

**KOREA (Rep. of) PROGRESS REPORT ON CETACEAN RESEARCH, WITH STATISTICAL DATA
FOR THE CALENDAR YEAR 2003**

Compiled by Hawsun SOHN and Zang Geun KIM

Cetacean Research Center,

National Fisheries Research and Development Institute

408-1, Sirang-Ri, Gijang-Up, Gijang-Gun, Busan, 619-902, Republic of KOREA

This report summarizes information on cetacean research conducted or supported by the National Fisheries Research and Development Institute (hereafter NFRDI) from January to December 2003 in Korea.

The NFRDI newly established Cetacean Research Center (hereafter CRC) on 29th of January 2004. So, Zang Geun Kim and Hawsun Sohn transferred to the CRC and Yong-Rock An newly joined CRC on 7th of May 2004.

1. Species and stocks studied

2. Sightings data

Common name	Scientific name	Area/stock(s)	Items referred to
Humpback whale	<i>Megaptera novaeangliae</i>	East Sea	4.2, 6.2
Gray whale	<i>Eschrichtius robustus</i>	East Sea	9
Minke whale	<i>Balaenoptera acutorostrata</i>	East, South and Yellow Sea	2.1.1, 4.2, 4.3, 6.2, 8
Baird's beaked whale	<i>Berardius bairdii</i>	East Sea	7.1
Stejneger's beaked whale	<i>Mesoplodon stejnegeri</i>	East Sea	7.1
Risso's dolphin	<i>Grampus griseus</i>	South Sea	4.2, 7.1
Common dolphin	<i>Delphinus delphis</i>	East and South Sea	2.1.1, 4.2, 7.1
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	East Sea	4.2, 7.1
Bottlenose dolphin	<i>Tursiops truncatus</i>	South Sea	4.2, 7.1, 9
Harbour porpoise	<i>Phocoena phocoena</i>	East Sea	4.2, 7.1
Finless porpoise	<i>Neophocaena phocaenoides</i>	East, South and Yellow Sea	2.1.1, 4.2, 7.1, 9

2.1 Field work

2.1.1 SYSTEMATIC

The NFRDI carried out two systematic sighting surveys in the East and Yellow Sea in terms of the RMP, based on the plan endorsed in the SC. Using R/V Tamgu 3 equipped with top barrel (stern trawler, 360 G/T), one was done from 16th of September 2003 – 5th of October 2003 (20 days) and the other from 21st of April 2004 – 2nd of June 2004 (43 days) in the area within the Korean EEZ of the East and Yellow Sea respectively. The zigzag form of track line was set in the survey area and divided into several blocks. The sighting results of spring and autumn are summarized in the table 2-1 and 2-2, respectively.

Table 2-1. Number of sightings (schools-animals) in the 2003 survey using the R/V Tamgu 3.

Date	Sighting Distance (n.m.)	Pri.	Species		Off.
			Minke whale Sec.		
17-Sep	28.1				
18-Sep	100.4	1-1			
26-Sep	122.5				
27-Sep	116.5				
28-Sep	143.6				
29-Sep	18.6				
30-Sep	26.1				
Total	555.8	1-1			

Table 2-1. Number of sightings (schools-animals) in the 2004 survey using the R/V Tamgu 3.

Date	Sighting distance (n.m.)	Species								
		Minke whale			Finless porpoise			Common dolphin		
		Pri.	Sec.	Off.	Pri.	Sec.	Off.	Pri.	Sec.	Off.
25-Apr	102.9									1-20
28-Apr	101.1									
29-Apr	139.7				2-3					
30-Apr	145.5				1-1					
01-May	121.2	4-4			6-10					
05-May	34.6	2-2								
07-May	117.4	3-3	1-1		25-32	3-3				
08-May	91.3	2-2			29-39	5-5				
15-May	105.3	5-5								
16-May	118.1	2-2	1-1							
22-May	109.8									
23-May	161.5									
24-May	128.6									
25-May	157.8									
26-May	19.4									
31-May	151.6									
Total	1,805.9	18-18	2-2		63-85	8-8				1-20

4. Tissue/biological samples collected

The NFRDI collected biological samples of cetacean bycaught in various coastal fishing gears or stranded, aiming at contribution to genetic study and pollutant contaminants.

4.2 Samples from directed catches or bycatches

Species	Area/stock	Calendar year	Archived (Y/N)	Tissue type(s)*	Contact person/institute
Humpback Whale	East Sea	1	Y	Skin, blubber, muscle etc. “ “ “ “ “ “ “ “ “ “ “ “ “ “ “	Z. G. KIM/NFRDI
Minke whale	East Sea	67	Y		
	South Sea	9	Y		
	Yellow Sea	8	Y		
Beaked whale	East Sea	3	Y		
Common Dolphin	East Sea	20	Y		
Bottlenose Dolphin	South Sea	1	Y		
Risso's Dolphin	South Sea	1	Y		
Pacific White-sided Dolphin	East Sea	1	Y		
Harbour Porpoise	East Sea	8	Y		
Finless Porpoise	Yellow Sea	77	Y		
	South Sea	2	Y		
Unidentified Dolphin	East Sea	4	Y		

4.3 Samples from stranded animals

Species	Area/stock	Calendar year 2002	Archived (Y/N)	Tissue type(s)*	Contact person/institute
Minke whale	South Sea	1	Y	Skin, blubber, muscle etc	Z. G. KIM/NFRDI
	East Sea	4	Y		

6. Statistics for large cetaceans

All bycatches from coastal fishing gears were obligatorily reported to maritime police and fisheries authorities in accordance with the guideline of the Ministry of Maritime Affairs and Fisheries (hereafter MOMAF).

6.2 Other non-natural mortality for the calendar year 2002

Species	Area/stock	Males	Females	Total	Cause	Methodology
umpback Whale	East Sea	1		1	Setnet	Postmortem
Minke whale	East Sea		1	1	Trawl	
		5	3	11	Set net	
		15	6	28	Gillnet	
		11	10	28	Trap net	
		1	1	2	Unidentified	
	Yellow Sea	2		2	Trap net	
		1		1	Zigging	
		1		1	Stow net	
		3	1	4	Unidentified	
	South Sea	2		2	Purse seine	
		1		1	Trawl	
			1	1	Set net	
			1	1	Gillnet	
		3		3	Trap net	
				1	Unidentified	

7. Statistics for small cetaceans

7.1 For the calendar year 2003

Species	Area/stock	Directed catch		Incidental mortality			Live-captured
		Reported	Est. total	Reported	Est. total	Source	Reported
Baird's beaked whale	East Sea			1		Gillnet	
Stejneger's beaked whale	East Sea			1		Set net	
				1		Gillnet	
				1		Drifted	
Bottlenose Dolphin	South Sea			1		Unidentified	
Risso's dolphin	East Sea			1		Unidentified	
	South Sea			1		Gillnet	
Common dolphin	East Sea			59		Set net	
				29		Gillnet	
				14		Trap net	
				1		Zigging	
				3		Drifted	
				7		Unidentified	
Pacific white-sided Dolphin	East Sea			3		Set net	
				11		Gillnet	
				3		Trap net	
				1		Stranded	
Harbour porpoise	East Sea			1		Drifted	
				48		Set net	
				54		Gillnet	
				1		Long line	
				1		Stranded	
				1		Drifted	
Finless porpoise	South Sea			2		Unidentified	
	East Sea			2		Gillnet	
				1		Unidentified	
Unidentified dolphin	Yellow Sea			77		Unidentified	
	East Sea			1		Set net	
				1		Trap net	
				1		Drifted	
				4		Unidentified	

8. Strandings

Information of stranded small cetaceans was collected in the same way as bycatch according to the guideline of the MOMAF. The information of stranded small cetacean is included in item 7.1. and the data about large cetacean is in the below table.

Species	Area/stock	Males	Females	Total	Cause	Contact person/institute
Minke whale	East Sea			1	Stranding	Z. G. KIM/NFRDI
		1	1	3	Drifting	
	South Sea	1		1	Stranding	

9. Other studies and analysis

NFRDI gave a contract to the Pukyung National University for conducting acoustical study of the Bottlenose dolphins and ecological study of the Finless porpoise.

NFRDI executed land based Gray Whale sighting survey at light house located in Homi-got, Pohang city (lower part of east coast of Korean peninsula) from 24th of December 2003 to 6th of January 2004.

10. Literature cited

11. Publications

- An, Y. G., Z. G. Kim, H. Sohn, and W. S. Yang. 2004. By-catch of Small Cetaceans in the East Sea. *J. Kor. Soc. Fish. Resources*, 6(2):163-172.
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- Park, J. Y., H. Sohn, Z. G. Kim, W. J. Kim, D. W. Park, and Y. R. An. 2004. Genetic Diversity of the Bycaught of Minke Whales based on the Control Region of Mitochondrial DNA in Korea. *J. Kor. Soc. Fish. Resources*, 6(2):183-192.