

# SC/66a/BRG/18

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## Status Report of Conservation and Researches on the Western North Pacific Gray Whales in Japan, May 2014 - April 2015

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## Status Report of Conservation and Researches on the Western North Pacific Gray Whales in Japan, May 2014 - April 2015

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### Abstract

Following the IWC Resolution 2001-3, 2004-1 and 2005-3, this paper reports status of conservation and research on the western gray whale conducted by Japanese delegation. No mortality due to stranding/by-catch has been reported from the adjacent waters off Japan during the period from May 2014 to April 2015, three independent sightings of gray whales occurred; one from waters off *Kozushima Island* near Tokyo (Pacific side), another one from waters off *Shimizu-miho* (Pacific side), which was lately identified an identical individual to the first one. Yet another one from waters off *Teradomari*, Niigata facing to Sea of Japan. The local Newspaper reported the *Teradomari* sighting was identical to that of the last year sighting occurred in almost same place. The study on skeletal morphology were further developed on gray whales currently beached on the Japanese coasts, and ready to compare specimens collected from eastern stock.

### Introduction

As in IWC Resolution 2001-3, which *inter alia* called on range states and others to actively pursue all practicable actions to eliminate anthropogenic mortality and minimize anthropogenic disturbance to the western gray whale (*Eschrichtius robustus*) population; IWC Resolution 2004-1, which *inter alia* called upon range states to develop or expand national monitoring and research program on western gray whales; and IWC Resolution 2005-3 supporting further efforts to conserve this population, IWC has largely urged the conservation of western gray whales.

Under such circumstances, as response to those IWC Resolutions, Japan provided scientific information on the western gray whales in June 2005 to May 2006 by Kato *et al.* (2006), in June 2006 to May 2007 by Kato *et al.* (2007), from June 2007 to April 2008 by Kato *et al.* (2008) from May 2008 to April 2009 by Kato *et al.* (2009), from May 2009 to April 2010 by Kato *et al.* (2010), from May 2010 to April 2011 by Kato *et al.* (2011), from May 2011 to April 2012 by Kato *et al.* (2012), from May 2012 to April 2013 by Kato *et al.* (2013), and from May 2013 to April 2014 by Kato *et al.* (2014). We hereby submit a similar report for this year's meeting on the information for the period from May 2014 to April 2015.

All known occurrences of the western gray whale around Japanese coasts since 1955 are summarized in Table 1.

## Sightings

### *Systematic Sightings*

National Research Institute of Far Seas Fisheries conducted dedicate systematic cetacean sighting surveys with a total of 6,704.3 n. miles effective searching distances mainly in spring to autumn 2014 in the North Pacific, there was no gray whale sighting throughout the cruises. Tamura *et al.* (2015) reported sightings from the systematic cetacean sighting survey (3,307 n. miles by whale sampling/sighting vessels and 7,636 n. miles by dedicated sighting vessels) made under the JARPN II – offshore component in 16 May to 14 September in northwestern North Pacific, but no gray whale was found. Also, Mogoe *et al.* (2015) and Yoshida *et al.* (2015) reported no gray whale from cetacean sightings by JARPN II – coastal component at Sanriku (Miyagi) and Kushiro (Hokkaido) in April to October 2014.

### *POP sightings during small-type whaling and dolphin fishery operations*

There was no additional report of gray whale sightings by POP bases from all of small-type whaling and dolphin fisheries operations in May 2014 to April 2015.

### *Other POP sightings*

As incidental sightings, three apparently independent gray whale sightings were reported from waters around the Japanese coast in May 2014 to April 2015. As explained below, they were integrated into two independent sightings; one from Pacific side and the other from Sea of Japan side.

The first sighting was firstly made from very neritic waters of *Kozu-shima* Island, one of Izu-Syoto group Islands, south of Tokyo Bay (ca 34°13'N - 139°09'E; Pacific side ) on March 17, 2015. The animal was reported to be staying around the island at least 10 days and probably two weeks. Yet another sighting of gray whale was made from neritic waters off *Miho* beach, Shimizu, Shizuoka (35°00'N - 138°31'E; Pacific side) on April 19, 2015. The sighting was visually confirmed by Ohizumi, one of authors and his colleagues, and the animal was first seen on 19 April by local person and lasted to lay at least 16 days. It was confirmed that the animal was identical one from the *Kozushima* animal, which had been also photoidentified in Sakhalin (It is expected this matching will be reported by US scientists for the 66a SC meeting).

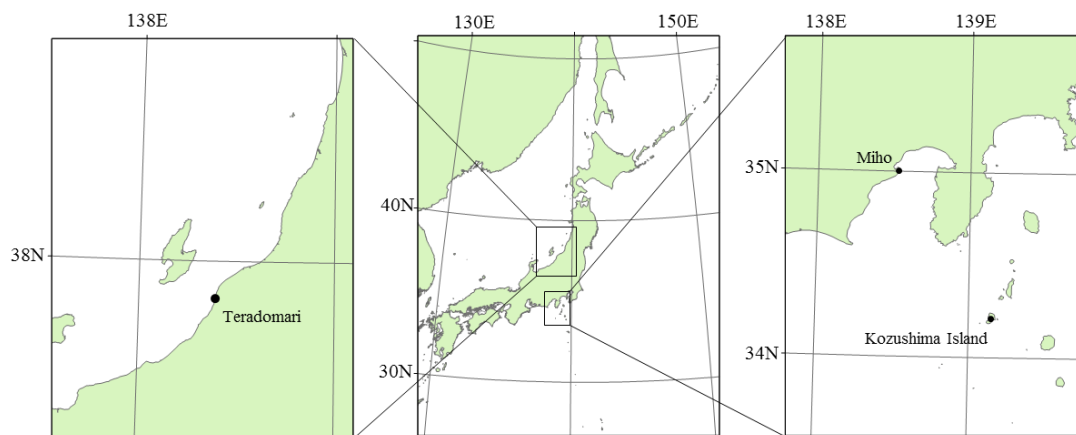


Fig. 1 Geographical locations of the three sightings of gray whales around Japanese coasts during the period May 2014 and April 2015.



Fig. 2 Upper: A gray whale occurred in waters just off the Kozushima Island, one of IZU Islands just south of Tokyo bay, on 17 March 2015. Bottom: Magnified view of the same animals. The whales at least stay two weeks. Photographs are from website of AGUA MATE DIVING CLUB.

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Fig. 3 Tail fluke of the gray whale off Miho, Shizuoka prefecture on 30 April. (Photographs are courtesy of Mr. Motohiro Tastunami, The Chunichi Shimbun)

Yet another sighting was made from waters off Teradomari town (Niigata prefecture, facing to Sea of Japan; 37°38'N - 138°48'E). The local edition of the Asahi newspaper reported that the occurred animal was supposed to be an identical animal which occurred from almost same place in the last year (end of March, 2014). This should be confirmed somewhere by appropriate scientific examination.

## **Mortality**

### *Stranding*

No stranding of gray whale was reported during the period concerned.

### *Entanglement*

No entanglement of gray whale was reported during the period concerned.

## **Research Activities**

Until 2015 April, a total of 29 gray whales appeared around the coast of Japan (Table 1). Skeletal information was available among some of them. In 2012, Nakamura and Kato (2014) compared skeletal morphologies using 5 specimens stranded or entangled off the Pacific coast of Japan between 1990 and 2005 (1 mature and 4 immature animal) with the Ulsan (n=1) and a California (n=1) specimen reported by Andrews (1914). They found that the form of cranial vertex, pelvic bone and sternal bone are morphologically different. And the Japan specimens were more similar to those of the California specimen than to the Korea specimen. This article was published at Mammalian Science (Honyurui Kagaku), the journal of the Mammalogical Society of Japan (in Japanese with English summary).

In 2013, Nakamura and Kato (2013) focused on the vertex of skull, with adding 5 California specimens (body length, 9.3–11.7 m), as preliminary base. The result of this study was presented at 20th biennial conference of the Society for Marine Mammalogy, in December, 2013 (see also Appendix 1). The main points of observation were 1) the positions of posterior end of maxilla and premaxilla, 2) the form of the frontal border of the nasal, 3) the form of the posterior end of premaxilla. In all cases, the morphological features of the five specimens from the coast of Japan are very similar to those of the California (eastern gray whale) specimens, to a greater degree than to the morphology of the Ulsan (western gray whale) specimen. Those findings may suggest that the feeding ground of the eastern stock has expanded to the coastal area of Japan. The progress above was also submitted as a document by Kato and Nakamura (2014) to IWC Gray Whale Workshop, La Jolla, 8-11 April, 2014.

In this year, further study based on the cranial morphology combined with genetics is under progress to clarify morphological differences between eastern and western stocks, with increasing the number of specimens from California.

## **Administrative action**

The FAJ communicated with Metropolitan/prefectural governments to draw attention of relevant coastal communities including local fishermen to the presence of gray whales and requested the governments to take necessary actions. Upon a request from the FAJ, Tokyo Metropolitan Government Office asked the local communities to avoid entanglement of the gray whale sighted off Kozu Island and reminded them of regulation related to the conservation of gray whales on March 18. As for the gray whale sighted off Teradomari, Niigata prefecture, the prefectural government of Niigata did the same request to the local communities on April 9. As for the gray whale sighted off

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Shimizu, Shizuoka prefecture, the prefectural government of Shizuoka did the same request to the local communities on May 1. With these efforts, neither by-catch nor stranding has been reported. The sightings also drew media attention.

### **Acknowledgements**

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Table 1. All known and reported gray whale occurrences around Japan since 1955 to present (till April 2015).

Date dd/mm/yy	From which waters	Region	Sexual status and other	n	Source	
					Status	Reference
16/03/1955	Toyama (Toyama Bay) 36°41'N - 137°12'E	Sea of Japan	?	1	Entanglement	Nambu <i>et al.</i> (2003)
10/06/1959	Off Kii-Ohshima, Kushimoto, Wakayama 33°29'N - 135°55'E	Pacific	?	1	Sighting	Nishiwaki and Kasuya (1970)
02/02/1968	Off estuary of Kumano River. Shingu, Wakayama 36.02E33°43'N - 136°02'E	Pacific	Juvenile 9.0m female	1	Unknown*	Nishiwaki and Kasuya (1970)
??/04/1970	Toyama (Toyama Bay) 36.41N-137.12E	Sea of Japan	?	1	Entanglement	Nambu <i>et al.</i> (2003)
27/03/1982	Off Toba (Ise Bay), Mie 34°28'N - 136°53'E	Pacific	Juvenile**	1	Sighting	Furuta (1984)
25/04/1985	Off Taiji, Wakayama 33°34'N - 136°01'E	Pacific	Juvenile	1	Sighting (through TV)	Kasamatsu and Ishikawa (1990)
25/01/1990	Kohzu, Kanagawa 35°16'N - 139°13'E	Pacific	Juvenile 8.0m male	1	Beached	Kasamatsu and Ishikawa (1990)
Middle/04/ 1993	Off Izu-Ohshima, Tokyo 34°30'N - 139°30'E	Pacific	Juvenile	2***	Sighting	Mochizuki, Mori and Ishikawa (p.c.)
07/04/1995	Toyokoro, Obihiro, Hokkaido 42°35'N - 143°32'E	Pacific	Juvenile 9.5m female	1	Beached	Sawamura and Kimura (p.c.)
16/05/1996	Suttu, Hokkaido 42°45'N - 140°10'E	Sea of Japan	Adult	1	Entanglement	Fisheries Agency
02/03/1997	Matunami, Kashiwazaki, Niigata 37°24'N - 138°34'E	Sea of Japan	?	1	Beached (skull only)	ICR (2005)
22/07/1997	Off Kumanoura, Saga, Kochi 33°06'N - 133°09'E	Pacific	Juvenile	2	Sighting	Kato and Tokuhiko (1997)
19/03/2002	Miyazaki beach, Miyazaki 31°35'N - 131°27'E	Pacific	Juvenile Est. 7.7m	1	Beached	Kato <i>et al.</i> (2003)
06/05/2003	Off Shizuoka (Suruga Bay), Shizuoka 35°00'N - 138°46'E	Pacific	Juvenile, 9-10m	2	Sighting	Shizuoka TV Asahi
11/05/2005	Tomiya (Tokyo Bay), Chiba 35°04'N - 139°49'E	Pacific	Juvenile, 7.81m	1	Entanglement	Kato <i>et al.</i> (2005)
15/07/2005	Enoshima, Onagawa Miyagi 38°23'N - 141°37'E	Pacific	Cow (12.79m) Calf (7.75m)	2	Entanglement	Kato <i>et al.</i> (2006)
18/01/2007	Sanriku, Ofunato, Iwate 39°09'N - 141°54'E	Pacific	Female 9.19m	1	Entanglement	Kato <i>et al.</i> (2007)
01/08/2007	Nishikioka, Tomakomai, Hokkaido 42°36'N - 141°30'E	Pacific	Female 12.33m	1	Beached	Kato <i>et al.</i> (2008)
04/11/2009	Off Owase, Mie 33°52'N - 136°10'E	Pacific	Juvenile, Ca. 6 – 7 m	1	Sighting	Kato <i>et al.</i> (2010)
12/03/2012	Off Irako, Tawara, Aichi 34°36'N - 137°01'E	Pacific	Juvenile	1	Sighting	Kato <i>et al.</i> (2012), Ohike <i>et al.</i> (in prep)
06/04/2014	Off Teradomari, Niigata 37°38'N - 138°48'E	Sea of Japan	Adult, juvenile ****	2	Sighting	The Asahi Newspaper and by direct sighting by S. Nishiwaki
17/03/2015	Off Kozushima Island 34°13'N - 139°09'E	Pacific	Sub-adult	1	Sighting	<a href="https://www.facebook.com/aquamatedivingclub">https://www.facebook.com/aquamatedivingclub</a>
19/04/2015	Off Miho, Shizuoka 35°00'N - 138°31'E	Pacific	Sub-adult	1	Re-Sighting of Kozushima ind.	Direct sighting by H. Ohizumi

31/03/2015	Off Teradomari, Niigata 37°38'N - 138°48'E	Sea of Japan	Adult	1	Sighting	The Asahi Newspaper
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\*: Nishiwaki and Kasuya (1970) reported as “Dead might be caused by the wound made by someone during the evening of the day”.

\*\* : Furuta (1984) estimated animal length to be 12m, but photographs of the animal clearly indicates much smaller length indicating juvenile. \*\*\*: There was an alternative that one additional animal was seen in adjacent waters. \*\*\*\*: There are some possibilities those were cow and calf pair, but they did not occur as one unit at the same time.

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