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Plan for the Korean Sighting Survey in Korean Waters in 2024

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ABSTRACT

The sighting survey for common minke whale will be conducted in Korean waters in spring and autumn, 2024. The first objective of this survey is to get the information on the distribution and abundance estimation of common minke whales for the stock assessment. The second one is to collect the general information on the distribution of other cetaceans in the area. A total of 2,257 nautical miles long transect lines will be searched using closing mode with binoculars and naked eyes both. Other research activities such as photo identification will be conducted during the survey.

BACKGROUND

The survey areas were one of the main whaling ground in the past commercial whaling period and the site of the most common minke whale bycaught in Korea since the whaling was banned in 1986. However, information on the distribution and abundance is insufficient for the minke whale assessment even though the Cetacean Research Institute (CRI) has conducted systematic surveys in this area from 2000 (Kim et al., 2000). The coverage of the surveys is considered as still low, especially in the offshore (IWC 2001). In order to maximize the coverage of Korean sighting survey, CRI extended survey areas on the subarea 5 and 6W to the border-line of Korean EEZ and planned to cover them in 4 years since 2013. From 2021, CRI have expanded the survey area to cover them in 2 years; in other words, the East Sea and the Yellow Sea were conducted alternately every year, and the autumn survey was added to the spring one. This sighting survey was designed to supply the deficiency of data and elaborate the information on the distribution and abundance of minke whales in the western North Pacific as well as the other small cetaceans such as finless porpoises in Korean waters. The plan was established in accordance with the requirements and guidelines for conducting surveys and analyzing data within the Revised Management Scheme (IWC, 2012).

SURVEY PLAN

Survey area, track lines and schedules

The surveys will be carried out in the East Sea in 2024. The survey area is established in Eastern coastal areas in the Korean waters and divided into 5 blocks in the East Sea (Figure 1). All starting points of research blocks are

set at the southernmost boundaries with random start. The pre-determined track lines are shown in Figure 1. The total track lines are 2,257 nautical miles for two times surveys in 2024. One or two research vessel of NIFS might be used at each survey. The survey periods and research vessels for 2024 have not been decided in detail, yet. We are planning the surveys will be conducted between mid-April and early-May as core time in spring, and from September to October in autumn, of when roughly similar time and schedules as 2022.

Research method

The shipboard survey using the research vessel New *Tamgu No. 3*(799GT, 3406HP) and *Tamgu No. 20*(885GT, 2600HP) will be conducted. Two observers search cetaceans with binoculars and naked eyes both on the barrel and symmetrically three observers will be on the top bridge. The vessel will cruise with speed at 10 to 11.5 knots in accordance with sea states and weather conditions. Closing mode will be applied for identification, school size estimation. The distance to the sightings will estimate using the rangefinder or the reticles on the binoculars. The compass on the binoculars will be used to estimate the angle to the sightings. Other non-lethal research activities will be conducted such as water temperature and salinity observations with a CTD for oceanographic study, and photography and video recording for photo identification, etc.

Researchers and oversight person

Researchers who are experienced at least twice on sighting survey will be selected as a member to this survey.

We, Korean researchers, request to the IWC Scientific Committee to nominate Kyum Joon Park as an oversight in the Korean sighting surveys. He has planned and conducted more than 30 of large or small scale sighting surveys in Korea.

Submission to the Scientific Committee

Details of cruise report, sighting effort and weather record and sighting results will be submitted to the IWC Scientific Committee meeting.

REFERENCES

International Whaling Commission 2001. Annex S, Statements Relating to Agenda Item 7. J. Cetacean Res. Manage. 3 (Suppl.): 358-60

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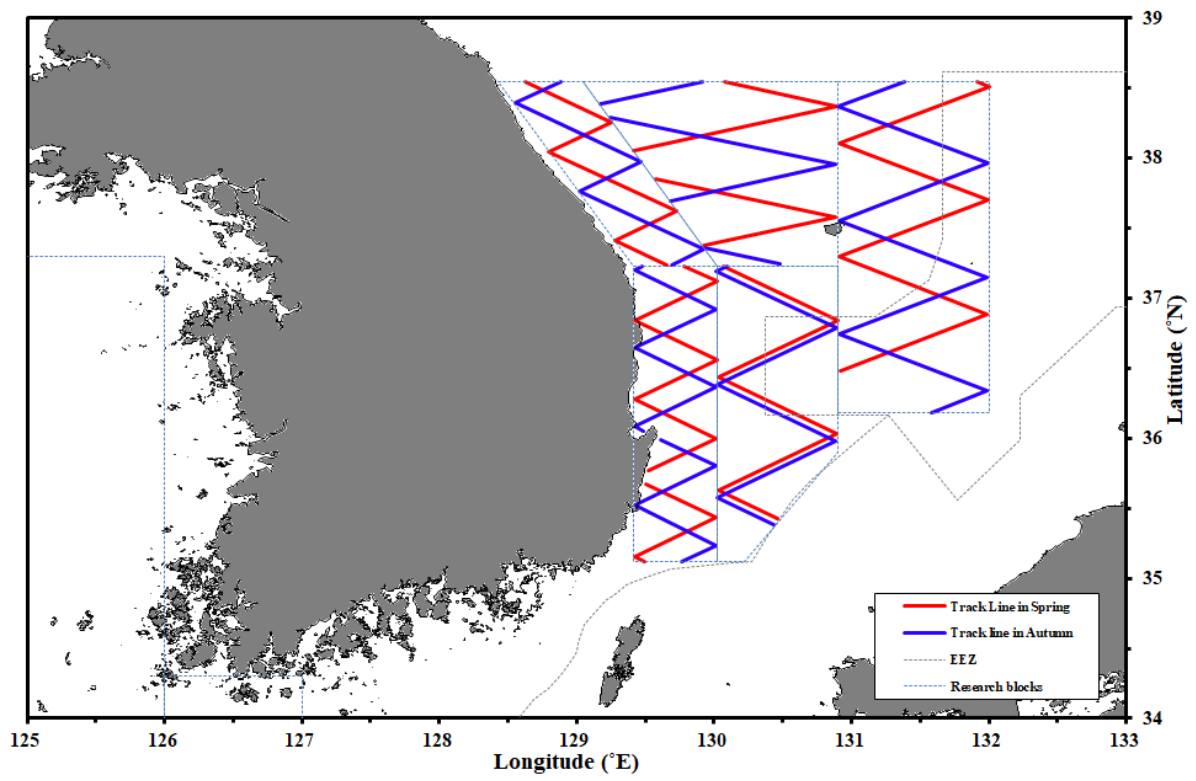


Fig 1. Research blocks and predetermined transect lines for the sighting surveys in Korean waters in 2024.

Table 1. Waypoints in the Research areas

Survey year	Research Block	Waypoint	Spring		Autumn	
			Latitude (N)	Longitude E	Latitude (N)	Longitude E
203=24	E1	101	38 32.77	128 37.58	38 32.77	128 53.16
		102	38 15.52	129 15.41	38 23.74	128 33.27
		103	38 2.968	128 47.91	37 58.53	129 28.21
		104	37 37.24	129 43.67	37 46.07	129 1.040
		105	37 24.79	129 16.63	37 20.86	129 55.51
		106	37 14.26	129 39.48	37 14.35	129 41.36
	E2	201	37 13.8	129 46.74	37 13.8	129 28.68
		202	37 7.135	130 1.189	37 12.14	129 25.09
		203	36 50.41	129 25.20	36 55.42	130 1.128
		204	36 33.65	130 1.155	36 38.66	129 25.13
		205	36 16.84	129 25.23	36 21.85	130 1.093
		206	35 59.99	130 1.120	36 5.005	129 25.16
		207	35 45.93	129 31.23	36 3.254	129 28.91
		208	35 40.59	129 30.16	35 59.56	129 36.44
		209	35 26.16	130 1.087	35 48.11	130 1.059
		210	35 9.222	129 25.39	35 31.17	129 25.20
		211	35 7.121	129 29.83	35 14.23	130 0.936
		212			35 7.119	129 45.90
	E3	301	38 32.77	130 4.716	38 32.77	129 54.76
		302	38 22.38	130 53.38	38 23.31	129 10.40
		303	38 3.194	129 25.05	38 17.55	129 14.71
		304	37 50.99	129 34.51	37 57.53	130 53.17
		305	37 34.85	130 52.80	37 41.89	129 41.14
		306	37 22.46	129 55.67	37 21.53	129 56.23
		307			37 14.62	130 29.05
	E4	401	37 13.80	130 3.989	37 13.81	130 5.441
		402	36 50.58	130 53.87	37 11.81	130 1.092
		403	36 26.24	130 1.883	36 47.47	130 53.32
		404	36 1.909	130 53.60	36 23.13	130 1.366
		405	35 37.57	130 2.146	35 58.79	130 53.05
		406	35 25.53	130 27.65	35 34.46	130 1.629
		407			35 22.92	130 26.06
	E5	501	38 32.77	131 54.88	38 32.77	131 23.03
		502	38 30.87	132 0.102	38 22.14	130 54.13
		503	38 6.474	130 54.44	37 57.75	131 59.65
		504	37 42.08	131 59.74	37 33.36	130 54.49
		505	37 17.69	130 54.80	37 8.980	131 59.30
506		36 53.31	131 59.39	36 44.59	130 54.83	
507		36 28.93	130 55.14	36 20.22	131 58.96	
508		36 11.03	131 42.30	36 11.13	131 34.93	