

CRUISE REPORT OF THE KOREAN CETACEAN SIGHTING SURVEY IN THE YELLOW SEA, APRIL-MAY 2008

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ABSTRACT

The sighting survey using the research vessel, Tamgu 3 (360G/T) was conducted to get the information on distribution and abundance of minke whales and other cetacean animals in Korean waters from 15 April to 24 May, 2008. The survey area was bounded on the longitude by 123°24"~126°00"E and the latitude by 33°00"~37°18"N. The sightings were made by naked eyes with optional uses of binocular and performed in closing mode for species identification, school size estimation, taking photographs and videos. The observers were trained to estimate distance and angle during the survey and their estimations were tested. During the survey period, the research vessel cruised 1,383.9 n.m. and 19 minke whales in 19 primary sightings were observed. More than a hundred finless porpoises were also sighted during the survey. Two Chinese researchers were invited to be initiated into the sighting survey methods.

INTRODUCTION

The stock assessment of common minke whales needs high coverage of sighting survey efforts in the Yellow Sea and the East Sea because large part of these areas including North Korean, Chinese and Russian waters is still unsurveyed. During the commercial whaling period, Korean whalers caught more common minke whales in the Yellow Sea than the East Sea which means the Yellow Sea is also very important habitat for common minke whales. But the systematic sighting surveys were conducted only in 2001 and 2004 while much more surveys were conducted in the East Sea. Therefore this sighting survey was designed to increase the effort coverage in the Yellow Sea and initiate the Chinese researchers into systematic sighting surveys in the Chinese waters.

SURVEY AND METHODS

The survey blocks and transect lines were predetermined as shown in Fig. 1 and the plan of this survey has been presented during the 59th SC meeting. The research area was same as the survey in 2004

except the outer blocks. The research vessel, Tamgu 3, cruised along the predetermined transect lines with closing mode at the speed of 10 to 13 knots in accordance with sea status and weather conditions. The survey was conducted in the good weather condition with two or longer nautical miles visibility and three or smaller Beaufort scale.

Two observers conducted sightings in the top barrel mounted on the research vessel at the height of 11.5m from the sea level in 2-hour-interval rotations. Two researchers verified the observers' sightings, recorded the other information and also conducted sightings during the survey from the top bridge.

CRUISE SUMMARY AND SIGHTING RESULTS

Narrative

15 April: The vessel left Busan entered Jeju due to the rain with strong wind in the survey block A1.
 19-20 April: The survey was started in the block A1 from the southernmost point.
 21 April: The vessel anchored around Heuksan-do due to the heavy rain.
 22 April: The block A1 was finished but one transect line was unfinished.
 23-26 April: The vessel entered Heuksan-do due to the rain and fog in the survey block A1 and A3.
 27-29 April: The block A3 was started and finished.
 30 April-1 May: The vessel entered Gunsan due to the strong winds in the survey block A3 and A5.
 2-3 May: The vessel left Gunsan and started the survey in the block A5.
 4-8 May: The vessel entered Incheon due to the rain and strong winds.
 9-11 May: The vessel left Incheon and finished the block A5 and then entered offshore blocks from A6.
 12-13 May: The vessel entered Ochung-do due to the rain and strong winds.
 14-17 May: The vessel resumed the survey and finished the block A6 and started the block A4.
 18-19 May: The vessel entered Heuksan-do due to the rain and strong winds.
 20-22 May: The vessel left Heuksan-do and finished the block A4 and entered Gageo-do due to strong winds.
 23-24 May: The vessel entered Jeju and then Busan to close the sighting survey of 2008.

Sighting results

During the survey period, only minke whales and finless porpoises were sighted in the research area (Table 1). On 19 primary sightings 19 minke whales were observed but there was no secondary sighting (Fig. 2). The minke whales crowded in the coastal block A5 and the offshore block A6 except the one minke whale which was observed in Jeju-do. More than one hundred of finless porpoises in 62 schools were observed in the coastal blocks A3 and A5 (Fig. 3).

Table 1. Number of sightings of common minke whales and finless porpoises with daily sighting distance during the survey

Date	Sighting distance (n.m.)	Common minke whale	Finless porpoise	
		Primary	Primary	Secondary
19-Apr	140.3	1-1		
20-Apr	5.7			
22-Apr	33.6			
27-Apr	101.9		2-11	
28-Apr	142.4		4-4	
29-Apr	49.8		8-13	
02-May	110.0	3-3	17-32	
03-May	87.6	2-2	23-46	1-2
09-May	55.9		7-9	
10-May	40.0	7-7		
11-May	130.5	4-4		
14-May	136.2	2-2		
15-May	114.4			
16-May	97.2			
17-May	9.9			
20-May	95.5			
21-May	13.9			
22-May	19.0			
Total	1,383.9	19-19	62-115	1-2

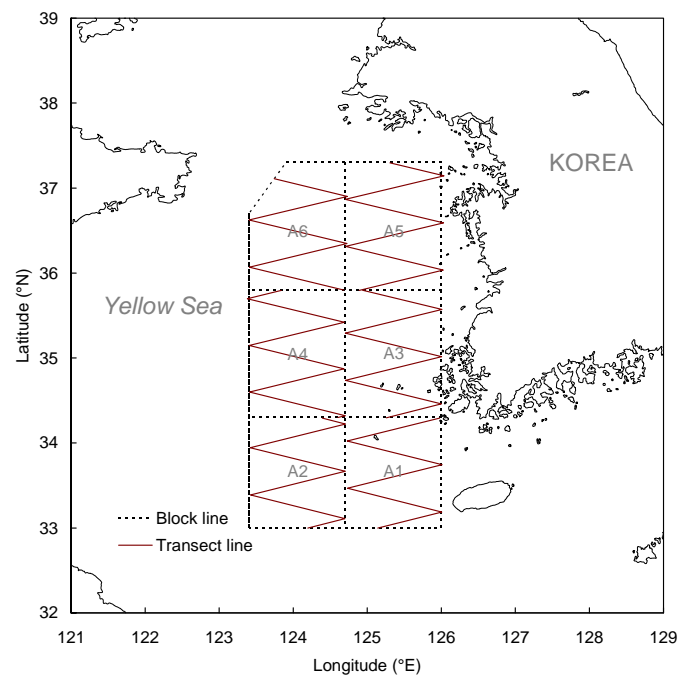


Fig. 1. Research area and transect lines of the Korean sighting survey in the Yellow Sea.

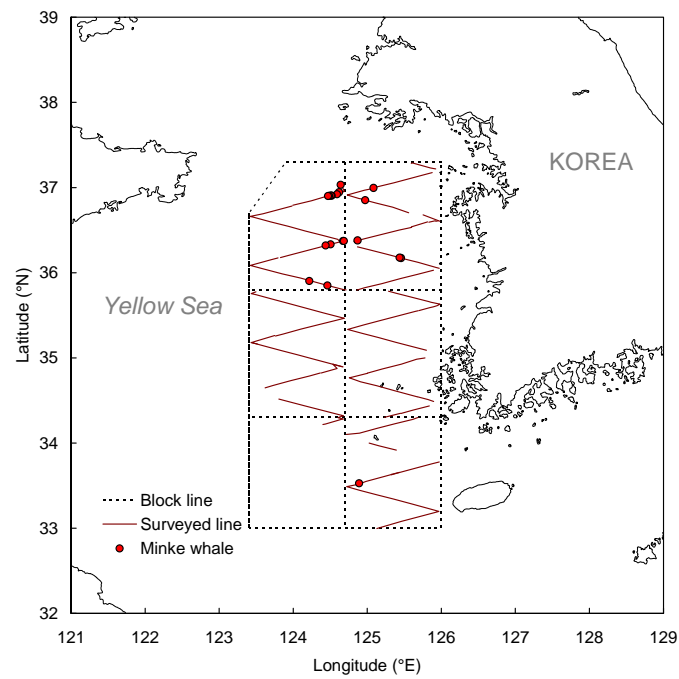


Fig. 2. Sighting positions of common minke whales (19 animals in 19 primary sightings).

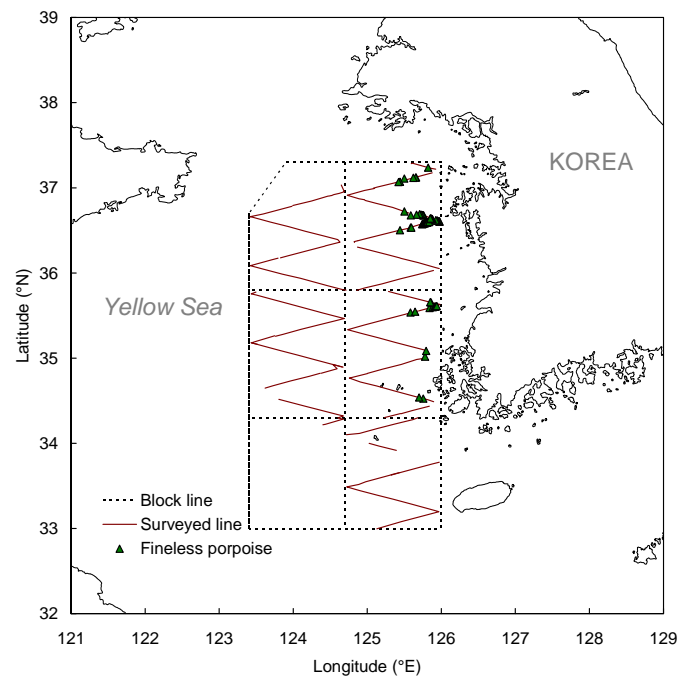


Fig. 3. Sighting positions of finless porpoises (115 animals in 62 primary sightings).