

## 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). Dur-

ing 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 were also targeted. The 1990–1992 project was



a result of the encouragement of Dr G. Boere and WIWO. The recent focus on waders was the initiative of the IBRCE.

A total of 7,637 waders of 32 species were trapped and ringed in the 17 years of ringing (Table 1). The majority were ringed during 1990–1992 (2,468; 32%) and 1999–2000 (3,739; 49%). During the latter period, waders were trapped using seven walk-in traps on the Salinas.

The Little Stint *Calidris minuta* was the dominant species ringed with a total of 4,618 (60.5%). This number is considerably greater than the numbers of this species ringed at any other location, worldwide, during 1998 (Ward 2001). Dunlins *C. alpina* were the second most numerous species (1,095; 14.3%). The majority (5,575; 73%) of the waders were ringed during the autumn migration period. To date, only four (0.05%) of the waders ringed at Eilat have been controlled outside Israel; probably because of the lack of wader ringing activity in the tundra regions of Eurasia. A Greenshank *Tringa nebularia* was recovered in western Russia 14 months

after it was ringed in Eilat; a Green Sandpiper *T. ochropus* was recovered in the Ukraine 5 months after it was ringed (Yosef 1997); a Wood Sandpiper *T. glareola* was recovered after 1,534 days in Smolensk, Russia; and a Dunlin ringed in Poland was controlled at Eilat 408 days later (a distance of 3,040 km between the ringing and control locations). The IBRCE continues to focus on waders and plans to broaden the trapping and ringing period during the years to come.

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Table 1. Waders ringed at Eilat, Israel, during 1984–2000.

SPECIES	1984	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	
Kentish Plover <i>Charadrius alexandrinus</i>			7			1	9	23	38	1	5		46		1	49	43	223
Caspian Plover <i>Charadrius asiaticus</i>	7	6						7										20
Little Ringed Plover <i>Charadrius dubius</i>	11	4	4			1	2	1					3		1	5	12	44
Ringed Plover <i>Charadrius hiaticula</i>	1		3			8	34	8					11		30	118	84	297
Greater Sandplover <i>Charadrius leschenaultii</i>									2							1		3
Eurasian Dotterel <i>Eudromias morinellus</i>			3															3
Grey Plover <i>Pluvialis squatarola</i>								1										3
Spur-winged Plover <i>Vanellus spinosus</i>		4						4	2						2	2	1	15
White-tailed Plover <i>Vanellus leucurus</i>		1																1
Northern Lapwing <i>Vanellus vanellus</i>	1																	1
Dunlin <i>Calidris alpina</i>			8			2	163	134	42		4		21		66	395	260	1095
Long-toed Stint <i>Calidris subminuta</i>								1										1
Curlew Sandpiper <i>Calidris ferruginea</i>	1						26	19	5	3	2		4		9	8	1	78
Little Stint <i>Calidris minuta</i>	26	11	26			5	196	951	346	134	39		179	2	263	1181	1259	4618
Temminck's Stint <i>Calidris temminckii</i>	6		1			1		5	1				3		1	2	1	21
Broad-billed Sandpiper <i>Limicola falcinellus</i>							5	12	8		2		5		6	5	10	53
Ruff <i>Philomachus pugnax</i>	13	8				1	6	7	22	2	2		13		26	61	46	207
Jack Snipe <i>Lymnocyptes minimus</i>	1					1												2
Common Snipe <i>Gallinago gallinago</i>	4	2	3		3	9	1	8		3			1		2	3	3	42
Great Snipe <i>Gallinago media</i>	1	1																2
Pintail Snipe <i>Gallinago stenura</i>	1																	1
Eurasian Woodcock <i>Scolopax rusticola</i>										1						1		2
Eurasian Curlew <i>Numenius arquata</i>										1?								0
Whimbrel <i>Numenius phaeopus</i>									1									1
Wood Sandpiper <i>Tringa glareola</i>	6	3	3		1	15	124	98	5	3	3		29		4	19	7	320
Greenshank <i>Tringa nebularia</i>					22	2	2	1	2						1	1	1	32
Green Sandpiper <i>Tringa ochropus</i>	1	5	1			5	13	8	10	6	4		9		9	10	11	92
Marsh Sandpiper <i>Tringa stagnatilis</i>		1	1				7				1		4		5	5	18	42
Redshank <i>Tringa totanus</i>						30	18	11	12	1			38		57	57	30	254
Common Sandpiper <i>Actitis hypoleucos</i>	5	4	1			7	5	16	13	14	19		38	1	6	9	18	156
Ruddy Turnstone <i>Arenaria interpres</i>															2			2
Red-necked Phalarope <i>Phalaropus lobatus</i>									6									
TOTAL	85	53	58	0	26	49	603	1342	523	179	82	0	404	3	491	1932	1807	7637

