



Animal Welfare Institute

900 Pennsylvania Avenue, SE, Washington, DC 20003
awionline.org phone: (202) 337-2332 fax: (202) 446-2131

June 19, 2014

SUBMITTED VIA REGULATIONS.GOV

Ms. Nicole R. Le Boeuf, Chief
Marine Mammal and Sea Turtle Conservation Division
Office of Protected Resources
U.S. National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

**Re: Docket No. NOAA-NMFS-2014-0056 and Pending 60-Day Finding on
Petition to Designate the Sakhalin Bay-Amur River Stock of Beluga Whales
as a Depleted Stock under the U.S Marine Mammal Protection Act**

Dear Ms. Le Boeuf:

Animal Welfare Institute, WDC (Whale and Dolphin Conservation), Cetacean Society International, and Earth Island Institute (Co-Petitioners) submit this comment and additional information in support of the Petition to Designate the Sakhalin Bay-Amur River Stock of Beluga Whales (*Delphinapterus leucas*) as a Depleted Stock under the Marine Mammal Protection Act (MMPA).¹

On April 23, 2014, NMFS received the petition.² NMFS published a notice of petition availability on May 20, 2014, which included a request for “comments and information related to the statements in the petition and additional background on the status of [the] Sakhalin Bay-Amur River beluga whales.”³ Section 1383b(a)(2)(B) of the MMPA provides that “[w]ithin sixty days after receipt of the petition, [NMFS] shall publish a finding in the Federal Register as to whether the petition presents substantial information indicating that the petitioned action may be warranted.”⁴ Accordingly, the MMPA mandates that NMFS publish this initial finding on or before June 23, 2014.

This comment discusses additional information on the Sakhalin Bay-Amur River beluga whales from the White Whale Program supported by the Russian Academy of Sciences, the International Whaling Commission’s Scientific Committee, and other sources. This information

¹ See AWI et al., *Petition to Designate the Sakhalin Bay-Amur River Stock of Beluga Whales (Delphinapterus leucas) as Depleted under the MMPA*, at 10 (Apr. 23, 2014).

² 79 Fed. Reg. 28,879, 28,880 (May 20, 2014).

³ *Id.*

⁴ 16 U.S.C. § 1383b(a)(3)(B).

provides further support for statements in the petition and a depleted designation for the Sakhalin-Amur beluga whales. Specifically, this information provides further support for determinations that: (1) the Sakhalin Bay-Amur River beluga whales comprise a “stock” of marine mammals under the MMPA; (2) NMFS’s own, conservative estimate of maximum historical abundance is the best proxy and scientific information available on the stock’s carrying capacity; and (3) annual removals from live captures and other anthropogenic sources of mortality have been, and continue to be, unsustainable, severely impeding the depleted stock’s recovery.

Stock Structure

As noted in the petition, the stock structure of beluga whales has been defined based on consideration of “distribution and migration patterns, morphology, contaminants, population trends, and genetics.”⁵ The petition provides substantial evidence on these factors that indicates that the Sakhalin-Amur beluga whales comprise a “stock” within the meaning of the MMPA.⁶

Co-Petitioners emphasize here that any uncertainty acknowledged in the petition regarding the relationship between Sakhalin Bay-Amur River beluga whales and beluga whales of the southeastern Shantar area is an insufficient basis on which to conclude that the Sakhalin-Amur beluga whales do not comprise a stock.

The petition recognized that genetic data are “not sufficient to test for a genetic distinction between the Sakhalin Bay-Amur River beluga whales and the beluga whales in the southeastern Shantar region.”⁷ One of the two pairings of beluga whale genetic samples in the western Sea of Okhotsk region for which significant differences in nucleotide sequencing in haplotypes have not yet been found is the pairing of samples from Nikolai Bay—the easternmost of the four bays comprising the Shantar area—and samples from the Sakhalin Gulf.⁸ Researchers, however, recently found that, among the beluga whale aggregations in the western Sea of Okhotsk region, the Sakhalin Bay-Amur River beluga whale aggregation “is characterized by the highest degree of haplotypic diversity and a rather high degree of nucleotide diversity.”⁹

Likewise, with regard to migration patterns, Russian researchers also “earlier . . . assumed that aggregations from the Sakhalin Bay-Amur River area and the eastern part of the Shantar[] area occupied the same basins as the belugas of the Sakhalin Bay-Amur River aggregation during fall and moved to the north in winter, mixing with belugas from the Gulf of Shelikhov and western Kamchatka.”¹⁰ Based on more recent data, however, when researchers

⁵ See *Petition*, *supra* note 1, at 10 (citing Gregory M. O’Corry-Crowe & L.F. Lowry, *A Review of the Status and Stock Structure of Beluga Whales*, Delphinapterus leucas, INT’L WHALING COMM’N SCI. COMM. 51st Annual Mtg. 1999, at 2).

⁶ The MMPA defines a “population stock” and “stock” to mean a “group of marine mammals of the same species or smaller taxa in common spatial arrangement, that interbreed when mature.” 16 U.S.C. § 1362(11).

⁷ *Petition*, *supra* note 6, at 12.

⁸ WHITE WHALE PROGRAM, *Sustainable Use of the Beluga Whale (Delphinapterus leucas) in the North-Okhotsk and West-Kamchatka Fishing Subzones*, 3 (Jan. 22, 2014) (Ex. D).

⁹ WHITE WHALE PROGRAM, *Beluga Whale in Far Eastern Seas: mtDNA Lines Assortment and Distribution*, 1 (Mar. 21, 2014) (Ex. F).

¹⁰ *Sustainable Use of the Beluga Whale*, *supra* note 8, at 3–4.

increased sample sizes, they concluded that “belugas from the Sakhalin-Amur aggregation **do not** always move to the gulfs of the eastern part of the Shantar area, but may bypass them migrating to the north for winter.”¹¹

Moreover, the Scientific Committee of the International Whaling Commission (IWC) recently reaffirmed that there are five beluga whale summer aggregations in the Western Sea of Okhotsk region that should be managed as separate stocks. Specifically, the Scientific Committee acknowledged that “[r]ecent studies have identified separate demographic units within the Western-Okhotsk beluga population.”¹² The Committee “reiterate[d] that . . . at least four summer aggregations in the North-Okhotsk subzone (Sakhalin-Amur, Ulbansky Bay, Tugursky Bay, and Udkaya Bay) should be managed separately.”¹³

This additional information on the relationship between beluga whales from the Sakhalin Bay-Amur River area and those from the southeastern Shantar area further supports the already substantial evidence in the petition that the Sakhalin-Amur beluga whales comprise a separate stock within the western Okhotsk population of beluga whales.

Use of Maximum Historical Abundance as a Proxy for Carrying Capacity

The petition also provides substantial evidence indicating that the Sakhalin-Amur beluga whale stock is well below its maximum net productivity level (MNPL) and thus depleted.

The petition primarily relies on a comparison of NMFS’s estimate of the maximum historical abundance of the Sakhalin-Amur stock of 13,000 to 15,000 animals (based on reliable commercial harvest data) with the best current abundance estimate of 3,961 animals (CV = 2.4%).¹⁴ Using these data, “the current abundance [of the Sakhalin-Amur stock] is 26.4 to 30.5 percent of the best estimate of historical abundance, well below the 60 percent standard for depleted designation used by NMFS for other stocks.”¹⁵

The petition relies on NMFS’s estimate of maximum historical abundance as the best scientific information available on current carrying capacity (K) for the Sakhalin-Amur stock. In the past, NMFS has stated that “comparing current to pre-exploitation abundance has, indeed, been used most often in assessing the status of marine mammal stocks relative to their [optimum sustainable populations].”¹⁶

NMFS, however, has also stated that “re-creating historical K is not possible in most cases and [the agency] would rely on current K, absent human exploitation, to determine

¹¹ *Id.* at 3 (emphasis added).

¹² INT’L WHALING COMM’N, REP. OF THE 2014 SCIENTIFIC COMM. ANNUAL MTG. (2014) (Ex. A).

¹³ *Id.* With regard to Nikolai Bay, the Committee stated that beluga whales from Nikolai Bay “should have a zero quota as the number of animals using that bay is very small.” INT’L WHALING COMM’N, REP. OF THE 2013 SCIENTIFIC COMM. ANNUAL MTG., 3 (2013).

¹⁴ NMFS, *Denial Letter & Decision Mem.* 37 (Aug. 5, 2013), available at http://www.nmfs.noaa.gov/pr/permits/sci_res_pdfs/17324_denial_letter_final.pdf.

¹⁵ See *Petition*, *supra* note 1, at 14.

¹⁶ Sixty-Day Finding for a Petition to Conduct a Status Review of the E. N. Pac. Population of Gray Whale under the MMPA, 75 Fed. Reg. 81,225, 81,226 (Mon. 27, 2010).

[optimum sustainable population].”¹⁷ NMFS has never formally adopted this policy in a regulation or formal guidance document. It has, however, stated in various places that:

Where human-caused, correctable degradation of the marine environment has occurred, OSP levels would reflect [K] modified (increased by habitat restoration efforts). If data were available, NMFS would determine K based on the long-term equilibrium population that can be supported under reasonable and proper use of the marine environment and living marine resources.¹⁸

Notwithstanding any such statements, according to NMFS, “[w]here a more direct estimate of current K is not available, the agency has used historical abundance as a proxy for K.”¹⁹ In this case, there is no “research on the potential capacity of ecosystems for sea mammals in Russia.”²⁰ Researchers of the White Whale Program (WWP) recently noted that the “structure and numerical growth, not only of separate groups but even whole populations of belugas and other sea mammals, have not been analyzed. The beluga populations that were once hunted are likely to recover gradually.”²¹ That is, there is no direct estimate of current K available for the Sakhalin Bay-Amur River stock and thus it is necessary and appropriate to use historical abundance as a proxy for K.

The WWP researchers also stated that some of the beluga whale populations of the Sea of Okhotsk “may find it hard to recover their initial structure and strength due to climate change, anthropogenic activities, diseases and other factors. The absence of reliable counts over many years makes it impossible to determine the dynamics of reproduction.”²²

Despite the potential for some habitat degradation from climate change and pollution, the current carrying capacity for the Sakhalin-Amur stock is very likely well above 60 percent of NMFS’s conservative maximum historical abundance estimates (13,000 to 15,000 animals) resulting in “cut-off” levels for a depleted designation of approximately 7,800 to 9,000 animals. At present, the best available population estimate for Sakhalin Bay-Amur River belugas whales is 3,961 animals,²³ well below 60 percent of K using NMFS’s own historical population estimates.

There is considerable evidence that the current K for the Sakhalin Bay-Amur River stock of belugas is at least 13,000 to 15,000, as indicated by NMFS. First, in 1989, just three years after initiation of live-capture operations targeting the Sakhalin-Amur stock (during which an unknown number of beluga whales were removed from the population) the abundance of the stock was estimated to be 7,000 to 10,000 animals.²⁴ Considering the large and unsustainable number of beluga whales killed from within the Sakhalin Bay-Amur River area historically from

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at 81,227.

²⁰ *Sustainable Use of the Beluga Whale*, *supra* note 8, at 7.

²¹ *Id.*

²² *Id.*

²³ *See Denial Letter & Decision Mem.*, *supra* note 13, at 37.

²⁴ *Id.* at 36.

1915 to 1963,²⁵ this would suggest that the carrying capacity of this area is well in excess of 10,000 animals. Second, as NMFS has recognized, regardless of the reliability of this historical abundance estimate, “at least on a relative scale, the Sakhalin-Amur [stock] in 1989 was larger than that found in the Shantar Bay region,”²⁶ yet the current abundance estimate of the Sakhalin-Amur stock is less than 60 percent of the current abundance estimate of the Shantar stock, which is 6,661 animals.²⁷ Thus, the current carrying capacity for the Sakhalin-Amur stock is likely, at a minimum, as great as the current abundance of the Shantar stock. Third, NMFS’s maximum historical abundance estimate of 13,000 to 15,000 is very conservative, as the stock had to be “at least,” or at a minimum, 13,000 to 15,000 animals to withstand an average removal of 1,000 animals per year for 20 years.²⁸

Further, as discussed below, the most serious threat to the Sakhalin-Amur stock is the unsustainable live-capture trade, a threat that could be reduced or eliminated with sound, scientific management of the stock.²⁹ Other threats, that do not appear to be as serious at this time, include human-caused, less correctable habitat degradation attributable to climate change and pollution. As noted in the petition, compared to other cetacean species, the beluga whale is “moderately sensitive” to climate change impacts.³⁰ With regard to pollution, an international protocol “to assess belugas’ health in the wild” is “still in the making,”³¹ and, consequently, the impact of pollutants on Sakhalin Bay-Amur River belugas remains unclear. Furthermore, researchers are presently analyzing data collected from Sakhalin-Amur beluga whales “to identify morbidity parameters and understand what diseases affect them and how widespread they are.”³²

Therefore, even assuming some level of human-caused habitat degradation from climate change and pollution that is more difficult to correct than the adverse impact of live captures, a comparison of NMFS’s conservative estimate of maximum historical abundance of the Sakhalin-Amur stock with its current abundance indicates that the stock is well below its maximum net productivity level and is thus depleted.

Unsustainable Removals

Finally, the petition provides substantial evidence indicating that annual removals by live captures and other anthropogenic sources of mortality have been, and continue to be, unsustainable, contributing to the depleted status of the Sakhalin Bay-Amur River stock of beluga whales and severely impeding its recovery.

²⁵ See *Petition*, *supra* note 1, at 15.

²⁶ *Id.* at 32.

²⁷ *Id.*

²⁸ *Id.* at 37.

²⁹ See, 2014 IWC SCIENTIFIC COMM. REP., *supra* note 12, at 58–59.

³⁰ *Petition*, *supra* note 1, at 19 n.152 (quoting Kristin L. Laidre et al., *Quantifying the Sensitivity of Arctic Marine Mammals to Climate-Induced Habitat Change*, 18 *ECOLOGICAL APPS.* 97, 113 (2008)).

³¹ Dmitry Glazov, WHITE WHALE PROGRAM, *Results of the Expedition to the Sea of Okhotsk*, 6 (Jan. 28, 2014) (Ex. E).

³² *Id.*

As discussed in the petition, the Sakhalin-Amur stock of beluga whales is subject to an unsustainable live capture trade. Specifically, the annual quotas for live capture and the level of reported live captures have been increasing, and, from 2010 to 2012, met or exceeded a potential biological removal (PBR) level of 29 or 30 animals for the stock considered by a scientific review panel of the International Union for Conservation of Nature (IUCN).³³ In addition, the petition noted that “[l]ast year . . . the [IWC Scientific] Committee agreed that the current management scheme for live-capture of belugas in the Sea of Okhotsk was very likely to lead to unsustainable levels of removals, placing at least the Sakhalin-Amur [stock] at high risk of depletion.”³⁴

In May 2014, a paper submitted in connection with the most recent IWC Scientific Committee annual meeting in Bled, Slovenia, revealed new information about live capture during the summer of 2013.³⁵ Based on the paper, the Scientific Committee “**express[ed] strong concern** that the removal of 81 living belugas [from the Sakhalin-Amur stock], with an additional 12 confirmed and over 30 suspected deaths in summer of 2013, is unsustainable for this [stock].”³⁶ Accordingly, the Committee “**reiterate[d]** that removals should be reduced to a level that is consistent with available scientific data.”³⁷ The report of the Subcommittee on Small Cetaceans explains in more detail that “[d]uring 2013, three teams of local contractors, operating independently of one another, worked to capture belugas in the western Okhotsk Sea, focusing effort within a 16 km² area [approximate] of Sakhalinsky Bay where live-captures have been conducted for over 25 years.”³⁸ The Committee further noted that “[c]ompetition among [the increased number of] capture teams and limited capacity of holding facilities may be related to the relatively high levels of observed and suspected mortality in the past season.”³⁹

The paper underlying the 2014 IWC Scientific Committee report states that “the [above] number of mortalities [in 2013] is conservative.”⁴⁰ In the paper, the researchers state that “[s]ome (we believe, all) captured whales, which did not adjust to captivity and were later released unreported, were ‘replaced’ by additional captures.”⁴¹ They also document how captures teams have “attempted to conceal [juvenile beluga whale] mortalitie[s] by sinking the carcass[es].”⁴² See Fig. 1. This information raises concerns about unreported and undocumented mortalities during live capture operations over the past decade. Indeed, the researchers stated “we cannot exclude [the possibility] that the capture team operating in the area [from 2007 to 2010] may have used the safest approach to captures at times when the researchers were onboard and concealed the facts of deaths in cases when no scientists were present.”⁴³ According to the

³³ *Denial Letter & Decision Mem.*, *supra* note 14, at 29.

³⁴ Olga V. Shpak & Dmitri M. Glazov, *Update Report on the White Whale (Delphinapterus leucas) Captures in the Okhotsk Sea, Russia* (INT’L WHALING COMM’N SCI. COMM., 65th Ann. Mtg., Ser. No. SC/65b/SM14, 2014) (Ex. C).

³⁵ See 2014 IWC SCIENTIFIC COMM. REP., *supra* note 12, at 58.

³⁶ *Id.* (emphasis in original).

³⁷ *Id.* (emphasis in original).

³⁸ INT’L WHALING COMM’N, *2014 Rep. of the Subcomm. on Small Cetaceans*, in REP. OF THE 2014 SCIENTIFIC COMM. ANNUAL MTG. Annex L, at 10–11 (June 2014) (Ex. B).

³⁹ *Id.*

⁴⁰ Shpak & Glazov, *supra* note 33, at 3.

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.* at 3–4.

researchers, “‘beluga capture rush’ has started, among other reasons, through the absence of [appropriate] regulations, which would distribute capture-permits in accordance with scientific data.”⁴⁴ The researchers “are also worried about the increased media activity of the live-capturing groups, who are encouraged by rising international interest in buying Russian beluga whales.”⁴⁵

Figure 1. Dead Juvenile Beluga Whale from Sakhalin-Amur Stock Killed During 2013 Live Capture Operations.⁴⁶



This startling new information provides further support for a determination that annual removals from live captures and other anthropogenic sources of mortality have been, and continue to be, unsustainable, severely impeding recovery of the depleted Sakhalin-Amur beluga whale stock. Total removals have now increased in each of the past five years. See Table 1.

Table 1. Actual permanent removals by live-capture (LC) from Sakhalinsky Bay for export and domestic use (not including animals temporarily removed and released to the wild).⁴⁷

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Catch	10	22	10	26	25	31	20	0	25	<u>24</u>	<u>30</u>	<u>33</u>	<u>44</u>	<u>123</u>	N/A
Weight (kg)	N/A	N/A	N/A	N/A	18.6	22.8	22.4	20.4	20.2	20	<u>19.8</u>	<u>22.4</u>	<u>31.2</u>	<u>50.8</u>	N/A

⁴⁴ *Id.* at 4.

⁴⁵ WHITE WHALE PROGRAM, *Dasha Beluga Whale: Removal of Transmitter Attached in 2009* (Apr. 24, 2014) (Ex. G).

⁴⁶ Shpak & Glazov, *supra* note 33, at 3.

⁴⁷ See *Petition*, *supra* note 1, at 16; Shpak & Glazov, *supra* note 33, at 3 (“All whales that were captured alive, or died during the capture operations or were released after being held in the holding pens, should be considered as a ‘take’ under the TAT for that year.”).

Indeed, in 2013, removals attributable to live captures were 4.2 times the PBR level calculated by the IUCN review panel, bringing the most recent five-year average to 50.8, or 1.75 times this PBR level. There are no indications that the current above-PBR level of removals for public display will return to a sustainable level for this depleted stock in the near future and, even if this occurred, it will likely take decades before this stock no longer qualifies for a depleted designation. This new information makes a depleted designation for the Sakhalin-Amur stock by NMFS under the MMPA, and the conservation benefits flowing from it, all the more urgent and warranted.

Thank you for the opportunity to submit these comments and to provide additional information in support of the petition. Please do not hesitate to contact me if you have any questions about the content of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan Millward". The signature is fluid and cursive, with a small flourish at the end.

Susan Millward
Executive Director

And on behalf of:

Whale and Dolphin Conservation
Cetacean Society International
Earth Island Institute, International Marine Mammal Project

cc: Dr. Shannon Bettridge, Office of Protected Resources, NMFS

References

- INT'L WHALING COMM'N, REP. OF THE 2013 SCIENTIFIC COMM. ANNUAL MTG. (2013).
- INT'L WHALING COMM'N, REP. OF THE 2014 SCIENTIFIC COMM. ANNUAL MTG. (2014) (Ex. A).
- INT'L WHALING COMM'N, *2014 Rep. of the Subcomm. on Small Cetaceans*, in REP. OF THE 2014 SCIENTIFIC COMM. ANNUAL MTG. Annex L (June 2014) (Ex. B).
- Laidre, Kristin L., et al., *Quantifying the Sensitivity of Arctic Marine Mammals to Climate-Induced Habitat Change*, 18 ECOLOGICAL APPS. 97, 113 (2008).
- O'Corry-Crowe, Gregory M. & Lowry, L.F., *A Review of the Status and Stock Structure of Beluga Whales, Delphinapterus leucas*, INT'L WHALING COMM'N SCI. COMM. 51st Annual Mtg. 1999.
- Shpak, Olga V. & Glazov, Dmitri M., *Update Report on the White Whale (Delphinapterus leucas) Captures in the Okhotsk Sea, Russia* (INT'L WHALING COMM'N SCI. COMM., 65th Ann. Mtg., Ser. No. SC/65b/SM14, 2014) (Ex. C).
- Sixty-Day Finding for a Petition to Conduct a Status Review of the E. N. Pac. Population of Gray Whale under the MMPA, 75 Fed. Reg. 81,225, 81,226 (Mon. 27, 2010).
- WHITE WHALE PROGRAM, *Beluga Whale in Far Eastern Seas: mtDNA Lines Assortment and Distribution*, 1 (Mar. 21, 2014) (Ex. F).
- WHITE WHALE PROGRAM, *Dasha Beluga Whale: Removal of Transmitter Attached in 2009* (Apr. 24, 2014) (Ex. G).
- WHITE WHALE PROGRAM, *Dmitri Glazov on Results of the Expedition to the Sea of Okhotsk*, 6 (Jan. 28, 2014) (Ex. E).
- WHITE WHALE PROGRAM, *Sustainable Use of the Beluga Whale (Delphinapterus leucas) in the North-Okhotsk and West-Kamchatka Fishing Subzones*, 3 (Jan. 22, 2014) (Ex. D).