

# Observations of walrus (*Odobenus rosmarus rosmarus*) in the southeastern Barents and Pechora seas in February 1993

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A total of 138 walruses (*Odobenus rosmarus rosmarus*), including 21 cow/calf pairs, were observed during a ship-board survey in the southeastern Barents and Pechora seas 5–17 February 1993. The observations confirm these areas as wintering and nursery grounds for the species.

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## Introduction

The distributional area of the Atlantic walrus (*Odobenus rosmarus rosmarus*) ranges from the central and eastern Canadian Arctic in the Kara Sea, with several more or less well-defined subpopulations or stocks within this range (Reeves 1978; Born et al. 1995). One such subpopulation or stock is confined, at least periodically, to the southeastern Barents Sea and the White and Pechora seas (Belborodov & Timošenko 1974; Timošenko 1984; Popov et al. 1990).

As surveys to determine distribution and size of walrus populations in the Russian Arctic have not been conducted during the recent years, no comprehensive population figures are available (Born et al. 1995). At different periods of the year in 1990–1993, several expeditions with the objective of catching catch harp seals (*Phoca groenlandica*) for ecological studies were carried out in the Barents Sea and adjacent waters (Nilssen in press). Observations of other marine mammals were recorded systematically during all these expeditions. During an expedition conducted in the southeastern Barents and the Pechora seas in February 1993 (Nilssen 1995), particularly many walruses were observed. These observations are summarised in this note.

## Expedition route and dates

The expedition used the Norwegian ice-going research vessel R/V JAN MAYEN and was conducted along the edges of the pack-ice belt in the southeastern parts of the Barents Sea between Cape Kanin and Novaja Zemlja during the period 5–17 February 1993 (Fig. 1). The expedition began in the areas west of Kolguev (5–7 February), proceeded with activities in the Pechora Sea (8–9 and 11 February, with an intermediate trip northwards along Novaja Zemlja on 10 February), and terminated with new operations between Cape Kanin and Kolguev during the period 13–17 February. Whenever daylight permitted, continuous observations of marine mammals (including walruses) were performed both from the wheelhouse and, occasionally, from a barrel on the wheelhouse roof. All animal observations made either by scientists or by the crew of the vessel were recorded systematically.

## Walrus observations

A total of 138 walruses (including 21 cow/calf pairs) were observed during the whole survey (Fig. 1, Table 1). During the period 5–7 February,

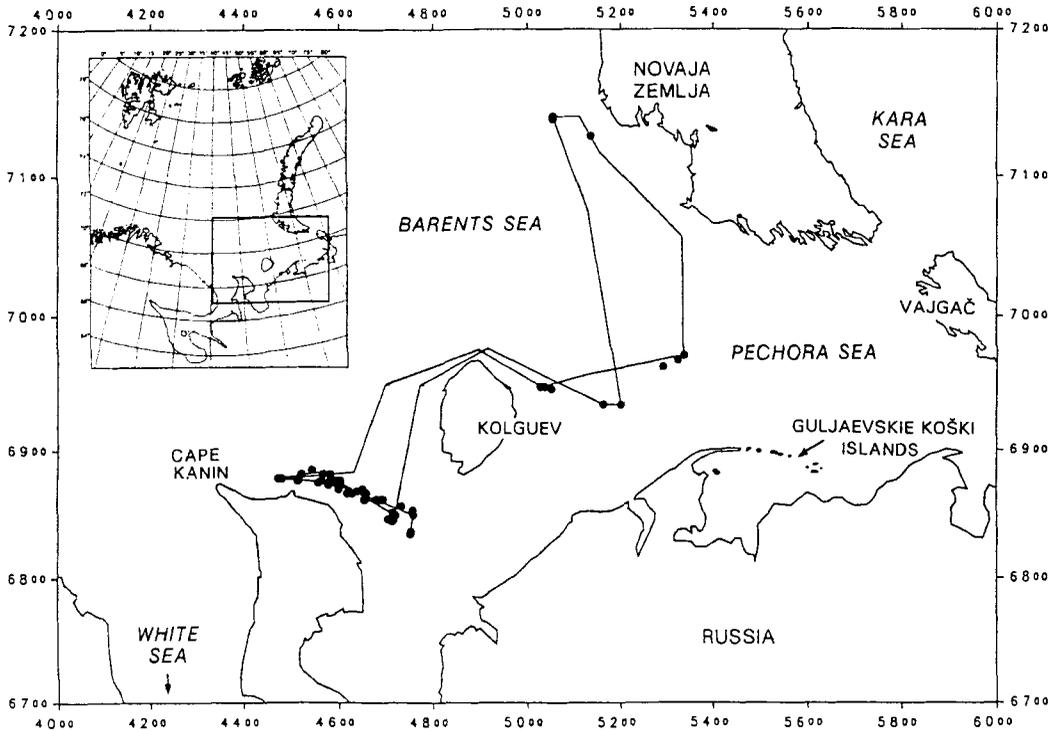


Fig. 1. The R/V JAN MAYEN survey track (solid line) and the localities of walrus observations (black dots, indicating pairs of cows/calves, single animals or groups of animals) in the southeastern Barents and the Pechora seas 5–17 February 1993.

13 animals were seen in the area to the west of Kolguev. East and northeast of this island 18 walrus were observed from 8 to 11 February. Upon return to the areas between Cape Kanin and Kolguev on 12 February, the edge of the pack ice area was confined to areas within Russian territorial waters (i.e., within 12 nm from the coastline) where no operations by the Norwegian research vessel were permitted. Favourable current and wind conditions, however, moved the pack ice outside the 12 nm limit again, and the

expedition was able to carry on its investigations. During the period 13–17 February, 107 walrus were observed in these western areas.

All animals were observed within the pack-ice area, mainly resting on ice-floes, occasionally also swimming in the water. Acoustically recorded depths in the areas of walrus observations were 50–65 m west of Kolguev, 50–75 m in the Pechora Sea, and 100–140 m west of Novaja Zemlja. The observed calves were small, without visible tusks, and undoubtedly defended by their mothers. Ani-

Table 1. Observations of walrus during a survey in the southeastern Barents Sea 5–17 February 1993

Area	Period	No. of pairs with cow and calf	No. of animals without calf	Total no. of animals
W of Kolguev	5–7 Feb	3	7	13
	13–17 Feb	15	77	107
Pechora Sea	8–10 + 11 Feb	2	10	14
SW of Novaja Zemlja	10 Feb	1	2	4
TOTAL		21	96	138

mals without calves were usually single individuals, but a few groups of 3–5 animals also occurred.

## Discussion

According to Popov et al. (1990) walrus occur in the southeastern part of the Barents Sea throughout the year, though their numbers are small. The February 1993 observations of walrus between Cape Kanin and Novaja Zamlja presented here are consistent with previous observations stating that the species winters in the southeastern parts of the Barents Sea, in particular the areas between the White Sea and the Kolguev Island, where the walrus habitually occur in January–February (Beloborodov & Timošenko 1974; Timošenko 1984). Regular occurrences of walrus during spring (March–April) in the White Sea, possibly reflecting an inclination of the animals to return to their former habitat, have been recorded during the past 10–20 years (Timošenko 1984; Popov et al. 1990). The southeastern Barents Sea wintering areas of the walrus is coalescent both in time and space with the route of harp seals migrating along the ice edge to their White Sea breeding grounds. Timošenko & Popov (1990) suggest that this may have contributed to the movement of certain walrus in the White Sea where they have been observed to kill and feed upon harp seals, particularly pups.

The many cow/calf observations indicate that the surveyed areas may serve as nursery grounds for the walrus during winter. In aerial surveys in January 1977, several walrus, including females accompanied by small calves on ice floes with blood spots, were observed between islands of the Guljaevskie Koški archipelago (Fig. 1); possible habitual whelping of the species on these grounds in late December–early January was suggested (Lukin 1978).

From satellite telemetry experiments there is some evidence of a common Svalbard-Franz Josef Land stock of walrus (Gjertz & Wiig 1994). The true connection between walrus inhabiting these northern archipelagos and other areas within or adjacent to the Barents Sea (including those wintering in the southeastern Barents and Pechora Seas) is, however, virtually undetermined (Born 1984; Born et al. 1995). Little is known about the current status of walrus along

the Russian coast. Lukin (1978), from his January 1977 observations, stated that the total number of walrus wintering in the southeastern Barents Sea apparently did not exceed 100–120 heads. The present survey was not designed to estimate the number of walrus; for instance, it did not cover areas within Russian territorial waters. However, it is worth noting that the total number of observed animals (138) exceeds the wintering stock size suggested by Lukin (1978). Walrus are encountered in the southeastern Barents and Pechora seas also during spring and summer, and observations of herds counting approximately 100 animals were made south and west of the Vajgač island in June–July both in 1970, 1971 (Timošenko 1984) and 1988 (Popov et al. 1990).

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