

# THE MIGRATION OF SHOREBIRDS THROUGH NORTH-EAST ICELAND

by J.R. Wilson

## INTRODUCTION

Although the massive migration through west Iceland of shorebirds which breed in north-east Canada and Greenland is well known (Timmermann 1949, Morrison *et al.* 1971, Morrison & Wilson 1972, Gardarsson 1975, Wilson 1981) there have been few published observations of High Arctic breeding waders on migration in eastern Iceland. For birds breeding in north-east Greenland, east Iceland lies on a more direct route to and from West Europe than West Iceland. Wilson (1981) suggested that many birds breeding in north-east Greenland could be overflying Iceland since the distance to this breeding area from Britain is not so great that birds would be forced to stage in Iceland to replenish fat reserves. However, it was also considered possible that some birds were staging so briefly in eastern Iceland, an area very poorly covered by bird-watchers, that they had not been recorded.

To attempt to clarify this, the east coast of Iceland was visited on 19 - 23 August 1971, 22 May 1974, and 22 - 27 July 1980, and the north-east coast on 28/29 June 1980 and 29 July - 1 August 1980. These visits, especially in spring, were too short to reach any final conclusions. Since the literature is so limited, these observations do add to our knowledge of the use of this part of Iceland by shorebirds. Observations refer to 1980 unless otherwise stated.

## STUDY AREAS

It is probable that Melrakkasletta in the north-east, and the east coast from Hofn to Djupivogur, are the two most important localities for migrant shorebirds in eastern Iceland (Figures 1-3). From Hofn westwards to Stokkseyri in the south there is an almost continuous (350 kms) beach of sterile black sand washed by the Atlantic Ocean. These mobile sediments are unlikely to sustain large numbers

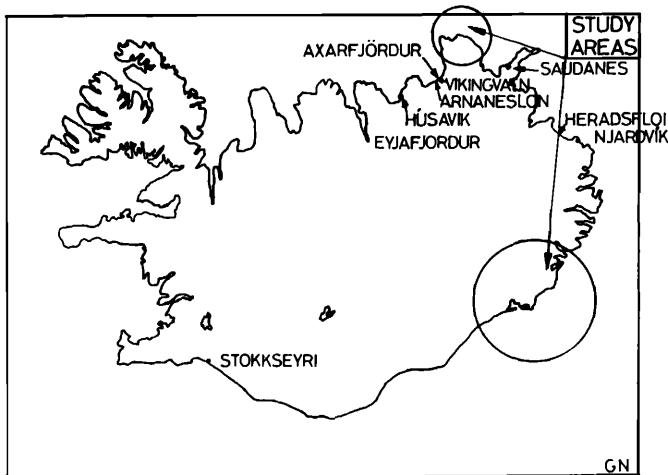


Figure 1. Parts of north and north-east Iceland surveyed for shorebirds during spring and autumn.

of shorebirds. To the north, from Djupivogur to Njardvík, the coastline is of deep fjords with a narrow, rocky, intertidal belt, which observations in 1971 suggested was of little importance. The coast from Njardvík to Raufarhofn was not visited, but is mostly steep, except at Heradsfloi, where there is an outlet to a glacial river and the beach is typical of the sterile beaches of southern Iceland, and at Saudanes, an area requiring further investigation. To the west of Melrakkasletta, the beaches of Axarfjörður are again sterile black volcanic sand, but lakes immediately inland are important gathering places for some Icelandic breeding shorebirds (Anon 1973). Further west, Eyjafjörður has been well studied (Timmermann 1949, Gardarsson *et al.* 1976), but seems mainly of importance to local birds rather than Greenland migrants.

The coast from Hofn to Djupivogur (Figure 2) has a series of tidal lagoons enclosed by sandbars. These sandbars have been built up of detritus carried down by glacial rivers from the Vtnajokull, as well as from deposition of volcanic ash from the seabed. The outer beaches are similar to the sterile beaches of the south, and the two investigated in detail, Lonsfjörður and Skardsfjörður, had no birds on the seaward side. The mudflats immediately adjacent to Hofn are the most important in south-east Iceland, but further east in Skardsfjörður and on the mudflats adjacent to Stokksnes very few birds were recorded. Similarly the mudflats of Papfjörður are poor

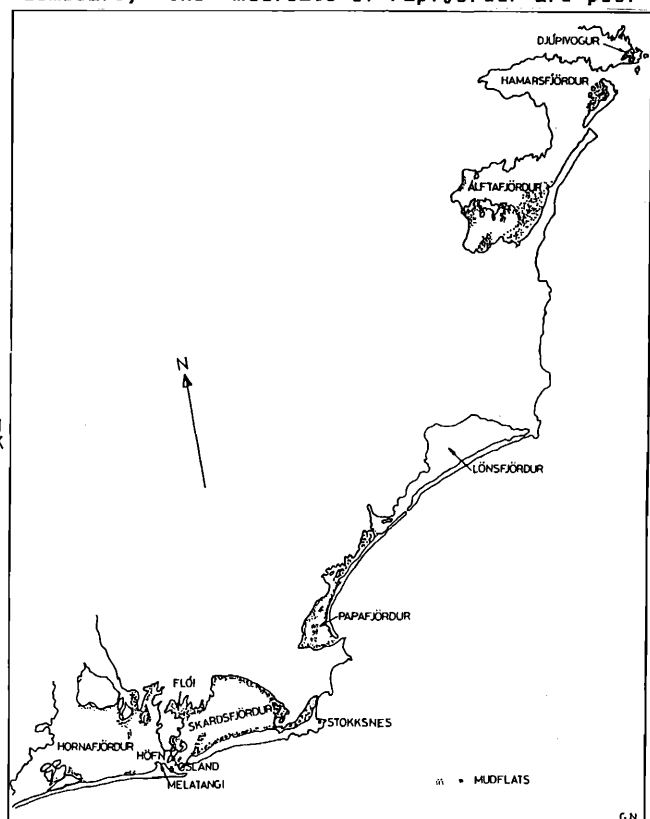


Figure 2. Sites surveyed for shorebirds in east Iceland.

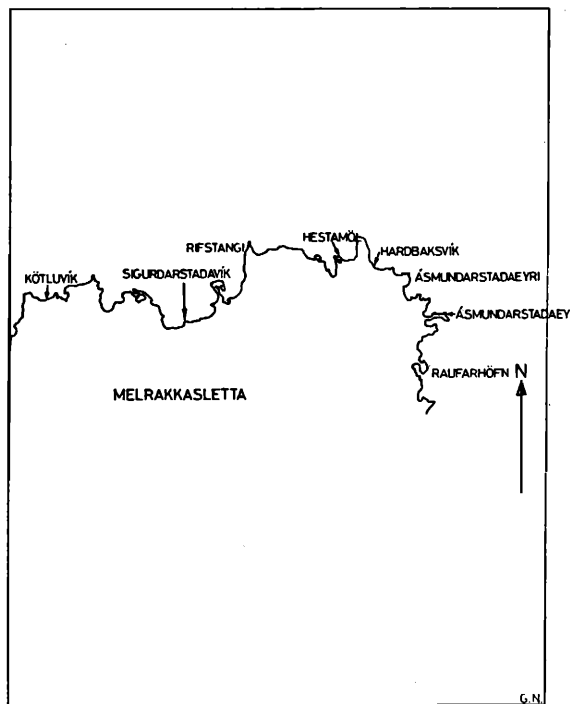


Figure 3. Areas surveyed for shorebirds in north Iceland.

and Lonsfjordur has a very limited intertidal area. The extensive mudflats in the south end of Alftafjordur are important to Dunlin *Calidris alpina*, and this area needs further investigation. Djupivogur is mainly of interest as being the only site to hold substantial numbers of Turnstone *Arenaria interpres* along the rocky shores. The sandflats seem to be mostly sterile and inundated only by higher tides.

The north coast of Melrakkasletta (Figure 3) is low lying and rocky with a few sandy beaches and one small mudflat (adjacent to Asmundarstadaeyri). This coast owes its importance to waders to the many small bays which have banks of wrack on the beaches, to which shorebirds are attracted.

For completeness both migrant and breeding shorebirds are documented below.

## RESULTS

### Oystercatcher *Haematopus ostralegus*

North-east. Nests commonly along the whole coast in concentrations equivalent to those occurring in similar habitat in south-west Iceland. There were a minimum of 8 pairs at Asmundarstadaeyri and probably in excess of 50 pairs between Raufarhofn and Rifstangi. Only breeding adults or chicks were recorded and all pairs were strictly coastal. Oystercatchers were also recorded as a common breeding species in the late 1930s (Morrison 1938).

East. Nests commonly, although not at such a high density as in the north-east. Pairs were still on territory in late July, mostly with fledged young. The only flocks recorded were of 67 on a mussel *Mytilus edulis* bed, 19 on a freshly cut hay field at Hofn, and 11 at Lonsfjordur.

### Ringed Plover *Charadrius hiaticula*

North-east. Common breeding bird. The largest flock (14 at Hardbaksvik on 29 July) could have all been local birds. There was no evidence of passage from Greenland.

East. Breeds, although not so commonly as in north-east. Only small parties were recorded (maximum 13 birds). However, in 1971 there were about 100 at Alftafjordur on 22 August and about 100 at Hofn on 23 August. About 50% of these were juveniles. These flocks are larger than any recorded in autumn in west Iceland (pers. obs.).

### Grey Plover *Pluvialis squatarola*

East. One adult in full breeding plumage and one in winter plumage (probably a first-year bird) at Hofn on 24 July.

### Turnstone *Arenaria interpres*

North-east. 6 at Hardbaksvik and 2 at Asmundarstadaeyri on 28 & 29 June. Only two of these were in full summer plumage and the others were probably immatures. Also recorded summering by Morrison (1938). 40 at Harbaksvik on 29 July had increased to 100 by 1 August. There were also 34 at Asmundarstadaeyri and 66 at Asmundarstadaey on 30 July, 11 at Sigurdastadvik and 11 at Kotluvik on 31 July. 40 flew high over Husavik, calling, at 1500 hours on 1 August on a south-easterly heading. This direction would take them inland to the north of the Vatnajokull and to the east coast in the Alftafjordur area.

East. Not common. 2 at Hofn on 24 July and 30 at Djupivogur on 27 July. Only 3 recorded in 1971, at Alftafjordur on 22 August.

### Black-tailed Godwit *Limosa limosa*

East. 4 adults at Hofn on 24 July. This is a rare breeding species in east Iceland (Gardarsson 1975).

### Redshank *Tringa totanus*

North-east. An abundant breeding bird, but by the end of July only small numbers were left at scattered sites along the coast. The coastal biotope seems not generally suited to concentrations of Redshank and it is probable that birds had dispersed to more suitable coasts, and that some had already left Iceland, since the first Redshanks leave at the end of June.

East. Concentrations of 500 at Hofn on 23 July and 200 at Alftafjordur on 25 July. Otherwise scattered in only small numbers throughout this coast.

### Knot *Calidris canutus*

North-east. 15 at Hardbaksvik and 3 at Asmundarstadaeyri on 29 June. 3 of these were in winter plumage (probably first-year birds). 70 at Hardbaksvik on 29 July had increased to 200 on 1 August. Parties of 30, 13, 19, 15 and 19 departed in a south-easterly direction from Hardbaksvik between 1900 - 2200 hours on 29 July. A flock of 15, together with 4 other shorebirds (probably Sanderlings) flew in across the sea from the north-west at Kotluvik at 1600 hours on 31 July. 56 were at Asmundarstadaeyri on 30 July. Small parties (up to 5) were recorded in a few other localities. The first juveniles (4) were noted on 1 August.

East. Only recorded in two localities. 500 at Hofn on 23 and 24 July. These birds concentrated on the mudflats of Floi, on the point of Melatangi, and on a mussel bed off Osland. There were also 5 at Djupivogur on 27 July. In 1971 there were 180 (both adults and juveniles) at Hofn on 23 August and in 1974 there were 80 at Hofn and 100 in Papafjordur on 22 May.

Purple Sandpiper *Calidris maritima*

North-east. A common breeding bird along whole coast. Fledged young were noted on 29 July. Encountered all along the coast in small numbers in late July. 200 at the end of the peninsula of Asmundarstadaeyri on 30 July consisted of juveniles and moulting adults. In west Iceland moulting flocks also prefer the ends of small rocky peninsulas (pers. obs.).

East. Not known to nest on this coast. Only 2 recorded, at Djupivogur. Purple Sandpipers are known to occur on this coast in winter (Boswall 1974).

Dunlin *Calidris alpina*

North-east. Flocks had already formed by 29 June when there were 50 at Hardbaksvik and 300 at Asmundarstadaeyri. These flocks probably consisted mostly of *C. a. schinzii* females. These desert their young soon after hatching. In late July, small numbers were scattered along the coast with one concentration of 280 at Asmundarstadaeyri on 30 July.

East. Two flocks, each of 150, departed to the south-east from Hofn at 2215 and 2220 hours on 22 July. The sky was completely clouded and the wind force 4, northerly. 1900 were counted in 4 flocks on the mudflats around Hofn on 24 July. Other concentrations were 150 Papafjordur (10% juveniles), 850 Alftafjordur and 150 Djupivogur. In 1971 there were 900 (90% juveniles) at Alftafjordur on 22 August and 600 at Hofn on 23 August.

Sanderling *Calidris alba*

North-east. 3 at Hardbaksvik on 29 July, 11 at Asmundarstadaeyri on 30 July and 9 at Hestamol on 31 July.

East. None recorded in 1980. 9 at Budir on 19 August 1971.

Ruff *Philomachus pugnax*

North-east. One juvenile male at Asmundarstadaeyri on 30 July. At least 3 were recorded in the Vikingvatn area in July/August 1973 (Anon 1973).

Grey Phalarope *Phalaropus fulicarius*

North-east. Three females and one male on the sea at Asmundarstadaeyri on 29 June.

Red-necked Phalarope *Phalaropus lobatus*

North-east. 26 on the sea at Asmundarstadaeyri on 28 July. 4000 at Arnaneslon on 26 July 1973 steadily decreased to 300 by 26 August (Anon 1973).

East. None on the sea, but a few scattered on coastal pools.

DISCUSSION

My observations covered only a small part of

the total passage period, but in May 1974 and July 1980 they coincided with the timing of the peak passage of High Arctic migrants in West Iceland (Wilson 1981), and some preliminary conclusions can be drawn:

1. Turnstones, Knots and Sanderlings are more numerous in north-east Iceland, and Knots in east Iceland, than previous observations had suggested, but the numbers of these species are very much lower than in west Iceland.

2. Dunlins occur in much larger flocks in east than west Iceland. This may be because the more restricted areas of mudflats force the birds to concentrate more, or because the numbers of locally breeding *C. a. schinzii* are swelled by *C. a. arctica* migrating through from the breeding areas in north-east Greenland. The migration of this race through Iceland is little known. All 511 Dunlin caught on the west coast in autumn 1972 were of the local race, but at least 8 *C. a. arctica* were identified in catches totalling 156 birds caught in May 1971 and May 1972 (unpubl. data).

3. Ringed Plovers also occur in larger flocks in east than west Iceland, local breeding birds could account for all these. It is not clear if numbers were swelled by the passage of the large populations breeding in north-east Greenland.

4. Birds breeding in north-east Greenland which migrate to western Europe do not necessarily need to stop in Iceland, since the distances are probably short enough that they can be covered in one flight. Most Knots observed in north-east Iceland spent most of the time roosting, and may have only paused there briefly while waiting for offshore an fog bank to disperse before continuing their migration.

These preliminary observations need to be followed by a more prolonged study combined with a trapping programme to establish to what extent High Arctic waders are using these coasts, and if their occurrence is regular, or dictated by adverse weather conditions. Trapping would be particularly effective in Melrakkasletta where birds could be caught on the banks of tide wrack.

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