

Northern bottlenose whales *Hyperoodon ampullatus* in Norwegian and adjacent waters

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ABSTRACT

We present distributional maps of sightings from dedicated whale surveys, incidental sightings and stranding of bottlenose whales in Norwegian and adjacent waters. Most bottlenose whales are seen over the deep waters of the Norwegian Sea in April to June, but there are some winter observations also in coastal waters. No abundance estimates are available.

NORTHERN BOTTLENOSE WHALE, DISTRIBUTION, NORWEGIAN WATERS

INTRODUCTION

In the North Atlantic, the northern bottlenose whale, *Hyperoodon ampullatus*, is widely distributed from Canadian waters in the west to Norwegian waters in the east (Benjaminsen & Christensen 1979). It is believed to have a migration pattern with a northward migration in early spring and southward migration in late summer, but its habits in these waters are poorly known. Some aspects of its presence and biology has been presented (Benjaminsen 1972, Benjaminsen & Christensen 1979, Christensen 1973), Christensen, Jonsgård & Rørvik 1977, Christensen & Ugland 1983, NAMMCO 1995, 2003).

The aim of this note is to present data which may give additional information on presence and distribution of bottlenose whales in Norwegian and adjacent waters.

CATCH DATA

Catching of bottlenose whales has a long history in the northeast Atlantic. A drive fishery has been recorded from the Faroe Islands over the period 1584-1993 and Scottish sealers caught bottlenose whales over the period 1856-1925. Norwegian catching started in 1882 and onwards. In 1938 bottlenose whaling was included in the Norwegian "small-type" whaling which comprised the four species minke, pilot, killer and bottlenose whales. A compulsory licence system with logbooks was introduced and thus all whales caught since 1938 have been recorded individually and with catch positions. These catch positions have been plotted in Figure 1. When bottlenose whaling started under the licensing system, the main catching areas were off Møre (western Norway), Andenes (northern Norway) and off Spitsbergen. Later on, the bottlenose whaling expanded westwards (like other small-type whaling) to the areas between Iceland and Jan Mayen. A total of 5,836 bottlenose whales were caught during the period 1938-1973.

SIGHTINGS DATA

Several sightings surveys have been conducted in Norwegian and adjacent waters over the period 1984 to present. Up to and including 1995 the surveys were covering relatively large areas synoptically, while in 1996 and afterwards the total survey area of interest have been surveyed in a mosaic pattern, covering only smaller parts each year. The Norwegian sightings surveys have been designed for minke whales as target species and have been conducted with July as target month. Observations of bottlenose whales have been rather scarce and over the period from 1987 to 2010 a total of 66 primary sightings have been made. In single years, most sightings were made during the 2005 survey around Jan Mayen (13 sightings) and during the 2008 survey in the Svalbard area (13 sightings). In other years the number of sightings has varied from 0-5. All the bottlenose sightings have been plotted in Figure 2.

The sightings are limited to the deep waters of the Norwegian Sea basin, and seem to extend over the area from Iceland towards Svalbard. This is apparently the main summer (June-August) distribution of bottlenose whales in these waters.

INCIDENTAL SIGHTINGS

There are 199 records of bottlenose whales in Norwegian and adjacent waters in the incidental observations database, and they span the years from 1967-2010. The observations have been plotted in Figure 3 and confirm to a large extent the distributions seen from the whale surveys. However, there are some additional observations from along the Norwegian coast and also from within the Barents Sea, which is a relatively shallow area.

The number of incidental observations of bottlenose whales follows the relative distribution of all incidental sightings (Figure 4), which will be a coarse measure of no indication of trends in abundance over the years.

The distribution of incidental observations by month (Figure 5) indicates that its peak occurrence in these waters may be from April-June, but we have records from all months with the exception of December. In these waters, winter time restricts the possibilities for seeing whales, so bottlenose whales may be present here all year around.

In Figure 6 distributions by season are presented. From these, the coastal occurrence seems to be associated with the winter time.

RECORDS OF STRANDED/DEAD BOTTLENOSE WHALES

Over the period 1979-2010, we have recorded 16 incidences of stranded/dead bottlenose whales (Figure 1). Several of these whales had been observed swimming in the area prior to stranding and death. Apparently, these occurrences support the general pattern of distribution as revealed by the incidental observations.

CONCLUSION

The main summer distribution seems to be over the deep waters in the Norwegian Sea, while it is rare within the North and Barents Seas. Its main occurrence in these waters seems to be in April-June, but there are some winter observations in coastal waters of Norway. Its status is uncertain and the sightings surveys conducted so far have not been able to answer the question of how many they are.

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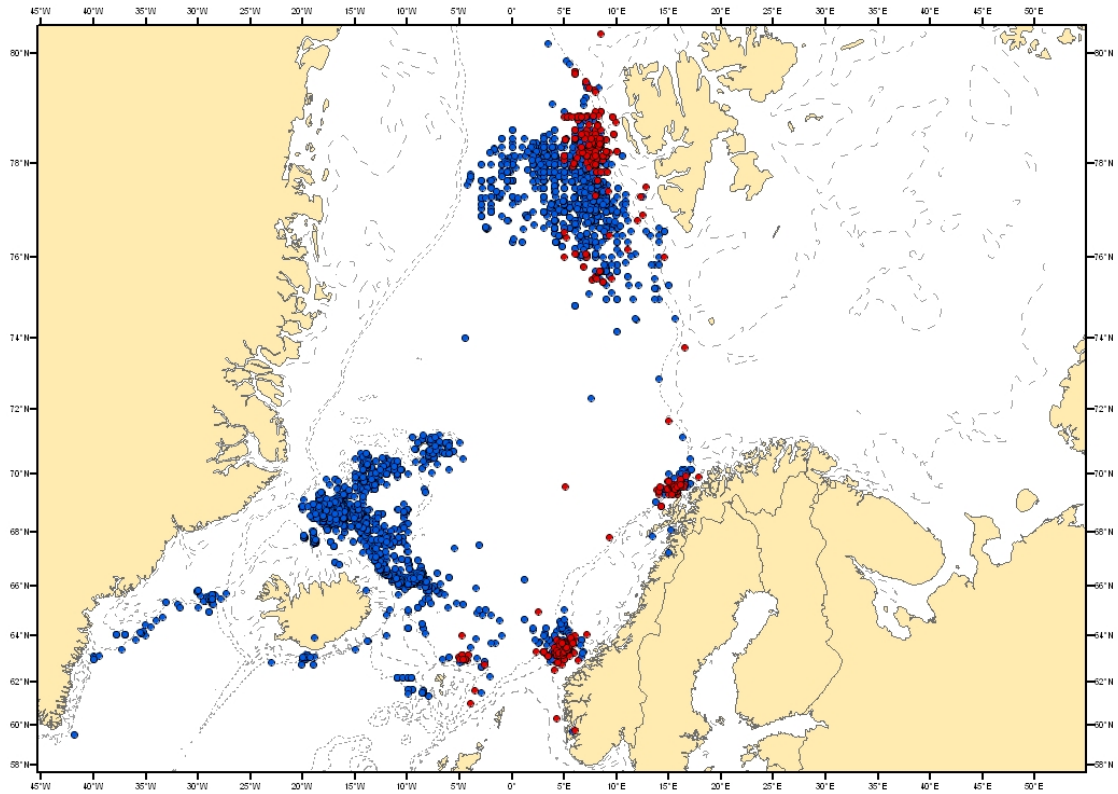


Figure 1. Distribution of catches of bottlenose whales; records from Norwegian whaling logbooks 1938-1971. The red dots represent catches over the period 1938-1950 and the blue dots are catches over the period 1951-1971.

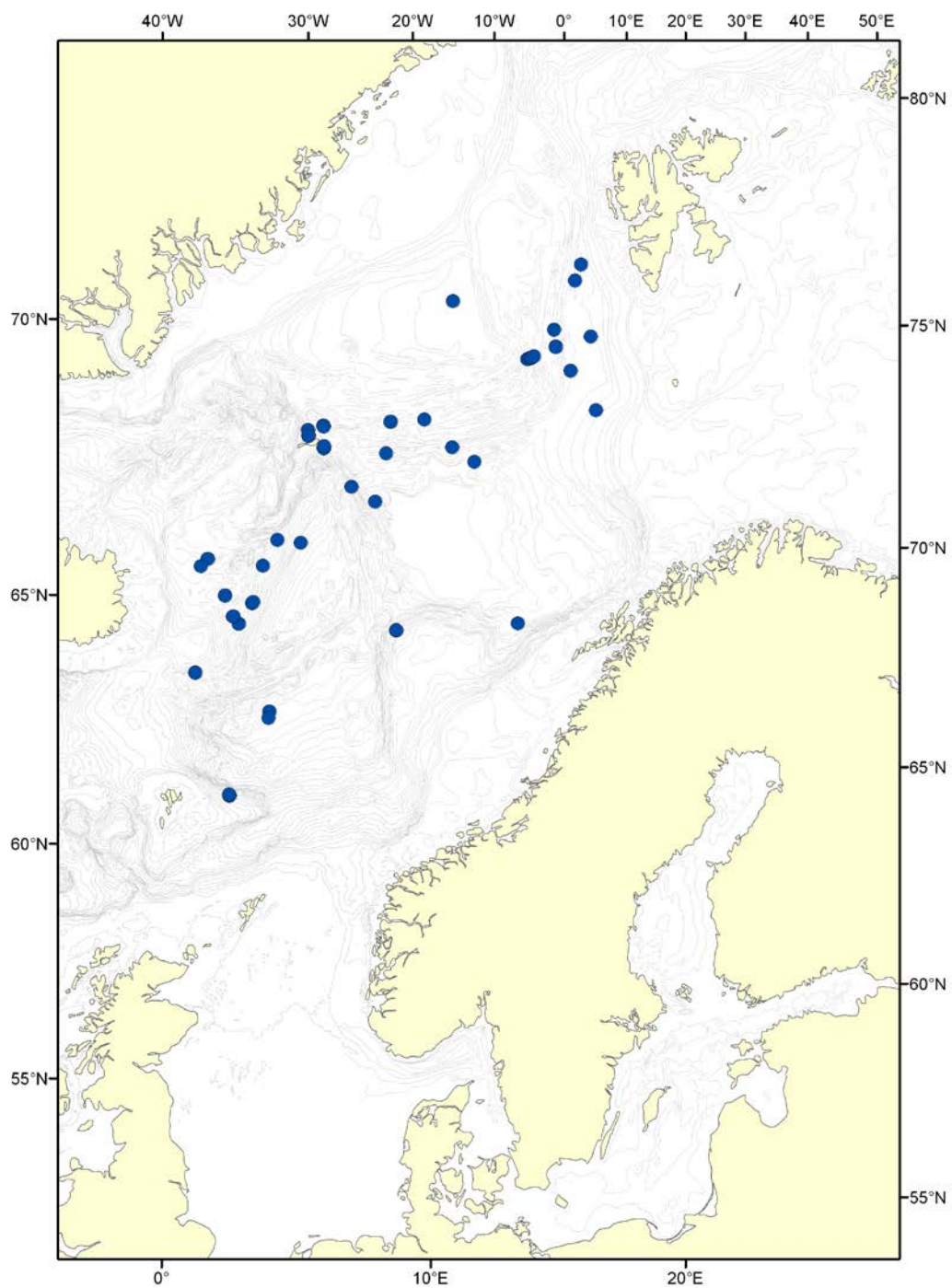


Figure 2. Distribution of sightings of bottlenose whales made during Norwegian surveys 1987-2010.

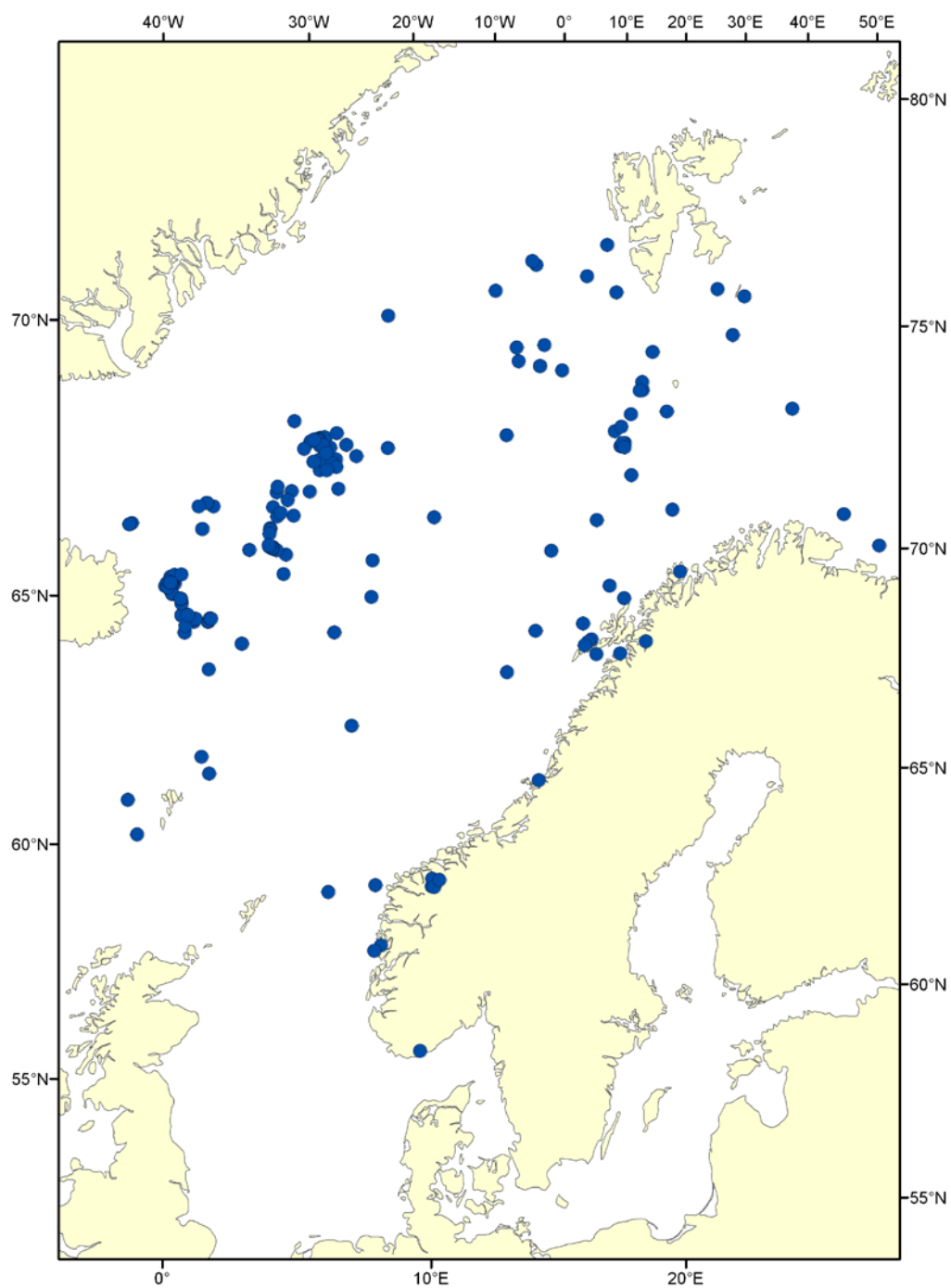


Figure 3. Geographical distribution of all incidental sightings of bottlenose whales.

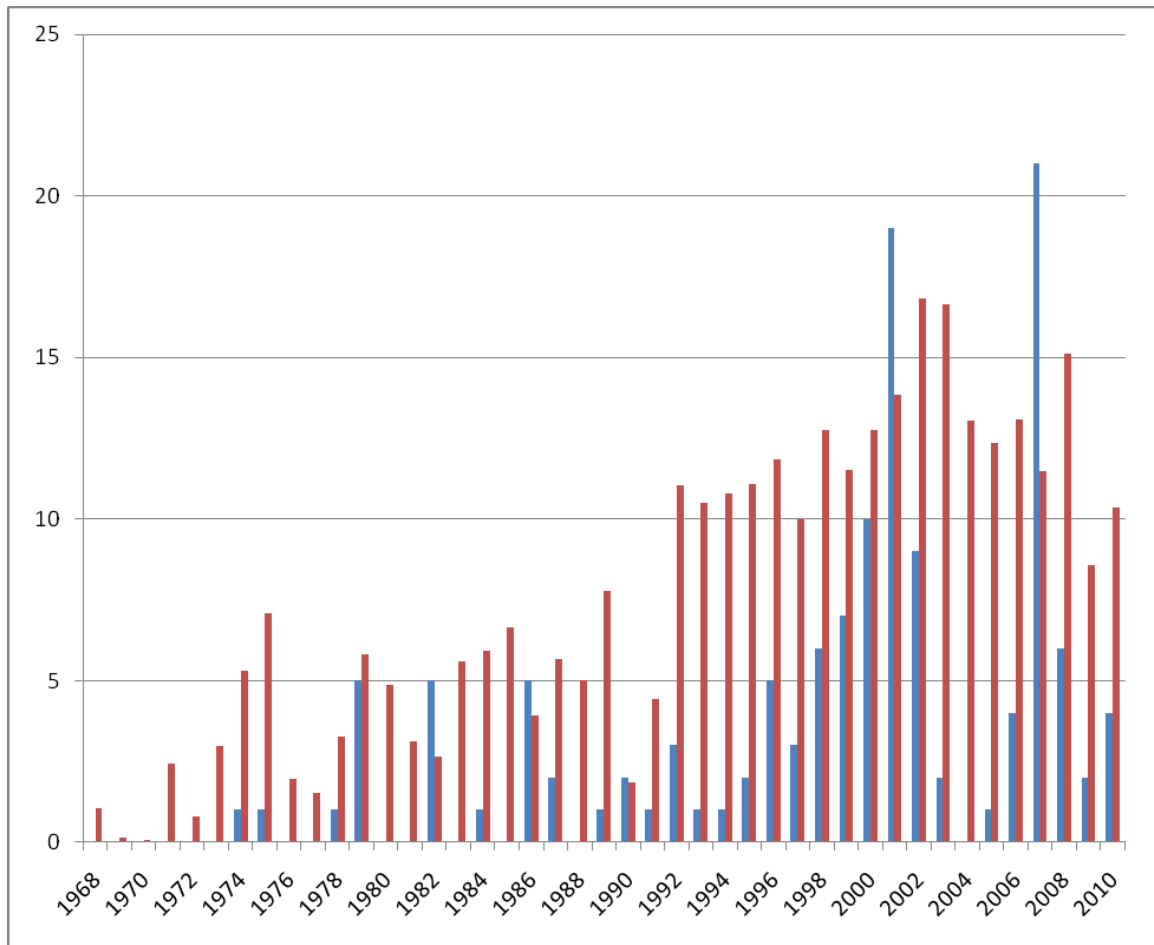


Figure 4. Distribution of incidental sightings of bottlenose whales by year shown as blue columns. The red columns are the relative distributions of all incidental sightings in database by year.

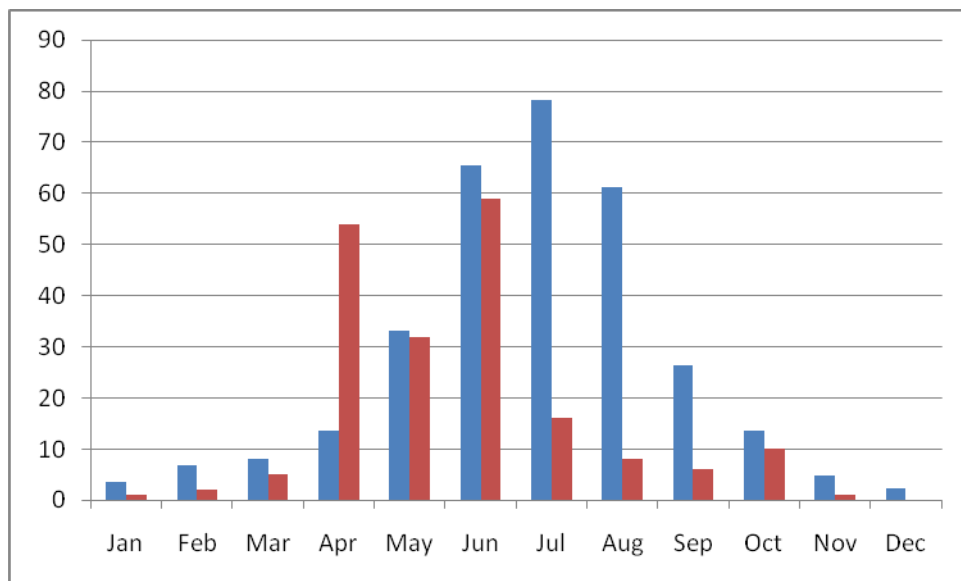


Figure 5. Distribution of incidental sightings of bottlenose whales by month shown as red columns. The blue columns are the relative distributions of all incidental sightings in database by month.

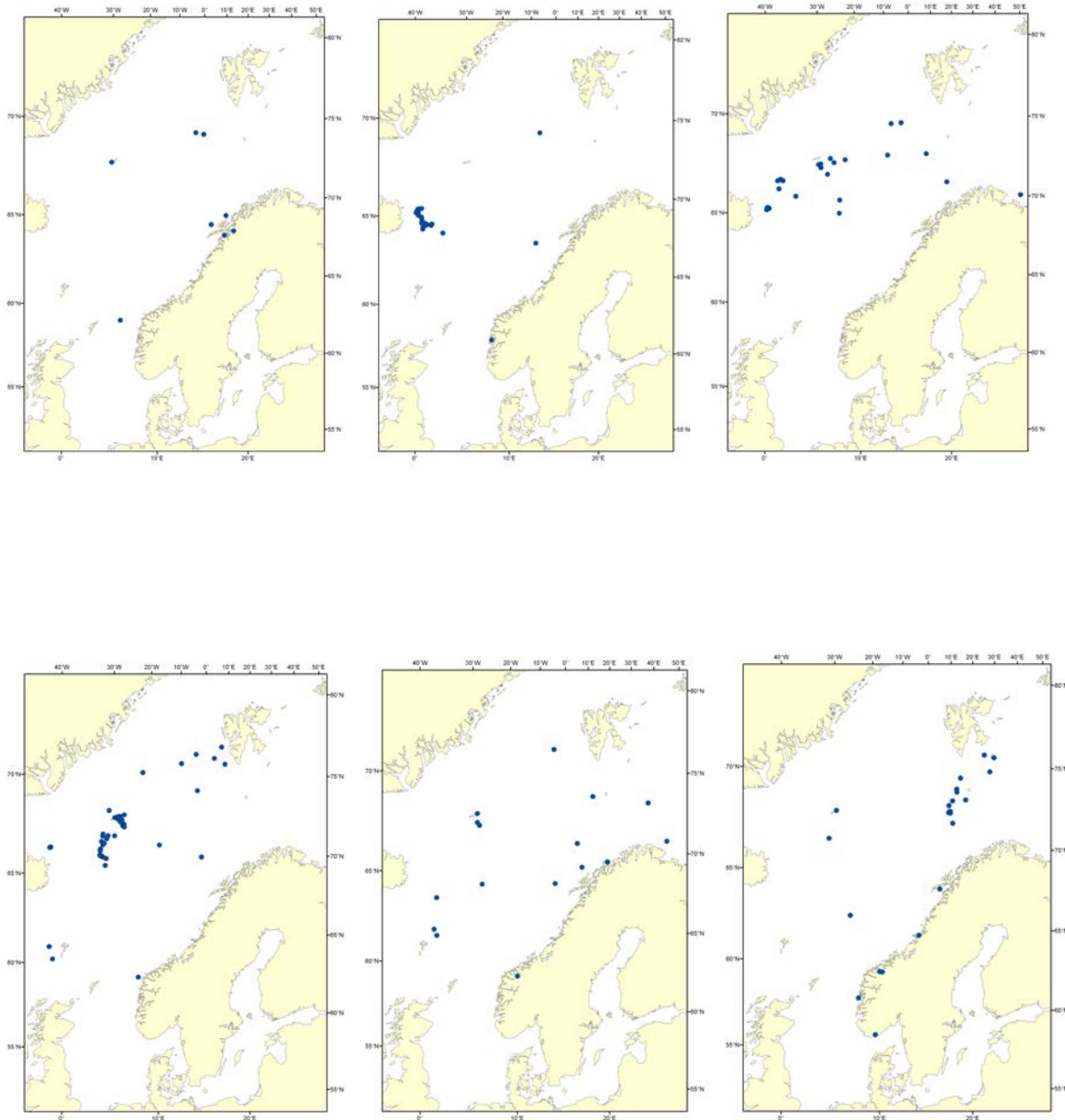


Figure 6. Distribution of incidental sightings of bottlenose whales; from left to right, upper row; January-March, April and May. Lower row, from left to right; June, July and August-November.

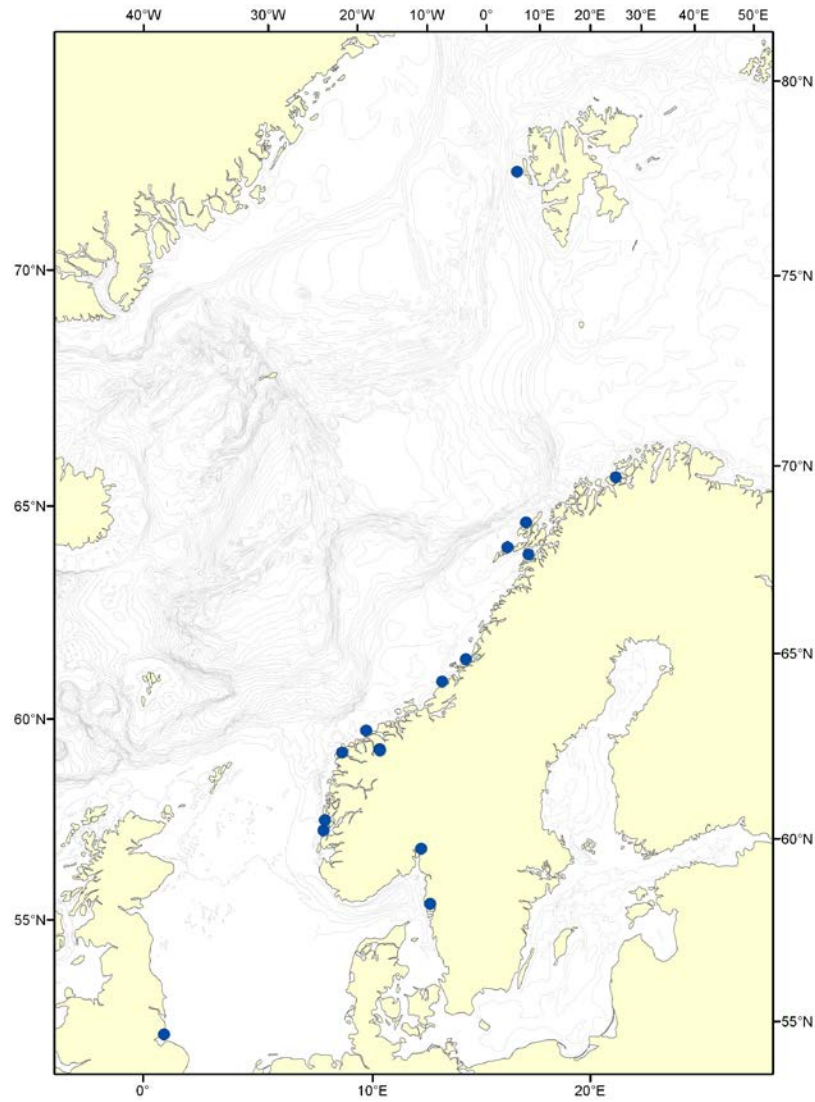


Figure 7. Distribution of recorded strandings or reports on bottlenose whales found dead over the period 1979 to 2010.