This winter, we hope to fill in some more the many gaps that exist in the data accumulated so far and, on the equipment side, to experiment with a new idea for attaching projectiles to traces, which, if successful, should virtually eliminate the problems of wear on ropes and, hence, the possible danger of a projectile breaking free. Incidentally, we have re-designed our firing box as we felt there were too many short-comings and even dangers present in the 'standard' type and we are now able to fire four nets simultaneously off one box which is energised by a D.C. source.

Unfortunately, time and space does not permit the setting out here of any recoveries or controls nor even of ringing totals, but the group has published two reports so far and the third is in the pipe-line. These contain all details of recoveries and so forth and are available at a cost of 25p each (we have to charge this to help cover the cost of printing).

The Nature Conservancy has been carrying out a five year survey of the ecology of Lavan Sands and, earlier this year, produced their report. Unfortunately our effort came very late on in the study and so we were not able to play a full part in the work but we do feel that all our results make up a valuable pool of information on an area which, at present, is under great pressure, both from commerce and industry, as well as the tourist trade. Consequently we will, in future, work closely with the Nature Conservancy Council.

Finally, any reader who finds himself or herself in a position to join us in the field will be most welcome.

P. W. Challinor, Las Alondras, Trussell Close, Acton Trussell, Nr Stafford.

MEASUREMENTS OF WADERS LESS FREQUENTLY RINGED IN BRITAIN (1): Little Ringed Plover Charadrius dubius.

by C. M. Reynolds

Unlike most species of waders ringed in Britain, Little Ringed Plovers are mainly caught as pulli, with smaller numbers trapped as fledged juveniles or adults at or near the breeding grounds. Adults arrive in April and leave apparently soon after breeding in late July and August (and probably before moulting) as is shown by foreign recoveries in early August. Pulli are ringed between late May and early August, and the pattern of weights (see below) suggests that there may be some second broods as well as repeat clutches. The juveniles appear to migrate later although most have left by the end of August, with stragglers as late as October. Many juveniles are trapped before their primaries are fully grown; a condition not always noted by ringers.

In this analysis the measurements from 27 adults and 76 juveniles have been used. Of these 5 (4 adults and 1 juvenile) were measured twice. The data were obtained from the WSG files, my own records and as the results of personal requests. In recent years the sample represents about a quarter of the fledged birds handled. They are mainly from Herts (Rye Meads Sewage Farm 1962-6), Oxfordshire and Lines (Wisbech Sewage Farm), with smaller numbers from 8 other counties as shown in Table 1. There were also single migrants from Scilly (April) and Fair Isle (juvenile in September).

Weights(a) Adults There are 30 weights of adults from probable breeding grounds between 24th April and 22nd August, mainly in July. These weights show little variation being usually betwoon 35 and 41 gms. (see Fig 1) with mean 37.5 and st. deviation 3.3. Two in mid-summer were as light as 31 gms. which was about the weight of the Scilly bird $(31\frac{1}{2})$ gms.). There were two very much heavier birds of 462 on 26th April and 46gms. on 18th August. These were presumably a female about to lay, and a migrant about to leave. Weights of 34-381 gms. for males and 35-45 gms. for females were recorded for nesting adults in Germany (Bub. 1958), and of $31\frac{1}{2}$ - $41\frac{1}{2}$ in Spain in August. Spring migrants in

(b) Juveniles. The figure shows the distribution by date for the 76 weights of juveniles. Weights of up to $33\frac{1}{2}$ gms. are recorded for birds without fully grown primaries, which occur until at least mid-August. The weights then show a fairly steady increase estimated at about $\frac{1}{2}$ gm. per day during late July and August, with many in excess of 40 gms. The maximum weights recorded (53 gms.) represent an increase of about 40% above the mean adult weight recorded. The average weights for fully fledged birds were 36 gms. in July and 41 gms. in August. The few light birds in September are likely to be from late broods hatched in August. The Spanish juveniles in August, did not show the same increases weighing between 29 and 38 gms (mean $32\frac{1}{2}$, N = 22). The Fair Isle bird weighed 29.2 gms. on September 4.

2: Wing Lengths

All wing lengths of less than 109 mm were of juveniles without fully grown primaries (least length 89 mm), whereas all the others were between 110 and 121 mm (one of 125 mm) with mean 115.8 mm (st.Dev. 3.0, N = 48). The adults were similar with mean 117 (N = 18). The samples from Spain, Morocco and Kenya all showed similar ranges, but with a much lower mean (113) for spring migrants in Morocco.

3. Tarsus

This measurement showed little variation especially for the adults. The mean for 20 (Herts and Oxon only) was 23.7 mm (st. Dev 0.9) with a range of 22-25 mm. The 37 juveniles averaged a little higher at 24.6 mm (st. Dev 1.5) with the range extended to 28 mm.

4. <u>Bill</u>

Unlike the other measurements there appeared to be considerable differences between measurers at different sites, and years, with two groups of values, namely 11-14 mm and 15-18 mm. This must be due to different methods of taking the small measurement; i.e. from the feathering or the skull. The means for the smaller measurement 12.4 (N = 45) juveniles and 13 mm (N = 13) for adults. For the larger measurement method they are $16.5 \, (N=6)$ and $15.8 \, (N=6)$ respectively. Acknowledgements

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Reference

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Bub, H. 1958. Untersuchungen an einer Population der Flussregenpfeifers (Charadrius dubius curonicus). Beitrage zur Vogelkunde 5: 268-283.

TABLE 1	Numbers of Little	Ringed Plover	measured per county
County		<u>Adults</u>	<u>Juveniles</u>
Herts		12	19
Oxon	e e e	12	17
Lincs		1	16
Staffs			11
Norfolk			6
Cambs		3	
Derby			3
Worcs			3
Warwicks		1	1
Others (Sci	lly,Kent,Notts,Fai:	r I) <u>2</u>	2
	Total	31	78

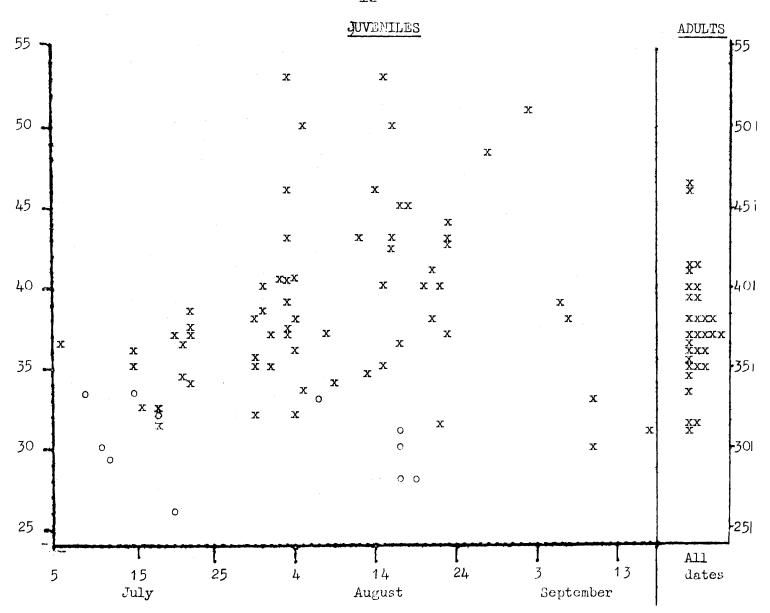


Fig. 1 Weights of Little Ringed Plovers

Colour dye sightings

Will anyone colour dying Ruff

Little Stint Ringed Plover Philomachus pugnax Calidris minuta Charadrius hiaticula

during summer/autumn 1976 please let Tony Prater have details of ringing area and colours used.

Also is anyone colour ringing Golden Plover, Pluvialis apricaria?