

WADER STUDY GROUP

Bulletin No. 2

March 1971

Quite a number of keen wader ringers were not able to attend the Ringing and Migration Conference in January and therefore did not officially join the W.S.G. Could those receiving this bulletin make sure that all those interested do know about the structure of the W.S.G. and if they wish to join could they please send their 50p subscription to:

Ron Birch, 12, Rake Way, Saughall, Chester

who has agreed to act as treasurer.

We wish to remind all readers of these bulletins that the material published is of internal use only and that should anyone wish to publish the data elsewhere, the permission of the authors and editors must be obtained first.

Summer Meeting. The W.S.G. would like to hold a meeting of the steering committee sometime in June; could the representatives of each group please let Clive Minton know which dates would be most convenient and we will try to arrange a day. It is thought that discussion should be held on one species of wader (perhaps the Redshank) so could W.S.G. members let Clive know which species they would like to see discussed.

Two species, the Knot and Sanderling, were selected for special study at the first meeting of the W.S.G. Some of the results of the former are included in this bulletin. The latter species is not being ignored. The peak passage of this species through Britain occurs during May. Plans have been laid for visits to the Wash, Dee and Morecambe Bay during this period and if any ringer can collaborate and catch Sanderling in other areas this will be of tremendous value. Any ringer who can catch even a small sample of Sanderling stands a good chance of noting some useful controls and of getting his birds controlled by the two foreign wader expeditions planned for 1971. These two expeditions, to Iceland and Morocco are concentrating much effort into catching Sanderling.

FOR THE NEXT BULLETIN (covering March - May) please send ringing totals, recoveries and articles to Tony Prater by the end of May 1971. For those who do not know the addresses of the joint editors please note:

Tony Prater, B.T.O., Beech Grove, Tring, Herts.

Peter Stanley, M.A.F.F., Pest Infestation Lab., Hookrise South,
Tolworth, Surbiton, Surrey.

Wader Ringing in Winter 1970/71

This winter has seen the extension of cannon netting to several new areas. Successful visits have been made to the Solway Firth at Southernness, to the Swale at Harty and to the Point of Air and Thurstaston on the Dee. As a result of these trips over 3,000 waders have been ringed (and still hard luck stories abound!) and have provided a tremendous amount of information on movements, on the weights and measurements of waders in those areas. Several other

areas have been looked at for future trips and will be tackled next autumn and winter.

Mist netting has been fairly successful with the pride of place going to a moderate catch of Knot at West Kirby on the Dee in which there were no fewer than three Icelandic ringed birds out of 108 caught. The totals ringed are set out below.

FRG - Farlington R.G.; MKRG - Mid-Kent R.G.; LRG - Leigh R.G.;
 MBWG - Morecambe Bay Wader Group; MRG - Maerseyside R.G.;
 NSRG - North Solway R.G.; RB - Rob Berry; TRG - Tay R.G.;
 WWRG - Wash Wader R.G.

2	FRG	MKRG	LRG	MBWG	MRG	NSRG	RB	TRG	WWRG
Oystercatcher	-	149	-	371	84	-	14	32	594
Lapwing	20	-	1	-	6	-	-	-	-
Ringed Plover	-	-	-	11	-	-	7	-	2
Grey Plover	-	-	-	-	3	-	30	-	11
Golden Plover	-	-	-	5	-	-	-	3	-
Turnstone	8	-	-	64	-	-	8	4	10
Common Snipe	1	-	168	-	21	-	-	1	-
Jack Snipe	-	-	12	-	5	-	-	-	-
Woodcock	-	-	-	-	-	-	1	-	-
Curlew	-	-	-	1	7	-	-	20	-
Bar-tailed Godwit	-	-	-	-	6	-	-	-	26
Redshank	14	-	-	131	101	-	190	24	14
Knot	-	-	-	785	973	561	17	2	1804
Dunlin	70	-	-	512	2300	8	400	52	508
Sanderling	-	-	-	-	2	-	2	-	2
Ruff	-	-	-	-	3	-	-	-	-
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	113	149	181	1880	3511	569	669	138	2570

Recent Recoveries

Oystercatcher Only 23 long-distance recoveries were reported during the winter, 10 of these being late reports of breeding birds.

Breeding birds

PJ	Whiteford, Bury Inlet	19.3.69	x Shetland	0.9.70
Ad	Whiteford	11.11.62	x Faeroes	0.8.70
Ad	Point of Air, Dee	9.3.63	x Faeroes	0.9.70

Breeding birds cont...

Ad	Piel Island, Morecambe Bay	3.11.68	x	Faeroes	25.9.70
Ad	Walney, Morecambe Bay	18.9.63	x	Shetland	31.8.70
Ad	Piel Island	3.11.68	x	Norway	19.8.70
Ad	Dawsmere, Wash	29.8.69	x	Norway	19.6.70
1Y	Snettisham, Wash	25.8.68	c	Norway	11.7.70
Ad	Snettisham	11.8.67	x	Norway	2.8.69
Ad	Heacham, Wash	18.2.68	x	Norway	0.6.70

Ringed autumn recovered autumn

Ad	Snettisham	4.9.67	x	Calais, France	10.9.70
Ad	Heacham	22.10.67	x	Friesland, Netherlands	17.9
Ad	Wolferton, Wash	28.7.68	x	St. Andrews, Fife	6.9.70
FG	Walney	18.9.63	x	Kircudbright, Solway	14.10.

Ringed autumn recovered winter

Ad	Point of Air	22.10.64	c	Hest Bank, Morecambe	31.12.
Ad	Point of Air	15.8.66	x	Kirkham, Ribble	26.12.70
Ad	Whiteford	25.8.68	x	Aberdeen	27.12.70

Ringed winter recovered winter

Ad	Hoylake	7.2.63	x	Marton, Ribble	28.12.70
Ad	Hilbre, Dee	6.11.64	x	Pendine, Bury Inlet	12.1.7
Ad	Piel Island	18.1.69	x	Dalmellington, Ayr	15.10.70
Ad	Walney	19.1.69	x	Maryport, Solway	4.1.71
2Y	Point of Air	1.11.63	c	Hest Bank	24.2.71

Ringed as pulli

Pull	Aberdeen	23.5.66	c	Musselburgh, Firth of Fort	
Pull	Aberdeen	6.6.66	c	Hest Bank	29.11.70/29.8.70

During the period two Norwegian birds were controlled on Morecambe Bay and one Danish bird controlled on the Wash.

3 Ringed Plover

1Y	Sutton Bridge, Lincs	31.8.64	x	Manche, France	1.9.70
Juv	Minsmere, Suffolk	19.8.69	x	Coruna, Spain	18.10.70
Ad	Ulverston, Morecambe Bay	9.10.69	x	Dundalk Bay, Louth	9.1.71

In addition a juvenile ringed in Norway in August was controlled on the Northumberland coast in mid September.

Turnstone

3	Snettisham, Wash	15.9.69	c	Aldingham, Morecambe	4.10.7
Ad	Bradwell, Essex	17.8.69	x	Cadiz, Spain	11.10.70

Curlew

Pull	Pateley Bridge, Yorks.	31.5.59	x	Lancaster, Morecambe	17.9.7
FG	Knaresborough	10.3.64	x	Aldingham, Morecambe	10.10.7
PJ	Poole, Dorset	22.11.68	x	Teignmouth, Devon	15.9.70
FG	Lydney, Glos	14.10.69	x	Lappi, Finland	5.8.70

Whimbrel

PJ The Wicks, Kent 28.7.68 x Laesø, Denmark 2.8.70

Redshank

Ad Snettisham, Wash 3.9.67 x Iceland 0.8.70
 Ad Terrington, Wash 31.8.69 x Knokke, Belgium 12.5.70
 1Y The Wicks, Kent 25.7.69 x Pagham Harbour, Sussex 30.12.70
 Ad Terrington 10.8.68 x Coruna, Spain 27.12.70
 PJ Hoylake, Dee 11.10.69 x Gretna, Dumfries 3.1.71
 PJ Caldey, Dee 4.2.67 x Conway, Caerns 7.1.71

Spotted Redshank

Ad Frampton-on-Severn, Glos. 22.7.70 x Mauche, France 2.9.70

Greenshank

PJ Farlington, Hants 20.9.67 x Dunkerque, France late 7.70

Dunlin Of the 21 foreign recoveries reported since September the pride of place goes to the second Merseyside R.G. Dunlin to be recovered in East Greenland during the summer. This bird was killed only 16 days after ringing.

PJ Hoylake, Dee 22.5.70 x E.Greenland 7.6.70

The other recoveries are summarised below:

Recovered in	Finland	Denmark	Germany	Holland	France	Morocco
Ringing Site						
Humber	2	-	-	-	-	-
Wash	2	1	1	-	1	-
other E.coast	2	-	-	1	-	-
Kent	1	-	-	-	2	4
S,Coast	1	-	-	-	-	-
Dee	1	-	-	-	1	-

Of the British controls only one was in the same winter.

Juv Spurn, Humber 3.12.70 c Snettisham, Wash 27.2.71

The other movements between estuaries are:

4 1Y Sittingbourne, Kent 20.10.68 c Snettisham 17.9.70
 1Y Cherry Cob, Humber 13.9.68 c Carnfoth, Morecambe 21.12.70
 Ad Harty, Kent 23.8.68 c Dawsmere, Wash 27.11.70
 ad Snettisham 12.8.68 x Belfast, N.Ireland 29.12.70
 ad N. Wooton, Wash 27.8.68 c Thurstaston, Dee 3.1.71
 Ad Terrington, Wash 30.8.69 c Thurstaston, Dee 3.1.71
 Ad Snettisham 16.3.68 c Point of Air, Dee 2.1.71
 FG Fifeness, Fife 21.12.68 c Snettisham 27.2.71

At least 26 foreign ringed Dunlin have been controlled or recovered in Britain during the winter.

Denmark Belgium Germany Norway Sweden Finland Russia Poland

FRG	-	-	2	-	2*	-	-	-
MRG	-	-	-	3	6	3	-	1
DRG	-	-	-	-	1	-	-	-
WWRG	-	1	-	1	2	1	-	-
MBWG	1	-	-	3	1	2	1	-

* This total includes a ring taken from a Short-eared Owl pellet.

Knot The details of the Mozambique recovery have now come in and are included here.

Ad	Bardsea, Morecambe	21.2.70	+	Upernavik, Greenland	13.6.70
1Y	Lydd, Kent	30.8.69	+	Lourenco Marques, Mozambique	10.10.70
Ad	Heacham, Wash	7.3.70	x	Jylland, Denmark	20.8.70
Ad	Heacham, Wash	7.3.70	x	Gironde, France	19.9.70
1Y	Poole Harbour, Dorset	19.12.68	x	Schleswig Holstein, Germany	4.10.70
Ad	Piel Island, Morecambe	22.12.68	x	Charente Maritime, France	25.7.70
Ad	N. Wooton, Wash	27.8.68	x	Charente Maritime, France	14.8.70
Ad	Thornham, Wash	15.11.70	x	Ille et Vilaine, France	25.12.70
Juv	Aldingham, Morecambe	4.10.70	x	Coruna, Spain	3.12.70

At Southerness, Kircudbrightshire (North Solway) on 14.2.71 the following Knot were controlled, all were adults unless mentioned.

Ad North Wooton, Wash 27.8.68; and eight birds ringed in Morecambe Bay as follows.

Piel Island 22.12.68; Hest Bank 16.4.69, 6.5.69, and 10.4.70; Middleton 14.8.69, 8.2.70 (one adult and one 1Y); and Aldingham 4.10.70(1Y). Plus one Swedish bird.

Other British controls are:

Juv	Bardsea Island, Caerns	29.8.60	c	Aldingham, Morecambe	11.1.71
FG	Hoylelake, Dee	22.11.65	c	Aldingham, Morecambe	11.1.71
Juv	Hoylelake, Dee	6.8.67	c	Aldingham, Morecambe	11.1.71
Ad	Crossens, Ribble	7.4.70	c	Hest Bank, Morecambe	24.2.71
Ad	West Kirby, Dee	28.12.70	c	Hest Bank, Morecambe	24.2.71
Ad	Holbeach, Wash	3.9.63	c	Point of Air, Dee	2.1.71
PJ	Hest Bank, Morecambe	31.3.68	c	Thurstaston, Dee	3.1.71
PJ	Hoylelake	5.2.70	c	Snettisham, Wash	27.2.71
PJ	Hoylelake	5.2.70	c	Snettisham, Wash	27.2.71
Ad	Piel Island	22.12.68	c	Snettisham, Wash	27.2.71

Apart from the Icelandic controls the only foreign Knot Controlled were a French bird on the Dee and a Swedish bird on the Solway (this latter bird is only the second British recovery of a Swedish ringed Knot).

Purple Sandpiper

Ad	Isle of May, Fife	18.9.69	+	(B) Finse, Norway	17.7.70
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Sanderling

PJ	Middleton, Morecambe	15.5.69	x Somme, France	20.8.70
Juv	Heacham, Wash	28.9.69	x Cadiz, Spain	27.11.70
PJ	Snettisham, Wash	13.7.68	x Santander, Spain	3.12.70

Ruff

FGmale	Morpeth, Northumberland	29.8.64	x Ferrara, Italy	30.3.70
PJ "	Newhaven, Sussex	11.1.69	x Gers, France	30.12.70

Avocet This is the first foreign recovery of this species

Pull Minsmere, Suffolk 28.7.70 + Santander, Spain 22.10.70

5 Studies on the Knot

by Mike Pienkowski

During the last few months the information gathered on the Knot by ringers and groups throughout the country, has been investigated by Tony Prater, Peter Stanley and myself, and these studies are continuing. The Merseyside, Morecambe Bay, North Solway and Wash Wader Ringing Groups together with several individuals have been generous enough to supply data and we hope that others may be able to co-operate. The objects of this note are to indicate what information is of most use and how it is being used.

A preliminary look at the traditional wader parameters - wing and bill length, and weight - has shown that wing length may be very useful in separating populations of Knot. Fairly large samples from the Wash in November and the Dee in January show good agreement with regard to four component populations; mean wing lengths approx. 165-166, 171, 174.5, and 177.5mms. respectively. As may be appreciated, the reasonably reliable separation of such close components requires a fairly large sample. The Wash sample was 939 birds from 3 cannon-net catches and the Dee 571 from two catches.

As Knot populations on all British estuaries at any time of the year are likely to be made up of several components and not just one, it is highly desirable that as many birds as possible are processed; 500 processed in any month is a useful target to aim at. Obviously, as this sort of total is unlikely to be reached in one year, it is important that a standard measuring technique is adhered to. However, I hope that no-one will assume that because he has no chance of measuring 500 birds there is no point in measuring any, as much smaller samples can be particularly useful in filling gaps, both geographical and chronological, once the big samples have given some indication of which populations are likely to be present.

The situation with wing lengths may be complicated further by feather wear and shrinkage between moults. Wash retraps indicate that Knot wing lengths may decrease up to 7mm. from November to August! This goes to emphasise the importance of measuring all controls and retraps to provide a check on the general data.

It appeared at one time that bill length might be useful when used in conjunction with wing length in separating Knot populations. This now, however, seems unlikely and, although one cannot yet say definitely that there is no point in measuring bill lengths wing lengths are definitely much more use. On the other hand weights seem to be extremely valuable, not only in the investigation of the amount of fat a bird is carrying but also, in this species, for the separation of populations and of sexes.

In order to determine which birds are going where, the numerical analysis of retraps from the same estuary and controls from other estuaries is particularly rewarding, and when used in conjunction with the processing data, even more so. In order to use this type of information to its best advantage it is necessary to have details of both retraps and catch totals for the sites. The most useful form of the latter is as totals by months and years or, alternatively, as full details of each catch. It is then possible to remove the bias due to different intensities of ringing during the year and between years.

In summary, some of the most important details for wader studies are:-

- 1) catch totals, as described above, preferably split between new birds and retraps and, where possible, by age.
- 2) details of retraps within the same or nearby estuaries.
- 3) processing details of all controls and as many new birds as can be measured.

The most useful processing details for the Knot are wing length and weight, but bill length may prove of some use.

If any ringer or group is willing to allow use of any part of their results, I would be very pleased to receive it at the address below.

M.W.Pienkowski, School of Biological Sciences, University of East Anglia, Norwich NOR 88C.

THE MOVEMENT OF ICELANDIC RINGED KNOT IN BRITAIN DURING THE WINTER 1970/71

by Peter Stanley

The Wader Study Group was set up to co-ordinate British wader research so that the efforts of individual members could be channelled towards rewarding collaborative research. This policy is already leading to success in the case of the Knot, a species chosen for particular attention in 1971.

It became evident some time ago that during the winter there are substantial movements of Knot between estuaries and even across the country. Recoveries of Knot, ringed in early autumn on the Wash, later the same winter on the Conway estuary, the Dee, the Ribble, Morecambe Bay and in Northern Ireland, suggested that a proportion of the early autumn Wash Knot population moved north and west during the late autumn. Wader counts have suggested that a strong NW. passage of Knot occurs just prior to the spring migration and results in very large transient flocks on Morecambe Bay in early May. Data, summarised in Table 1, collected by the Cambridge/London Iceland expeditions during 1970 suggests that the Icelandic passage

6 Knot are more evident on the Wash in early autumn than later in the winter, with the control percentage falling from 0.39 to 0.11.

Table 1. Comparison of number of controls in Iceland of birds ringed on the Wash and Morecambe Bay related to the estimated numbers of surviving ringed birds from these localities.

<u>Ringed</u>	<u>Total ringed to May 1970</u>		<u>Estd. no. surviving at May 1970</u>		<u>No. controls in Iceland</u>		<u>Controls as % of estd. alive</u>	
	W	MB	W	MB	W	MB	W	MB
August								
Oct.	4606	295	3368	202	13	2	0.39	0.99
Nov.								
May	6026	6434	5305	4501	6	16	0.11	0.36

These data are highly significant due to the large number of Knot handled on the Wash but the early autumn data for Morecambe Bay does not allow conclusions to be drawn. The winter control percentage on Morecambe Bay is similar to the early autumn one for the Wash.

This picture has been clarified by the activities of members of the WSG in Britain during this winter. This effort has resulted in 10 Icelandic ringed Knot being controlled, these are summarised in Table 2.

Table 2. Controls of Icelandic ringed Knot in Britain in 1970/71

<u>Locality</u>	<u>Date</u>	<u>Knot caught</u>	<u>Icelandic controls</u>	<u>Control ratio</u>
Wash	22.8.70	30	1	0.033
Wash	17.9.70	138	0	-
Wash	19.9.70	1	0	-
Wash	15.11.70	415	1	0.0024
Wash	31.1.71	177	0	-
Wash	27.2.71	1708	1	0.0006
Wash	28.2.71	272	0	-
Wash	27.3.71	451	0	-
Dee	- .11.70	17	0	-
Dee	- .12.70	8	0	-
Dee	- .1.71	834	3	0.0036
Dee	- .2.71	114	3	0.0265
Morecambe Bay	winter	950	1*	0.0011
Solway	14.2.70/71	571	0	-

* not ringed in 1970

This table indicates that the proportion of Icelandic passage birds in the Wash population falls from a relatively high value in early autumn as the winter proceeds. The data from the west coast reveals that the proportion of Icelandic birds in the Dee population is high and may still be rising. The data for Morecambe Bay and the Solway is not so convincing but is in line with the passage period of late March to early May for Knot in the north Irish Sea. It is hoped that good samples of Knot can be obtained in the spring in this area, when there may well be a high proportion of Icelandic controls in the catches.

N.B. The report of the Cambridge/London Iceland Expeditions 1970 is available from Dr. R.I.G. Morrison, Strangeways Laboratory, Cambridge, price 50p.

This report contains 27 figures and tables and as an appendix presents the weights and measurements of all waders handled by the expeditions.

WADER RINGING AT VADSØYA, NORTHERN NORWAY

by Ray Eades

7 Ringers of waders in Britain now control many waders ringed in Scandinavia. These are usually from well known stations like Ottenby, on the Swedish Baltic coast, or Revtangen, Norway. Less well known, but potentially very exciting is a ringing station at Vadsøya, on Varanger Fjord, Norway. This station, situated at 70 04'N and 29.45'E, is manned by an amateur ringer, Jostein Grastveit, and a growing band of enthusiasts. They have kindly sent details of their totals and recoveries for this bulletin.

The birds are caught at a small freshwater pool on an island in Varanger Fjord, close to the busy fishing town of Vadsø. This shallow pool is a gathering place for flocks of waders after they have finished breeding on the nearby tundra and arctic swamps. Normal numbers at the pool from mid-July to mid-September are 200 Red-necked Phalaropes, 100 Dunlin, 50 Ruff, 50 Little and Temmincks Stint, and about 50 others of various species.

Single-shelf mist nets are used to trap the birds. They are placed on permanent poles either in the water or across the banks of the pool. Despite 24 hours daylight and the persistent cold Arctic winds, several hundred waders are ringed every year. The best month is August, as the evenings are relatively dark by then, and the large flocks of Red-necked Phalaropes are easier to catch. The ringing totals are given below.

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Total</u>
Oystercatcher	2	-	-	-	2
Ringed Plover	4	6	2	6	18
Grey Plover	-	1	-	-	1
Golden Plover	5	1	-	-	6
Turnstone	1	-	-	1	2
Jack Snipe	2	1	-	-	3
Bar-tailed Godwit	3	4	2	2	11
Redshank	3	4	2	3	12
Spotted Redshank	-	3	-	1	4
Knot	1	-	-	10	11
Purple Sandpiper	2	3	-	2	7
Little Stint	45	7	2	21	75
Temmincks Stint	35	10	5	4	54
Dunlin	232	350	56	119	757
Curlew Sandpiper	1	-	4	-	5
Sanderling	-	-	-	3	3
Ruff	82	211	77	27	397
Grey Phalarope	-	-	-	1	1
Red-necked Phalarope	122	203	157	311	793
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	540	804	307	511	2262

Recoveries

The last four years ringing has yielded many valuable recoveries which are mentioned below by courtesy of Jostein Grastveit.

Red-necked Phalarope. Eight recoveries in the Soviet Union indicate an overland SSE migration from Varanger, through the Pripyat area, possibly along the Volga to the Black and Caspian Seas. Presumably these birds are on route to the Red Sea and Persian Gulf.

Dunlin One bird, ringed on the 24.8.68, has been controlled on the Lac de Tunis (Tunisia). Others have been recovered in Kent, Denmark and France.

Ruff There have been recoveries in Finland, southern Russia and Italy.

Redshank Of the three Redshank ringed in 1967, two were subsequently recovered!

ringed 22.8.67 + Vendee, France 17.9.67
 ringed 9.9.67 + Glubukoye, Minsk, USSR 10.10.67

Jostein intends to continue ringing at Vadsøya so we can look forward to hearing more of his extremely valuable effort in the future.

(this study shows clearly that even in areas without vast flocks of waders, good catches can be made. Here single panel nets are used with great success and this emphasises the point that this type of net should perhaps be considered as a more valuable trapping method than many British ringers believe. Eds.)

8 AGEING OF SNIPE

by Tony Prater

As far as I know no ageing criteria are generally accepted for this species. In recent discussions I have had with Dr. Brian Stronach of the Irish Wildbird Conservancy, I learnt of a very simple method that he has used with consistent success. As with almost all other waders the inner coverts show the character most clearly. The diagram shows this difference

The dark line at the tip is present in both ages but the adult has a dark area extending up the shaft of the feather. The tip mark is abraded during the winter but the central dark area of the adult provides for a ready distinction at least until spring.

I would be very interested to hear if this method of ageing gives good results when used by different ringers throughout the country.

SINGLE SHELF NETTING

The supply of loose superfine single shelf netting came to an abrupt stop a few months ago, however the BTO may be receiving a small number of 100 yard lengths in the near future. This would be available at £5-25 per length. If anyone would like to buy this last bargain offer they should send in an order immediately, but please only order by the 100 yard length.

REQUESTS FOR INFORMATION

1. SPOTTED REDSHANK

This species breeds in N. Scandinavia, Finland and N. Russia, and winters mainly in the Mediterranean and Black Sea Areas, with records from many parts of the African complex. However it does occur in this country, often in considerable numbers, on passage, feeding in freshwater localities. It appears from the limited data available

that this species can moult in Britain and then continue moving south and east. This species is fairly easy to mist net but few are ringed each year. If any ringer has any data as regards moult, measurements, or recoveries/controls I would appreciate a copy. It may be possible in the near future to make a concerted effort to catch this species but this will depend on whether an analysis of the data in hand suggests a rewarding line of research. Could you please send the data to Peter Stanley, MAFF, Pest Infestation Laboratory, Hookrise South, Tolworth, Surbiton, Surrey.

2. PURPLE SANDPIPER

Information is being collected on the distribution and numbers of this species in Britain. It is hoped that the information obtained will be of help in trying to separate the passage periods of different geographical populations of this circumpolar breeding species. It is important that all the available processing data should be analysed to help with this separation. If any ringer has any information would they please send it to; Professor J. D. Craggs, Department of Electrical Engineering, Brownlow Hill, P.O.Box 147, Liverpool.

9 WADER REFERENCES FROM BRITISH AND FOREIGN LITERATURE

It is intended to present in the WSG bulletins references that are relevant to the interests of the group. Thus a list of recent references will be featured and in some bulletins a comprehensive bibliography of a single species will be presented (commencing with Knot and Dunlin). Some members may be interested in certain references but may have difficulty in obtaining copies of the papers. If this is the case either of the editors can be contacted and will be pleased to supply copies of the requested literature.

- ANDREW, I.G. (1968) Occurrence of the Great Knot (C. tenuirostris) in New Zealand. *Notornis* 15, 207-210
- BACKHURST, G.C. & BRITTON, P.L. (1969) A record of Calidris subminuta from Kenya. *Bull. B.O.C.* 89, 121
- BENGTSON, S.A. & SVENSSON, B. (1968) Feeding habits of Calidris alpina and C. minuta in relation to the distribution of marine shore invertebrates *Oikos* 19, 152 - 157
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