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Ringling and Migration Conference

If petrol permits this Conference should have a really excellent programme for ringers interested in waders. Not only will we have a session on Sunday during which Nick Branson will talk on Grey Plover, Ted Ponting on Turnstone, but the Saturday evening Wader Study Group meeting will be followed by a symposium on Dunlin. Among the speakers will be, we hope, Clare Lloyd (weights), Tony Hardy (recoveries), Peter Ferns (races), Clive Minton (moult), and Tony Prater (numbers). This promises to be a most interesting session and one that everyone will be able to contribute towards.

We are not circulating an agenda for the short business meeting before Swanwick. However, if anyone has any point that they wish to raise, we hope they will not hesitate to do so.

Subscriptions

Once again a gentle reminder that 1974 is coming along and we hope that you will pay your subscription promptly. The Treasurer is still

Ron Birch, 8 Thornberry Close, Saughall, Chester  
and P.Os/cheques for 50p should be made out to R. Birch, Wader Study Group.

Numbers of Waders Ringed

As you will have noticed, we have not included this table for the last two bulletins, we will have a whole year's ringing summarised in the next (March) bulletin, so please let me have your figures for April-June 1973, July-September 1973 and October 1973-March 1974.

RECENT RECOVERIESOystercatcher

Pull	7.6.73	N.Uist, Outer Hebrides	+ Baie du Mont St. Michel, France.	20.8.73
Pull	7.6.53	Skokholm, Pembr.	x Taf, Carms.	22.10.73
Ad	18.2.64	Morecambe Bay	x Arnessysla, Iceland	24.6.73
Ad	18.1.69	" "	x Faeroes	18.6.73
Ad	22.10.64	Dee	x "	20.8.73
IY	9.12.72	Conway River	x "	8.7.73
Ad	7.9.68	Burry Inlet	x "	21.9.73
Ad	21.8.67	Wash	x "	21.6.73
Ad	7.9.68	Burry Inlet	x Sor-Trondelag, Norway	21.7.73
IY	19.3.69	" "	x Rogaland, Norway	25.8.73
Ad	3.11.68	Morecambe Bay	x " "	23.6.73
PJ	4.10.70	" "	x Troms, "	6.7.73
Ad	15.11.70	" "	x More og Romsdal, "	19.7.73
PJ	18.12.71	" "	x Telemark, Norway	1.7.73
Ad	11.8.67	Wash	x More og Romsdal "	21.7.73
Ad	12.8.67	"	x Rogaland "	0.6.73
Ad	13.8.67	"		
(& Ad	5.9.67)	"	x More og Romsdal "	25.7.73
Ad	13.8.67	"	x Hordland "	12.7.73
Ad	17.2.68	"	x Rogaland "	12.7.73
Ad	30.1.71	"	v " "	4.7.73
Ad	8.8.71	"	x More og Romsdal "	10.9.73
Ad	19.8.67	"	+ Sjælland, Denmark	1.8.73
Ad	7.9.68	Burry Inlet	+ Jylland "	1.9.73
Ad	30.1.72	Solway	x Nord Holland, Netherlands	4.8.73
IY	18.1.69	Poole Harbour	x Shetland	29.7.73
Imm	12.11.66	Burry Inlet	x "	22.7.73
PJ	18.8.70	Morecambe Bay	x "	9.7.73
Ad	7.1.73	Solway	x "	0.8.73
Ad	17.8.66	Burry Inlet	x Orkney	1.7.73
FG	9.12.72	Conway River	x "	20.7.73

Ringed Plover

PJ	21.8.71	Dee	v Morecambe Bay	23.8.72
			+ Pearyland,	
			NE Greenland	2.7.73
PJ	19.5.72	Morecambe Bay	x Scoresbysund,	
			NE Greenland	22.6.73
IY	19.9.72	Bardney, Lincs.	v Trondheimsfjord,	
			Norway	12.8.73
Pull	12.7.72	Pentney, Norfolk	v Conway River	29.9.73
Pull	24.6.73	Wash	v Morecambe Bay	9.9.73

Golden Plover

PJ	12.11.65	Swale, Kent	+ Jylland, Denmark	9.8.73
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Turnstone

Ad	5.8.67	Wash	+ Pearyland, N.E. Greenland	4.7.73
Ad	11.8.72	Hayle, Cornwall	x Finistere, France	29.7.73

Snipe

FG	25.9.71	Wigan, Lancs	+ Dunkeld, Perth	4.9.73
Ad	23.12.72	Redcar Yorks.	+ Dourefjell, Norway	19.9.73

Woodcock

PJ	30.3.70	Copeland, Co. Down.	+ Varmland, Sweden	17.7.73
PJ	7.1.73	Sevenoaks, Kent	+ Pernu, Estonia	18.4.73

Common Sandpiper

PJ	3.5.73	Abberton, Essex	x Halsund, Norway	10.7.73
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Knot

Ad	8.2.70	Morecambe Bay	+ Thule, NW Greenland	30.5.73
IY	25.2.71	Wash	+ Nr. Julianhaab SW "	28.7.73
Ad	19.2.72	Wash	x N. Atlantic Ocean, just off S.E. Greenland	5.8.73
Ad	7.3.70	"	x Hafnarfjordier, Iceland	8.8.73
Ad	27.8.68	"	+ Jylland, Denmark	5.8.73
Ad	26.10.68	"	+ " "	5.8.73
Ad	23.11.68	"	+ " "	9.8.73
2Y	4.4.70	"	+ " "	5.8.73
PJ	5.12.71	"	+ " "	10.8.73
IY	4.10.70	Morecambe Bay	+ " "	17.8.73
Ad	5.11.72	Ribble	x Schleswig-Holstein, West Germany	22.5.73
PJ	21.12.72	Morecambe Bay	x " "	8.8.73
FG	21.12.72	" "	x " "	8.8.73

The first major catches of Knot to be made in the Netherlands were obtained in September and they included the following ringed Knot, all of which were adult unless mentioned.

Vlieland on 2.9.73

Ringed on the Wash 26.8.60, 23.1.66, 18.2.68, 26.10.68, 27.8.69,  
27.2.71, 19.2.72, 19.2.72.

On Morecambe Bay 22.12.68, 8.2.70.

On the Dee 20.11.65 (IY)

Schiermonnikoog on 24/25.9.73

From the Wash 26.8.60, 6.9.63 (IY), 7.3.70, 15.11.70, 19.8.72.

From Morecambe Bay 8.2.70, 18.3.73

Also there were

Ad	14.2.72	Dee	v Schiermonnikoog	3.10.73
Ad	23.11.68	Wash	v "	6.10.73

Sanderling

Ad	19.5.73	Morecambe Bay	v Nouakchott, Mauritania	16.9.73
PJ	23.5.70	Dee	v Wash	29.7.73

Avocet

Pull	18.6.71	Minsmere, Suffolk	+ Algarve, Portugal	18.8.73
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PROGRESS REPORT ON THE MAURITANIAN EXPEDITIONW.J.A. DICK

In spite of the advances in the knowledge of wader migration in Europe and North Africa in the last few years, very little is known about the importance and position of the West African coastline in the migration systems of Palearctic waders. This autumn a six-man expedition from England and France is based at the Banc d'Arguin in Mauritania to attempt to answer some of the many questions which have arisen as a result of recent studies in Europe.

The Banc d'Arguin consists of a huge complex of mudflats and islands bordered entirely by the Sahara Desert, and is probably the most important wintering area for Marine Palearctic waders in West Africa. A count of waders in December 1971 indicated that there were probably at least one million waders wintering there. The main objectives of the present expedition are twofold: firstly, to census the number and species of waders at the Banc d'Arguin from September until December, to tie in with the International Wader census in Europe; secondly, to determine the geographical origin of the waders by means of ringing and biometric studies.

The expedition is land-based and is using two Land-Rovers and an inflatable boat with outboard motor. After a somewhat exhausting two-week journey from England, including crossing the Sahara via Algeria, we arrived in Nouakchott, the capital of Mauritania, on the 14th September, complete with mist netting equipment and two common nets. Whilst we sorted out a number of customs and other problems we spent one night mist netting 10 miles to the south of Nouakchott on a pool flooded by recent rains, and were pleasantly surprised that the first Sanderling we caught carried a British ring and the first Ringed Plover a Swedish ring!

The Banc d'Arguin is situated about 150 miles north of Nouakchott and can be reached along the beach at low tide and across country. The logistic problems of working at the Banc d'Arguin are proving considerably more difficult and different than on previous "Wader Expeditions". We are using solar stills to convert sea water to fresh water as the nearest supply for water, fuel and food is Nouakchott. In addition we are learning new catching skills to obtain fresh fish. We have established a "base camp" by an inlet near to the main complex of mudflats. We have now spent six weeks in the field, and the following is a summary of some of the results obtained so far.

Wader Counts

We have attempted to locate and count all the high-tide wader roosts, which is not an easy task, as the Zostera covered mudflats extend to about 15 miles by 12 miles interspersed with islands. To reach all the roost sites we have enlisted the help of the local Imraguen fishermen who can navigate the difficult channels between the mudflats in their boats with very shallow draughts. On the high tide series of 10th-13th October, we estimated the totals given in Table 1.

TABLE I - WADER CENSUS, BANC d'ARGUIN 10th-18th  
OCTOBER, 1973

Bar-tailed Godwit	213,000
Redshank	100,000
Knot	125,000
Oystercatcher	3,000
Grey Plover	2,000
Turnstone	3,000
Curlew	1,000
Whimbrel	2,000
* Small Wader Spp.	176,000
TOTAL :	625,000

\* Estimated proportions in Small Wader spp:

Ringed Plover	9,000
Kentish Plover	4,000
Little Stint	4,000
Dunlin	123,000
Curlew Sandpiper	27,000
Sanderling	9,000

The estimation of the composition of the "small wader spp." is somewhat tentative because of differences in the composition of feeding flocks from one place to another, and the difficulty of distinguishing species in mixed flocks in flight. In addition, the figure is almost certainly an underestimate as the small waders tend to roost in looser flocks along the tidewrack.

It is clear that the situation has been changing continuously with large arrivals of many species (particularly Bar-tailed Godwit and Redshank) towards the end of September and early October. From the basis of the counts of December 1971, there are probably many more waders (particularly Dunlin) to arrive yet. Clearly the Banc d'Arguin is an especially important wintering area for the Bar-tailed Godwit.

### Ringling

We have found an excellent mist netting site at a tidal lagoon at Cap Timinis, where we have caught up to 300 birds per night, and 1,398 in six nights netting. It has been difficult to avoid catching some of the 20,000 Black Terns which roost in the lagoon! Common netting is a less suitable technique as there are few suitable sites and the tidal range is, at the most, 2 metres. To date, 3,136 birds have been caught, including 32 foreign controls as shown in Table II.

TABLE II - RINGING TOTALS 16.9.73 to 29.10.73

	<u>No. of Birds Caught</u>	<u>No. of Controls</u>	<u>(%)</u>	<u>Origin of Controls</u>
Oystercatcher	1	1	.	
Ringed Plover	55	1	1.82	Sweden
Little Ringed Plover	1			
Kentish Plover	13			
Grey Plover	16			
Turnstone	69	1	1.45	Finland
Whimbrel	5			
Bar Tailed Godwit	66			
Redshank	178	1	0.56	Belgium
Greenshank	2			
Knot	435	1	0.23	Poland
Little Stint	48			
Dunlin	991	2	0.2	Norway, Britain
Curlew Sandpiper	409	1	0.24	? Morocco
Sanderling	80	1	1.25	Britain
Black Tern	298			
Common Tern	180	9	5%	5 British 2 German 1 Dutch 1 Spanish
Sandwich Tern	67	15	22.4	9 British 5 Danish 1 German
Miscellaneous	220			
	<hr/>	<hr/>		
	3,156	32		
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Some preliminary comments can be made on the data collected so far.

#### Knot

A number of factors suggest that the adult Knot population may well be of Russian, as opposed to Greenland, origin.

- a. The percentage of controls obtained (1 control out of 346 adults caught) is lower than might be expected for Knot migrating through Britain.
- b. It would appear that the bill lengths of adult Knot are approximately 2 mm. longer than the Icelandic samples. The biometrics of Russian Knot populations have not been well established yet.
- c. The Knot here are moulting considerably later than the Greenland populations in Britain.
- d. The control from Poland strongly suggests that these populations are following an easterly migration route (only 1 Polish control has been recorded in Britain).

The wide range of moult scores of the Knot caught so far suggests many may be first summer birds. It was also interesting that many adults have been increasing in weight towards the end of their moult, up to about 150 gms.

The situation regarding juvenile Knot is less clear as it is believed that some juvenile and first summer Greenland Knot winter south of Britain and these populations might not have arrived in West Africa yet. We have found many juvenile Knot in a highly exhausted condition. A major objective for November is to catch as many Knot as possible.

### Dunlin

Detailed biometric analysis will be required to separate the populations present but it seems that the majority of Dunlin caught so far are Schinzii with smaller numbers of alpina and virtually no arctica. 720 of the 991 Dunlin caught so far have been juveniles but this could be partially due to catching bias, as almost all were not netted. With luck it will be possible to common net a larger roosting sample in November.

### Other Species

It is hoped that sufficiently large samples can be trapped of most species (except Bar-tailed Godwit) to allow useful analysis. The data will inevitably be less complete, however, than for the Knot and Dunlin.

The plans for the next month, before we leave Mauritania for England, at the beginning of December, are to make a further wader count at the end of November, and to continue to obtain ringing samples at Cap Timiris at intervals of about two weeks. In addition, we shall be trying to common net samples of waders for the larger roosting flocks as their composition may well be different from our mist netted samples. We are also collecting mud samples, and the invertebrate fauna seems to be immensely rich. Liver samples are being collected for pesticide analysis.

The Banc d'Arguin is certainly a very remarkable area indeed, not only for its populations of wintering waders, but also for its unique breeding colonies of ground-nesting Pelicans, Spoonbills, Egrets, Herons and Cormorants. Fortunately the area is well protected by natural barriers but breeding colonies are extremely vulnerable to any developments in, for example, tourism which might occur.

FOREIGN RINGED WADERS RECOVERED IN BRITAIN IN  
1971 and 1972

Oystercatcher

Pull 7.7.70	N.W. Peninsular, Iceland	x	Shannon Airport, Clare	10.2.72
Pull 9.7.72	Stokkseyri, Iceland	x	Ballycroy, Mayo	22.12.72
Juv 16.8.72	Hvalfjordur, Iceland	x	Rosslare Harbour, Wexford	0.12.72
Pull 23.6.67	Rogaland, Norway	v	Wash	24.12.72
Pull 20.6.68	" "	v	Wash	30.7.72
Pull 20.6.68	" "	x	Teesmouth	23.1.71
Pull 26.6.69	More & Romsdal Norway	x	Lindisfarne	14.2.71
Pull 29.6.70	" "	v	Wash	8.8.71
Pull 27.6.71	" "	v	Wash	17.5.72
IY 10.7.69	Jutland, Denmark	v	Wash	30.1.71

Lapwing

Pull 11.6.62	Ostergotland, Sweden	x	Tetney, Lincs.	27.11.72
Pull 7.6.63	Vaasa, Finland	x	Alfreton, Derby	1971
Pull 14.6.67	Friesland, Netherlands	x	Newport, Shropshire	20.1.72
Pull 4.6.71	Ameland, "	x	Kilrush, Clare	15.11.72
Pull 30.5.71	Kare, Finland	x	Doncaster, Yorks.	25.1.72
PJf. 14.3.72	W. Flanders, Belgium	x	Hitchin, Herts.	23.3.72

Ringed Plover

Pull 14.6.69	Jutland, Denmark	v	Merecambe Bay	23.8.72
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Golden Plover

FG 7.9.68	Friesland, Netherlands	x	Ashford, Kent	27.11.71
Pull 20.6.72	Vestman Isl. Iceland	x	Portacloy, Mayo	20.10.72

Turnstone

Ad. 23.5.53	Midnes, Iceland	x	Catherline, Kincardine	12.1.72
Ad. 25.5.71	Midnes, "	v	Angle Bay, Pembroke	22.1.72
Ad. 25.5.72	Stokkseyri, "	x	Troca, Lyr	15.9.72
Ad. 26.5.72	Gardskagi, "	v	Carnoustie, Angus	5.11.72
Ad. 3.8.72	Hafnarfjordur "	v	Portsmouth, Hampshire	22.10.72
Pull 19.7.70	Vaasa, Finland	v	Hayle, Cornwall	11.6.72
IY 14.8.71	Turku & Pori Finland	v	Wash	30.7.72
IY 30.8.71	Rogaland, Norway	v	Wash	28.8.72
FG 4.9.69	Zeebrugge, Belgium	v	Bradwell, Essex	24.10.71

Snipe

Of the 38 recoveries none was of an aged IY bird recovered in its first year. All but one were ringed in the autumn - the exception was PJ 19.4.69 Antwerpen, Belgium x Sittingbourne, Kent 26.2.72  
The months and counties of recovery are summarised for the rest.

From Finland

Lancashire 2.71 ; Yorkshire 2.72

From Sweden

Ireland Offaly 1.71 ; Armagh 9.71  
Cork 11.71 ; Kerry 12.72  
" 11.71 ; Wexford 1.71  
Tipperary 3.72



<u>Scotland</u>	Peebles	9.71	;	Berwick	10.72
<u>England</u>	Devon	12.71	;	Norfolk	1.71
	"	4.72	;	"	9.71
	Kent	2.71	;	Suffolk	12.71
	Sussex	12.72	;	Lincs.	11.72

From Norway  
Cork 3.71

From Denmark

Aberdeen	1.71	;	Devon	12.72
Antrim	1.71	;	Armagh	1.71
Antrim	11.71	;	Tyrone	1.71

From Germany

Galway	11.71	;	Wexford	11.71
Anglesey	11.71	;	Stafford	10.71
Devon	4.71			

From the Netherlands

Lincs.	3.71	;	Suffolk	1.71
Lancs.	10.72	;	Hampshire	10.71

From Belgium

Kent 2.72

From Guernsey

Dorset 11.71

From Czechoslovakia

Angus 11.71

Jack Snipe

FG	17.10.70	E.Flanders, Belgium	v	Leigh, Lancs.	23.1.72
			v	Leigh, Lancs	2.12.72

Woodcock

Pull	9.8.70	Turku & Pori, Finland	x	Alfold, Surrey	30.1.71
PJ	31.5.71	Oulu "	+	Dorking, Surrey	27.12.71
Ad	23.10.71	Jutland, Denmark	+	Brigg, Lincs.	22.1.72
FG	6.11.69	Texel, Netherlands	x	Walsham, Suffolk	11.4.71
FG	16.11.71	" "	x	Stornoway, O.Hebrides	26.12.72
FG	5.12.69	Friesland "	+	Quidenham, Norfolk	8.1.72
FG	10.11.71	" "	+	Wakefield, Yorks.	29.1.72
FG	19.11.71	" "	+	Dover, Kent	16.12.71
FG	27.11.70	Nord Holland "	+	Bridgnorth, Shropshire	2.12.72

Curlew

Pull	6.6.66	Vaasa, Finland	+	Chichester, Sussex	5.2.72
Pull	8.6.66	" "	v	Roe Estuary, Londonderry	3.12.72
Pull	30.6.68	" "	+	Holbeach, Wash	24.9.72
Pull	8.6.70	Turku & Pori "	x	Lough Foyle	27.7.71
Pull	12.6.70	Kymi "	+	Holbeach, Wash	2.1.72

Curlew (contd.)

Pull	7.6.72	Hame, Finland	x Swale, Kent	16.11.72
Pull	30.6.69	Gotland, Sweden	x Swale, "	19.11.72
Pull	18.7.70	Norrbottnen, "	+ Hamford Water, Essex	31.1.72
Pull	18.6.72	Rogaland, Norway	x Wexford	11.12.72
Pull	12.5.71	Potsdam, GDR.	+ Gwendraeth, Carm's.	1.9.71
Pull	24.5.72	Munster, FDR.	+ Gwendraeth, "	1.9.72
Pull	26.5.69	Overijssel, Netherlands	+ Burnham, Somerset	25.9.71
Pull	7.6.70	Antwerpen, Belgium	+ Burnham, Essex	24.10.71
PJ	9.7.69	Zeebrugge "	+ Goldhanger, "	14.9.71

Bar-tailed Godwit

FG	5.9.71	Revtangen, Norway	+ Whiteness, Inverness	10 or 11 1971
FG	5.9.71	" "	v Lindisfarne, Northumb.	24.11.71

Redshank

IY	3.7.71	Amager, Denmark	x Foulness, Essex	4.2.72
Pull	28.6.72	Holt, Iceland	+ Lymington, Hampshire	2.9.72

Spotted Redshank

Juv	10.8.72	Munster, FDR.	v Eyebrook Res, Rut/Leics.	2.9.72
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Knot

IY	25.8.72	Mikoszewo, Poland	v Morecambe Bay	21.12.72
Ad	13.8.65	Ottenby, Sweden	v Solway	14.2.71
FG	30.9.66	Revtangen, Norway	v Morecambe Bay	20.8.71
FG	1.10.66	" "	v Wash	8.10.72
FG	10.8.67	" "	v Wash	8.10.72
FG	6.9.69	" "	v Wash	19.2.72
FG	13.9.69	" "	v Wash	19.3.72
IY	29.8.71	" "	x Amble, Northumb.	19.3.72
IY	29.8.71	" "	v Wash	8.10.72
FG	30.8.71	" "	v Wash	30.7.72
IY	7.10.64	Vendee, France	v Wash	8.10.72
IY	13.9.66	" "	v Dee	2.1.71
FG	3.9.67	" "	v Wash	19.2.72 & 19.3.72

From Iceland there were 42 controls in Britain of Knot ringed by the Cambridge Iceland expeditions. The catches of these were made on the

Dee:- 2.1.71(2), 3.1.71(1), 24.2.71(3), 12.8.72(10)

Morecambe Bay:- 20.8.71(1), 14.3.72(2), 5.11.72(1), 21.12.72(7)

Ribble:- 22.9.71(2)

Wash:- 27.2.71(1), 11.8.71(1), 19.2.72(4), 19.3.72(1), 8.10.72(6)

Other Iceland Knot reported were:

Ad.	31.5.61	Midnes, Iceland	v. Morecambe Bay	24.2.71
Ad	12.8.70	Hvammur, "	x Aberlady Bay, Firth & Forth	7.3.71
Ad	12.8.70	" "	+ Solway	18.3.71
Ad	12.5.72	Eyri, "	x Morecambe Bay	3.12.72

Dunlin

Only those recoveries from counties which have few are fully summarised - the rest are in the table

Ad 4.8.63	Midnes, Iceland	v Morecambe Bay	25.7.71
		v " "	8.7.72
Ad 5.8.63	Midnes, "	v Dee	13.8.72
Pull 14.6.65	Dalvik "	v Morecambe Bay	25.7.71
FG 25.5.64	Gt. Minov Isl. USSR.	v Wash	27.3.71
Ad f. 24.7.70	" "	v Dee	29.1.72
FGm 18.8.70	" "	v Morecambe Bay	27.1.71
FG 5.9.69	Hiddensee, DDR.	v Wash	28.8.72
Ad 10.8.72	Vlieland, Netherlands	v Langstone Harbour	8.10.72
FG 13.9.72	" "	v Wash	4.11.72
PJ 22.3.69	Knocke, Belgium	v Wash	9.8.71
FG 17.9.70	Zeebrugge, "	v Wash	27.2.71
FG 23.8.63	Morbihan, France	v Morecambe Bay	25.7.71
Juv 12.9.66	Vendee, "	v Skukholm, Pembs.	23.4.71
PJ 26.2.71	Morocco	v Dee	20.8.71

COUNTRIES OF RINGING

<u>Where Recovered</u>	<u>Finland</u>	<u>Poland</u>	<u>Sweden</u>	<u>Norway</u>	<u>Denmark</u>	<u>FDR</u>
Solway	-	-	-	1	-	-
Ythan	-	1	-	-	-	-
Firth of Forth	1	-	-	3	-	-
Northumberland	-	-	1	1	-	-
Humber	1	-	10	5	-	-
Wash	13	4	19	16	3	2
Suffolk	-	-	3	1	-	-
Bradwell	-	1	1	-	-	-
S. Thames	1	-	6	3	1	-
S. Kent	-	-	-	1	-	-
S. Coast	1	-	7	1	-	-
Pembs.	-	-	3	-	-	-
N. Wales	1	1	5	8	-	1
Dee	3	4	20	9	3	3
Mersey	-	-	-	-	1	-
Morecambe Bay	5	1	7	4	1	2
TOTALS :	26	12	82	53	9	8

Sanderling

FG 29.8.70	Revtangen, Norway	v Wash	28.7.72
FG 14.3.71	Cape Rown, S. Africa	v Wash	15.5.71
IY 30.8.71	Revtangen, Norway	v Wash	19.2.72

WADER STUDIES IN MOROCCO

In the autumns of 1971 to 1973 detailed studies of waders have been made on the Atlantic coast of Morocco (see Bulletins 4, 6, 7). In 1971 the first University of East Anglia (UEA) expedition surveyed most of the coast and started studies at several sites. The work at Sidi Moussa (near El Jadida) was continued in 1972 by the second UEA expedition and by a Cambridge expedition led by Derek Stanyard. The 1972 UEA Expedition also started studies at

Puerto Cansado in the Saharan south of the country. 1973 saw the third successive autumn of work at Sidi Moussa due to an expedition led by Francis Argyle. The report of the 1971 work has already been published (available from me) and that of the two 1972 expeditions is nearly complete.

The purpose of this note is to point out that further work in Morocco will be particularly useful in view of the studies that have already taken place. Such future visits would be of maximum value if they were directed to the gaps in our information. Two such gaps occur during the summer (late June/early July) and in the late autumn and winter (October onwards). While a visit to Puerto Cansado in the far south requires a cross-country vehicle and a substantial budget, this is not the case for Sidi Moussa. Fully-made-up roads reach this site, which is only a short distance south of Casablanca, the main commercial city. The Moroccan ringing authorities welcome these visits and help to obtain research permits from the government.

If anyone is contemplating taking a ringing party to Morocco or would like more information on the situation, I would be pleased to hear from them. In this way I should be able to supply them with information for the planning and it will be possible to obtain the maximum of results from the effort.

MIKE PIENKOWSKI

#### AN AGEING TECHNIQUE FOR GOLDEN PLOVER

by Ian Bainbridge

As the Golden Plover (Pluvialis apricarius) is one of the few waders which is left in the category of unageable/sexable in the *Wader Ageing Guide*, and as the species is becoming more and more a prime target for common-netting and mist-netting teams, I decided to attempt to find characters to age and sex the birds, by looking at as many museum specimens as possible.

Having looked at eighty-five museum specimens, I am now confident that Golden Plovers can be aged for at least part of the autumn, using the following characters:

##### ADULT

The outer webs of the outer under tail coverts are barred strongly gold and brown, perpendicular to the shaft of the feather, or at an angle towards the tail from the feather shafts. (fig 1.)

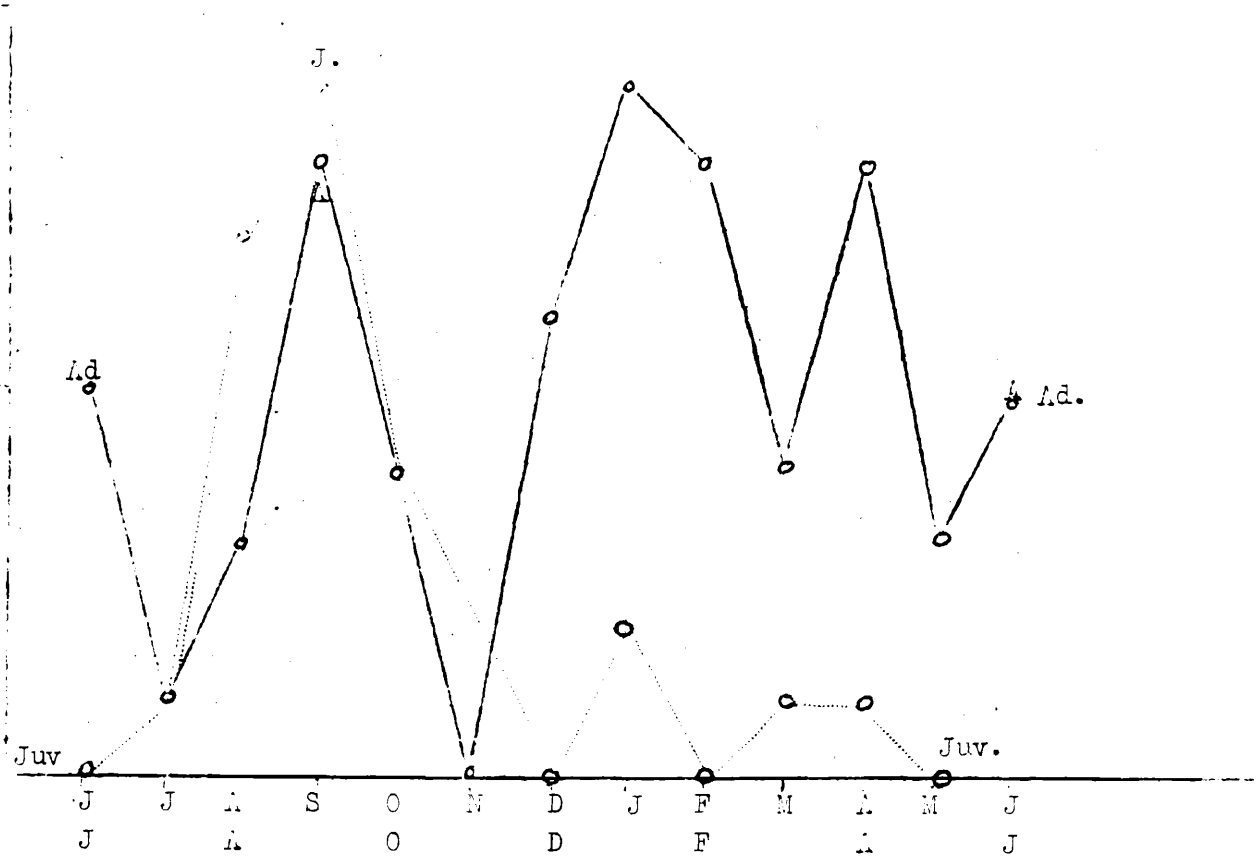
The breast feathers are brown, edged dull gold. (fig 2.)

The belly feathers are white.

Of course any bird that shows any traces of black summer plumage at the end of the autumn moult is also an adult. The above three criteria are for birds in winter plumage.

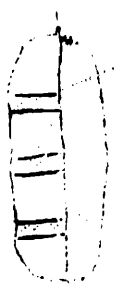
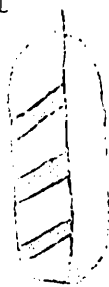
##### JUVENILE

The outer webs of the outer under tail coverts are barred less strongly at an acute angle towards the body from the shaft (fig 3.)



NUMBER OF GOLDEN PLOVERS EXAMINED

FIG. 1



Brown

FIG. 2



Gold or white

AD

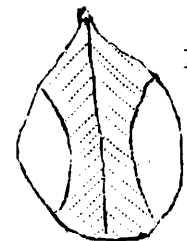
FIG. 3



JUV.

Outer under tail coverts

FIG. 4



Breast feathers

The breast feathers are basically gold, with a brown 'shaft triangle' (fig 4.)

The belly feathers are white edged brown.

I am confident that the above criteria will age Golden Plovers until the beginning of November with certainty, as they agree with all but two of the aged museum specimens, which for several reasons I believe to be wrongly aged. It seems though that most juveniles undergo a body moult from the beginning of November onwards which may encompass the under tail coverts, either wholly or partially. Three specimens in November, January and March exhibited both adult and juvenile under tail coverts, but three specimens, in November, January and April, exhibited only juvenile coverts. This, along with the drop in numbers of specimens from November onwards, which are ageable as juveniles, suggests that at least some juveniles undergo a complete tail covert moult, rendering them indistinguishable from adults. Abrasion or moult of the breast and belly feathers makes these two criteria unworkable from this time of year also.

The graph shows the numbers of juveniles and adults in each monthly sample, aged using the above characters. The tiny sample in November makes it impossible to say at present whether juveniles are all ageable or not in November.

Thus the safe thing to do at present would seem to be to apply the codes '3' or '5' to any birds showing the juvenile characters, but after October to apply the code '2', changing to '4' at the beginning of the new year, for any birds showing the adult plumage. The next step is to catch some Golden Plovers in November to test the validity of the character in that month.

On a slightly separate note, the character of the outer under tail coverts would seem to apply to both of the Lesser Golden Plover species, (P. dominica and P. fulvus), though I have done no more than glance at both of these species.

Finally, I would like to thank the B.M.N.H., Tring, Leicester and Sheffield Museums for allowing me access to their specimens.

#### WHEN DO WADERS DIE? - A REQUEST FOR HELP

M.W. Pienkowski

Despite the many recent studies on waders, we still have very little information on when the main periods of wader mortality occur - apart from the heavy mortality in very severe winters (see e.g. reports in Wildfowl Trust 15th Ann.Rep. 1962-63). One might expect relatively heavy mortality to take place during periods when energy requirements are high and/or food supplies low. Such periods may occur over winter, at migration times, or even in the breeding season amongst other times, but as yet we have little evidence as to which, if any, of these is important.

The one good type of evidence that birds are dying is the finding of corpses. In the past several studies have been made of times of mortality by the use of reports of ringed birds found dead. This has some disadvantages, in that:-

(i) the sample size available is reduced because not only does a dead bird have to be found, but this bird needs to have been ringed at some stage in its life. Therefore, the proportion of bodies found which are reported will approximate to the proportion of waders in the population which are ringed, this normally being very small, and

(ii) there is no information on the recoveries file as to what length of shore has been searched and also there is no indication of effort spent in relation to time of year.

The advantage is that some data are already available having been accumulated over the years in which waders have been ringed. This analysis is therefore also being undertaken.

However, as indicated above, this is not a satisfactory method for generating new data, especially at a time when there is an urgent need for knowledge of wader biology in view of current threats to estuaries. We therefore need a scheme of systematic searches of beaches for all bodies, not just those with rings.

Fortunately such an organisation already exists in the R.S.P.B./Seabird Group Beached Bird Survey, organised by Colin Bibby. The main aim of this is to estimate the natural and artificial (oiled, poisoned, etc.) mortality of seabirds. However, coverage has extended into parts of some large estuaries and nearly 2,000 waders have already been recorded. The organisers have kindly agreed to extend the survey and place more emphasis on waders and estuaries of all sizes. It is up to us to take advantage of this offer and to undertake to cover stretches of shore.

The requirements are simple. Helpers should 'adopt' a length of shore (the length that they can conveniently deal with) and walk it at regular intervals. The Beached Bird Survey holds simultaneous counts on weekends in September, November, January, February and March, but welcomes counts at other times. For the wader work it would be useful if one visit could be made each month and the day of the Birds of Estuaries Enquiry count might be a suitable occasion as many people are involved in both surveys. Before starting on a stretch of shore, helpers should contact the Beached Bird Survey, so as to avoid overlap and to obtain forms and full instructions. "Wader workers" should, of course, also record other groups of birds.

Would anyone prepared to help or requiring more information please write to me or directly to Mr. C.J. Bibby, RSPB Research Department, The Lodge, Sandy, Bedfordshire. Those enrolled in the scheme will receive a regular supply of forms and also reports of progress in the surveys.

M.W.P.'s address is in the change of address section of this Bulletin.

RECENT PUBLICATIONS ON WADERS

The following list includes references mainly from 1972-73 but a few earlier papers are also given if these were not listed in the previous lists of recent publications (compiled by P. Stanley in Bulletins 2 and 7). It is not possible to include all papers on waders and priority is given to those on censuses, migration, weights, moult, etc. Reports on other subjects (e.g. behaviour, ecology, morphology) are included if space permits. I would be pleased to hear from readers who have comments on this emphasis. I would also be grateful if readers were to draw my attention to any papers which are not included but which they think ought to be (especially those in obscure or local publications). Readers are also referred to the abstracts in Ibis, Auk and Bird-Banding amongst others and to the lists in WRB Bulletins.

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