

Knot

FG	16.9.59	Revtangen, Norway	c Heacham, Wash	8.3.70
FG	1.9.66	Revtangen, Norway	c Heacham, Wash	7.3.70
FG	14.9.66	Revtangen, Norway	c Thornham, Wash	15.11.70
FG	5.9.69	Revtangen, Norway	c Heacham, Wash	4.4.70
FG	29.8.63	Halland, Sweden	c Heacham, Wash	7.3.70
FG	27.7.67	Jonkoping, Sweden	c Heacham, Wash	8.3.70
FG	20.4.66	Schleswig Holstein, Germany	c Heacham, Wash	7.3.70
FG	14.9.68	Frisian Isl. Holland	c Thornham, Wash	15.11.70

Sanderling

FG	7.5.70	Bouches du Rhone, France	c Hoylake, Dee	3.8.70
----	--------	--------------------------	----------------	--------

Ruff

FG male	17.9.69	More e romsdal, Norway	x Skinflats, Forth	3.1.70
---------	---------	------------------------	--------------------	--------

WEIGHTS AND MEASUREMENTS OF WADERS WINTERING IN THE TRUCIAL STATES, ARABIA

by Brian Etheridge

Between November 1970 and January 1971 while stationed at Sharjah (25°21'N, 55°22'E), one of the Trucial States on the southern shore of the Persian Gulf, I trapped and ringed, with B.T.O. rings, 114 waders wintering at a small tidal inlet close to the camp.

Mist-netting was carried out during darkness from 1800-2300 hours. Unfortunately catches were small, usually about five birds in an evening, probably due to my inexperience in the techniques of wader trapping.

Although all birds trapped were examined carefully none were found to be undergoing wing moult and most were in fresh plumage especially during November.

The results are given below, with a few brief comments. All measurements are given in millimetres, and weight in grammes. The wing length was obtained by the maximum chord and the bill measured from the feather.

Kentish Plover (Charadrius alexandrinus)

A very common wader during winter with a maximum count of over 300. Also a fairly common breeding species from April-June. All birds in Arabia refer to the nominate race, C.a.alexandrinus (Meinertzhagen 1954) 12 birds were caught, November - January.

WING	:	102-113	(average 108)
BILL	:	14.5-17	
TAIL	:	42-48	
TARSUS	+	26-30	
WEIGHT	:	33-42	(average 38)

Greater Sand Plover (Charadrius leschanaulti)

A fairly common winter visitor with up to 50 present. Eleven birds were ringed and processed, from November - January.

6 WING : 139-150 (146)
BILL : 25-27
TAIL : 59-65
TARSUS : 37-41
WEIGHT : 78-117 (92)

Mongolian Sand Plover (Charadrius mongolus)

A very common winter visitor with counts of several hundreds. The two races likely to occur are C.m. atrifrons from S. Russia with wing 118-128, and the slightly larger and paler C.m. pamirensis from W. Tibet, Ladak and Transham with wing 125-134 (Meinertzhagen 19

Of the 22 birds measured half fall in the area of overlap (125-128). 6 are the smaller "Artifons" and the remaining 5 are "pamirensis". However racial determination based on such a small sample of birds on the wintering grounds, is very unsatisfactory. 22 birds trapped November - January.

WING : 120-130 (126)
BILL : 16.5-19
TAIL : 46-52
TARSUS : 33-36
WEIGHT : 51-68 (59)

Little Stint (Calidris minuta)

Fairly common passage migrant and winter visitor. About 30 birds wintered. 7 birds ringed and processed during late December.

WING : 93-99 (95.5)
BILL : 17-19
TAIL : 36-40
TARSUS : 21-23
WEIGHT : 16-24 (21)

Dunlin (Calidris alpina)

One of the commonest wintering shore birds. The maximum count for the Sharjah inlet was 250.

The race in Arabia is C.a. alpina (Meinertzhagen 1954), and the majority of my measurements fit into the range from this race. 33 birds were processed, from November - January.

WING : 112-124 (118) mostly 115-120
BILL : 27.5-39 (34.25) mostly 32-37
TAIL : 45-56
TARSUS : 25-29
WEIGHT : 36-56 (47)

The criteria given in the Handbook for the race C.a. sakhalina (NE Siberia, N. America) concerning white extending to the rhachis of the exposed portion of the outer web of the 6th, 7th and 8th primaries was checked for in all birds. Twelve birds (36%) clearly showed this character, and in several others the white almost reached the rhachis. C.a. sakhalina is larger than "alpina",

but the 12 birds showing the character were no bigger than typical "alpina" handled, in fact one of the smallest birds trapped (wing 112, bill 28.5) a 1st.W. would fit well into the size range for males of the British race, yet showed extensive white as described above on the 7th and 8th primaries!

Clearly a lot of the birds wintering in Arabia can not be racially determined.

Broad-billed Sandpiper (Limicola falcinellus)

Winter visitors arriving August - September. The numbers were difficult to be certain of as this is a very inconspicuous species and much overlooked. It is always met with singularly. The maximum daily count was only five. Twelve birds were ringed and processed, during late December.

WING : 104-111 (107)
BILL : 29-35 (32.5)
TAIL : 36-40
TARSUS : 22-25
WEIGHT : 31-41 (38)

7 Redshank (Tringa totanus)

A fairly common winter visitor, with up to 30 birds present. Meinertzhagen (1954) admits three races in Arabia, T.t.totanus (Europe), T.t.eurhinus (Ladak, Turkestan) and T.t.terrignotae (Koko Nor, China) of which the latter two are the usual wintering forms. T.t.eurhinus differs from T.t.totanus in being slightly larger and sometimes paler in winter, but there is a great deal of overlap in measurements between these two races. T.t.terrignotae is decidedly paler in winter than the previous two and is slightly larger again.

In the field the birds on the inlet did appear a lot paler on the upper parts than Redshanks I recall from U.K. However my measurements are inconclusive. 11 birds were trapped late November - early December.

WING ; 150-163 (157)
BILL : 41-49 (45.5)
TAIL : 62-67
TARSUS : 51-56 (53.5)
WEIGHT : 106-145 (121)

Attention should be drawn to the very long tarsus measurements. The tarsus was very thick (in all birds). Averaging 4.5mm. and therefore requiring a 'D-monel' size ring.

Terek Sandpiper (Xenus cinereus)

A fairly common passage migrant and winter visitor in flocks up to 25. Five birds trapped late November - late December.

WING : 125-142 (135)
BILL : 47-51 (49)
TAIL : 48-57
TARSUS : 27-31
WEIGHT : 71-77 (74)

Other wader species wintering on the inlet, but not trapped were, in order of abundance, Bar-tailed Godwit (100+), Grey Plover (50), Curlew (15) and Oystercatcher and Greenshank (a few).

References

Meinertzhagen, R. 1954. "Birds of Arabia", Edinburgh.
Witherby, H.F. et al. 1938. "The Handbook of British Birds", London
Vol. IV.

The Use of Wing Length for Separating Populations

by Mike pienkowski

For many years the wing lengths of birds have been measured by ringers to give information of the separation of different populations. However, there are two prerequisites for this method to be reliable:-

1. A standard system of measurement is used, giving consistent results
 - a) for an individual measurer and
 - b) between different measurers
2. A knowledge that the wing length of an individual bird does not change over a period of time or, alternatively, a means of estimating and correcting for any changes that do occur.

Many of the problems concerned with the standard measuring system were solved by the general adoption of the maximum chord method. A check was made on the constancy of method of the usual measurer on the Wash by feeding 40 birds through the processing system twice (and the measurers did not know this). The apparent changes in wing belt length are shown in Fig.1, and these form a tight normal distribution about zero as would be expected. 31 birds stayed within 1mm. of their earlier wing length. Using a chi-squared test there was no significant difference between birds increasing in length and those decreasing in length.

- 9 A check between the "standard" Wash measurer and a second Wash measurer was made by comparing the wing lengths of about 200 birds measured by one with 200 measured by the other out of a catch of 400. Using a d-test to compare normal distributions, again there was no significant difference.

On the second prerequisite, some points have been obvious for some time - e.g. birds of some species have longer wings when adult than when juvenile and consequently these are normally analysed separately. It is often assumed that, once it reaches the adult stage, a bird has a constant wing length. However, measurements of 56 Knot caught and measured twice in the period between two consecutive moults show that this is not the case. Fig. 2 shows these wing length changes; each bird is represented by a line. It is at once apparent that most are decreasing in wing length during the period and also that many of the lines are roughly parallel, suggesting that the loss of wing length is linear. 10 birds increased wing length, 3 stayed the same and 43 decreased wing length. A chi-squared test comparing the number increasing with the number decreasing showed the difference to be highly significant (P 0.001). The mean