of 23 White-headed Stilts were observed heading southward (bearing 160°) over open ocean (13° 5'42"S, 123°13'16"E; 550 km north of Broome) between Ashmore Reef and Browse Island. The flock was observed flying in a line formation at heights between 10 m and 50 m. This flock was not recorded during shorebird surveys at Ashmore Reef in the four days prior to the sighting, so were not expected to have departed from that location. However, based on their direction of flight, it is likely they departed from an island to the north of Ashmore Reef, in the Lesser Sunda group of Indonesia.

There is further evidence of possible, more regular migrations by White-headed Stilts obtained from the “Visible Migratory Departures” studies by Broome Bird Observatory, carried out in March-April each year since 1981. At the commencement of the program sightings of

White-headed Stilts on the shores from which the northern hemisphere migrants were seen departing were not regarded as migration-related. However more recently it has been increasingly realised that the behaviour of some of these birds is very similar to that of the Palaearctic migrants. Even stronger evidence of potential migration occurred on the 30 March 2016, when 55 White-headed Stilts were seen to depart northwards on migration at 1710 hrs, with the flock establishing the usual migratory formation as they departed. Ultimately, on this occasion, the birds did not to migrate and rather, returned to the bay within a few minutes. Nevertheless, this behaviour is strongly indicative of a desire to migrate as some Palearctic migrant waders engage in aborted departures, possibly because they find the wind conditions, as they gain height, not to their liking.

Primary moult details and some biometric data were collected from the White-headed Stilts caught on 24 June 2017. The adult birds had a wide range of moult scores ranging from 0¹⁰ (not started moult) to 5¹⁰ (completed a full moult), with many birds in active moult. 083-24871/LKA was, unusually, in arrested moult 5⁷⁰³. This may be an indication that the bird was physiologically preparing for a long-distance flight.

There was a wide range of weights in the 23 birds weighed – from 116 g to 195 g, with most birds being in the range 150-160 g. The high weights could again have been an indication of birds capable of a further onward, long-distance movement – such as across the Timor Sea to Indonesia. Unfortunately, LKA was not one of the birds weighed. It is also worth noting that the weights of the five known (because they carried engraved leg flags) White-headed Stilts which remained in Australia were all in the range 153-161 g.

The above information demonstrates the possibility of small-scale regular overseas migratory movements of White-headed Stilts from north-western Australia. However, it seems that most White-headed Stilts visiting north-western Australia remain on the continent and do so as part of more regular seasonal movements – albeit of a similar magnitude (1750 km) to the overseas movement to Indonesia in 2017 (1570 km) reported here. The relatively high proportion of banded birds (ten retraps, all banded locally, in 135 birds caught) in the 24 June catch also suggests some consistency in the movements of

Table 2: Sightings of White-headed Stilt on islands between North-western Australia and Indonesia. Data sources: Clarke *et al.* (2017), Clarke & Herrod (2016), and G. Swann, M.J. Carter and R.H. Clarke unpubl. data.

Location	Dates and effort	Sightings
Ashmore Reef	Total 10 visits. April & November 2010 -2014 (twice annually) - Shorebird counts.	Middle Island: 2 in April 2010, 21 in April 2012 West Island: 8 in November 2012, 4 in April 2014 1 Sandbar, April 2014
Ashmore Reef	16 visits, all October/November visits, 1 in March/April - Birdwatching visits	West Island: 2 in October 2005, 1 in March 2014, 5 in November 2016
Cartier Reef	10 Visits. April and November 2010 – 2014 (twice annually) + previously published record.	1, March 1990 1, November 2010
Browse Reef	12 visits	9, November 2012

White-headed Stilts visiting north-western Australia. The ages of the ten retraps ranged from two to 15 years, with four individuals being at least 11 years old. The oldest recorded White-headed Stilt in Australia was a bird retrapped at Broome 21 years and eight months after it had originally been banded (David Drynan *Pers. Comm.*).

Higgins & Davies (1993) describe the movements of White-headed Stilt in Australia as being ‘apparently dispersive’. It specifically states that there is no known regular movement to Papua New Guinea. In New Zealand, however, the White-headed Stilt breeding on South Island is migratory, with most individuals moving to the North Island for the winter. Elsewhere, in Asia, long-distance movements / migrations have been recorded, with several movements into / out of Taiwan (the most recent being 642 km to Okinawa, southern Japan) (Chung Yu Chiang *Pers. Comm.*). However, in Japan itself, only local movements have been recorded (Tomohiro *Pers. Comm.*).

Before the White-headed Stilt was classified as a separate species, the Black-winged Stilt was considered to have a cosmopolitan distribution, with at least five separate subspecies. Some were considered sedentary, whilst others were long-distance migrants, particularly with the breeding populations from North and Central America migrating to Central and South America and some of the southern European breeding birds migrating to Africa (del Hoyo *et al.* 1996). The populations inhabiting areas in and nearest to the tropics were the least migratory. It appears that seasonal conditions (particularly the wet season) are the principal governing factor on White-headed Stilt movements within Australia, but that a small proportion of the population may possibly move as far as Indonesia on a regular basis. It will be especially interesting to learn if ‘LKA’ is seen again elsewhere in the future.

Thanks are due to all those who have taken part in the banding and flagging of White-headed Stilt over the years. Roz Jessop is thanked for assistance with references. Adrian Boyle made helpful suggestions during the preparation of this paper.

REFERENCES

- Clarke, R.H. & A. Herrod** 2016. The status of seabirds and shorebirds at Ashmore Reef, Cartier Island & Browse Island. Final impact assessment for the Montara Oil Spill. Prepared on behalf of PTTEP Australasia and the Department of the Environment.
- Clarke, R.H., G. Swann, M. J. Carter, R. M. Mott, & A. Herrod** 2017. The avifauna of Cartier Island commonwealth marine reserve, north-western Australia. *Australian Field Ornithology* 34:18-25.
- Pedler, R.D., R.F.H. Ribot, & A.T.D. Bennett** 2017. Long-distance flights and high-risk breeding by nomadic waterbirds on desert salt lakes. *Conservation Biology* doi: 10.1111/cobi.13007.
- Gill, F. & D. Donsker (Eds)** 2017. IOC World Bird List (v 7.3). doi: 10.14344/IOC.ML.7.3.
- Halse, S.A., G. B. Pearson, C. Hassell, P. Collins, M. D. Scanlon, & C. Minton** 2005. Mandora Marsh, north-western Australia, an arid-zone wetland maintaining continental populations of waterbirds. *Emu* 105:115-125.
- Higgins, P.J. & S.J.J.F. Davies (Eds)** 1993. Handbook of Australian, New Zealand and Antarctic Birds. Vol. 2, Raptors to Lapwings. Oxford University Press, Melbourne. Pp: 758-769.
- del Hoyo, J., A. Elliott, & J. Sargatal (Eds)** 1996. Handbook of the Birds of the World. Vol. 3. Hoatzin to Auks. Lynx Edicions, Barcelona.
- Pierce, R.J.** 1996. Family Recurvirostridae (Stilts and Avocets). Pp. 332-343.
- Minton, C., J. Lane, G. Pearson, A. Clarke & A. Chapman** 2015. Movements of Banded Stilts marked at the Lake Ballard and Lake Marmion colonies in Western Australia in 1995. *Stilt* 67:22-27

UNUSUAL NATAL AREA DEPARTURE OF HOODED PLOVER CHICKS

JEFF CAMPBELL¹ AND MAUREEN CHRISTIE²¹ 22 Lindsay Street, Mount Gambier, South Australia 5290, AUSTRALIA.Email: sarah.jeffcampbell@bigpond.com² Carpenter Rocks, South Australia 5291, AUSTRALIA.Email: twinpeppercorns@gmail.com

On 9 January 2017, two or three Hooded Plover *Thinornis rubricollis* chicks were seen leaving the natal area by an unusual route. Although the chicks were not seen leaving the nest itself, they were observed leaving the area by jumping from a cliff to the beach below (Figures 1 and 2). This involved the parent birds repeatedly flying down to the beach, a drop of 4.9 m, while calling to the chicks, and then flying back up to the top of the cliff. After this process continued for approximately two or three minutes, each chick walked to the cliff edge and dropped to the beach. It was difficult to be sure if two or three chicks dropped down to the beach from our vantage point, some 100 m away. As there was very little time between each chick launching itself from the cliff top, and it was necessary to use binoculars to observe proceedings, given the distance from the jump off area, we could not be sure. The landing site for the chicks consisted of sandy beach interspersed with ragged isolated rocks and scattered dry beachwrack. One chick was seen to land in a small clear patch of sandy beach. On landing the chick was seen to bounce upwards on impact, then regain an upright position before running, rather slowly, away. The actual landing of a second chick was not seen, but it too was seen to run off towards the adult birds.

It was believed that a third chick may have leapt from the cliff, however if so it may have ended its fall amongst, or on, the rocks and become trapped or did not survive the rough landing. A search was made for this chick; however, it could not be located. Only two chicks were seen on the beach with the adults. Some time after the chicks had made their fall to the beach one of the adults was observed running around near the nest on top of the rocky outcrop, calling in an agitated manner. It was

surmised that the adult was looking for the missing chick as there seemed to be no other reason for this behaviour.

The cliff involved in the incident is a part of the calcarenite headland of Nora Creina, South Australia (37° 19' S, 139° 50' E). The cliff itself is part of a now isolated rocky outcrop, a remnant of the Robe Range (Short 2006), surrounded by the sea on two sides and sandy beach on the other two. The top of the rocky outcrop is generally flat although on a slight incline towards the mainland, with an area of approximately 4,000 m². The Hooded Plover nest was previously sighted by MC and was located near the top of the outcrop. This site has been used as a Hooded Plover nesting site for at least several years. It was presumed that the plovers would walk the chicks down the incline towards the upper beach from the nest location. Rather than jumping from the cliff, walking the chicks another 11.3 metres down the incline would have resulted in a lesser drop of 3.05 metres. To reach the lowest point of the outcrop a relatively short drop of just 0.5 metres would have been required after walking another 18.2 m.

Hooded Plover nesting on rocky outcrops is said to be an occasional occurrence in various literature sources (e.g. Marchant & Higgins 1993, Maguire 2008) however no references can be found for chicks jumping from cliffs. This behaviour is however well known and documented for those duck species which nest in high tree hollows, e.g. Australian Wood Duck *Chenonetta jubata* (Marchant and Higgins 1990), where the chicks are said to float to the ground. In the case of shorebirds, the Green Sandpiper *Tringa ochropus* uses old and disused passerine nests and the chicks drop to the ground (Nethersole-Thompson & Nethersole-Thompson 1986).



Figure 1. Rocky outcrop at Nora Creina. Arrow shows jump-off point. Spot shows lateral area of nest (Photo: Maureen Christie)



Figure 2. Close view of rocky outcrop at Nora Creina. Arrow points to jump-off site. (Maureen Christie)

REFERENCES

- Maguire, G.S.** 2008. A practical guide for managing beach-nesting birds in Australia. Birds Australia., Melbourne.
- Marchant, S. & P.J. Higgins** (Co-ordinators) 1990. Handbook of Australian, New Zealand and Antarctic Birds. Volume 1: Ratites to Ducks. Oxford University Press, Melbourne.
- Marchant, S. & P.J. Higgins** (Eds) 1993. Handbook of Australian, New Zealand and Antarctic Birds. Volume 2: Raptors to Lapwings. Oxford University Press, Melbourne.
- Nethersole-Thompson, D. & M. Nethersole-Thompson** 1986. Waders: Their Breeding, Haunts and Watchers. Poyser, Calton.
- Short, A.W.** 2006. Beaches of the South Australian Coast and Kangaroo Island. A guide to their nature, characteristics, surf and safety. Sydney University Press, Sydney.