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Nederlandse Groenland Expeditie 1975

Preliminary Report on fieldwork

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Introduction.

The purpose of the Nederlandse Groenland Expeditie 1975 was the study of Long-tailed Skua (de Korte, see page 6) and several species of waders (Bosman, see page 4) in the Scoresbysund region (East Greenland). In addition to skua's and waders we studied breeding biology of geese in spring and growth and mortality of Arctic Tern chicks on Fame Øer in August. These studies were a continuation of previous work in the area (de Korte, 1973 and 1974). We choose another base than in 1973 and 1974 (Kap Stewart) and worked mainly near Kaerelv at the head of Hurry Inlet.

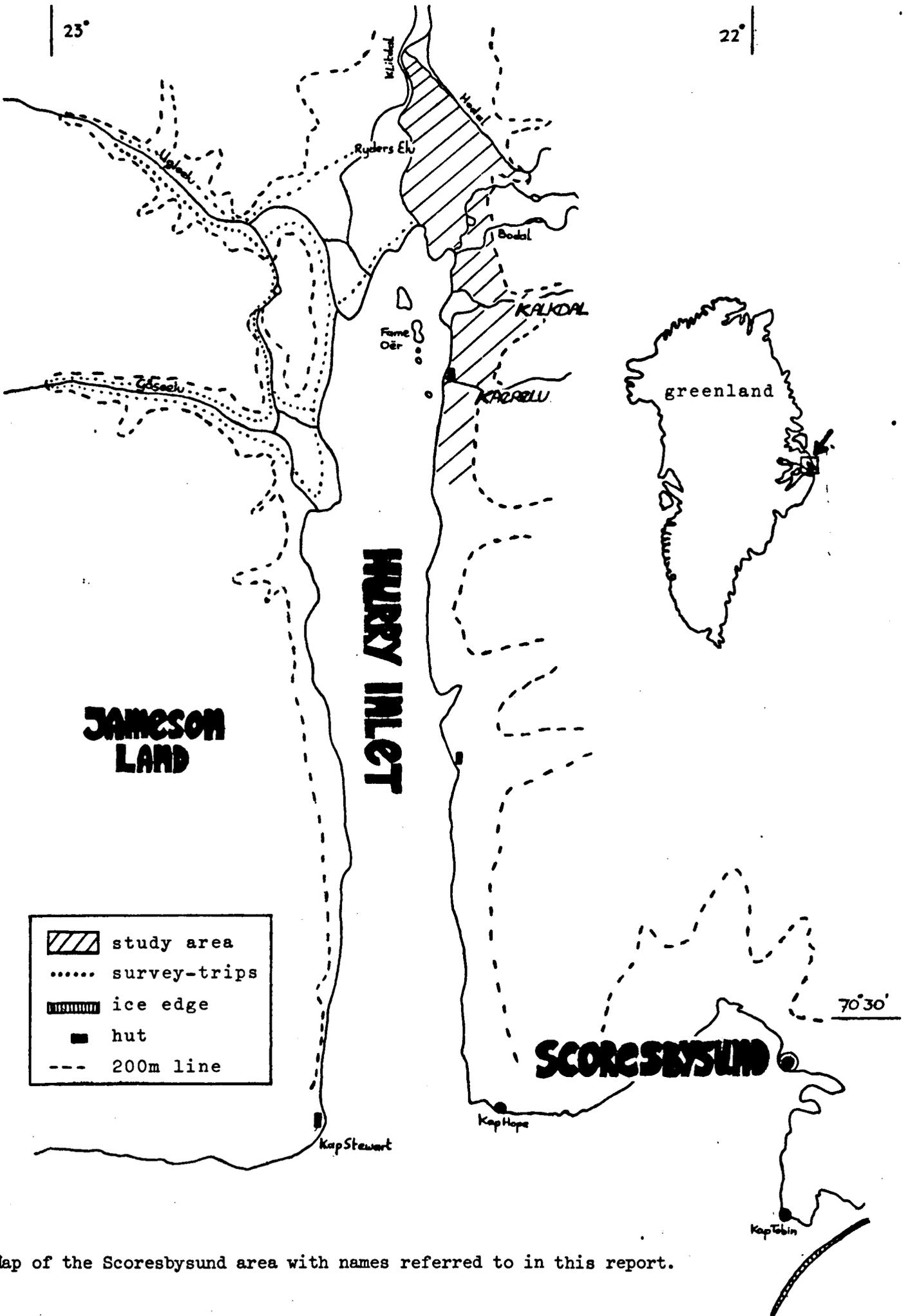
Forty eight bird specimens belonging to 12 species were collected and skinned. The stomach contents have been preserved in spirits for subsequent examination.

We ringed 64 waders, 34 Long-tailed Skua's and 24 Arctic Terns with Copenhagen rings.

Financially the expedition was made possible by grants from Nederlandse Organisatie voor Zuiver Wetenschappelijk Onderzoek (Z.W.O.), Biologisch Laboratorium der Vrije Universiteit in Amsterdam and Nederlandse Stichting voor Arctisch Natuurwetenschappelijk Onderzoek. Additional help was received from Instituut voor Taxonomische Zoologie van de Universiteit van Amsterdam.

Itinerary (see map).

The "Nederlandse Groenland Expeditie 1975" arrived in Scoresbysund on 11 May. On 14 May we left for Kaerelv by dog sledge. There we stayed from 16 May until 21 August. Upon arrival the area was snow-covered for about 90 per cent and the streams had not yet started to run. The melting of snow commenced in the third week of May but we could still make ski trips on land and on the sea-ice until



Map of the Scoresbysund area with names referred to in this report.

mid - June. Snow-cover in the Kaerelv area during May and June was much less than it had been near Kap Stewart in the same months of 1973 and 1974, Spring coming about two weeks earlier at Kaerelv. Under the influence of the relatively warm water of the rivers at the head of Hurry Inlet the sea-ice here started to disappear in the second week of June. Open water coming from the north reached the mouth of Kaerelv in the first week of July. So in July and August we could use our canoe for sailing along the coast and for visiting Fame Øer.

As later transport could not be arranged we had to leave our study area already on 21 August (10 days earlier than planned) and departed from Scoresbysund on 25 August by helicopter..

Bird species observed (sequence of species as in Salomon-  
sen, 1967).

1. Gavia stellata, Red-throated Diver.

Earliest observation 28 May on a thawing lake near Ryders Elv. Nests were found on 30 June and 3 July. In July and August we saw these birds foraging frequently at the head of Hurry Inlet.

2. Gavia immer, Great Northern Diver.

In July we saw these birds frequently on the lakes near Ryders Elv and occasionally on the fjord.

3. Fulmarus glacialis, Fulmar.

Occasionally near Fame Øer on windy days in summer

4. Clangula hyemalis, Long-tailed Duck.

Earliest observation on 28 May, a pair in a thawing lake near Bodal. In June these birds were extensively courting in the open water of the fjord. On 25 June and 5 July nests were found on the tundra. In the second half of July males were gathering in flocks on the sea at the head of the fjord.

5. Somateria mollissima, Common Eider.

Earliest observation on 9 June when we saw courting flocks in the first open water near the mouth of Ryders Elv. In July we found them breeding on Fame Øer. The first pulli

were seen on 30 July. The last chicks hatched on 18 August.

6. Somateria spectabilis, King Eider.

Earliest observation on 13 June, a pair in a lagoon near Gaaseelv. In August we saw we saw females with young on a lake near Ryders Elv and on the sea.

7. Mergus serrator, Red-breasted Merganser

From 24 June until 10 July some birds of this species were seen on the lakes near Bodal.

8. Anser fabalis brachyrhynchus, Pink-footed Goose.

Earliest observation 18 May near Kaerelv when these birds passed on their spring migration to the north. In the last week of May and in June we found a total of 30 nests, situated near Kalkdal, Bodal, Ryders Elv, at Constable Pynt, in Gaaseelv and in the delta of Ugleelv. At Constable Pynt they were not breeding on the sand dunes along the coast, where Pedersen (1930) found them numerous, but inland near lakes on the tundra. Also in 1974 (de Korte, 1974) we did not find nests in the dunes. Chicks hatched from 26 June until 9 July. In the last week of June and the first week of July daily flocks coming from the south flew north through Hurry Inlet and Klitdal. These geese probably came from Iceland (Salomonsen, 1967). From 17 until 25 July we did not see a single flying Pink-footed Goose as all of them were in moult.

9. Branta leucopsis, Barnacle Goose

Earliest observation 16 May at Constable Pynt when 5 of these birds flew into Gaaseelv. In the last week of May and the first week of June a total of 5 nests was found on Fame Øer. Moulting Barnacles were seen from 11 July until 4 August. From 12 until 25 July we did not see a single Barnacle Goose in flight.

10. Falco rusticolus, Gyrfalcon

Occasionally seen in June, July and August

11. Lagopus mutus, Ptarmigan.

In June occasionally seen east of Ryders Elv

12. Charadrius hiaticula, Ringed Plover

Earliest observation 24 May north of Bodal (5 birds). Five nests were found between Kaerelv and Hodal, but much more pairs were supposed to breed here. The first complete clutch was

found on 12 June. Chicks hatched from 4 to 16 July. Breeding success: of 5 nests 1 was destroyed before hatching (probably predated by an Arctic Fox). Of 16 eggs left, 15 hatched.

13. Pluvialis apricaria, Golden Plover

Seen on 25 May (1 pair) and 11 June (a single bird) on the tundra near Kaerelv.

14. Arenaria interpres, Turnstone.

Earliest observation on 23 May near Kaerelv (one bird). One complete clutch was found in Gaaseelv on 14 June. Eight nests were found between Kalkdal and Kaerelv. Chicks hatched from 30 June to 15 July. Breeding success: of 9 nests 1 was unknown and 5 were destroyed before hatching (probably by an Arctic Fox). Of 12 eggs left, 11 hatched.

15. Numenius phaeopus, Whimbrel.

A single bird was seen near Kaerelv on 12 and 22 June.

16. Calidris canutus, Knot.

Earliest observation 26 May north of Bodal (a single bird). Supposed breeding in the area north of Bodal. First flying juveniles of the year (2) seen on 22 July.

17. Calidris alpina, Dunlin.

Earliest observation 21 May north of Bodal (2 birds). We found 6 nests between Bodal and Kaerelv. First complete clutch found on 18 June. Chicks hatched from 4 to 14 July. Breeding success: of 6 nests, 3 were destroyed before hatching (probably by an Arctic Fox). Of 12 eggs left, 10 hatched. A Dunlin with a French ring was collected on 31 May.

18. Calidris alba, Sanderling.

Earliest observation 23 May north of Bodal (3 birds). A complete clutch was found in Gaaseelv on 14 June. Two nests were found between Kaerelv and Bodal. One nest was destroyed before hatching, in the other 3 of 4 eggs hatched on 4 July.

19. Phalaropus fulicarius, Grey Phalarope.

A female was seen on 6 July near Kaerelv.

20. Phalaropus lobatus, Red-necked Phalarope.

Earliest observation on 7 June north of Bodal (1 pair and 6 single birds). A complete clutch was found at Constable Pynt on 15 June. During summer we saw these birds occasionally

north of Bodal.

21. Stercorarius parasiticus, Arctic Skua.

Occasionally seen near Fame Øer in July.

22. Stercorarius longicaudus, Long-tailed Skua

Introduction.

When we started the Long-tailed Skua project in 1973, Kap Stewart in Jameson Land was chosen as a Study area (de Korte, 1973). Here we found breeding Long-tailed Skua's and lemmings, on which they fed, in June. During summer the lemmings disappeared and the skua's did not raise any young. In this season we colour ringed 4 pairs of these birds.

Returning to Kap Stewart in 1974 (de Korte, 1974) we did not see any lemming at all and the marked birds did not breed though they occupied territories during summer. That year we visited the Kaerelv area in late summer and noticed that the density of Long-tailed Skua's with territories was greater here than near Kap Stewart. So this seemed to be a better place to obtain positive data than Kap Stewart. The hut at Kaerelv moreover is situated much closer to the study area and the weather is more suitable as there is more sun-shine and less fog than at Kap Stewart. The disadvantage in choosing another study area is that results from one year and another are more difficult to compare. To mend this we originally planned a visit to Kap Stewart in spring or summer, but during our study at Kaerelv we considered it more useful to work the whole time in this area and we dropped the idea.

Methods.

Nests of breeding skua's are rather easy found as the birds are usually aggressive in defending the nest area. Breeding birds were trapped on the nests with a cage trap and a clap net or with a fleyg when they defended their young. They were ringed with metal and colour rings, making individual recognition in the field possible. Of each pair one of the birds was dyed yellow, making it easy to distinguish mates when studying breeding, foraging and territorial habits.

For study of chick growth, nests were enclosed with a wire fence of 30 cm high and 3 m in diameter. Food habits were studied from field observations, from regurgitated pellets of food remains in nest enclosures and from stomach contents of collected birds.

Arrival.

Earliest observation. 27 May on the tundra near Kaerelv. In the next few days Long-tailed Skua's occupied territories on the tundra and after a week, most birds that had territories during summer, had arrived. At the time of arrival the snow-cover was locally fifty per cent, but considerably more in other places.

Population numbers.

Fourteen pairs of Long-tailed Skua's bred in our study area (see map), not including 2 pairs found breeding in Gaaseelv on 15 June and 5 pairs in Ugleelv on 16 June. Eleven nests in our study area were located in June. Three pairs which bred in the northern part of our study area were not located until 15 July, when they had half-grown chicks. A total of 13½ breeding pairs was colour ringed and dyed. Two pairs which did not breed occupied territories between the breeders during the whole summer. The breeding density was 14 pairs on approximately 18 square kilometers.

Breeding success.

Breeding success in our study area was low. Of 11 clutches found 4 hatched (38 per cent hatching success based on number of eggs laid). Nest predation (probably by an Arctic Fox) destroyed 5 of 7 unsuccessful clutches. Two clutches were abandoned probably because of human disturbance after the adults had been trapped and ringed. Of the 7 pairs with chicks in the study area, probably none succeeded in raising them to the fledging stage. One brood of 2 chicks was kept in an enclosure and was found dead after some days. One brood of 1 chick was living 25 days in an enclosure before it was taken by an Arctic Fox. Of the 5 free living broods, which we more or less regularly could find in July, no flying juveniles were ever seen. The adults had already left their territories some time before the calculated fledging dates of their young. Causes of these chick mortality are as yet unknown.

Breeding cycle.

The Long-tailed Skua's arrived in the last week of May. Egg laying dates ranged from 6 to 19 June (calculated from hatching time and allowing for an incubation period of 24 days; Maher, 1970 and 1974). Of 18 clutches found 11 had 2 and 7

had 2 eggs. Of 3 broods found after hatching 2 had 1 and 1 had 2 chicks. The nests in territories bordering the coast had 2 eggs. The inland nests had 1 egg.

After breeding the Long-tailed Skua's started to gather in flocks in the last week of July and left the area in the course of August.

#### Growth of young.

Two nests, one with 2 eggs and one with 1 egg were fenced for study of chick growth and food habits. A free living chick of a clutch of 1 egg could also be followed daily because it was usually easy to find. Both chicks of the twin were dead on the same day, when they were respectively two and one day old. The fenced single chick lived 25 days before it was taken by an Arctic Fox. From this chick and from the free living one (which also had disappeared after 25 days) weight and measurement data were obtained daily. The fenced chick grew faster than the free living one. After 25 days weight of fenced chick 238 g, wing 210 mm; weight of free chick 196 g, wing 197 mm. Both chicks stagnated in gaining weight after 15 days.

#### Food.

From stomach contents of collected specimens, from pellets found in the enclosure, from hide observations when the chick was fed and from observations of foraging adults we concluded that the food was very mixed. In June it was berries left from last year, some lemmings, fish and at the end of the month caterpillars. In July it was caterpillars, flying insects, new unripe berries, young Snow Buntings and lemmings. Lemmings were generally scarce. During 3 months we saw only 2, though we both were daily in the field for 10 hours or more. Compared with the density of snow nests we saw in 1973 at Kap Stewart there were only few of these nests near Kaerelv. We have the impression that the lemming population was rapidly declining in the spring of 1973, that 1974 was a lemming minimum and that the population was rising again in 1975.

#### 23. Larus hyperboreus, Glaucous Gull.

Seen daily along the coast of Hurry Inlet. A pair was holding a territory on Fame at the same place where we found them with young in 1973 and 1974. But they did not breed there this year.

24. Larus ridibundus, Black-headed Gull.

One adult on 22 July near Kalkdal and 2 adults on 24 July near Kaerelv.

25. Sterna paradisaea, Arctic Tern.

Earliest observation 5 June, when 3 were foraging in open water near the mouth of Ryders Elv. From 11 June they were seen above the 2 southernmost Fame Øer where they breed in summer. We started to visit these colonies from 14 July until 21 August. On the southernmost island (25 nests containing 33 eggs) chicks hatched from 27 July until 11 August. On the next southernmost island (54 nests containing 97 eggs) chicks hatched from 23 July until 8 August. Clutch size was 1 or 2. Before hatching we put fences around the nests in the southern colony and followed with growth and mortality of the young until 21 August, when we had to leave this place.

26. Plotus alle, Little Auk.

Occasionally seen near Fame Øer in August

27. Cephus grylle, Black Guillemot.

Occasionally seen near Fame Øer in July and August

28. Corvus corax, Raven.

Seen at most of the places we visited from the day of our arrival until we left.

29. Oenanthe oenanthe, Wheatear

A dead male was found at Kap Hope on 13 May. Pairs were observed on 19 May. In the last week of June we saw them bringing food to their young.

30. Carduelis hornemanni, Hornemann's Redpoll.

Two were seen on 20 May at Fame Øer when they were flying to the north.

31. Plectrophenax nivalis Snow Bunting.

We saw mixed groups of males and females from the day of our arrival. In the last week of June we found eggs and in the second week of July, fledged young were seen.

References.

Korte , J. de

1973 Nederlandse Groenland Expeditie Scoresbysund-1973  
Preliminary Avifaunistical Report. - Type written  
1 - 10

1974 Nederlandse Groenland Expeditie Scoresbysund-1974  
Preliminary Report on Fieldwork. - Type written:  
1 - 8

Maher, J.W.

1970 Ecology of the Long-Tailed Jaeger at Lake Hazen,  
Ellesmere Island. - Arctic 23 (2): 112 - 129

1974 Ecology of Pomarine, Parasitic and Long-Tailed  
Jaegers in Northern Alaska. - Pacific Coast Avi-  
fauna 37: 1 - 147

Pedersen, A.

1930 Die Säugetiere und Vogelfauna der Ostküste Grøn-  
lands. - Meddelelser om Grønland 77 (5): 341-508

Salomonsen, F.

1967 Fuglene på Grønland: 1 - 340 (Rhodos, København).

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