

feed, although some may return, at irregular intervals, during the day. As before, nets are set the previous day and decoys are sometimes used. However, on moonlight nights some birds may arrive before dawn and care should be taken not to disturb these when getting into the firing position.

OTHER POINTS

Nets should be set at a comparatively low angle (10-15°) because Lapwings are extremely quick at taking off and escaping before the net comes to the ground. Their large wing area may enable them to do this. This can also lead to them falling awkwardly in the net, however, and the occasional unexpected wing injury has occurred (please note the circumstances of any such occurrences and report back to Bob Spencer/Tony Prater).

Lapwings (and Golden Plover) seem comparatively unwary of nets, but camouflaging where practicable is desirable. A "jiggler", to remove birds standing too close to the net, is very necessary. "Twinkling" works surprisingly well on fields - especially with a vehicle, but also with someone walking or crawling. Fetching birds from further afield can sometimes be very frustrating - they can fly high and far in the wrong direction!

After catching, birds are best covered with light weight material in the same way as shore waders, before extraction from the cannon nets and put in keeping cages.

GLOSSARY

"jiggler" - string with rags just in front of the set net, fastened by elastic to peg at far end of net and moved by pulling from firing position or other hide in line with net.

"twinkling" - gently moving flock by approaching slowly. Ideally, "flashes" (twinkles) of wings are seen as the near birds fly to far side of flock.

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LAPWING WEIGHTS AND MOULT

By L R Goodyer

INTRODUCTION

A preliminary analysis has been made of Lapwing (Vanellus vanellus) weight and moult data, mainly collected between December 1974 and February 1976 in the West Midlands. Although the study is still continuing the interim results are presented here and comparisons are made with similar data on Lapwing presented earlier (Kennedy 1973), and on coastal waders (see Wash Wader Ringing Group Report 1973/4).

WEIGHT

Fig 1 shows the mean monthly weights of 749 Lapwings (658 adult and 91 juvenile/first winter) caught in the period late June to mid February (no samples have yet been obtained in March, April or May). Mean adult weights remain relatively constant at 220-230 gm (average 227 gm) in the period June to September when the annual moult is taking place. Adult weights then rise to a December peak of 284 gms - an increase of 30% - before falling quite

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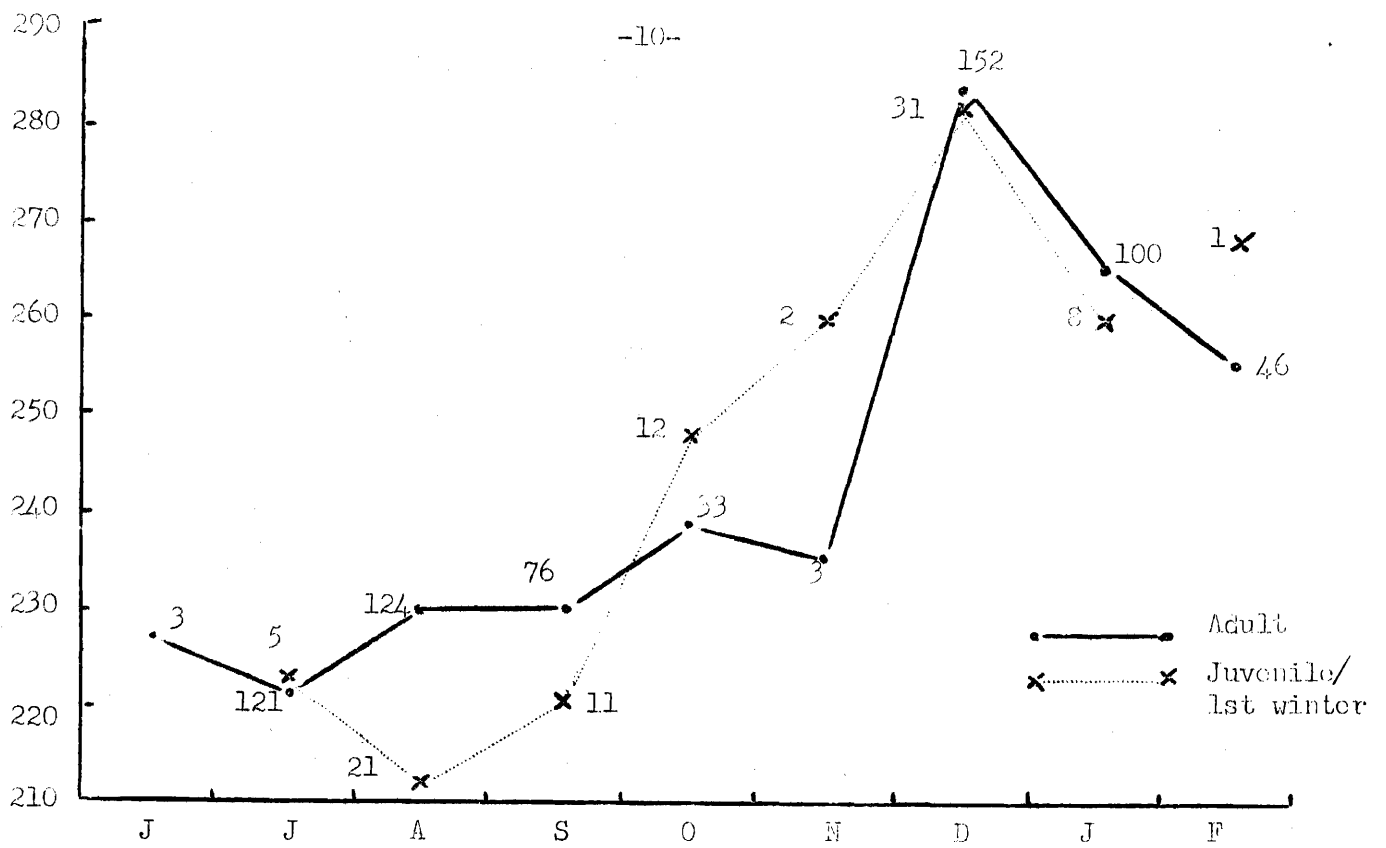


FIG 1. LAPWING - mean monthly weights.

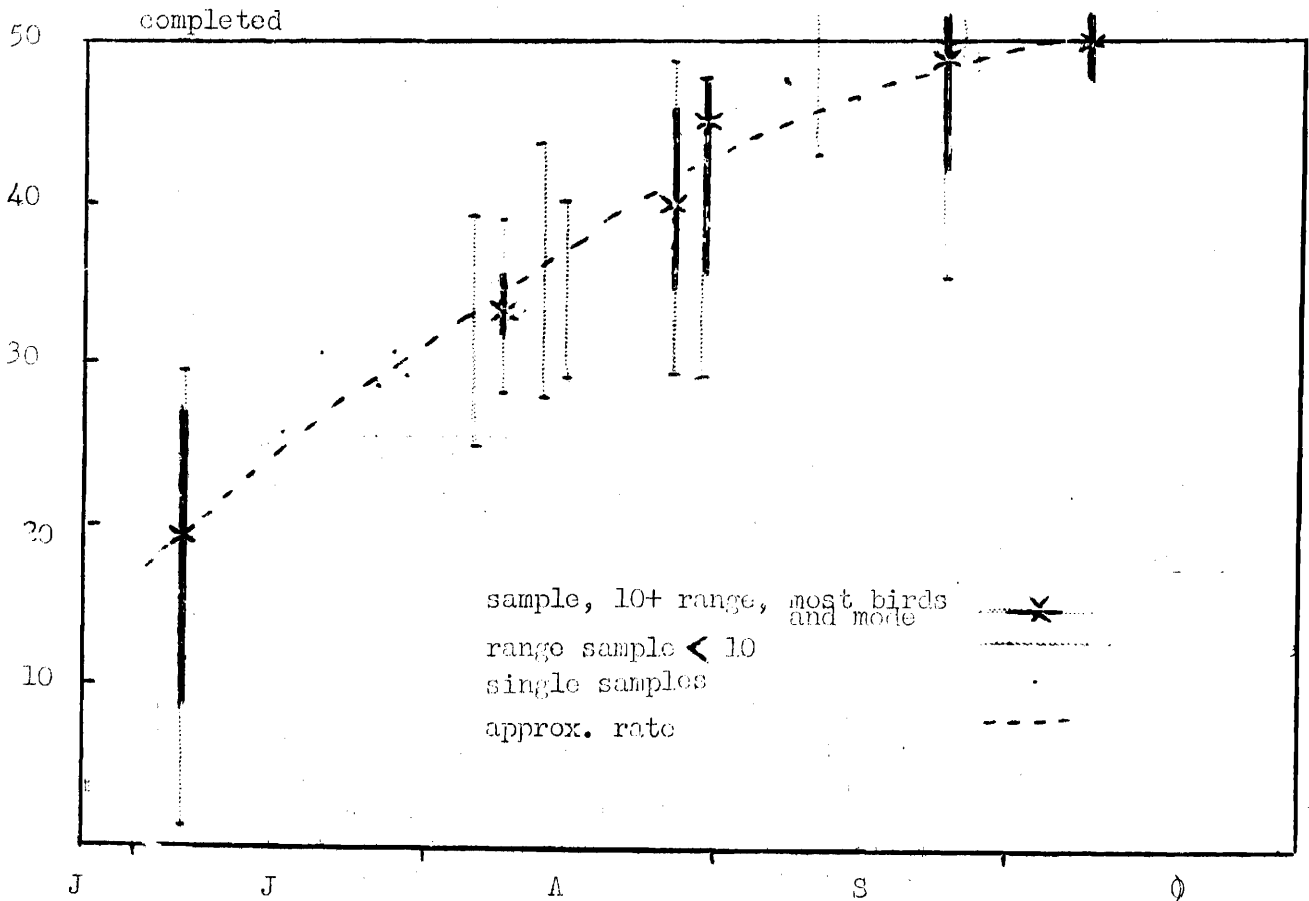


FIG 2. Moult of Lapwing.

rapidly in January and February. Juvenile weights appear to follow a broadly similar pattern - though sample sizes at present are small - except that in the summer (especially August) their weights are rather lower. This pattern supports that presented by Kennedy (1973) for Lapwing from August to December, but extends the coverage to include data from June to February.

This pattern of weight change during the year is very similar to that of some of the coastal waders (see WWRG report 1973/4) and suggests (amongst other things) that:-

- a) because there is no significant fat accumulation in July-September (the period of "autumn migration" for many waders) the birds present are probably not, at that time, undertaking long distance migratory movement. This is also probably indicated by the fact that virtually all the adult birds are in wing moult (see later).
- b) the December peak is related to an accumulation of fat which may be necessary to tide birds over any short periods of food unavailability later in the winter and to facilitate cold weather movements should these be forced on the birds by severe or prolonged cold weather. The difference between the autumn weight (probably relatively fat free) and the early winter peak (+ 30%) is greater than that of some coastal waders but is similar to that of Grey Plover (Pluvialis squatarola) and Ringed Plover (Charadrius hiaticula). Possibly the plovers, with their shorter beaks, are more affected by cold weather and therefore need a greater fat reserve.
- c) juveniles may have a difficult time finding food in summer during their first few months of independence.

MOULT

The primary moult was recorded on adult Lapwings caught between 22nd June and 27th October (mainly in 1975) and moult scores are plotted against date in Fig 2. The short outermost primary was ignored, as in other wader studies. Birds which had not yet started moult and birds which had completed moult were, however, noted and thus it was possible to determine the mode as well as the mean moult score on any date. Since the distribution of samples was far from random over the moulting period it was not possible to use the more conventional method (mean date for each moult score) to estimate the average duration of the moult. Instead the mode of the moult score on each date was used to determine the average state of moult and a line drawn through these points gave the typical moult progression.

It would appear that moult typically starts in the third week of June and is completed at the end of September - averaging about 105 days. The comparative lack of spread of moult scores on each date suggests a relatively homogeneous moulting population. Thus, on 6th July 1975, only two and a half weeks after the average 'start date' (estimated by extrapolation), there were no birds (in a sample of 120) which had not yet started their moult. The moult duration is slightly longer than that of some coastal waders of similar size (e.g. Grey Plover, 90 days, Branson and Minton, in press). Presumably the earlier start to the moult in Lapwing is facilitated by the earlier breeding season and thus there is more time for the moult to be carried out before the need arises to utilise resources for the autumn fat accumulation.

FUTURE WORK

Attempts will be made in 1976 (and future years) to obtain catches of birds for weight measurement in those months where samples are still small (or non-

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existent). More adult moult data is also needed at times where there are significant gaps in the present data (e.g. June, second half of July, first half of September). Variations in weight and moult from year to year will also be studied.

REFERENCES

Kennedy, R.J. 1973. Bionomics of some British caught Lapwings. WSG Bull. 9: 3-6.

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INTERNATIONAL WADER COUNTS

by Tony Prater

Ringling, in common with most other migration data, has a number of limitations. Recoveries often provide only the broad picture of migration routes being dependent on the vagaries of the distribution of catching effort (often luck) and the likelihood of a bird being reported once found. Unfortunately detailed biometric analyses, which give a much more precise understanding of migration routes and timing, are only feasible on relatively few species at the moment. We are still at a stage where all information needed in order to piece together a picture. Here counts are of considerable value in supplementing ringling data, or vice versa, depending on preference!

The International Waterfowl Research Bureau (IWRB), has a number of research groups which coordinate and collate international counts of waterfowl. The Wader Research Group (WRG) is concerned with wader counts throughout Europe, Africa and Asia. The aims of counts are threefold:-

- i) to assess the numbers and distribution of wintering waders throughout the region - based primarily on January counts but also including data from other months.
- ii) to provide an objective assessment of the importance of each site for waders.
- iii) to collate regular counts of each species in as many areas (from single sites, to regional totals, to national totals) as possible across its range. This helps to provide a picture of the way each species migrates - its general speed, direction and relative abundance. This ties in very closely with ringling studies.

It is hoped that the WSG bulletin will carry a regular feature about recent counts. Most of the information received prior to 1974 has been summarised in the Proceedings of the 5th International Conference on the Conservation of Wetlands and Waterfowl, Heiligenhafen 1974, which will be published by the IWRB during 1976. Data received for Europe between 1974 and 1976 are summarised below, and those for Africa and Asia will be included in the next bulletin.

a) WADDEN SEA

Complete counts from Esbjerg (Denmark) to Den Helder (Netherlands) have been made on two occasions - 12-16 January 1975 and 19-26 April 1975. These revealed totals of 716,154 and 847,182 waders respectively.