

any longer, and no further orders can, therefore, be accepted. We hope that the reprinting will now take place early in the New Year and that the back issues will be despatched shortly afterwards.

### WSG DATA BANK

Members are reminded that the Group maintains a file of completed WSG data forms on waders caught and ringed. Many ringers and ringing groups send copies of their data to these files; others do not; and some have lapsed in doing so. Apart from collecting together data on less frequently caught species, these files do ensure that data on all species is not lost if ringers cease activities, groups disperse, or even if houses burn down!

We hope that ringers will continue - or start - to send records. These should now be sent to Graham Appleton, the Administrative Secretary (address on inside front cover) from whom blank forms may also be obtained.

Data supplied to the file will not be used in a publication without the permission of those supplying them.

### WADER STUDY GROUP SPRING PROJECTS

The WSG is co-ordinating two major projects for the spring of 1979. Neither can succeed without both national and international co-operation between WSG members and other groups and individuals interested in wader ringing and counting.

The first project aims to elucidate the spring passage route of Siberian Knots. This is being co-ordinated by William Dick and we hope that many European and African members will participate in counting, catching and looking for dye marked Knots.

The second project is a study of the spring passage of Dunlins, Sanderlings, Ringed Plovers and Turnstones in United Kingdom and Ireland. To succeed this needs the participation of many wader ringing groups and individuals and also wader counters throughout the two countries, particularly on the west and north-eastern coasts of England, Wales and Scotland. This project is being organised by the Celtic Wader Research Group mainly in the person of Peter Ferns.

Details of the aims and organisation of both projects are given below. We shall contact likely participants but we should be grateful if anyone interested in either project could contact the organiser as soon as possible - a small form for this is included with this Bulletin.

We plan to publish the preliminary results of both surveys in the Bulletin following their conclusion in early June so we request that all the data is returned to the organisers as quickly as possible after the completion of field work. All sources will be acknowledged. These projects are our first attempts at co-operative study; we hope members will approve and join in.

### 1. SPRING PASSAGE OF SIBERIAN KNOT

by William J.A. Dick

#### Background

The Knots *Calidris canutus* wintering in Western Europe and Africa are drawn from breeding areas in Greenland/north-eastern Canada and Siberia respectively. The migration patterns of the Greenlandic and Canadian population is relatively well studied, due to intensive ringing effort on the wintering grounds, and at migration sites in Iceland and Norway. Counts throughout the winter have revealed the shift of the centre of the population from the Waddensee in the autumn to the west coast of Britain in the spring, prior to their return to the breeding grounds mainly by way of Iceland (Prater 1974).

In contrast, the current state of knowledge of the breeding distribution, wintering distribution and migration of the Siberian population is very incomplete. The work of the Cape Wader Group in South Africa, the Oxford & Cambridge Mauritanian Expedition and University of East Anglia Expeditions to Morocco showed that the bill lengths in Africa were longer than those in Europe; coupled with observations of the timing of migration and ringing recoveries, it was possible to show that the African population was of Siberian origin (Dick et al 1976). However the whole of the evidence from ringing recoveries related to the autumn migration, and almost entirely to juvenile birds. Huge questions

still remain unanswered. 130,000 Knots were censused in Mauritania and about 10,000 winter in South Africa, but between these areas 5,000 km of coastline remain virtually uncensused for waders, and large numbers may still be found. The size of the Siberian population is still not known.

Another major question, which this project aims to investigate, is the migration route. The great circle (i.e. shortest) route from Mauritania to Siberia lies along the Atlantic seaboard. However, to migrate from South Africa via the West African seaboard is at least 20% further than the great circle route via the East African coast. In 1978 the first two recoveries in spring of South African ringed Knot were made, in the Vendée in western France. Thus it may be that the Knot, in contrast to other species such as the Curlew Sandpiper and Little Stint, which migrate by a more direct route following the Rift Valley and Caspian Sea, follows a route where its more specialised habitat is found, in spite of the extra distance. This project aims to provide further evidence of the spring migration between Africa and Siberia.

#### Methods

It is planned to follow the migration of the Knot by means of colour dyeing, visual observation, counts and ringing.

##### a) Dyeing

Colour dyeing will be carried out at two sites:

- i) In South Africa, by the Cape Wader Group.
- ii) In the Vendée, by Olivier Fournier and colleagues (Groupe d'Etudes Français des Limicoles et Anatides).

The Knot in full breeding plumage does not lend itself to colour dyeing. Furthermore, the only really long-lasting dye so far found is picric acid, which has a very similar colour to the breeding plumage. The birds in South Africa will be dyed with picric acid (yellow to light orange colour) on the upper wing bar, under wing coverts and under tail coverts. It is hoped that these birds will be reasonably obvious by careful observation by telescope in feeding and roosting flocks. Siberian birds in the Vendée will be marked with a dark coloured dye over the whole of the undersides. The dye will only last for about three to four weeks, but should be visible whilst the birds migrate up to the European seaboard. Again, careful telescopic observation will be required. The main periods of marking in the Vendée will be 21-29 April and 10-17 May.

##### b) Ringing recoveries (and bill length analysis)

The recapture of South African, Mauritanian and Vendée ringed birds would provide the most conclusive evidence of origins. The proportion of Mauritanian Knots now carrying rings is probably less than 0.3% but that of South African Knots rather higher. 557 Knots were ringed in the Vendée in spring 1978, and it is planned that large numbers will be ringed in spring 1979. It is also planned to trap as many Knots as possible in the German Waddensee in the second half of May, as this may be an important fattening area. Even if only small numbers of Knots (say 20) can be trapped at a site, the sample will show from bill length measurements, to which population they belong. Weight information will be extremely valuable in interpreting staging areas, particularly as the passage through Europe is rapid, apparently leaving rather little time for fat deposition. Further north than the Vendée, the situation is confused by the presence of the Greenland population, and the extent of mixing, if any, is not known.

Several types of site are suitable for trapping Knots. As well as cannon-netting at high tide roosts, mist-netting at low or rising tides on the feeding grounds or near roosts can be very successful.

##### c) Censusing and visible observation of migration

A major objective is to establish which areas are of importance to Siberian Knots, and which habitats they prefer. Probably they migrate in long hops between a limited number of favoured sites. It is hoped that selected areas can be counted, and scanned for marked birds, on a weekly (or more frequent) basis from early April until late May. The main passage period in the Vendée is during mid-May. Passage probably peaks at the Baltic at the end of May. Counts to the south of the Vendée and to the north of Denmark should be easy to interpret; in the area between, particularly in the Waddensee, both populations will be present, and regular counting may not reveal the passage of the Siberian birds. For this reason, in this area it is intended to concentrate on looking for dyed birds. However, counts at discreet areas holding limited numbers of Knots (e.g. small estuaries, sewage farms) could still allow detection of passage. Negative counts will also be important. Thus any ringing or morphometric data will be extremely valuable to tie in with count material.

At migratory sites such as the Vendée and Iceland it has proved valuable to observe departing flocks, generally at high tide and often during the evenings. The birds become restless, call characteristically, and eventually fly strongly at steadily increasing altitude. By following with binoculars, it is possible to obtain accurate bearings, as well as departure dates.

It is hoped to correlate departure dates from South Africa with subsequent arrival and departure information at as many sites as possible.

#### Participation of WSG Members

This project can only succeed by co-operative effort from participants from several different countries. With the high level of fieldwork in South Africa, the Vendée and the German Waddensee, fieldwork in other areas can be interpreted more meaningfully. Participation of members will be fully acknowledged in any publication of the results, which is envisaged preliminarily in the WSG Bulletin, and more fully in a journal as soon as possible after completion of the spring work. Establishment of the migration route and staging areas is of considerable conservation importance. Participation of members in Britain is not being sought in the project, except for observation for dyed birds in the SE corner of England, due to the route. It is hoped that British members will be involved in the other passage study described in this Bulletin.

Visual observations and/or ringing fitting into any part of the above programme would be very much appreciated, and could members who would be prepared to select an area which they could cover between 1st April and 31st May please contact me, giving the likely extent of their fieldwork. (A form is provided with this bulletin.) Of especial interest would be any members who may be able to make any observations at all between Morocco and the Vendée (or anywhere in Africa!) and in the Baltic. I will be very pleased to send forms for recording data, and let them know of other members involved near them.

The required information for visual observations will be as follows: location and extent of area covered; date; time; number of Knots; number marked and number inspected for dye; habitat occupied; state of tide; departing flock size, time and bearing.

The required information for ringing data will be as follows: date; time; catch method; age (adult or 1st year); estimated % of breeding plumage; bill length (in mm from tip to the edge of the feathering); wing length (maximum flattened & straightened chord length); weight. Retrap information would be extremely useful, particularly for weights.

#### References:

- Dick, W.J.A., Pienkowski, M.W., Waltner, M. & Minton, C.D.T. 1976. Distribution and geographical origins of Knot Calidris canutus wintering in Europe and Africa. Ardea 64: 22-47.
- Prater, A.J. 1974. The population and migration of Knot in Europe. Proc. I.W.R.B. Wader Symp., Warsaw, 1973; 99-113.
- William J.A. Dick. 125 Leathwaite Road, London SW11, England. Telephone 01-223-6681. (please note this new address from 1 Jan 1979).

## 2. SPRING PASSAGE OF DUNLINS, SANDERLINGS, RINGED PLOVERS AND TURNSTONE THROUGH BRITAIN

by Peter N. Ferns

The Birds of Estuaries Enquiry wader counts show that a marked passage of Sanderling Calidris alba, Ringed Plover Charadrius hiaticula and Turnstone Arenaria interpres occurs in Britain each spring, particularly in the west and also on the more northerly parts of the east coast. There is a similar passage of Dunlin Calidris alpina but this does not show up so clearly in the monthly BEE counts. A good many of these birds are en route to breeding areas in Iceland, Greenland and Canada, and many WSG members have already devoted a good deal of time and effort to the study of this passage (e.g. Eades 1972, 1974, Eades & Okill 1976, 1977, Ferns & Green in prep., Green 1976). The objective of this research project is to investigate these four species (Dunlin, Sanderling, Ringed Plover and Turnstone) in more detail by intensifying and co-ordinating the counting and catching of spring flocks in the 1979 season. We hope that more detailed counts will enable us to :-

- a) determine whether the spring migrants arrive and depart in small numbers more or less continuously, or whether they do so in distinct waves,