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Book review

Underhill, L.G., Tree, A.J., Oschadleus, H.D. & Parker, V. 1999. *Review of ring recoveries of waterbirds in southern Africa.* Avian Demography Unit, University of Cape Town. 119 pp. ISBN: 0-620-24884-X.

Available from *Avian Demography Unit, University of Cape Town, Rondebosch, 7701, South Africa.*

Although most ringing/banding schemes were initiated to study migration, the current focus is largely on the demography of birds. Data on movements, however, continue to be collected and, although there is now a large body of information on migration, there is still much to learn. Several ringing schemes are in the process of producing atlases of bird movements based on ring-recovery data, these aim to summarise current knowledge and to stimulate further research. Some schemes are working on comprehensive volumes, others have chosen to produce more of an overview presenting the data available without providing so much interpretation. This volume is part of a series being produced by the South African Ringing Scheme (SAFRING) and covers 101 species (from pelicans to terns) that have ring recoveries in the SAFRING database. A volume on birds of prey has already been produced and volumes on granivorous birds and "other species" are planned.

Production of this volume started with a major clean-up of the SAFRING database for the species covered. As part of this, all recoveries were checked and the coding of the fate of birds was reassessed, and the authors feel that the data are now ready for analysis. The analyses carried out for the *Review* are necessarily brief when covering a large number of species. The authors encourage individuals to become involved in more in-depth analysis of species for which more data are available.

For each species a text is presented which varies in length, depending on the amount of information available. The text covers distribution and habitat, as well as discussing current knowledge of movements and highlighting information from the ring recoveries. Up to ten ring recoveries are presented for each species. These are selected to be interesting rather than representative and are biased to movements between countries, recoveries with a long elapsed time between ringing and recovery and rapid, long-distance movements. Therefore, although they give a flavour of the movements for each species, they should not be taken to represent the normal pattern. For species with more recoveries, maps are presented. In these, lines join ringing and recovery locations, but again these are not likely to be representative of actual routes taken by the birds. The use of lines on ring-recovery maps can be a problem as it is misleading. However, it does provide a solution to the difficulty of linking the place where a bird was ringed to the place where it was found.

As the focus of ringing activities has changed over the years, some of the data presented in the *Review* relate almost exclusively to ringing that took place a long time ago. This means that the patterns shown may not be representative of the present day. For example, the increase in the number of man-made water-bodies may have affected the movements of some species.

The texts, maps and tables relating to the 35 wader species included in the *Review* provide much interesting information. The normally sedentary nature of African Jacana *Actophilornis africanus* (although there are some long-distance movements in times of drought) contrasts with the long-distance movements of species like Red Knot *Calidris canutus* (with recoveries mainly in western Europe), Curlew Sandpiper *C. ferruginea* and Little Stint *C. minuta* (both with more easterly recoveries).

The *Review* is a fascinating introduction to the movements of the waterbirds of South Africa. It is not, and does not claim to be, exhaustive but, when taken in conjunction with data from other schemes within the flyway, it greatly adds to our knowledge of wader migration. The *Review* will be of general interest to those working on the species covered and a stimulus to further work.

Jacquie Clark

Short communications

Waders diving and swimming underwater as a means of escape

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It is well known many waders can swim, but not that they can also dive and swim underwater when necessary. This note reports several examples of Oystercatchers *Haematopodidae* and one of a Black-winged Stilt *Himantopus himantopus* swimming underwater as a means of escape.

I first observed underwater swimming by Eurasian Oystercatchers *Haematopus ostralegus* during the 1960s and 1970s on The Wash, eastern England. When cannon netting oystercatchers on shingle shores along the east coast of The Wash, a few birds which were close to or in front of the cannon net, but which were not caught when it was fired, would sometimes go into the sea and then dive as members of the team ran towards the net to deal with the caught birds. Such oystercatchers would sometimes swim away from the shore underwater for 20–30 m before surfacing. They then rode buoyantly on the water and would either fly off or, more usually, swim on the surface to the shore nearby. I have seen this behaviour on about six occasions involving up to three birds at a time.

More recently, on one occasion in 1997, at Long Island near Hastings in Westernport, Victoria, Australia, two Pied Oystercatchers *H. longirostris* came down on the water 30–40 m offshore when released after ringing. They swam further away from the shore, so it was decided that they should be recaptured and put in a cage to dry out before being released again. When, the birds were followed by a small boat with an outboard engine, each dived just as it came within reach of the person in the boat. They could be seen swimming a metre or more underwater and initially swam 30–40 m before coming to the surface briefly for air. When the birds were visible underwater, it could also be seen that their main means of propulsion was their half-closed wings, not their feet (which are not webbed). The duration of the dives became progressively shorter and both birds were eventually recaptured. They were surprisingly dry considering that each bird had been totally submerged for a cumulative period of several minutes.

In April 1997 at Lagoa do Peixe, southern Brazil, I watched a Peregrine Falcon *Falco peregrinus* as it attempted to catch a Black-winged Stilt. When the Peregrine got close, the Stilt dropped swiftly to the surface of the lake and dived immediately. The Peregrine continued to circle around the spot and eventually, after perhaps half a minute, the Stilt reappeared on the surface 30 m away. The Peregrine immediately flew towards the Stilt and, when it was close, the Stilt dived again. This process was repeated several times over 10–15 minutes, with the Peregrine taking occasional rests on a nearby post. Eventually the Peregrine gave up and flew away and the Stilt swam to the shore and preened.

These examples of underwater swimming by waders in the face of extreme threat illustrate the diversity of responses available to waders in such circumstances. Diving, as a means of escape, is widespread amongst other species of waterbirds that are not normally considered underwater swimmers. Examples include Mute Swans *Cygnus olor* in the UK and Black Swans *Cygnus atratus* in Australia, both of which will dive and swim underwater at depths of up to 3 m and for distances of 40–50 m when they are flightless and pursued, for example, by a ringer in a small boat. In these cases, although it is the feet that are used for propulsion, the wings are also held in a partially open position when the birds are underwater. This may help them to remain submerged.

I have not been able to find any published examples of waders swimming underwater for significant distances as a means of escape. However, I have an unconfirmed report of Eurasian Oystercatcher chicks swimming underwater for short distances when approached by an observer. Clearly underwater swimming by waders is unusual and is only used as a last resort when under extreme threat.

Wader ringing at Eilat, Israel

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Located at the junction of three continents, Israel functions as a land bridge for birds migrating south from Eurasia to Africa in autumn and north to their breeding grounds in spring (Safriel 1968). Eilat, located in the Syrio–African Rift Valley along this land bridge and at the northern fringe of the 2000-km Saharo–Arabian desert belt, is an ideal staging area for migratory birds (Shirihai and Christie 1992, Yosef 1995, Shirihai 1996). During the years 1984–2000, the International Birding and Research Center in Eilat (IBRCE) trapped and ringed over 140,000 birds of 131 species. However, the major focus of these studies has been passerines and, to lesser degree, raptors. During most years, waders were ringed only when trapped accidentally. The exceptions were 1990–1992 and 1999–2000 when waders where also targeted. The 1990–1992 project was