

# Distribution and Abundance of Harbour Porpoise, *Phocoena phocoena*, in Norwegian waters

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## ABSTRACT

This paper presents information on the distribution of harbour porpoise in Norwegian coastal and adjacent waters based on incidental sightings during the period 1964-1988. Sightings in the Atlantic sector before 1968 and two dedicated extension sightings surveys in 1968 and 1988. Estimates of peak size and abundance of harbour porpoise in the Norwegian and Barents Sea are given. The information available indicates a marked Atlantic-Barents Sea during summer for harbour porpoise in Norwegian waters, with a seasonal concentration in the Barents Sea area and a southern concentration from Lofoten and into the Barents Sea. The abundance estimates were greater than 500 porpoise (CV 0.10) for the northern component and about 1,000 porpoise (CV 0.15) for the southern component.

KEY WORDS: HARBOUR PORPOISE, A SIGHTING SURVEY, SIGHTING RECORDS, INCIDENTAL CAPTURES, NORTH ATLANTIC.

## INTRODUCTION

When the International Whaling Commission (IWC) Scientific Committee reviewed the status of stocks of harbour porpoise (*Phocoena phocoena*) in 1983, both Anderson and Clasen (1983) and Gordon (1984) reported that a significant population decline had occurred in the Baltic and North Sea region. This decline was assumed to be a consequence of pollution, fishing or incidental catches (as a by-catch of herring). The Commission noted (IWC, 1984) the paucity of information available and recognized that the population(s) in that region may have been seriously reduced. It further noted that the issue of Norway may be of great importance as the eastern North Sea habitat of this species. The Commission advised an augmentation in harbour porpoise research by member countries, including increased effort with respect to stock identification, abundance estimation and the reporting of by-catches. Despite this, its main concern relatively little additional research occurred and the Commission has repeated its concern over harbour porpoise in the eastern North Atlantic since then (e.g. IWC, 1994).

A research project on the harbour porpoise was initiated in Norway in 1986. The aim of this project were to assess the incidental catches of harbour porpoise and to collect samples from incidentally caught porpoise for further analysis of *intra-specific* growth and reproduction, feeding and genetic stock identification. This paper summarizes the results of the bycatch studies and presents the first abundance estimates of harbour porpoise in Norwegian waters.

## MATERIAL AND METHODS

This study is based on information from three sources: (1) incidental sightings in the period 1964-1988, (2) systematic records of sightings and effort made during a Norwegian