Plan for the Korean Sighting Survey in the Yellow Sea in 2011

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ABSTRACT

Korea has a plan to conduct a sighting survey with IO passing mode using the research vessel, Tamgu 3 in the Yellow Sea, April-May 2011. The first objective of the survey is to get the information on the distribution and abundance of common minke whales to be used for the abundance estimate. The second is to collect the general information on the distribution of other cetaceans in the survey area.

BACKGROUND

The Yellow Sea was one of the major whaling grounds in the past commercial whaling period and some common minke whales has been caught incidentally in recent years. The Cetacean Research Institute (CRI) of National Fisheries Research and Development Institute (NFRDI) has conducted the first sighting survey in 2001 and two more surveys in 2004 and 2008. The survey effort in this area is lower than in the East Sea where 7 sighting surveys were conducted. In order to get more precise estimates of common minke whales in the Yellow Sea, we need to conduct more sighting surveys in the area.

SURVEY PLAN

Research area and period

The research area is established in the coastal and offshore waters in the Yellow Sea bounded by longitudes of 123°24´E and 126°00´E and by latitudes of 33°00´N and 37°18´N (Fig. 1). The survey area is divided into 6 blocks; 3 inshore and 3 offshore blocks. The starting points of each block are set randomly and the total transect line is 1,534.2 nautical miles but several transect lines will be cut by the EEZ between Korea and China.

The survey will start on April 19 and finish May 23, 2011 and tentative itinerary will be as follows;

April 19: leave Busan and start the inshore block (A5)
May 5: finish the inshore blocks (A1, A3 and A5) and enter Incheon
May 7: leave Incheon and start the offshore block (A2)
May 23: finish the survey and enter Busan

Research method

Using the research vessel, Tamgu 3 (360 GT, 1,600HP), sighting survey will be conducted with IO passing mode using the two channeled walkie-talkies. One observer and one scientist will be on the individual top barrels of the front and the rear side, respectively, two observers and one scientist will be on the top bridge. The research vessel will cruise with speed at 10-12 knots in accordance with sea status and weather conditions. Naked eyes will be the main practice for sighting whales and binocular will also be used as a secondary tool. Although IO passing mode is applied to common minke whales, closing mode will be applied appropriately to other cetacean animals for

identification and school size estimation. Other non-lethal research activities will be conducted such as biopsy sampling for genetic study, water temperature and salinity profile with CTD for oceanographic description, and photography and video recording for identification, etc.

Distance and angle estimation training and testing

Training and testing of the distance and angle measurement will be conducted at the start and end of the survey.

Biopsy samples

Biopsy samples will be tried using the Larsen gun and crossbow.

Photo identification

If we encounter gray, humpback, right and blue whales, photographs will be taken for identification.

Oversight of the survey

One of researcher, Dr. An, will conduct oversight for the survey.

Submission of the survey results to the Scientific Committee

Details of cruise report and abundance estimation of common minke whales will be presented to the 64th IWC Scientific Committee.

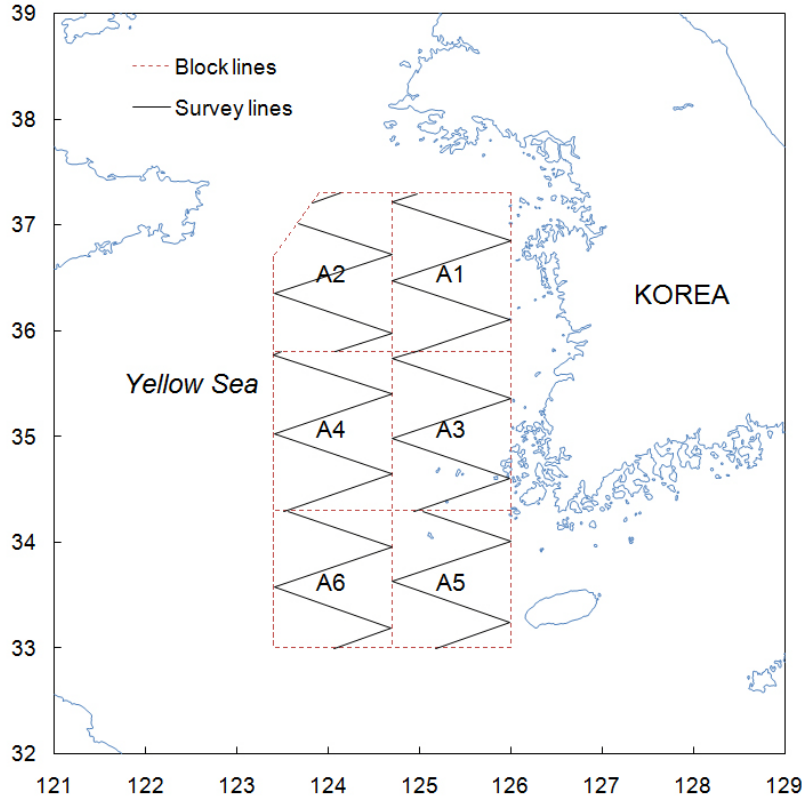

Fig. 1. The predetermined survey lines for the sighting survey in the Yellow Sea, 2011.