

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

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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.

The details of these two counts, with the UK figures for comparison, are presented in Table 1 below.

TABLE 1. WADDENSEA AND UK TOTALS OF MOST WADER SPECIES COUNTED IN JANUARY AND APRIL 1975.

	Jan 1975 <u>Waddensea</u>	UK	April 1975 <u>Waddensea</u>	UK
Oystercatcher	297,400	184,000	31,300	54,700
Ringed Plover	50	7,400	1,150	5,600
Grey Plover	4,000	13,300	6,500	8,200
Turnstone	1,700	10,000	3,400	10,400
Curlew	84,300	60,000	45,400	21,100
Black-tailed Godwit	-	4,800	1,100	700
Bar-tailed Godwit	21,500	38,500	104,900	5,800
Redshank	15,600	75,000	18,000	27,600
Spotted Redshank	3	72	1,640	82
Greenshank	9	163	390	130
Knot	38,500	180,200	69,300	131,700
Dunlin	220,100	558,100	458,000	161,500
Sanderling	1,950	6,400	1,800	5,400
Ruff	150	170	350	60
Avocet	2,500	88	6,340	28
TOTAL Including other spp.	716,200	1,346,000	347,000	450,000

In addition to these, counts have been made on 19th October 1974 in the Netherlands and on 19th May 1974, 13th August 1974, 15 September 1974 and 24th August 1975 in Denmark (these were made by the D.O.F. Vadefuglegruppen).

b) BRITAIN

The monthly counts of the BTO/RSPB/WT 'Birds of Estuaries Enquiry' were made up to May 1975. During the July 1974-May 1975 period the principal peak counts were Dunlin 622,000 (December), Oystercatcher 224,500 (September), Knot 216,500 (December), Redshank 104,300 (September), Curlew 83,300 (September), Bar-tailed Godwit 40,200 (December), Sanderling 27,100 (May), Ringed Plover 26,250 (September), Grey Plover 15,250 (September) and Turnstone 11,700 (September). From October to February over 1,000,000 waders were counted, peaking at 1,383,000 in December and 1,346,000 in January.

c) BELGIUM

In January 1975 the whole of the coast line was counted and the principal species were Turnstone (870), Purple Sandpiper (474) and Sanderling (700).

d) PORTUGAL

January counts were made in 1975 and 1976 on the major estuaries of Portugal. The four principal areas were:-

Tejo (39,600 in 1975; 57,500 in 1976) - where average counts were Dunlin (25,000), Black-tailed Godwit (9,300), Avocet (8,700), Grey Plover (2,000), Redshank (1,600). Of the less common species 100 Kentish Plovers were significant.

Algarve (12,800 in 1975; 20,300 in 1976) including Dunlin (9,300), Black-tailed Godwit and Redshank (1,200), Bar-tailed Godwit (800+). Southern wintering species were relatively plentiful with over 600 Kentish Plovers, 500 Little Stints, 130 Spotted Redshanks and 110 Black-winged Stilts.

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Aveiro. (14,250 in 1975) including Dunlin (5,500), Black-tailed Godwit (4,000), Bar-tailed Godwit (1,300) and Avocet (700). Even so far north as here there were 120 Kentish Plovers and 30 Little Stints.

Sado (11,400 in 1975) including Dunlin 8,500) and Redshank (1,100).

e) SPAIN.

January 1975 counts showed that there were only three areas on the Mediterranean and southern Atlantic coasts which supported over a thousand waders. In the Mediterranean the Ebro Delta (1,564) was the best with Dunlin (600) and Black-tailed Godwit (575) the most frequent. Even here there were 152 Little Stints, a few Kentish and a single Little Ringed Plover.

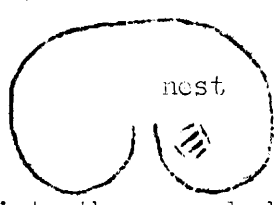
On the S W Atlantic coast the marismas of the Guadalquivir had 5,900 waders mainly Black-tailed Godwit (5,650) but also 180 Avocets, 32 Black winged Stilts and 5 Marsh Sandpipers. The complex of the Rio Tinto/Odiel/Umbria near Huelva supported 2,900 waders, mostly Golden Plovers although over 2,000 Grey Plovers have been recorded here on autumn passage.

As a postscript to this mass of figures I would appeal to any bird watchers, who visit and count waders in the less frequently watched areas including Spain, Portugal, Italy, SE Europe or anywhere else to send the IWRE/WRG copies of counts. All data, at any time of year, are needed but please try to count the whole of an area and clearly indicate if coverage is incomplete. Count data are collected by Tony Prater, BTO, Beech Grove, Tring, Herts.

METHODS OF CATCHING AND STUDYING BREEDING WADERS - CONTINUED AGAIN

The articles in Bulletins 16 & 17 by G.H. Green, P.N. Ferns and R.M. Bishop have continued to generate much discussion. R.W. Summers has kindly sent us a copy of his article on "Trapping waders at the nest" (Safring News 4 (1): 13-19, 1975), concerning the use of the heart-shaped trap. We reprint part of this below.

"Find a wader nest and place the trap over it such that the nest is in the position as seen in Fig 1. This is critical. If the trap is placed over the nest so that the latter is near the the back or sides, the bird may false-



brood outside the trap. Also if the nest is in direct line with the entrance the bird will walk out again. The trap should therefore be placed as shown, and with the entrance facing the ringer's direction of approach. The trap entrance should be adjusted so that it is just wide enough for the bird to get through. Pegs are pushed through the wire and

into the ground keeping the trap steady. Then retire.

The "normal" behaviour to the trap by the nest owner is as follows (as seen in European Oystercatcher): once the ringer has departed from the scene the bird reappears in about 5 minutes and lands some 50 m from the trap. It approaches the trap and then starts circling at a radius of 25 m but getting closer and closer all the time. This circling may be interspersed with periods of standing, or short retreats from the trap. After about 15 minutes the bird circles within inches of the trap, sometimes pecking at the mesh. It eventually concentrates its activities near the entrance, as the nest is closest to the trap wall at this point and about 20 from setting, the bird enters and settles on the eggs.

We gave the bird a moment or two on the eggs and then walked over to the trap. The bird rises from the eggs, moves to the back of the trap and pushes with the bill trying to effect an exit.

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