



Vadefugle grupper.

THE DANISH WADER STUDY GROUP

by Hans Meltofte

At the moment, no large scale wader ringing takes place in Denmark. Intensive wader ringing took place during the 1950's especially on Amager at Copenhagen and the grand total of waders ringed by the Zoological Museum since 1928 amounts to 100 000 individuals, including adults caught during migration and on the nest as well as pulli. The highest figures are 22 000 Dunlins, 19 000 Redshanks, 17 000 Lapwings and 7 300 Avocets. At present about 1500 waders are ringed annually in Denmark.

Censuses of breeding populations of waders have been carried out at several localities all over Denmark, especially during mapping and registration of all important Danish bird localities during the 1960's and 1970's, and on the scientific reserve of Tipperne in western Jutland since 1928. Studies of single species such as Little Ringed Plover and Woodcock, have also been made.

The passage of large numbers of migrating waders, especially Oystercatchers, Knots and Dunlins, along the west coast of Jutland and concentrated at Blåvandshuk, was noted during the 1950's. The establishment of Blavand Bird Observatory in 1963 initiated daily registration of visible migration. Blavandshuk is the westernmost point of Denmark and is made up of a wide sandy beach and high dunes. The migrants are 'trapped' by the long coast running north-south before scattering over the sea to the south, or following the coast to the southeast.

After publishing the first paper on the phenology and quantity of this migration, we were requested by Dutchman Gerard Boere to extent our work to include counts of waders roosting in the Danish part of the Wadden Sea. Such counts

had been organised a few times previously, but they were hampered by the scarcity of bird watchers in that 'remote' part of Denmark. However, since then a local department of the Danish Ornithological Society had been established in the area and they have organised more regular counts since 1973. Interest has grown and during the spring of 1974 a national wader study group was established by our society. Its main aim was to make monthly counts at all important Danish wader haunts, including four counts a year in the Wadden Sea. The start was not promising. The Wadden counts were successful, but only a few other localities were covered: most irregularly. However, after the first two troublesome years, the work has improved and more coverage obtained. We decided to concentrate on one intensive year of complete coverage, including monthly counts at the Danish Wadden Sea. 1978 was the year chosen.

One of the major problems at the Wadden Sea is that besides those high tide roosts we are able to cover from the main land and the large islands, there are a number of so called 'high-sands' and other remote small islands which are also used for high tide roosts. For several years aerial counts of waterfowl have been carried out by game biologists throughout Denmark. From these aerial surveys we knew that it was possible to identify and count most waders from the air so with aid from the World Wildlife Fund Denmark we were able to supplement our monthly counts from the ground with aerial coverage over all the Wadden area.

We now census the whole country during the middle weekend of each month. Besides the Wadden Sea, about 140 localities are covered. In the Wadden area 30 people count simultaneously at 30 sites which have a good outlook and regular wader concentrations and which lie along the coasts of the main land and on the islands. The count period is from three hours before high tide until high tide. During this period the waders are most easily counted as they move in from the Wadden flats. At the same time we fly along all of the coast and around all the islands and high sands. We use a four seater, single-engined plane with the wings situated above the windows, thus giving a clear view of the ground. One pilot and two censusers keep watch and all observations are recorded verbally on tape using a small cassette-recorder with stop/start switch in the microphone. The area is divided into appropriate parts and, during the flights observation areas are referred to by code. Later the results are compared with the corresponding figures from the ground counts. Generally, apart from covering the inaccessible high tide roosts, the aerial counts only supplement the ground counts in a few species. Oystercatchers and Bar-tailed Godwits are always flushed by the plane and are thus 'easily' estimated, but most other species are either too dispersed

to detect, or remain crouched in vegetation at the roost when we fly over and are not seen. This concerns for example about half of the Dunlins: even flocks numbering tens of thousands do not move. Knots are flushed easily, but normally only few are seen in the Danish Wadden Sea. We fly in an altitude of about 250 feet, which is in fact a little too high but obviously bird-strikes are a permanent danger during such work. It is a hard job to count 200 000 waders from an aeroplane during two or three hours. Much of the time the plane is slaloming and it needs a good deal of self control to prevent ones entrails from coming up through the throat!

So far the results have been good. It has been especially satisfying to find that our earlier ground counts at the Wadden Sea during 1973-1977 estimated about 60-80% of the waders present. Peak numbers in Denmark probably reach 300 000 -400 000 in the Wadden area, with 100 000-200 000 in the rest of the country.

Besides being of purely scientific interest the aim of the counts is to map and register all important wader haunts in Denmark thus improving our chances of protecting as many of them as possible - the Wadden Sea itself in particular. This extremely important area was not even included when Denmark ratified the Ramsar-convention last year! More than four fifths of former Danish bogs, meadows and marshland habitats have now been reclaimed for agricultural and other purposes. Another part of the Wadden Sea is going to be reclaimed within the next few years in spite of hard arguing against it from many people and institutions both inside and outside the country. Another major threat to waders is intensive Danish shooting along the coasts. At the present time there are more than 160 000 Danish sportsmen and for many of them shooting of waders is a popular hobby. Altogether 150 000 waders of 15 species are legally shot each year during the period 1 August to the end of December. The number of birds shot seems high, but it is perhaps just as important that disturbance caused by shooting prevents the birds from properly utilising many important haunts. It is extremely important to establish many more wetland reserves in Denmark.

Recent Danish literature on migrating waders is:

- Meltofte, H., S. Pihl and B.M. Sørensen. 1972. Autumn Migration of Waders (Charadrii) at Blåvandshuk, W. Jutland 1963-1971. Dansk Orn. Foren. Tidsskr. 66: 63-69. (Danish with English summary)
- Meltofte, H. and J. Rabøl. 1977. Influence of the weather on the visible autumn migration of waders at Blåvand, Western Denmark. With some notes on the geographic origin of the migration. Dansk. Orn. Foren. Tidsskr. 71:43-63
- Netterstrøm, B. 1970. The Autumn Migration of The Knot (*Calidris canutus*) in Western Jutland. Dansk Orn. Foren. Tidsskr. 64: 223-229. (Danish with English summary)

Thelle, T. 1970. The Migration of Oystercatcher (*Haematopus ostralegus*) from West Norway to the Wadden Sea. Dansk Orn. Foren. Tidsskr. 64:229-247.
(Danish, with English summary)

Thelle, T. and B. Netterstrøm. 1971. Counts of Waders in the Danish Wadden Sea July and August 1969. Dansk Orn. Foren. Tidsskr. 65: 164-172.
(Danish, with English summary)

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(We hope that this will be the first of an occasional series of articles in WSG Bulletin from the Danish Wader Study Group. We would welcome similar contributions from any other national or regional wader study groups.- Eds.)

H. Meltofte has recently sent counts of waders in Denmark January to June 1978, these follow as appendices.

Monthly wader totals in the Danish Wadden Sea 1978.

	Jan.	Feb.	Mar.	Apr.	May	Jun.
Oyster catcher	21904	13950	29856	23633	15419	4316
Lapwing			4611	658	721	843
Ringed Plover			165	258	200	240
Kentish Plover					3	17
Grey Plover	6		13	66	2725	473
Golden Plover	450	14	833	2002	2794	13
Turnstone			1		163	56
Snipe	58	1	4	4	3	7
Woodcock				1		
Curlew	558	13	1099	1514	116	64
Whimbrel				1	15	14
Black-tailed Godwit				59	25	94
Bar-tailed Godwit	4		2892	22990	42432	1101
Green Sandpiper					1	
Wood Sandpiper				2		
Redshank	983	724	729	1644	1883	874
Spotted Redshank					24	6
Greenshank				1	566	11
Common Sandpiper				1	49	1
Knot			5030	36	1	175
Temminck's Stint					1	
Dunlin	4451	983	39256	196270	120784	701
Sanderling			30	30		
Ruff				51	29	9
Avocet			104	997	635	640
Wader species			35	315		477
Totals	28414	15685	84658	250533	188589	10132

Preliminary monthly wader totals outside the Danish Wadden Sea 1978

	Jan.	Feb.	Mar.
Oyster Catcher	162	106	6142
Lapwing	69	4	12043
Ringed Plover	9	5	1377
Grey Plover	2	1	2
Turnstone	4		2
Snipe	145	33	55
Golden Plover	266	2	118
Jack Snipe	2	1	
Curlew	145	39	416
Black-tailed Godwit			26
Bar-tailed Godwit	3		1177
Redshank	1183	385	596
Common Sandpiper	1		1
Purple Sandpiper	13	6	11
Knot	4		
Dunlin	5373	1103	9410
Sanderling		6	3
Avocet			313
Wader species	13	6	126
Totals	7394	1697	31818

Preliminary monthly wader totals outside the Danish Wadden Sea 1978

	April	May	June
Oyster catcher	6528	4545	1951
Lapwing	5536	3498	4113
Ringed Plover	938	935	478
Little Ringed Plover	3	9	3
Kentish Plover	6	8	11
Dotterel		1	
Grey Plover	11	490	59
Golden Plover	6474	35136	52
Turnstone	6	96	10
Great Snipe		1	
Snipe	479	131	57
Jack Snipe	4	3	
Woodcock	1		
Curlew	1521	133	58
Whimbrel	32	163	5
Black-tailed Godwit	371	265	338
Bar-tailed Godwit	3615	18612	144
Green Sandpiper	4	23	2
Wood Sandpiper	3	80	
Redshank	3867	3743	2263
Spotted Redshank		92	26
Greenshank	11	299	5
Common Sandpiper		239	2
Purple Sandpiper	22	1	
Knot	46	135	16
Little Stint		42	1
Temminck's Stint		63	
Little Temminck's Stint	2	25	
Dunlin	22396	49635	318
Curlew Sandpiper			1
Sanderling	17	45	
Ruff	869	6518	168
Avocet	2964	2942	1842
Red-necked Phalarope			2
Wader species	138	229	26
Totals	55864	128137	11951