A POOR BREEDING SEASON FOR GROUND-NESTING BIRDS IN THE TAIMYR PENINSULA IN 1986

L.G. Underhill

The boreal summer of 1985 was a successful breeding season for ground-nesting birds such as Brent Geese *Branta bernicla*, Curlew Sandpipers *Calidris ferruginea* and Sanderlings *C. alba* in the Taimyr Peninsula in Siberia (Underhill 1986). It is thought that these species have good breeding seasons when lemmings are abundant, because the Arctic Foxes *Alopex lagopus* and other predators then prey on the plentiful lemmings but in years when lemmings are scarce, switch to the eggs and young of birds (Roselaar 1979, Summers 1986, Summers & Underhill in press).

After being abundant in the Taimyr Peninsula in the boreal summer of 1985, P. Tomkovich (*in litt.* to R.W.Summers) reported that no trace of lemmings was observed in the Taimyr Peninsula in 1986. The expectation was, therefore, that breeding would fail and that the populations of ground-nesting birds would contain small proportions of first-year birds at their migration destinations. When the Brent Geese returned from the breeding grounds there were virtually no first-year birds in either Britain (R.W. Summers *in litt.*) or the Netherlands (B.Ebbinge *in litt.*).

A similar picture emerged for waders in southern Africa. The proportion of first-year Curlew Sandpipers in the southwestern and eastern Cape and in Zimbabwe was very low (Table 1 overleaf). Unfortunately, only six Sanderlings were ringed in the southwestern Cape: none were first-year birds. However, Tony Tree caught four first-year Sanderlings on passage through Zimbabwe. Perhaps most Sanderlings inland in Africa are first-year birds.

Other wader species that breed in the Taimyr Peninsula and which have been ringed in the summer 1986/1987 in the southwestern and eastern Cape are Little Stint *Calidris minuta*, Knot *Calidris canutus*, Grey Plover *Pluvialis squatarola* and Turnstone *Arenaria interpres*. For all these species, the proportion of first-year birds was small (Table 1).

The lemming populations on the Taimyr Peninsula follow a *ca* three-year cycle, generally a plague year (such as 1985) followed by a year of scarcity (1986) and then an unpredictable year (Summers & Underhill in press). Thus the breeding success of waders and Brent Geese in the Taimyr Peninsula in 1987 cannot be predicted, but if the lemming cycles continue normally, I expect 1988 to be a good breeding year and 1989 to be a poor breeding year.

TABLE 1

AGE COMPOSITION OF MISTNETTED SAMPLES OF TAIMYR BREEDING WADERS IN SOUTHERN AFRICA, OCTOBER 1986 TO APRIL 1987. WADERS WERE AGED USING TECHNIQUES DESCRIBED BY ELLIOTT *ET AL.* (1976), WALTNER (1976) AND PRATER *ET AL.* (1977)

LOCALITY	NO. OF SAMPLES	NO. OF FIRST-YEAR BIRDS	TOTAL NO. OF BIRDS	PERCENTAGE FIRST-YEAR BIRDS
Curlew Sandpiper *Calidris ferruginea*				
Langebaan Lagoon, southwestern Cape	8	11	556	2%
Betty's Bay, southwestern Cape	9	1	50	2%
Paarden Eiland, southwestern Cape	2	12	67	18%
Swartkops Estuary, eastern Cape	7	2	53	4%
Darwendale Dam, Zimbabwe	6	-	54	7%
TOTAL		30	780	3,8%
Little Stint *Calidris minuta*				
Langebaan Lagoon	6	4	48	8%
Swartkops Estuary	2	0	3	0%
TOTAL		4	51	8%
Knot *Calidris canutus*				
Langebaan Lagoon	6	5	97	5%
Swartkops Estuary	2	0	8	0%
TOTAL		5	105	5%
Sanderling *Calidris alba*				
Cape Peninsula and Langebaan Lagoon	3	0	6	0%
Turnstone *Arenaria interpres*				
Swartkops Estuary	3	0	6	0%
Grey Plover *Pluvialis squatarola*				
Langebaan Lagoon	4	4	36	11%
Swartkops Estuary	5	0	5	0%
TOTAL		4	41	10%

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L.G. Underhill, Department of Mathematical Statistics, University of Cape Town, RONDEBOSCH, 7700