

Kjell Mork, Rune L. Holstad, Ståle Sætre & Alexey Kalinin

Ornithological registrations in the Uboynaya area

NW-Taymyr, July 1994. Working report



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The Seabird Expert Group – Report no. 11:1994**



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UBOYNAYA AREA, NW-TAYMYR, JULY 1994**

Working Report

NORSK ORNITOLOGISK FORENING (NOF)
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PREFACE

This joint venture was part of the «Joint Norwegian-Russian Commission on Environmental Cooperation». As a link in this agreement, Bjørn Frantzen initiated a collaboration project, which aimed to uncover the breeding grounds and describe general breeding and feeding biology of the Steller's Eider. The project is part of the strategy and working plan for the Norwegian-Russian seabird expert group. The project was entirely financed by the Directorate for Nature Management (DN).

The participants of the field work were the russian biologist Alexey Kalinin from Moscow, Kjell Mork (NOF), Rune L. Holstad (NOF) and Ståle Sætre (NOF). Kjell Mork undertook the leadership when Bjørn Frantzen withdrew at 1st of May 1994.

Several persons have contributed to the realisation of the project. We are indebted to Georg Bangjord and Rune Korshavn for cooperation during the field work, and to Alv Ottar Folkestad for comments on previous versions on this report. Finally we address special thanks to Geoffrey Acklam for improving the english.

Hareid, November 1994

Kjell Mork

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ABSTRACT

This report describes the results, mostly ornithological registrations, in the area of Uboynaya (73°38'N 82°00'E) NW-Taymyr, 02.07-17.07.1994. 3 Norwegians and 1 Russian were the participants of the expedition.

The main objective of the expedition was to identify breeding grounds for Steller's Eider (*Polysticta stelleri*). It soon became evident, however, that only a few Steller's Eider were nesting in this area, and only one nest was found. The incubating female was caught at the nest and ringed. Biometry of the eggs and the bird are given, and the surroundings of the nest are described.

Also described are other findings of Steller's Eider nests in NW-Taymyr in the year 1994 made by other ornithologists: 2 nests were found in Medusa (south of Dickson), 10 nests by Lydia/Pyasina mouth and 3 at Sterlegova.

Thus a total of 16 Steller's Eider nests has been found in NW-Taymyr in 1994. In addition observations may indicate that at least 3 females were off the nest during an incubation recess.

Totally 43 bird species were observed by the field team, and further 3 species observed by the trapper Mishail Degtirev are added and described in this report. We are of the opinion that the Brent Geese (*Branta bernicla bernicla*) on the mainland prefer to breed close to the Snowy Owl (*Nyctea scandiaca*) probably as protection against the Arctic Fox. There were 20 pairs of Snowy Owl breeding in the area. 11 of the nests were visited. Brent Geese were breeding by 4 of them. When Brent Geese were found breeding close to the Snowy Owls, the Snowy Owl's nests were placed not far from small rivers with flat, green and water-saturated ground.

Without special effort 20 nests of Rough-legged Buzzard were located. One of the nests was found on flat, brown tundra 300 metres away from a Snowy Owl's nest. Some Ringed Plovers (*Charadrius hiaticula*) and Turnstones (*Arenaria interpres*) were also found breeding close to Snowy Owls, which evidently serves as protection against predators. Evidently the Snowy Owl is dominant over the Arctic Fox.

In the steep river sides in the river Uboynaya, 3 colonies of Herring Gulls (*Larus argentatus*) were found (11-15 km from the coast), with a total of about 220 pairs.

Circumstances around observations are described. Noteworthy are the observations of among others Willow Grouse (*Lagopus lagopus*) and House Sparrow (*Passer domesticus*). An eastward migration of White-fronted Goose (*Anser albifrons*) was observed throughout the field period. A westward migration of Brent Goose, Long-tailed Duck (*Clangula hyemalis*) and Steller's Eider was also observed.

A total of 131 birds were ringed. 6 species of mammals were found.

1. INTRODUCTION

The Steller's Eider breeds along the coast of Alaska and the eastern parts of Siberia, as far west as the Taimyr peninsula. Some few breeding records exist from the European part of Russia. Small flocks of non-breeding birds are found, however along the western coast of Novaya Zemlya during summer (Frantzen and Henriksen 1992, Strøm et al. 1994).

The European population of Steller's Eider (*Polystica stelleri*) is at present estimated to approx. 20 000 birds. The majority of these are wintering in the Varanger fjord in Finnmark. The Steller's Eider is regarded as a species for which Norway has a special management responsibility, and is listed in the Norwegian Red Data List of endangered bird species in 1992 (Størkersen 1992). In the central wintering grounds near the Bering strait, there has been a severe decline in the wintering population, which means that the European wintering grounds are of increasing importance.

The breeding grounds for the Varanger fjord wintering population is yet unknown. However, field surveys in the western Taymyr during the establishment of the Great Arctic Reserve, has uncovered the fact that the Steller's Eider is a common breeding bird in the coastal zone.

During the last decade, censuses of wintering marine ducks in the Varanger fjord has been undertaken, and in March 1994 an aerial survey from Vardø northeast towards the ice edge off the coast of the Kola peninsula in order to achieve population estimates for the common Russian/Norwegian Steller's Eider population. These counts revealed approx. 15000 birds around the Kola peninsula (T. Nygård pers. comm.). Whereas the population in the Bering strait is steadily decreasing, the European wintering population is stable or even increasing. The moult occurs one month earlier in Varanger fjord than in Alaska. Thus the European wintering population is probably separated from the Bering Strait wintering population.

On this background the Norwegian Ornithological Society (NOF) initiated a joint Russian/Norwegian project to be carried out on the breeding grounds for Steller's Eider.

The aims of the project were to:

- ★ localize the breeding grounds for Steller's Eider
- ★ describe the breeding biology of the species
- ★ uncover dietary preferences
- ★ carry out general fauna registrations

The expedition started on June 29th by plane from Oslo. We flew to St. Petersburg, where we spent the night, then we went on to Dickson via Naryan-Mar. July 2nd in the afternoon we finally landed in Dickson.

A few hours after the plane had landed in Dickson, a helicopter transported us to our planned base 62 kilometres further east, to the cottage of a trapper (73°38'N - 80°20'E).

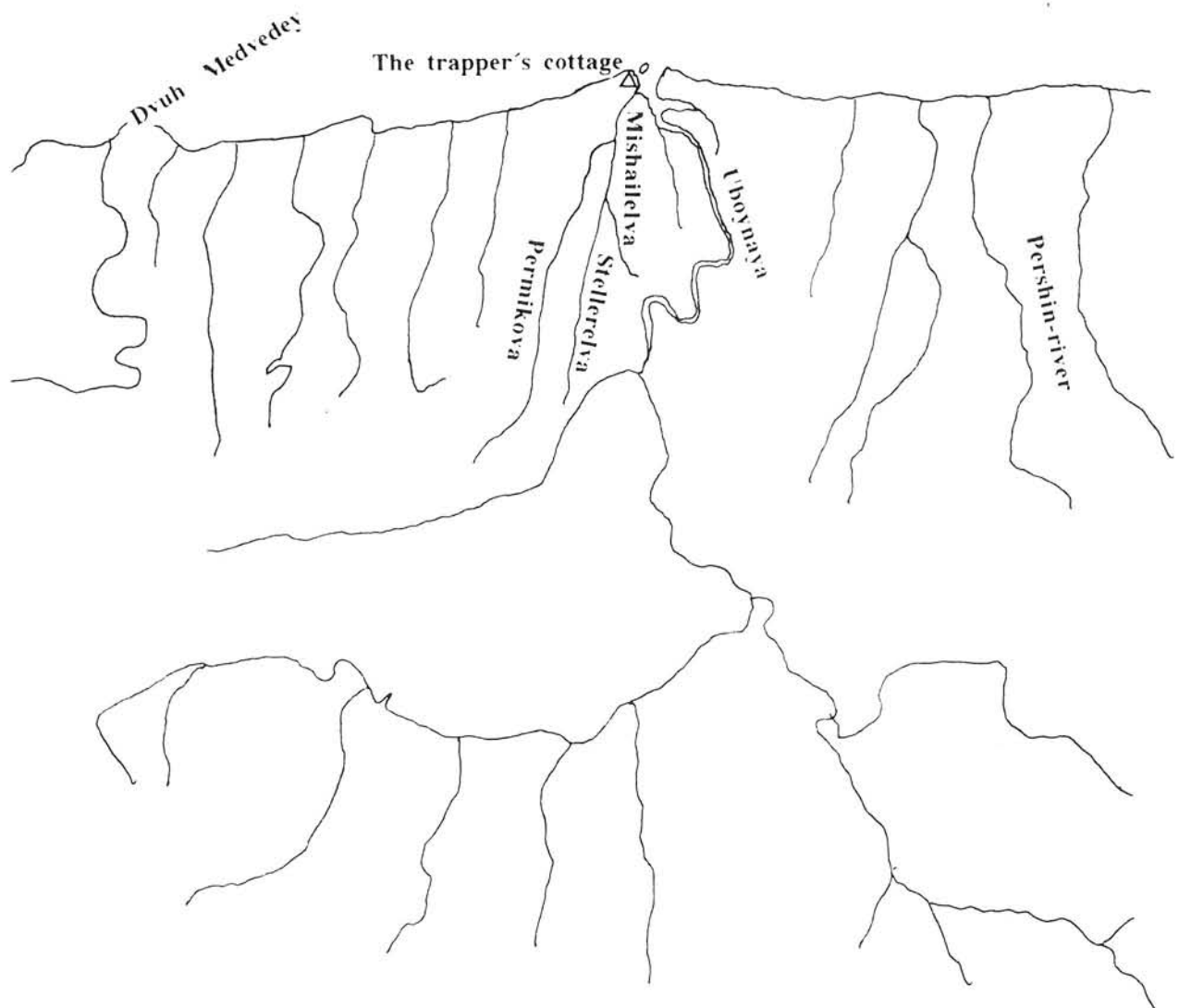
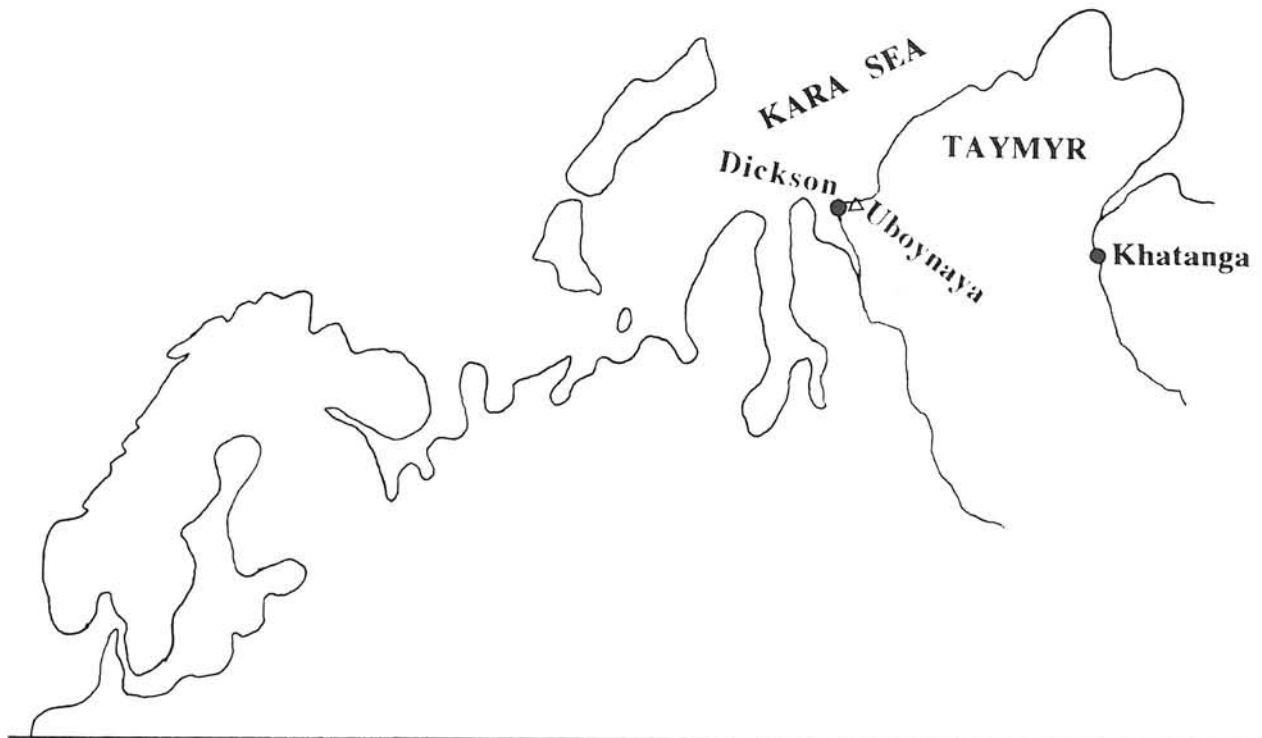


In front of the trapper's cottage the day before departure. In front from left: Alexey Kalinin, Rune L. Holstad, Kjell Mork and Ståle Sætre. In the middle from left: The trapper Mishail Degtirev and Dmitrey Vasilievich. In the doorway Degtirev's wife. Photo: Rune L. Holstad.

2. THE STUDY AREA

The trapper's cottage was situated only 15 metres from the shore of the Kara Sea, and was built about 50 years ago. The cottage had lattice windows to prevent polar bears from breaking in. Not far from the cottage (approx. 200 metres) lay the remnants of the cottage where Fridtjof Nansen spent the winter about a hundred years ago. On the other side of the «Mishail water-courses», on a hill, there was another trapper's cottage. This one was not inhabited, but was built by a Norwegian at the turn of the century. Thus, Norwegians have a long tradition of working in this area. There were lots of timber around the cottage, which originates from the river Yenisei, whose estuary is 200 kilometres south of Dickson.

Around the trapper's cottage (20 km to the west and 10 km to the east) the Kara Sea and the tundra met in two kinds of transition: in some places the tundra could be situated 10-30 metres above sea level. In such places there were fairly steep slopes with little or no timber. Where the transition zone between the tundra and the sea was small, there could be flat areas with lots of timber. There were polygonal tundra everywhere. The small and clayey polygons become visible as the snow melts and the permafrost surface appears to be boiling. In winter the water which has penetrated the ground before the frost, freezes, expands and more clay is pressed up to the surface. It has been said that the vegetation around these polygons does not



“The Mishail water-courses” = Permikova, “Stellerelva” and “Mishailelva”.

grow until about a hundred years after the polygon popped up. However, around each polygon the vegetation was as rich as in other parts of the tundra.

«*The Mishail water-courses*»: Not far from the base was a river which ended up in the sea, which we named «Mishailrelva». The first side river, which came from the west already had a name: Permikova. The other side-river we called «Stellerrelva», because we found hatching Steller's Eider there (see map).

In the dry parts of the tundra the following plants were represented: Various species of lichen, moss, low grass and flowering plants, such as mountains avens (*Dryas octopetala*), a bittercress species (*Cardamine nymanii*), a lousewort (*Pedicularis oederi*) and an arctic buttercup (*Ranunculus sulphureus*). About 15-20 different species of flowers were found and many of these were yellow. In addition, the creeping species of *Salix* grew everywhere. The dry parts of the tundra were riddled with the holes of lemmings. The source of the numerous small and big rivers was flat water-saturated grounds where there was a damp carpet of green grass. Along many rivers these wet «fields» were several kilometres long, and varied from ten metres to several hundred metres wide. After having seen these flat, green and water-saturated grounds, we can easily understand why there is such an enormous population of geese. The ground evidently stored water for all the rivers which flow into the Kara Sea, and they are essential to the numerous birds living in or by these oases.



Drift timber was lying all over along the coast. Places like this offered good breeding conditions for the Snow Bunting. Photo: Ståle Sætre.



Marks by the caterpillar trucks last for decades in the fragile tundra surface. Photo: Rune L. Holstad.



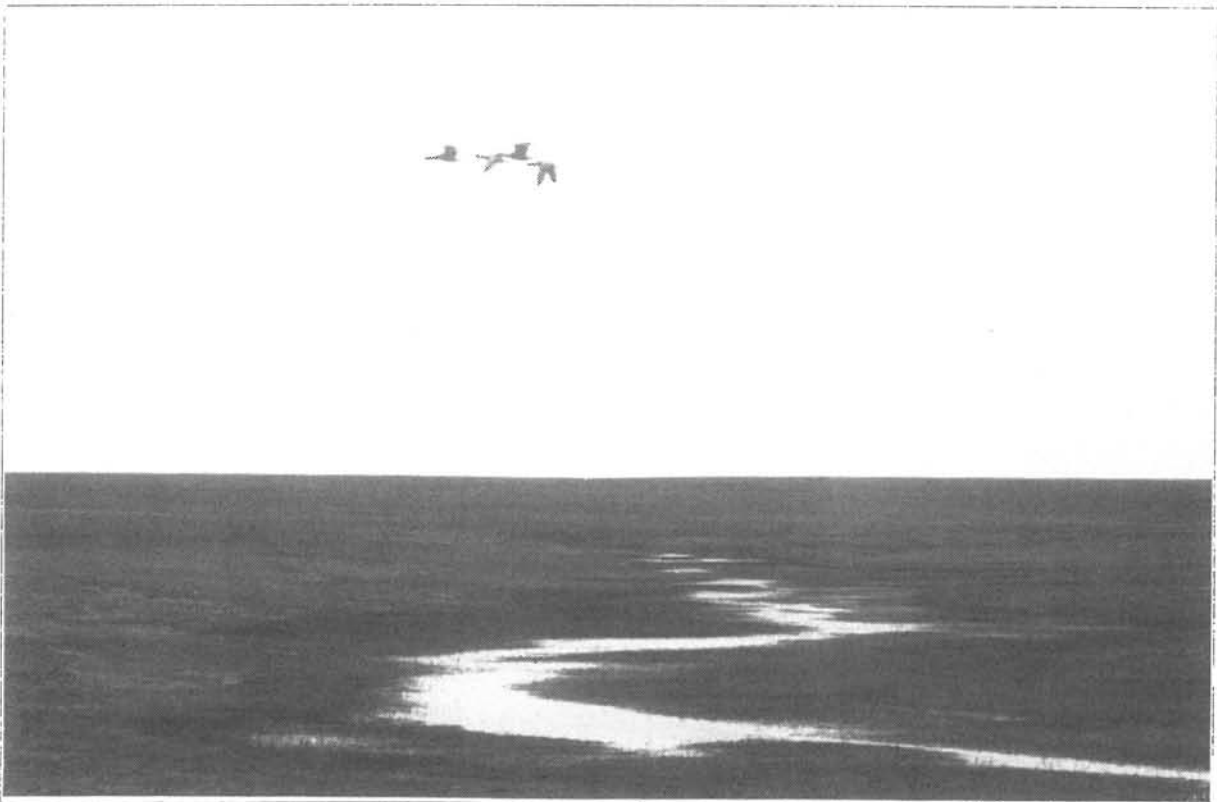
Beyond the snow we can dimly see a hunter's hut built by a Norwegian at the turn of the century. Behind the headland is the mouth of Uboynaya. At this side, close to the headland, is the mouth of «Mishailelva». Photo: Ståle Sætre.

3. METHODS

We used the trapper's cottage as a base for our work. Carrying a tent, we spent from one to four days at a time out on the tundra. Because we used the cottage as a base, we did not have to carry too much equipment. When we returned to the cottage, we spent the night there and then usually went out on the tundra again the next day.

Our maps were unsatisfactory. What we were looking for — e.g. flat, green watersaturated grounds and small lakes — were seldom to be found on the maps. After some days we gave up using them, and only used a compass. During these days on the Taymyr we walked approx. 300-400 kilometres.

The day temperatures varied from +26°C, with southern winds, to -3°C. Usually the day temperatures varied from +3 to +5°C. An icy, strong, northern wind frequently blew over the tundra. Thus, the effective temperature was below zero.



On the water-saturated grounds the geese were foraging. Photo: Ståle Sætre.



We often spent the night on the tundra. This time on the river side of Uboynaya. Photo: Rune L. Holstad.

4. STELLER'S EIDER

We spent a lot of time in the field (up to 16 hours field work a day), and it soon became evident that only a few Steller's Eider were nesting in this area. The first days after our arrival we spent a lot of time along the coast. Rivers that looked interesting were followed from the sea and upwards.

The first Steller's Eiders we saw were discovered at the mouth of the «Mishail watercourses» on 04.07 at 0040 hrs. There were two pairs which were foraging a little, but they seemed more interested in loafing. This suggested to us that they were on migration, but we do not know if this is correct. The next morning they were gone. The next observation was at the same place on 06.07 at 1900 hrs. This was a single male which mostly resting on the shore.

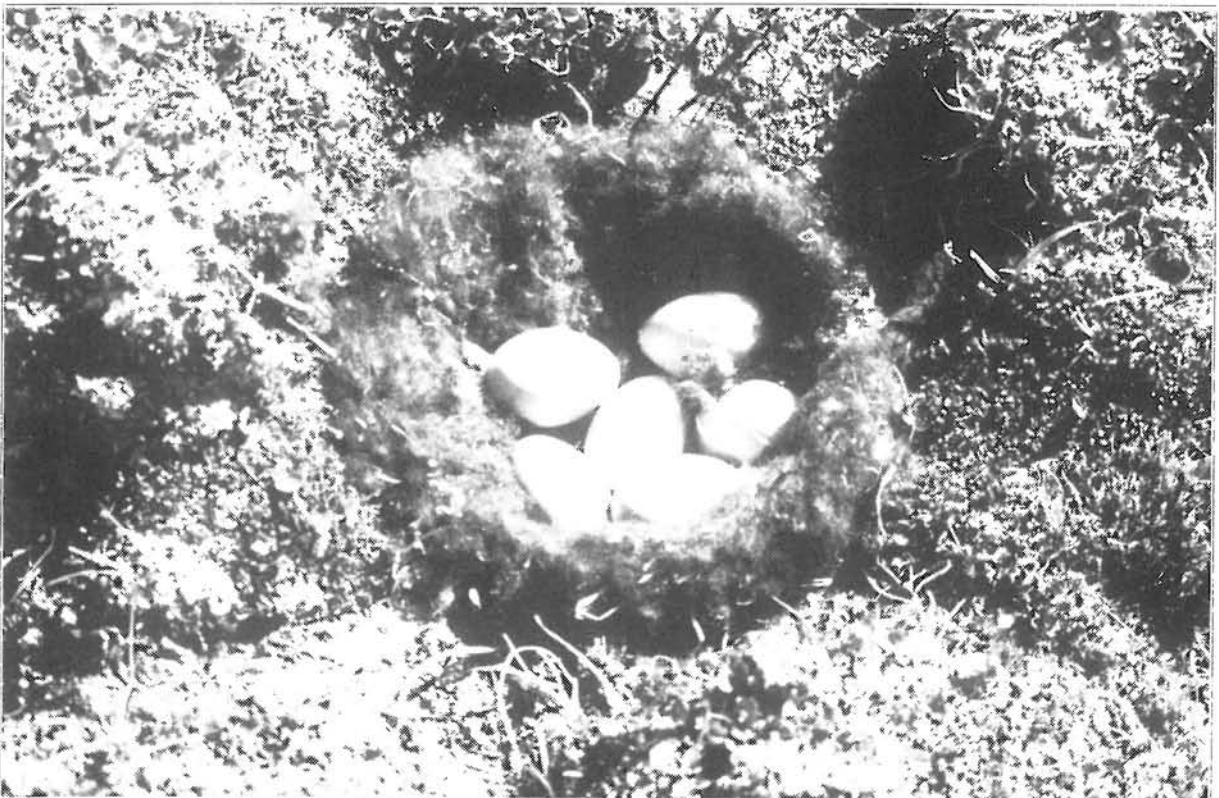
For four days, 07-10.07, we examined the east side of the river Uboynaya. We were brought across the river by boat by our host at the base, and brought tent and other equipment which was needed for our stay on the tundra in that period. The first day we went along the coast eastwards to the Pershin river, about 10 km east of Uboynaya. By the Pershin river two males and one female were seen. It seemed as if the males pursued the female. At any rate they flew out over the ice until they disappeared.

09.07.: At a tarn east of Uboynaya, about 15 km from the coast, one pair was observed foraging. We had planned to visit this area later, but because we were dependent on transport across Uboynaya, it was not possible to carry this out. We assumed that the ducks were breeding near this pond.

10.07: 2-3 km east of Uboynaya, and about 10 km from the coast, we followed a small river rich in vegetation. This river runs through a green, water-saturated field. Two males came flying along this quiet-flowing river and landed in a little pond made by the river. When we returned to this place after three hours, they were still there. They disappeared eastwards, where they had come from. The birds flew along the river course.

11.07: A male was foraging in a pond which was formed by ebb-tide at the base 2355 hrs. It moved its beak along the surface and obviously filtered a kind of nutritive matter.

The «Mishail water-courses» which at the mouth consists of one river, divides into three rivers further upstream. On 12.07 we followed the river in the middle. About 5-6 km from the coast two males and one female were lying in a rushy pond. In order not to flush them, we avoided going too close. Thereby we accidentally found a Steller's Eider nest with six eggs. The down was unexpectedly dark, being brownish black. The eggs measured 61.5x38.8, 60.0x39.0, 62.2x38.5, 61.9x39.6, 61.5x39.5 and 62.0x40.1 mm. It was impossible to weigh the eggs, because of strong wind. The bird weighed 680 gram. The wing was 210 mm. The beak from the feather-edge was 37 mm, from the nostrils 24 mm. We carried out a water test on one of the eggs, and it had been incubated for 7-8 days. If one assumes that the Eider has laid her eggs at a little more than 24 hour intervals, egg laying started about the 28.06. at the



The only Steller's Eider nest we found. Photo: Ståle Sætre.



Taking biometric measurements of the Steller's Eider. Photo: Ståle Sætre.

earliest. After having ringed the female, we let her go, and she flew down to the river. After 15 minutes she returned to the nest. Two days later we checked the nest from some distance, and the bird was still incubating.

Description of the locality: The nest was situated 85 metres from the river, which was very quiet-flowing and formed a kind of long lake/pond (ca. 15 m wide) which was overgrown with grass and moss on the bottom. At the deepest the pond was about 30 cm. There were some open parts, and good possibilities for hiding. The nest was situated on the natural dry, brown tundra, and close to the nest, the ground looked tussocky. On one of the sides it was only four metres to green water-saturated ground.

The next day we drew a rope between us and examined the tundra for more nests outside the wet fields at the «Stellerelva» about 5 km at 60-80 metres width on both sides of the river. However this attempt was not successful.

13.07: When at noon we returned to the trapper's cottage after having spent one night on the tundra, 7 males and 2 females were foraging on the shallow beach. This was done in a special way: With half a metre's distance they were going side by side sweeping their heads backwards and forwards with their beaks on the surface. We had earlier seen a lot of fish-fry less than 1 cm in this area, and we can imagine that they co-operated in catching these.

15.07: A foraging male was seen offshore from the «Mishail water-courses».



We caught the Steller's Eider using a wide-meshed mist net which we laid over the breeding bird. Here the duck is taken out of the net. The nest is situated in front of the man squatting. It was situated on dry, brown tundra with many hillocks. Only 4 metres away from the nest is a large water-saturated «field». Photo: Ståle Sætre.

16.07: At 1815 hrs a female was resting on the Permikova river, which is the first side river to the «Mishail water-courses». This was about 7 km from the coast. Just at this spot the bottom was covered with pebbles. She then flew 50 metres and landed in a wider part of the river, where the bottom was partly rocky and partly covered with sand. The bird dived several times and foraged like a dabbling duck where it was shallow. At 1840 hrs she went ashore and after about five minutes she flew directly in to the tundra in SSW direction. After flying one km we lost sight of her when she disappeared behind a ridge. Where she flew there was first a rushy watercourse, and further inwards there were more side-valleys of the same kind. This is most probably an indication of nesting. Unfortunately we were leaving the day after, so there was no chance to look for the nest.

16.07: A westward migration along the coast of Steller's Eider was discovered just after midnight. The fog was thick, and the sight was therefore poor. Within one hour three flocks passed, each of them consisting of four males. During the same day we were on the tundra, but in the evening and the following night, until 0330 hrs, we saw the following Steller's Eider in flight, all of them towards west (also this night the conditions for observing were bad because of the fog): At 2200 hours: 7 birds, of these at least 4 were males in breeding plumage. At 2315 hours a flock of 5 (3 males and 2 females). At 0230: Two flocks. One consisted of 15-20 birds and the other of about 30. Probably only males in both groups. At 0255 (17.07): 13 individuals (11 males and 2 females). At 0305: 7 birds, about 3 of them were females. The observations were ended at 0330.

After a few hours sleep we had to pack for departure in the afternoon. After 11 o'clock on the 17.07 we spent some free time looking for migrating Steller's Eider. Three flocks were observed in flight westwards along the coast: At 1220h: 16 (12 males and 4 females). At 1230h 3 males, and 1330h 6 males.

4.1 Conclusion

We were not in the right area for Steller's Eider, thus we have a minimum of breeding records. The only indication of breeding we have is one nest, and one observation of a female during her incubation recess. The female observed together with two males near the nest of the Steller's Eider, can also indicate nesting (incubation recess?). The same can be said about the pair in the tarn on the east side of Uboynaya. The female that was pursued by two males by the Pershin-river may also indicate nesting. She had possibly been off the nest in her incubation recess. The two single males seen on the tundra far away from the coast can perhaps also indicate nesting. From our observations there should have been between 2 and 7 nests in the area we surveyed.

5. OBSERVATIONS AND NESTING-RECORDS OF STELLER'S EIDERS BY OTHER ORNITHOLOGISTS IN 1994

5.1 Medusa (south of Dickson):

A Russian ornithologist, Andrej E. Volkov, told us that he had found two nests near Medusa, which is situated south of Dickson. The nests were lying about 20 metres apart. One contained 6 eggs, the contents of the other one is unknown. In the area there were small pools. It can be added that a foraging flock of 3 males and 4 females was seen on the sea at Dickson Island 18.07, by the Steller's Eider Team and the Ivory Gull Team.

5.2 Lydia/Pyasina mouth (74°00'N - 87°00'E):

Igor Travinski had during three days found 10 Steller's Eider nests near the Dutch research station for Brent Geese on Lydia. He kindly gave us the information we asked for regarding his experience with Steller's Eiders. His method was to observe foraging females, and he had found most nests in that way. After foraging, the bird left the pasture area and usually landed three to five metres from the nest. The nests were placed on dry, brown tundra, maximum 300 metres from the rivers. Usually the birds were foraging 300-400 metres from the nest, but could sometimes be considerably further away. After a short time, 1-2 minutes, she went to the nest, after having preened. He considered the bird to be foraging 5-6 times a day/night,

and spent 20-30 minutes every time. She foraged at the same place every time. There was no difference in foraging in daytime and night. The contents of this nests was:

1 nest with 5 eggs (found 14.07. The clutch was possibly not fully laid).

4 nests with 6 eggs.

4 nests with 7 eggs.

1 nest with 8 eggs.

In addition there were two nests that he failed to find.

Igor Travinski's experiences can be summarized as follows: Out of the 10 nests he found, 6 were fairly close to each other, almost like a «colony» in an area of 500x300 metres. This «colony» was situated only 500 metres from the Dutch research station. The nests that were closest to each other were only 25 metres apart. The two nests he failed to find were lying outside this area. About 2.5 km from the «colony» two other nests were found, and further 2.5 km away there were two more. At Jura, on the other side of the 5 km wide river Lydia, it was said that the Steller's Eider was very common.

The preferred biotopes of the Steller's Eider were water-saturated areas with small rivers rich in vegetation and with dry tundra nearby. Igor Travinski told us that the colour of the eggs varied between the clutches. Some clutches were greenish, others mostly brownish. An intermediate greenish brown colour was also found.

Observations made by Dutch ornithologists who stayed at Lydia:

21.06	The first migration of Steller's Eider observed.
25.06	The first observation of pairs in the rivers (2 pairs).
26.06-01.07	3 pairs.
09.07	At first 3 males observed, later 5 males and 2 females (incubation recess?) were seen.
	From 15.07. no males were seen in rivers.
11.07	The first nest was found, with 6 eggs.
15.07	Two nests were found, with 6 and 7 eggs respectively.
17.07	The fourth nest was found, with the bird incubating.
	These nests were probably also found by Igor Travinski.

Obviously the Steller's Eider starts nesting soon after arrival. The Steller's Eider arrived later than most of the geese. The Dutch also informed us that the waders and the arrival of the geese was delayed by one week in 1994.

5.3 Sterlegova (75°30'N - 89°00'E)

Dutch Knot-research station. Information from Hans Dekkers (Holland):

24.06	3 pairs arrived. (One of his colleagues had seen the species the previous day).
25.06	18 individuals on migration towards NE:
	In the rest of June 2-3 pairs were seen daily.
02.07	4 males and 1 female.
04.07	2 males.

07.07	1 male.
10.07	1 female.
13.07	One nest found with 8 eggs.
16.07	One nest with 9 eggs. Predated the same night by Arctic Fox.

A total of 3 nests were found. The third was not examined but was observed from a distance, because it was discovered that the fox obviously learned to follow the traces of the ornithologists and in that way sniffed its way to the nests. At Sterlegova the Steller's Eider nests were situated on dry tundra 200-300 metres from a small river. The birds were foraging on green, water-saturated ground, that was covered with a few cm of water.

Postscript: H. Rogacheva (1992) and P. Yesou/H.G.Lappo (1992) believe that the Steller's Eider nests locally in the northwestern part of Taymyr. Breeding records and observations made in 1994 seem to show that in several places the Steller's Eider breeds more commonly than expected: In four different localities there was found a total of 16 nests. In addition 3 females were seen during recesses in incubation. A few other observations can also indicate nesting. The westward migration along the coast in the middle of July may indicate that the birds from NW-Taymyr migrate westwards. Rogacheva (1992) mentions that a Steller's Eider ringed on wintering grounds near the Alaskan shore has recently been found near Khatanga (72.00'N - 102.30 'E), NE-Taymyr. Further research will be able to show if Taymyr is the dividing point of migration.

6. OBSERVATIONS OF MAMMALS

All the time we stayed on the Taymyr, the Kara Sea was covered with ice-floes. Far away on the ice we saw many dark spots, which turned out to be seals. Probably most of these were **Ringed Seal**, *Pusa hispida*. At any rate the seals we approached were Ringed Seals. This species is hunted by trappers who use the meat as bait for the Arctic Fox. The trapper we lived with, however, used fish-waste from the fish «aamol» as bait. He kept the waste in barrels and stored it until the outset of the hunting season. But some places the Ringed Seal population has been seriously reduced by hunters who needed bait for trapping Arctic Fox.

Arctic Fox, *Alopex lagopus*. Dens of Arctic Foxes were often easy to find because it was different from the surroundings as to colour. A green hill on the brown tundra was nearly always an Arctic Fox's den. The reason why these den areas seemed green and luxuriant was good fertilizing by excrements and remnants of prey animals. We found three inhabited dens where the cubs sat barking at us until we came too close. Then they disappeared into the den and we just heard the sounds of their noisy movements. One of the litters consisted of at least 10 cubs.

Stoat, *Mustela erminea*: Only one was observed in a deserted hunter's cottage some hundred metres from the base (in the «Norwegian cottage»).

Reindeer, *Rangifer tarandus*: A big buck was observed close to the base on July 12th. According to Mishail Degtirev they expected a lot of reindeer to arrive in the Uboynaya area in August.

In spring a great many lemming nests were taken by flooding rivers. Much of the grass was washed away to the Kara Sea. Often the rest was lying on green, water-saturated areas along the rivers, and showed how the level of the river had been.

Photo: Ståle Sætre.



Siberian Lemming, *Lemmus sibiricus*, and **Arctic Lemming**, *Discrotonyx torquatus*. The Siberian Lemming was clearly the commonest, and the only one we observed alive on the tundra where it disappeared in a hurry. As prey at the Snowy Owl's nests these species dominated (cf. Snowy Owl). In winter when the ground is frozen and covered with snow, the lemmings evidently also live on the flat, water-saturated grounds. But in summer when the crust of frozen earth is gone, the living conditions of the small rodents deteriorate. The lemmings had scarcely made holes in the water-saturated «fields».

When the ground was frozen, the lemmings simply made nests and tunnels in the snow above the ice, using dead grass from the wet fields, but in summer the ground was too wet for them to live there. During the snow-melt the lemmings nests were swept away by the flooding rivers, so that along the Kara Sea we could see where the river outlets were from a considerable distance, because the ice around outlets was covered with heaps of grass.

7. BIRD RECORDS

Red-throated Diver, *Gavia stellata*: By the mouth of the river Uboynaya a maximum of 10 individuals were observed at sea. Unidentified *Gavia sp.* were often seen flying past. On the tundra, about 7 kilometres from the Kara Sea, one nest with one egg was found by a tarn at «Stellerelva». The breeding bird was very shy. It left the nest when we were more than 300 metres away.

Black-throated Diver, *Gavia arctica*: Not as common as the Red-throated Diver. We observed the species only once in fresh water, in the river Uboynaya, about 3-4 kilometres from the Kara Sea, 14.07.

White-billed Diver, *Gavia adamsii*: This species is included in the RSFSR Red Data Book. Only one individual was observed at sea near our base, 16.07, at 2320 hrs., probably during a pause in incubation. After the pause, which lasted for about 35 minutes, the bird flew towards the tundra in the direction SSW. The White-billed Diver breeds near big lakes (H. Rogasheva 1992). When looking at the faulty maps, there may be a lake on the tundra, about 3 km long, 20 kilometres from the Kara Sea, in the same direction as the bird flew. The poor maps could not help us in finding the most likely breeding area.

Bean Goose, *Anser fabalis rossicus*: 3 individuals, moulting, were observed in the river Uboynaya, ca. 11 kilometres from the sea. Date: 08.07.

White-fronted Goose, *Anser albifrons*: The most common goose. Small, roaming flocks were often seen. By the river Uboynaya 3 nests containing eggs were found (4-4-6 eggs) in the period 03.07 - 15.07. The first brood was seen at the mouth of Uboynaya 14.07. In that case there were 3 adults and 4 pulli 2-3 days old. In the «Mishail water-courses» 1 pair with 1 pullus was seen 16.07. The same day at least 2 anxious pairs were observed in the same area. No doubt they had eggs or chicks in the vicinity. A heavy migration towards the east, mostly along the coast, was observed all the time (03.07.- 17.07.). Totally more than 536 birds flew in that direction. The average flock size was 22, the smallest flock consisted of 6 birds, the largest 65. The fact is that we did not see so much of the migration because we mostly stayed on the tundra, and most of the birds migrated along the coast. We assume that these observations show a massive moult migration towards Pyasina River Delta, where about 230 000 White-fronted Geese and Bean Geese moult. It is not known which species is dominant in that area (Rogacheva 1992).

Red-breasted Goose, *Branta ruficollis*: This species is included in the Red Data Books of both the USSR and the RSFSR. One individual observed east of the river Uboynaya, by a tarn 15 km from the coast, 09.07. The breeding habitats is steep cliffs near water. We therefore consider the «canyons» along the river Uboynaya to be excellent breeding habitat for the species. Mishail Degtirev told us that this species breeds by the river Uboynaya. Three times he had observed broods in the river, sometimes far from the coast.

Brent Goose, *Branta bernicla bernicla*. When we came to the base, 02.07, the Brent Goose was common there. The first days it seemed like Brent Geese roamed in all directions. From 06.07. we discovered that flocks migrated westwards along the coast. These flocks often

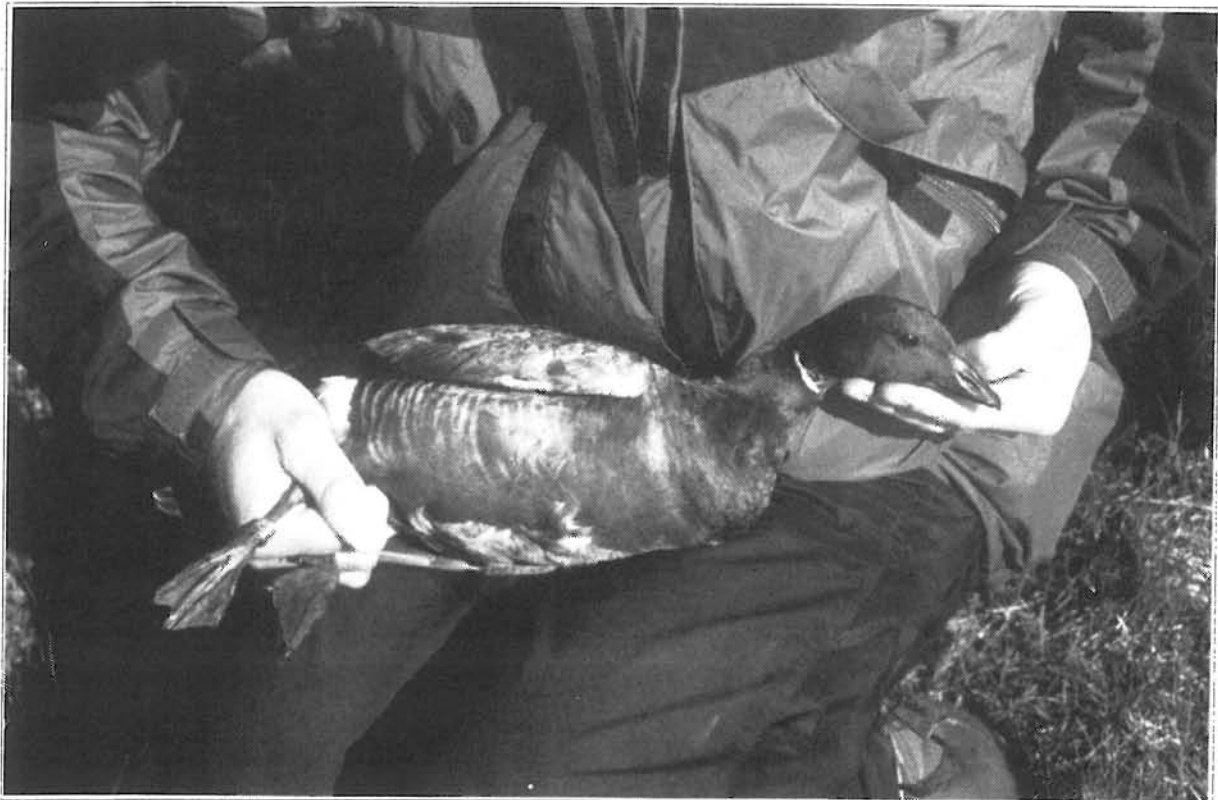
migrated a some distance away from the coast line. In the period 06.07.-17.07 we observed a total of about 175 Brent Geese moving westwards. The size of the flocks varied from 3 to 42, on the average about 20, apparently on their way to a moulting area. However information about moulting areas is not to be found in the scientific literature.

The Brent Geese breeding in the area of Uboynaya, preferred to nest in the neighbourhood of the Snowy Owl, *Nyctea scandiaca*, probably as a protection against the Arctic Fox: Other species which sometimes bred close to Snowy Owls were Rough-legged Buzzard, *Buteo lagopus*, Ringed Plover, *Charadrius hiaticula*, and Turnstone, *Arenaria interpres* (cf. these species).

05.07: We observed a very anxious Brent Goose close by the nest of a Snowy Owl which contained 7 eggs. We assumed that the bird had left the nest and did not try to find it. Now we know that we possibly saw the male; the female was probably breeding nearby.

10.07: We found a Brent Goose nest containing 3 eggs, 40-50 metres from a Snowy Owl nest (which contained 6 eggs and one newly hatched chick). The goose were caught at the nest and ringed.

12.07: By a Snowy Owl nest, which contained 4 small nestlings and 4 eggs, we observed two anxious male Brent Geese. Probably two pairs of Brent Geese nested there. The same day we found a Brent Goose nest besides a Snowy Owl nest containing 4 nestlings. The Brent Goose nest contained 4 eggs, and was situated only 8 metres away from the Snowy Owl nest. All anxious Brent Geese we had seen, had been close to a Snowy Owl nest, presumably in order to protect the nest against Arctic Fox.



A Brent Goose was caught at the nest and ringed. Photo: Ståle Sætre.

20 pairs of Snowy Owl were breeding in the area. We visited 11 of these, and of these 11 there were Brent Geese breeding by 4. When we found Brent Geese breeding close to Snowy Owls, the Snowy Owl's nests were situated not far from small rivers with flat, green and water-saturated ground.

As a curiosity we can mention that we received two colour rings from the hunter Mishail Degtiev. He told us that he had shot a Brent Goose with these rings on 15.06.1994. We asked for a metal ring, but to our surprise and disappointment he said there was none. We considered that these rings would not help much. On 17.07 we visited the Dutch expedition studying Brent Geese, at Lydia. To our surprise the leader of this expedition, Barwolt S. Ebbinge, gave us full information about this bird. It was ringed as adult male 19.05.1987 in Terschelling (53°25'N 05°29'E), The Netherlands. Later it was observed in The Netherlands many times. In two winters it was also observed in Essex, England. For people without special information about that kind of ringing, it is of course difficult to know what to do when such a bird is found.

King Eider, *Somateria spectabilis*: Few observations. 04.07: A male observed not far from the base. 06.07 at the base: 20-21 males flew westwards along the coast. By the Pershin-river (ca. 10 kilometres east of Uboynaya) 4 males and 1 female observed. Shortly afterwards 2 males in breeding plumage and 1 one year old male were observed following the stream towards the tundra. After a short time they returned. These few observations indicate that this species is not so common in the area around Uboynaya.

Long-tailed Duck, *Clangula hyemalis*: The first days, walking along the coast, more than 100 individuals were observed at sea among the ice floes. A westward migration, mostly males, was observed along the coast. Already on 07.07, the first flocks were seen: By the Pershin-river 2 flocks, both containing about 20 birds, passed ca. 2030 hrs. When we later stayed by the coast, the observed birds mostly flew westwards. Until 17.07 ca. 270 Long-tailed Ducks (mostly males) were recorded flying westwards. 17.07: In a short time (1100 to 1300 hrs), about 50 birds flew eastwards along the coast. These flocks were small, on average ca. 10. The largest flock going eastward contained 24 birds. Maybe this flock was roaming, because it landed at sea close by our base. Most of the migrating flocks, however, flew westwards without hesitating. Perhaps these birds were going to a moulting area. In the literature we cannot find reference to moulting areas for Long-tailed Ducks. 09.07: We only once observed Long-tailed Duck in fresh water. In a tarn, about 15 kilometres from the coast, and east of the river Uboynaya, 3 males and 1 female were observed. In the same tarn, a couple of Steller's Eider were seen.

Red-breasted Merganser, *Mergus serrator*: A female-coloured individual observed flying westwards along the coast 6 kilometres east of the river Uboynaya, on 07.07.

Rough-legged Buzzard, *Buteo lagopus*: Along the coast the small rivers in some places formed steep valley sides, and often Rough-legged Buzzards were breeding there. Some nests were simple to visit. They were situated at the top of the steep river sides. Some of these nests were exposed to predation, and we found two nests predated by arctic foxes. Without special efforts, 20 nests were located, 16 being located to the steep river sides of Uboynaya. As the crows flies these 16 nests were found in about 15 kilometres, but the river Uboynaya is full of bends, so the river is considerably longer.



On the flat tundra, among the three sticks, we found a nest of Rough-legged Buzzard, containing 2 newly hatched chicks and 2 eggs. Photo: Rune L. Holstad.

Close to the first colony of Herring Gull (mentioned later) the shortest distance between two nests was found: A nest containing two eggs and two newly hatched chicks had a neighbouring nest only 500 metres away, on the other side of the river. The date was 09.07, and this was the first time nestlings were seen.

6 nests of Rough-legged Buzzard were visited and the contents noted. 3 nests had 4 eggs (eventually nestlings), and the other 3 had 5 eggs. An unusual nest was found in the area of the «Mishail water-courses» 13.07, on the flat, dry tundra: It was situated on a 30 cm high mound (on the top of an earlier arctic fox trap), containing 2 eggs and 2 newly hatched nestlings. Not far from that nest an Arctic Fox possessed a den with many cubs. Usually most of the nests are predated near an Arctic Fox den. 300 metres away from the nest of the Rough-legged Buzzard there was a Snowy Owl's nest. We assume that the Arctic Fox did not risk to visit the area around the Snowy Owl's nest. Evidently the Snowy Owl is dominant over the Arctic Fox (Cf. Brent Goose, Ringed Plover and Turnstone).

White-tailed Eagle, *Haliaeetus albicilla*: By the mouth of the river Uboynaya a one-year old individual was observed shortly before midnight 06.07. The bird disappeared from the coast when flying up the river.

Ptarmigan, *Lagopus mutus*: A common species. When we arrived (02.07), the white males were very easy to see, contrary to the camouflaged females. 12-14 days after our arrival, the males had become more anonymous, due to moulting.

Willow Grouse, *Lagopus lagopus*: One, perhaps two males, were seen and heard 04.07 in the surroundings of Dvuh Medvedey. This place is about 14 kilometres west of Ubounaya, and ca. 2 kilometres from the coast. Only one certain occurrence is described from this area: 10 km south of Dickson in March 1934, a female was caught in a fox trap (H. Rogacheva 1992).

Ringed Plover, *Charadrius hiaticula*: In areas with pebbles, gravel and little vegetation we nearly always saw the Ringed Plover. 6 nests were found. The nests could be placed in areas of gravel, but also on brown tundra not far from typical Ringed Plover terrain. Often the birds feigned injury by the nests, or showed very anxious behaviour. We found a total of at least 20 breeding pairs.

Hatching: Newly hatched young were found 16.07. Haftorn (1971) states that the Ringed Plover incubates for 24 days and lays one egg every other day. Using this information the start of egg laying would be about June 15th. The newly hatched young were found about 40 metres from a Snowy Owl's nest. Another pair held territory not far away. Perhaps this is another example of protection against Arctic Fox.

Dotterel, *Eudromias morinellus*: Uncommon, only two observations. One individual was observed on the tundra 03.07 and one pair by the coast (on the tundra) 07.07. Both observations were made in the vicinity of the river Uboynaya.

Pacific Golden Plover, *Pluvialis fulva*: Very common on the tundra. We walked mostly along the rivers searching for Steller's Eider, and therefore we found no nest. Only once did we observe a bird feigning injury (07.07).

Grey Plover, *Pluvialis squatarola*: About 3 km west of the Pershin-river there was a flat, green water-saturated «field», with more water than usual. Many different waders were observed at this particularly wet place. Among others one pair of Grey Plovers were seen there on 07.07.

Turnstone, *Arenaria interpres*: A rather common species breeding on the dry tundra. When the young were hatched, parents seemed to lead the young to the green, water-saturated grounds. The last days we worked much in the area of the «Mishail water-courses». Several times broods of Turnstone were discovered. It was striking that in several cases the pairs collaborated in «family groups» of about three pairs. We presume that the birds did so to protect against predators. On 05.07 we found a Snowy Owl's nest containing 5 eggs and 1 newly hatched nestling. Further there were at least three pairs of Turnstone in the surroundings of this nest.

The first young were found 14.07, 1-2 days old. According to Haftorn (1971) the Turnstone incubates for 22-23 days. The start of egg laying should have been ca. June 15th.

Sanderling, *Calidris alba*: Only three observations were made. A single individual was seen by Dvuh Medvedey 04.07, and 07.07 a single one by the Pershin-river. Probably the birds did not breed.

At the mouth of the «Mishail water-courses» ca. 24 individuals were foraging 17.07. This shallow area consists of sand and gravel. Perhaps this area is attractive when the waders migrate in autumn.

*A large water-saturated area.
Beyond: Dry, brown tundra.
A typical locality for geese
and some wader species.
Photo: Rune L. Holstad.*



Knot, *Calidris canutus*. Two single individuals observed in different places on the dry tundra by Dvuh Medvedney 05.07. Whether the birds were breeding there or not is uncertain.

Curlew Sandpiper, *Calidris ferruginea*: Like the Turnstone, this species bred on the dry tundra. When the young were hatched, a good many parents seemed to lead the young to the green, water-saturated grounds. In the area of «Mishail water-courses» the Curlew Sandpiper was the dominant species at the transition between dry tundra and watersaturated ground, especially after hatching.

The first newly hatched young were found 12.07. Probably the population was good in the surroundings of the green water-saturated grounds in the area of Uboynaya. On our short trip we ascertained that the species was really numerous in the «Mishail water-courses» and around some water-saturated «fields» west of the Pershin-river. 12.07: The first flock containing 15 individuals, was seen. Two days later another flock, containing about 25 individuals was seen. Both flocks were observed in the inner area of the «Mishail water-

courses». Perhaps non-breeding birds and birds which had failed with breeding had started to gather in flocks. A Curlew Sandpiper young was adopted by a Little Stint (cf. Little Stint).

Dunlin, *Calidris alpina*: Uncommon. 12.07: 2 single individuals observed at different places in the «Mishail water-courses». 15.07: A brood with 4 newly hatched young found in a third place in this area. According to H. Rogacheva (1992) the Dunlin is scarce near Dickson.

Little Stint, *Calidris minuta*: The commonest wader in the area of Uboynaya. On 07.07, two broods with newly hatched young were found. Nests with eggs or broods were often found on the following days. The last day on the tundra, 16.07, we found one nest with egg. On 10.07 the first two flocks of Little Stints were seen, containing ca. 15 and ca. 25 birds respectively. Perhaps non-breeding birds or birds which had failed in breeding. In «Mishail water-courses», by «Stellerelva», a newly hatched Curlew Sandpiper was seen besides a Little Stint 12.07. The Little Stint was clearly anxious, and all the time kept close to the young. It was clear that it had adopted or stolen the young, and this was the only chick it had. On 14.07 they were still together at the same place. The young was now nearly as big as the Little Stint. Once the Little Stint tried to put the young under its wings, but the young was evidently too big. The Little Stint kept all the time close to the young. At the same time it quarrelled a little with an adult Curlew Sandpiper.

Temminck's Stint, *Calidris temminckii*: Observed in modest numbers from Dvuh Medvedney in the west to the Pershin-river in the east. The 10.07 a nest containing 4 eggs was found on the tundra east of the river Uboynaya, not far from the coast, and 200 meters away from the river.

Grey Phalarope, *Phalaropus fulicarius*: We made the first observation on 05.07 far away on the tundra by Dvuh Medvedney. In that area there were fine and green water-saturated grounds, and a calm river with much vegetation. 2 individuals were observed and these were unexpectedly shy, and flew away at a long distance. 12.07: In the third river of the «Mishail water-courses», «Mishailrelva», one individual was observed. Later two more birds were seen without any apparent connection with each other. Finally a pair was observed near the end of the river. 16.07.: A male was seen in the river named «Stellerelva».

Red-necked Phalarope, *Phalaropus lobatus*: Only observed once, on 05.07. A pair and one single individual were seen not far from the place where the Grey Phalaropes were observed by Dvuh Medvedey.

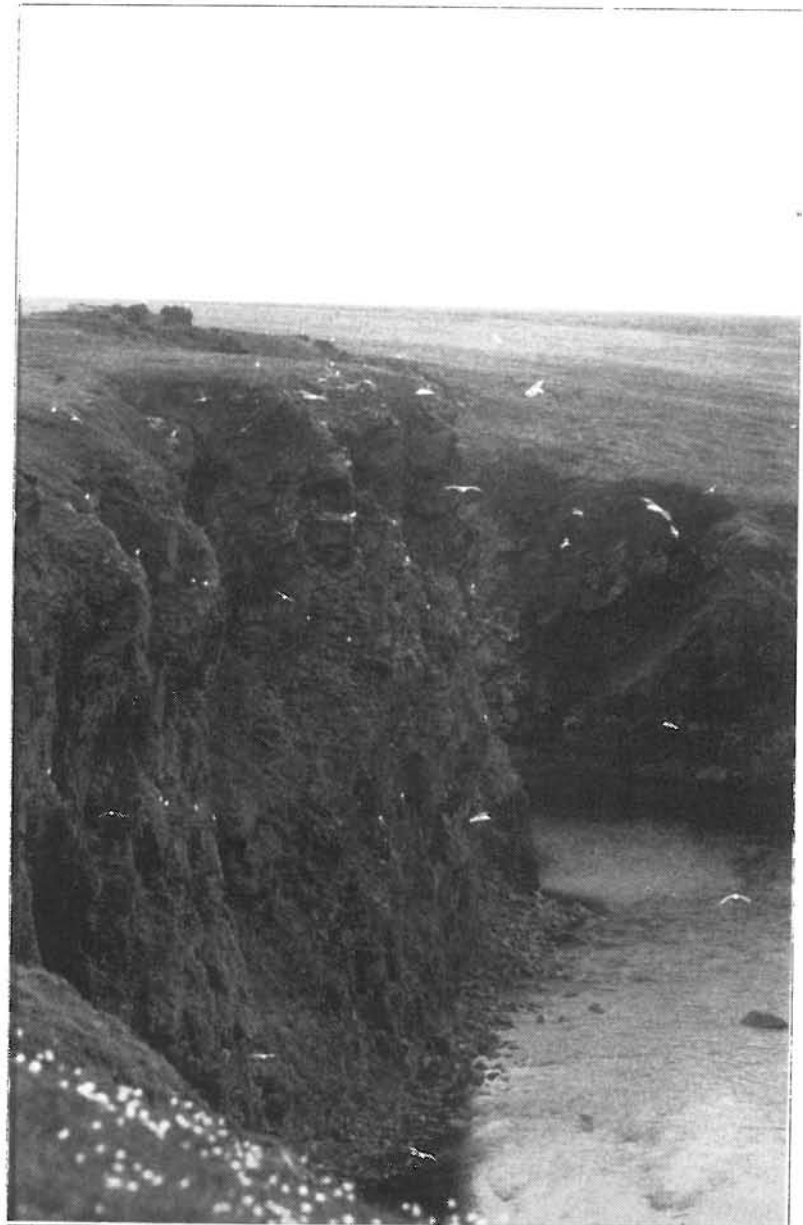
Pomarine Skua, *Stercorarius pomarinus*: A very common species, and the most common skua. It was exceptional not to see a Pomarine Skua in the air, but the number varied from place to place. At some places the population seemed to be very dense.

In contrast to the Long-tailed Skua the Pomarine Skua was very quiet by the nest, which therefore was difficult to find. 12.07 a nest with a newly hatched chick and one egg was found. 15.07 an about two days old chick was found. Obviously the Pomarine Skua's eggs had hatched at the same time as the waders' eggs. We suspected the Pomarine Skua of killing all the young in some places. An example: On a large, water-saturated «field» there were many broods of Curlew Sandpiper, Turnstone and Little Stint on 12.07. In that area there were Pomarine Skuas everywhere. Three days later there were only a few chicks in the area. We suppose that chicks are easier to catch than lemmings, and therefore a large number of chicks are caught also in lemming seasons by the Pomarine Skua.

Arctic Skua, *Stercorarius parasiticus*: Uncommon. The first observation we made by the base on 02.07, was a quite dark individual pursuing a Herring Gull. A few observations were made later, and July 10th an anxious pair was observed on the tundra east of Uboynaya, 6 km from the coast. By the base another pair was seen 14.07.

Long-tailed Skua, *Stercorarius longicaudus*: We found two nests 02.07 and 03.07 (2 and 1 eggs). Later we did not spend much time searching for the Long-tailed Skua's nests, but we found another 15.07 (2 eggs). 14.07 we wrote in the notebook: «The Long-tailed Skua has been so unobtrusive. Has most of the breeding failed?». For us it is an open question. Maybe the breeding failed for this species, or the birds gradually became quieter when breeding.

Herring Gull, *Larus argentatus*, and Glaucous Gull, *Larus hyperboreus*: Already the first day at the base (02.07.), we constantly noticed Herring Gulls and a few Glaucous Gulls passing. A good many flew inland up the «Mishail water-courses». The next day we noticed the same traffic on the river Uboynaya. A flock of approx. 10 Glaucous Gulls was also seen



*Herring Gull colony (Colony 2) in the river Uboynana.
Photo: Ståle Sætre.*

there. The «mystery» of all these passing gulls was solved 08.07 and 09.07. We then found three Herring Gull colonies far inland by Uboynaya. The first was 11 km from the coast as the crow flies. From this place and further inland the river had formed a canyon. All the colonies were placed on the eastern side of the river. Possibly the gulls were breeding in these steep river-sides as protection against Arctic Fox. Later we found that the gulls passing along the «Mishail water-courses» flew across the tundra for some kilometres to reach the river Uboynaya, and back again. Here are some particulars about the three colonies:

Colony 1 (11 km from the coast): Steep riverside, with frost-broken, upturned flat stones, which were very loose. Four nests were placed on the beach under the cliff; they were empty, probably robbed by Arctic Fox. In this colony more than 100 pairs of Herring Gulls were counted; in addition there were 2 pairs of Glaucous Gulls. Of the latter species one pair had at least one downy chick. In some nests of Herring Gulls we saw eggs, but the steep river-side was so dangerous to climb, that it was very difficult to see what the nests contained.

Colony 2: 2-3 km up the river from colony 1, the next was found. Very steep, but the riverside was more solid than in the first colony. At this place a good deal of grass was growing. There were about 100 pairs of Herring Gulls and 1 pair of Glaucous Gull. Eggs and newly hatched chicks were seen.

Colony 3: Ca. 2 km up the river from colony 2 this colony was found. Here we counted about 20 pairs of Herring Gulls and 1 pair of Glaucous Gull. The latter breeds in the colonies of Herring Gulls because it parasitizes them. Two pairs of Glaucous Gull are the maximum in each colony (H. Rogacheva 1992).

In the field we could see differences between the Herring Gull found in Taymyr and in Norway: This Russian subspecies had less white at the wing tips. The bill had more red, and the legs were whitish-yellow. A phenomenon, probably because of the light, was seen: Sometimes Herring Gulls seemed to have black backs. Then they looked like Lesser Black-backed Gull, *Larus fuscus*. When turning a little, they became grey again. The voice, however, was not much different from «our» Herring Gull.

Arctic Tern, *Sterna paradisea*: One pair observed by Dvuh Medvedey 05.07. Close to the base one pair was breeding. The trapper Mishail Degtirev told us that a pair had bred there for many years. Otherwise some single individuals were seen.

Snowy Owl, *Nyctea scandiaca*: On the tundra the Snowy Owl was easy to see. Only when the birds had placed their nests not far from where we passed, we went to see what the nests contained. In that way we visited 11 nests. In all we ascertained at least 20 nests/territories. Clearly in one of these the breeding had failed.

In the 11 nests we examined, there were 4-8 eggs/nestlings, the average being 6.5 eggs/nestlings. We suppose that some broods had contained more eggs than these, but some nestlings died after hatching. Example: The first nest found 03.07 contained 4 newly hatched young and 4 eggs. On 14.07 it contained 7 nestlings. Probably this happened in others nests, too. In some nests there were only 4 nestlings.

Prey: In six of the Snowy Owl's nests prey were found: only lemmings. The species were Siberian Lemming, *Lemmus sibiricus* and Arctic Lemming, *Discrostonyx torquatus*. In some of the nests the nestlings should not suffer any need: By a nest containing 5 eggs and 1 newly hatched young, 6 Siberian and 1 Arctic Lemming were lying. By another nest, containing 4 small young and 3 eggs, the bag was 8 Siberian Lemmings. Out of the 26 dead lemmings we found by Snowy Owls' nests, 23 were Siberian Lemming and only 3 Arctic Lemming.

As already mentioned all confirmed breeding by the Brent Goose was in the vicinity of a Snowy Owl's nest not far from water-saturated ground. Anxious Brent Geese, obviously breeding, were always observed close by Snowy Owl's nests. According to our observations, the Brent Geese on the mainland preferred to breed close to Snowy Owl's nests. Cf. Brent Goose. Other species which sometimes bred in the neighbourhood of the Snowy Owl, were Rough-legged Buzzard, Ringed Plover and Turnstone. Cf. these species.

Shore Lark, *Eremophila alpestris*: Perhaps the most common bird on the dry tundra. On 09.07 a nest containing 6 eggs was found.

Red-throated Pipit, *Anthus cervinus*: A relatively common bird on the tundra. A nest containing 5 eggs was found 14.07.

White Wagtail, *Motacilla alba*: Almost daily a few individuals were observed at typical localities for this species. One nest in a shed at the base contained 4 eggs 03.07. The eggs had hatched 10.07.

Wheatear, *Oenanthe oenanthe*: Seen almost daily when we walked in typical localities for this species. 4 nests were found in the period 05-08.07. Three of these contained eggs, the fourth unknown. One of the nests was placed in a lemming hole on dry tundra, 50 metres from the coast.



In Uboynaya there were great gravel banks in many places. Photo: Ståle Sætre.

House Sparrow, *Passer domesticus*: We were astonished to find that a female had its haunt at the base, first observed 04.07. Mishail Degtirev explained that the bird had been wintering in the attic of his house. He had given the bird food, and an oil lamp had given light and a little warmth. Another trapper, Nicolay Kopan, visited the base one day. He came from Zelidevo, 26 km further east. He told us that this year (1994) the House Sparrow was breeding there for the first time (one pair). According to H. Rogacheva (1992) an individual was recorded 27.06. 1982 in the arctic tundra subzone 8 km from Dickson, and in the year 1933 vagrants were discovered along the shore between the Pyasina River mouth and Dickson.

Redpoll, *Carduelis flammea*: One individual, observed 03.07, was clearly belonging to nominate subspecies *flammea*. The following day an individual with whitish rump was seen, but not so distinctly that we were convinced that it was an Arctic Redpoll, *Carduelis hornemanni*. Many birds were heard when passing, but we never saw these distinctly.

Lapland Bunting, *Calcarius lapponicus*: A common bird many places on the tundra. One nest containing 4 eggs was found 15.07.

Snow Bunting, *Plectrophenax nivalis*: Very common at places where the breeding possibilities were good. It nested among the timber spread along the coast. At steep river sides the birds were breeding in crevices, among stones and in holes. At the base a pair bred in a nest box (like boxes for Spotted Flycatcher, *Muscicapa striata*). Another pair had their nest in an old milk bucket. All kinds of breeding places were used. One nest we found, was situated on dry, brown tundra, close by water-saturated ground. The nest was found under a piece of turf, but only half of the nest was hidden, the rest lying quite open and therefore easy to see. In that nest there were 7 eggs. The largest «colony» we found, was by the Pershin-river, where timber was lying everywhere. In the surroundings of the base there were also many birds. On 17.07, while waiting for the helicopter, we found 8 pairs breeding. The age of the chicks varied from newly hatched nestlings to young which had newly learnt to fly.

8. SOME OBSERVATIONS OF ADDITIONAL SPECIES BY THE TRAPPER MISHAIL DEGTIREV

Bewick's Swan, *Cygnus bewickii*: One nest found about 80 km south of Dickson ca. 1970.

Hooded Crow, *Corvus corone cornix*: Two birds stayed by the base for 1-2 weeks in May 1994. The birds were feeding on some carcasses which had been thrown away by the hunter.

***Numenius* sp.:** Mishail Degtirev told us that he some years ago had observed a curlew he could not identify far into the tundra near water in the area of Uboynaya.

9. RINGING

We brought rings from Stavanger Museum, and ringed all the birds we had the opportunity to (Table 1). If we had stayed at the base for 1-2 weeks more, we could have ringed a lot of waders, Rough-legged Buzzard and Snowy Owl. Unfortunately we had to leave just when most of the clutches started to hatch.

Table 1. Ringing results: Among the ringed birds mentioned below, 2 Snowy Owls and 4 Pacific Golden Plover were ringed at Dickson Island, approx. 62 km further west:

<i>Species</i>	<i>pull</i>	<i>adult</i>
Steller's Eider, <i>Polysticta stelleri</i>	-	1
Brent Goose, <i>Branta bernicla bernicla</i>	-	1
Ringed Plover, <i>Charadrius hiaticula</i>	3	1
Pacific Golden Plover, <i>Pluvialis fulva</i>	4	-
Turnstone, <i>Arenaria interpres</i>	12	-
Curlew Sandpiper, <i>Calidris ferruginea</i>	33	-
Dunlin, <i>Calidris alpina</i>	4	-
Little Stint, <i>Calidris minuta</i>	36	1
Grey Phalarope, <i>Phalaropus fulicarius</i>	-	1
Long-tailed Skua, <i>Stercorarius longicaudus</i>	-	4
Snowy Owl, <i>Nyctea scandiaca</i>	14	-
White Wagtail, <i>Motacilla alba</i>	4	-
Snow Bunting, <i>Plectrophenax nivalis</i>	12	-
<i>Sum :</i>	122	9

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