ARTICLES

GEORGIA AQUARIUM V. PRITZKER: THE BEGINNING OF THE END FOR BELUGAS IN CAPTIVITY IN THE UNITED STATES

By
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Beluga whales have been displayed in aquariums and zoos for decades, but the end of captive beluga displays in the United States is near, thanks to Georgia Aquarium v. Pritzker. *In 2012, the Georgia Aquarium, on behalf of members of the beluga cooperative breeding program, applied to the National Marine Fisheries Service (NMFS) for a special permit allowing the breeding cooperative to import eighteen beluga whales from Russia. After NMFS denied the permit, the Aquarium brought suit, arguing that NMFS's denial was arbitrary and capricious and that without an influx of belugas, the United States captive beluga whale breeding program could not remain stable. The court ruled against the Aquarium. This Article first discusses the current state of the worldwide beluga population and issues with captive beluga breeding. The Article next discusses the* Georgia Aquarium *case in depth and its staggering implications. Although this Article argues for the immediate end of captive beluga displays, it predicts that without the ability to import wild-caught beluga whales, the United States' captive breeding program almost certainly will not survive. The Article argues that by 2050, U.S. beluga displays will be a thing of the past.*

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I. INTRODUCTION

The Georgia Aquarium, located in Atlanta, Georgia, is the largest aquarium in the western hemisphere and houses "more aquatic life than any other aquarium."[1] The Aquarium is home to a number of rarely seen animals, including beluga whales, who are housed in an 800,000-gallon tank and are one of the Aquarium's main features.[2]

In 2012, the Aquarium filed a permit application with the Department of Commerce's National Marine Fisheries Service (NMFS) to import eighteen beluga whales captured by Russian officials from the

[1] *Fun Facts*, GEORGIA AQUARIUM, http://news.georgiaaquarium.org/internal_redirect/-cms.ipressroom.com.s3.amazonaws.com/216/files/20147/GAI%20Fun%20Facts.pdf [https://perma.cc/XQ65-VEBS] (accessed Jan. 4, 2019).

[2] *Id*.

Sakhalin Bay in the Sea of Okhotsk.[3] What followed was a three-year saga which, when viewed through the lens of history, will be the catalyst for the end of beluga whales in captivity in the United States.

This Article will first discuss the North American cooperative beluga breeding program, the difficulty associated with keeping beluga whales in captivity, and the efforts of the cooperative program, spearheaded by the Aquarium, to obtain a permit under the Marine Mammal Protection Act (MMPA) to import the eighteen wild-caught belugas.[4] The Article will then outline the litigation between the Aquarium and NMFS and explain the factual findings and legal conclusions in *Georgia Aquarium v. Pritzker*, in which the United States District Court for the Northern District of Georgia upheld NMFS's decision to deny the Aquarium the import permit.[5] Finally, the Article will conclude with the prediction that, absent reversal of NMFS's prior interpretation of its regulations or a change to the language of the MMPA or NMFS regulations, the cooperative breeding program will not survive; that is, even if United States aquariums fail to voluntarily end the cooperative breeding program because of concerns about animal welfare, the captive beluga population in the United States, which is housed entirely at cooperative-participating aquariums, will dwindle, and captive beluga displays will end by 2050.

II. BACKGROUND: BELUGAS AND THE BREEDING COOPERATIVE

A. Beluga Whales

Beluga whales are cetaceans, a class of aquatic mammals that includes whales, dolphins, and porpoises.[6] Cetaceans, like their human mammal counterparts, are warm-blooded, must breathe air to survive, and give birth to their young live.[7] Belugas are social animals who communicate with each other and humans and can be taught to respond to visual cues.[8]

Belugas are known as "sea canaries" because of the diversity of their vocal communications, which include various whistles and pulsed sounds that have been compared to bird calls, oxen mooing, deep sighs,

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[3] *Beluga Import Project,* GEORGIA AQUARIUM, http://news.georgiaaquarium.org/-internal_redirect/cms.ipressroom.com.s3.amazonaws.com/216/files/20165/Beluga%20-Import%20Project%20Media%20Kit.pdf [https://perma.cc/885K-B38V] (accessed Jan. 4, 2019).

[4] *Id.*

[5] Ga. Aquarium v. Pritzker. 135 F. Supp. 3d 1280 (N.D. Ga. 2015).

[6] *Cetaceans: Whales, Dolphins, and Porpoises*, MARINE MAMMAL CTR., http://www.marinemammalcenter.org/education/marine-mammal-information/cetaceans/ [https://perma.cc/B99V-GZMJ] (accessed Jan. 4, 2019).

[7] *Id.*

[8] Bruce Oberhardt, *Beluga Whale Intelligence and Problem Solving*, BRUCE OBERHARDT, PH.D, http://bruceoberhardt.com/wp-content/uploads/2015/10/BelugaWhaleIntelligenceAnd-ProblemSolving-WhitePaper-102015.pdf [https://perma.cc/6EF7-45NT] (accessed Jan. 4, 2019).

shrill cries, and the grunting of pigs.[9] One study found that beluga whales have twenty-eight distinctive "call types," and belugas can even learn to imitate sounds, including sounds associated with human speech.[10]

Belugas are intelligent animals and, as a groundbreaking study released in 2018 found, are like humans in that they value culture and family ties.[11] The study found evidence of "social learning" and "kinship," and DNA evidence showed that "[c]losely related whales were found to aggregate together at coastal summering areas each year, and close kin were documented at the same summering sites up to twenty years apart."[12]

Belugas are arctic and subarctic, meaning that they inhabit the Arctic Sea and adjoining waters of Russia, Greenland, and North America.[13] In the United States, belugas are only found in five areas in Alaska, including the Cook Inlet.[14] The recent depletion of the Cook Inlet beluga population has been substantial. In the 1970s, the estimated Cook Inlet population was 1,300.[15] By 1994, it had sunk to 653, and just thirteen years later, only 278 belugas remained in the Cook Inlet.[16] In 2000, the Cook Inlet population was designated as "depleted" under the MMPA.[17] The population did not recover as expected and in 2008, it was deemed endangered under the Endangered Species Act.[18]

The worldwide wild beluga population is classified as "depleted" by the MMPA, meaning that the "species or population stock is below its optimum sustainable population"[19] or the "species or population stock is listed as an endangered species or a threatened species under the Endangered Species Act . . . ."[20]

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[9] *Beluga Whale*, ALL. OF MARINE MAMMAL PARKS & AQUARIUMS, https://www.ammpa.org/-sites/default/files/files/animalfactsheets/AMMPA-BelugaWhaleFactSheet-WEB.pdf [https://perma.cc/7EPQ-RM47] (accessed Jan. 4, 2019).

[10] *Id.*

[11] Greg O'Corry-Crowe et al., *Migratory Culture, Population Structure and Stock Identity in North Pacific Beluga Whales (Delphinapterus leucas),* PLoS ONE (Mar. 22, 2018), https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0194201 [https://perma.cc/T4T5-BRXF] (accessed Jan. 4, 2019).

[12] *Beluga Whales Value Culture and Family Ties: Study*, SCI. NEWS (Apr. 10, 2018), http://www.sci-news.com/biology/beluga-whales-culture-family-ties-05896.html [https://perma.cc/M48H-QA4Q] (accessed Jan. 4, 2019).

[13] *Beluga Habitat and Distribution*, SEAWORLD PARKS & ENT., https://seaworld.org/en/animal-info/animal-infobooks/beluga-whales/habitat-and-distribution [https://perma.cc/DY94-KUAC] (accessed Jan. 4, 2019).

[14] *Beluga Whale*, NOAA FISHERIES, https://www.fisheries.noaa.gov/species/beluga-whale [https://perma.cc/TY2R-HL59] (accessed Jan. 4, 2019).

[15] *Id*.

[16] *Palin Loses Bid to Block Beluga Whale Protection*, NBC NEWS (Oct. 17, 2008, 6:40 PM), http://www.nbcnews.com/id/27238207/ns/us_news-environment/t/palin-loses-bid-block-beluga-whale-protection/ [https://perma.cc/3779-AVDK] (accessed Jan. 4, 2019).

[17] NOAA FISHERIES, *supra* note 14.

[18] *Id*.

[19] Marine Mammal Protection Act of 1972, 16 U.S.C. § 1362 (1)(A) (2000).

[20] *Id.* § 1362 (1)(C).

From the eighteenth through the mid-twentieth century, belugas were hunted for their meat, blubber, and skin.[21] In 1982, the International Whaling Commission banned commercial whaling activities by its member countries, though some countries still set their own catch limits,[22] and small-scale hunting by native populations continues.[23] While the 1982 whaling moratorium "radically reduced the whaling industry,"[24] the beluga population worldwide has continued to decline. The reasons for this reduction are not entirely clear, but human activity plays a large role.[25] Though belugas are sometimes struck by commercial fishing vessels or become trapped in fishing nets, the consequences of human activity on belugas are more commonly indirect.[26]

Because belugas are heavily reliant on their auditory senses, noise pollution from human activity "can negatively affect their ability to find food and mates, navigate, avoid predators, and take care of their young."[27] Additionally, climate change is playing a role—changes in the "extent and thickness" of sea ice are occurring too quickly for belugas to adapt.[28] In some areas of their habitat, including the Cook Inlet, belugas are also threatened by oil and gas drilling, industrial development, and pollution left by those activities.[29]

The average life span of wild beluga whales is between 35 and 50 years.[30] In contrast, an Associated Press study concluded that captive belugas' average lifespan in United States parks and aquariums is

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[21] *Beluga Longevity & Causes of Death*, SEAWORLD PARKS & ENT., https://seaworld.org/en/animal-info/animal-infobooks/beluga-whales/longevity-and-causes-of-death [https://perma.cc/V4FD-9LMA] (accessed Jan. 4, 2019).

[22] *Commercial Whaling*, INT'L WHALING COMM'N, https://iwc.int/commercial [https://perma.cc/8AP4-E7E2] (accessed Jan. 4, 2019).

[23] *Aboriginal Subsistence Whaling*, INT'L WHALING COMM'N, https://iwc.int/aboriginal [https://perma.cc/3CR6-Z7HE] (accessed Jan. 4, 2019). Though hunting by native populations is permissible, many of these populations appear to recognize that the numbers of belugas are dwindling and have decided not to hunt belugas. For example, in 2007, "leaders in Tyonek, a Denaina Athabascan village on the west side of Cook Inlet across from Alaska's population centers, voluntarily said they would not kill two whales in a July hunt allowed under an agreement with the National Marine Fisheries Service. . . ." Doug O'Harra, *Beluga Whales in Decline*, FAR N. SCI. (Apr. 16, 2007), http://www.farnorthscience.com/2007/04/16/marine-mammals/beluga-whales-in-decline/ [https://perma.cc/8KDU-QQUU] (accessed Jan. 4, 2019).

[24] *July 23, 1982: Commercial Whaling is Banned*, NAT'L GEOGRAPHIC, https://www.nationalgeographic.org/thisday/jul23/commercial-whaling-banned/ [https://perma.cc/WP67-QDQZ] (accessed Jan. 4, 2019).

[25] NOAA FISHERIES, *supra* note 14.

[26] *Id.*

[27] *Beluga Facts*, WORLD WILDLIFE FUND, https://www.worldwildlife.org/species/beluga [https://perma.cc/HY9D-CB5V] (accessed Jan. 4, 2019).

[28] *Id*.

[29] Morgana Matus, *Beluga Whales Endangered by Fossil Fuel Extraction in Alaska*, INHABITAT (Jan. 8, 2013), https://inhabitat.com/beluga-whales-endangered-by-fossil-fuel-extraction-in-alaska/ [https://perma.cc/9CHM-BU6W] (accessed Jan. 4, 2019).

[30] *Beluga Whales*, NAT'L GEOGRAPHIC, https://www.nationalgeographic.com/animals/-mammals/b/beluga-whale/ [https://perma.cc/X4KR-3H4A] (accessed Jan. 4, 2019).

about 19.5 years, but even this number appears to be an overestimation because it includes lifespans of belugas who were not born in captivity.[31]

Why the disparity given increases in technology, veterinary medicine, and our knowledge about these animals? Because beluga whales are ill-suited for life in captivity. The reasons are varied. Belugas are "extremely vocal"[32] and use sound to communicate and for echolocation.[33] Because they "live in a world of sound," placing belugas in tanks, experts say, deprives them of their "sensory experience," which is "very, very important" to them.[34] Further, according to Dr. Hal Whitehead, a leading marine mammal expert, belugas are "intensely social mammals with complex and lengthy migrations, and . . . they use a whole bunch of different habitats in different times of the year . . . . There is no way even the best captive situation has even the slightest approximation to that."[35]

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[31] Mike Schneider, *Some Mammals Thrive Longer in Captivity*, PENSACOLA NEWS J. (July 3, 2014, 8:15 PM), https://www.pnj.com/story/news/2014/07/03/mammals-thrive-longer-captivity/12202695/ [https://perma.cc/F6AX-G3QD] (accessed Jan. 4, 2019). This figure appears to overestimate the average lifespan of captive belugas because it appears that the figure was calculated to include deaths of belugas who were born in the wild and later captured. For example, eleven captive belugas died between 2012 and the date of this article. Three of those belugas were wild-caught and lived to ages more consistent with wild rather than captive belugas. Naku, who was captured in 1981, was at least 33 years old when she died in 2014; an unnamed wild-caught female housed at SeaWorld California was at least 36 when she died the same year; and an unnamed wild-caught male housed at SeaWorld Orlando was at least 32 years told when he died in 2015. In contrast, five of those belugas did not survive infancy, one died at age 4 at SeaWorld Texas in 2013, another (believed to be Miki) was 9 when he died at Mystic Aquarium in 2016, and Maris, a female born at the New York Aquarium in 1994, died at age 21. The data on deaths in the last thirty years shows that about seventeen captive-born belugas have died. Of those seventeen, only eight lived past infancy. Considering only those nine belugas, the average age at death (or lifespan) was 9 years. Considering all captive-born beluga deaths in this same period, including the infant deaths, produces an average lifespan of only 5 years. The data used to calculate these averages was provided in response to a Freedom of Information Act ("FOIA") request the author made to NMFS. That data was compiled by NMFS from reports by United States parks and aquariums, and some of that information is incomplete. For example, the actual or estimated birth dates of some of the whales are missing, making it impossible to calculate those whales' ages at death or factor those whales' ages into any average lifespan calculation. Thus, all calculations based on the information provided by NMFS are approximate, and the author makes no representation otherwise. National Marine Fisheries Service, Beluga Records Spreadsheet (2012) (acquired through FOIA request) (on file with author).

[32] *Beluga Communication and Echolocation*, SEAWORLD PARKS & ENT., https://seaworld.org/-en/animal-info/animal-infobooks/beluga-whales/communication [https://perma.cc/AP2S-YRAA] (accessed Jan. 4, 2019).

[33] *Whales in Captivity: What Scientists Say*, CBC NEWS (July 31, 2014, 5:00 AM), http://www.cbc.ca/news/technology/whales-in-captivity-what-scientists-say-1.2722933 [https://perma.cc/S666-S94D] (accessed Jan. 4, 2019).

[34] *Id*.

[35] Marc Bekoff, *Belugas Don't Belong in Captive Whale Mills*, PSYCHOLOGY TODAY (Oct. 9, 2012), https://www.psychologytoday.com/intl/blog/animal-emotions/201210/be

In the wild, belugas "typically migrate, hunt, and interact together in groups of ten to several hundred," conduct that cannot be duplicated in captivity.[36] Some captive belugas also succumb to illness brought on by stressors associated solely with captive life, such as the stress that comes from moving belugas from one aquarium to another for breeding.[37] Others suffer from extreme changes in mental health, evidenced by "highly repetitive behavior," such as swimming in predictable patterns for hours on end.[38]

The recent deaths of a number of captive belugas in the United States bears this out. In 2015, Maris, an adult female beluga at the Georgia Aquarium who was born in captivity, died "suddenly."[39] The next year, Miki, a young male beluga whale housed at Shedd Aquarium died after an unknown "prolonged illness."[40] Later the same year, the Vancouver Aquarium lost two beluga whales. Aurora, 30-years-old, died just nine days after the death of her calf, Qila.[41] Qila, who had been born in captivity, exhibited some of the behavior associated with changes in mental health, including "circling and repeating the same [swimming] pattern," which, according to Lori Marino, a biopsychologist, was "indicative of psychological disturbance."[42]

The ethical issues associated with keeping cetaceans in captivity have led some facilities to make changes, but progress has been slow. In 1996, the Vancouver Aquarium pledged not to capture belugas or other cetaceans from the wild for display in the aquarium and agreed that it would only accept wild-caught cetaceans that had been res-

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lugas-dont-belong-in-captive-whale-mills?page=0 [https://perma.cc/59QY-UA4P] (accessed Jan. 4, 2019).

[36] Matt Potter, *Feds Deny Import Permits for Beluga Whales for SeaWorld*, SAN DIEGO READER (Aug. 7, 2013), https://www.sandiegoreader.com/weblogs/news-ticker/2013/aug/07/feds-deny-import-permits-for-beluga-whales-for-sea/# [https://perma.cc/2FGR-54RL] (accessed Jan. 4, 2019).

[37] *Killer Whale Nami Dies in Captivity*, ORCA PROJECT (Jan. 16, 2011), https://theorcaproject.wordpress.com/2011/01/16/killer-whale-nami-dies-captivity/ [https://perma.cc/8QKH-4QJB] (accessed Jan. 4, 2019).

[38] Larry Pynn, *Vancouver Aquarium's Belugas Showing Key Signs of Stress, Boredom, Experts Say*, VANCOUVER SUN (updated July 2, 2016), http://vancouversun.com/news/local-news/-repetitive-behaviour-of-vancouver-aquarium-beluga-evidence-of-mad ness-behaviour-specialist [https://perma.cc/6EKH-C6PT] (accessed Jan. 4, 2019).

[39] Megan Fisher, *Georgia Aquarium Saddened by Sudden Loss of Beluga Whale*, GA. AQUARIUM (Oct. 22, 2015), http://news.georgiaaquarium.org/stories/georgia-aquarium-saddened-by-sudden-loss-of-beluga-whale [https://perma.cc/942A-8JSD] (accessed Jan. 4, 2019).

[40] Sara Freund, *Shedd Aquarium's Beluga Whale Dies from Illness*, CHI. SUN-TIMES (Aug. 6, 2016), https://chicago.suntimes.com/politics/shedd-aquariums-beluga-whale-dies-from-illness [https://perma.cc/GWL5-MBCA] (accessed Jan. 4, 2019).

[41] *2nd Beluga Whale Dies at Vancouver Aquarium in Less Than Two Weeks*, CBC NEWS (updated Nov. 27, 2016), http://www.cbc.ca/news/canada/british-columbia/aurora-beluga-vancouver-aquarium-dies-1.3869241 [https://perma.cc/6W4H-S3LB] (accessed Jan. 4, 2019).

[42] Pynn, *supra* note 38.

cued.[43] The Vancouver Aquarium continued to display belugas for the next twenty-two years though, until it announced in January 2018 that it would end its whale and dolphin display program, citing community debate about the ethics of keeping these animals in captivity.[44] This move came less than a year after the Vancouver Park Board voted to amend its bylaws to ban the Aquarium from taking in new dolphins and whales.[45] At the time of the announcement, several whales that belonged to the Vancouver Aquarium were on loan to other facilities as part of the breeding cooperative, discussed below.[46] It is not clear what will happen to those belugas, though the facilities to which they were loaned will likely keep them and continue to display and breed them.[47]

In 2016, SeaWorld announced that it would no longer breed captive killer whales at any of its United States facilities.[48] This decision came after pressure from animal rights organizations in the wake of the release of *Blackfish*, a documentary about Tilikum, a SeaWorld Orlando orca who killed his trainer, Dawn Brancheau.[49] But SeaWorld continues to promote its beluga whale programs and shows no sign that it will voluntarily end them anytime soon.[50]

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[43] *The Real Facts*, VANCOUVER AQUARIUM, https://www.vanaqua.org/education/aquafacts/-whales-aquariums [https://perma.cc/Y848-W9M8] (accessed Jan. 17, 2019).

[44] Bethany Lindsay, *Vancouver Aquarium Will No Longer Keep Whales, Dolphins in Captivity*, CBC NEWS (Jan. 18, 2018, 9:30 AM), http://www.cbc.ca/news/canada/british-columbia/-vancouver-aquarium-will-no-longer-keep-whales-dolphins-in-captivity-1.4492316 [https://perma.cc/M683-2ZQX] (accessed Jan. 4, 2019).

[45] Justin McElroy, *Vancouver Park Board Officially Ends Display of New Cetaceans at Aquarium*, CBC NEWS (May 15, 2017, 9:21 PM), http://www.cbc.ca/news/canada/british-columbia/vancouver-aquarium-park-board-cetacean-ban-1.4116721 [https://perma.cc/JTV8-M2AM] (accessed Jan. 4, 2019).

[46] For example, Imaq, a Vancouver Aquarium beluga, has been on loan to SeaWorld San Antonio since 2011. Vincent T. Davis, *Male Beluga Whale Arrives at SeaWorld*, MYSANANTONIO (Apr. 22, 2011, 2:49 AM), https://www.mysanantonio.com/community/article/Male-beluga-whale-arrives-at-SeaWorld-1347634.php [https://perma.cc/24KU-FEHX] (accessed Jan. 4, 2019). Similarly, Vancouver Aquarium's Allua has been housed at SeaWorld San Diego for many years. *SeaWorld Raising First Newborn Beluga Whale*, SAN DIEGO UNION-TRIBUNE (Aug. 11, 2010, 3:13 PM), http://www.sandiegouniontribune.com/sdut-seaworld-raising-first-newborn-beluga-whale-2010aug11-story.html [https://perma.cc/DA6K-XGTE] (accessed Jan. 4, 2019).

[47] Gemma Karstens-Smith, *Vancouver Aquarium Says It Will No Longer Display Whales, Dolphins After Battle With Animal Activists,* STAR (Jan. 8, 2018), https://www.thestar.com/-news/canada/2018/01/18/vancouver-aquarium-says-it-will-no-longer-display-whales-dolphins-after-battle-with-animal-activists.html [https://perma.cc/7ZJR-WG8D] (accessed Jan. 4, 2019).

[48] Greg Allen, *SeaWorld Agrees to End Captive Breeding of Killer Whales*, NAT'L PUB. RADIO (Mar. 17, 2016, 5:59 AM), https://www.npr.org/sections/thetwo-way/2016/03/17/470720804/-seaworld-agrees-to-end-captive-breeding-of-killer-whales [https://perma.cc/HE9R-GE6F] (accessed Jan. 4, 2019).

[49] *Id*.; BLACKFISH (CNN Films 2013).

[50] *See Beluga Interaction Program*, SEAWORLD PARKS & ENT, https://seaworld.com/san-diego/experiences/beluga-interaction-experience/ [https://perma.cc/6CAM-KL6X] (accessed Jan. 4, 2019) (showing ticket purchasing page for beluga interaction program is still active).

B. The Breeding Cooperative and Captive Breeding Problems

The Georgia Aquarium; Shedd Aquarium in Chicago; SeaWorld in San Diego, Orlando, and San Antonio; and Mystic Aquarium in Connecticut participate in a cooperative beluga breeding program.[51] This program is designed to increase the captive beluga population and avoid situations where belugas mate with their offspring.[52] The participants were members of the Alliance of Marine Mammal Parks & Aquariums (AMMPA). However, the Shedd Aquarium is no longer listed as an AMMPA member.[53]

In 2012, there were thirty-one captive belugas in the United States, all of whom were housed at one of the breeding cooperative participants.[54] According to the *New York Times*, sources estimate the

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[51] Elizabeth Lewis, Comment, *Whale Wars: Reconciling Science, Public Opinion, and the Public Display Industry Under the Marine Mammal Protection Act*, 66 ADMIN. L. REV. 861, 874 (2014). The Vancouver Aquarium was also part of the breeding cooperative even though, as outlined in Section I(A), above, it had pledged that it would no longer accept wild-caught cetaceans. Until 2018, the Vancouver Aquarium continued to loan its belugas to other aquariums for breeding purposes and provided some assistance to the Georgia Aquarium and the other members of the breeding cooperative in seeking to import the eighteen Russian belugas. One critic of the Vancouver Aquarium, Jeffrey Matthews, noted that it was exploiting a loophole in its 1996 pledge: "While the Vancouver Aquarium is not directly obtaining cetaceans from the wild . . . it is actively supporting others to do so by participating in this North American breeding pool, . . . [which] means [it] will capitalize on these captures for [its] own benefit." Travis Lupick, *Vancouver Aquarium Beluga Whales Used in Cross-Continent Breeding*, STRAIGHT (Aug. 6, 2014, 9:13 AM), https://www.straight.com/news/700456/vancouver-aquarium-beluga-whales-used-cross-continent-breeding [https://perma.cc/7ZLL-FF7M] (accessed Oct. 6, 2018).

[52] *Vancouver Aquarium's Breeding Program Under Fire in New Documentary*, CTV NEWS (Jan. 26, 2016, 8:54 PM), https://bc.ctvnews.ca/vancouver-aquarium-s-breeding-program-under-fire-in-new-documentary-1.2753600 [https://perma.cc/2M2Z-F94G] (accessed Jan. 4, 2019).

[53] *Our Members*, ALL. OF MARINE MAMMAL PARKS & AQUARIUMS, https://www.ammpa.org:80/ourmembers.html [https://web.archive.org/web/20160425210-439/https://www.ammpa.org/ourmembers.html] [https://perma.cc/WBX2-K6KG] (accessed Jan. 11, 2019). The AMMPA touts its dedication to the highest standards of care for marine mammals and their conservation in the wild through public education, scientific study, and wildlife presentations. AMMPA members pledge to "provid[e] the highest standards of excellence in the service, environments, husbandry, and applied behavioral training techniques" of their animals, employ "global experts and authorities on marine mammals" and set standards and guidelines "designed to exceed the minimum care requirements presented by regulatory bodies." *AMMPA Accreditation Standards and Guidelines, Statement of Purpose*, ALL. OF MARINE MAMMAL PARKS & AQUARIUMS, https://www.ammpa.org/membership/-standards-guidelines [https://perma.cc/-H3SJ-ZDHE] (accessed Jan. 17, 2019).

[54] Felicity Barringer, *Opposition as Aquarium Seeks Import of Whales,* N.Y. TIMES (Oct. 9, 2012), https://nyti.ms/SPZWLW [https://perma.cc/J935-AJDU] (accessed Jan. 4, 2019). Some sources put the number of captive beluga whales at thirty-four in 2012, but that number appears to reflect whales that were housed at the Vancouver Aquarium in British Columbia, Canada. *See* Andy Heil, *Uproar Over U.S. Request to Import "Russian" Beluga Whales*, RADIO FREE EUR./RADIO LIBERTY, https://www.rferl.org/a/beluga-whales-import-request-georgia-aquarium-from-russia-noaa/24749885.html [perma.cc/

number of belugas displayed in facilities worldwide to be "a few hundred."[55]

Female belugas do not become sexually mature until about age 9 and generally stop giving birth at approximately age 25.[56] Female belugas give birth to a single calf every two to three years, on average.[57] Even under the best circumstances, a female beluga can only birth a few calves during her lifetime, and captive breeding is less than ideal.

One critic of captive beluga breeding has suggested that belugas bred in captivity have an "astronomically high infant death rate."[58] At best, captive beluga infant survival rates are poor—only about 50% of newborn calves survive, with survival rates being lowest for those born to first-time mothers.[59]

Anecdotal evidence from North American aquariums seems to back up these statistics. In 2012, the Georgia Aquarium lost a beluga calf born to Maris, a then-teenaged beluga female.[60] Three years later, another unnamed beluga calf born to Maris died of gastrointestinal complications.[61] Maris' two calves were the only reported live beluga births at the Georgia Aquarium, and neither survived.[62] In July 2017, at SeaWorld Orlando, a beluga whale calf that was "unusually weak" briefly survived before ultimately dying less than a week after its birth.[63] Finally, in November 2017, Qinu, a beluga at the Georgia

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4EAZ-R8Y8] (accessed Jan. 4, 2019) (noting that the Aquarium put the number of captive belugas in North America at 34).

[55] Barringer, *supra* note 54.

[56] *Beluga Whale,* OCEANWIDE EXPEDITION, https://oceanwide-expeditions.com/to-do/-wildlife/beluga-whale [perma.cc/D9GG-3PVK] (accessed Jan. 4, 2019).

[57] *Beluga Birth and Care of Young*, SEAWORLD PARKS & ENT., https://seaworld.org/en/animal-info/animal-infobooks/beluga-whales/birth-and-care-of-young [https://perma.cc/M98B-ESXD] (accessed Jan. 4, 2019).

[58] CTV NEWS, *supra* note 52.

[59] Bo Emerson, *Beluga Calf's Death the Latest in Series of Losses at Georgia Aquarium*, ATLANTA J.-CONST. (Nov. 8, 2017, 7:40 PM), https://www.myajc.com/news/beluga-calf-death-the-latest-series-losses-georgia-aquarium/WBegaNYE04uawb5jOOKwxL/ [https://perma.cc/APU2-4BLE] (accessed Jan. 4, 2019). Based on information provided by NMFS under a FOIA request, nine beluga calves were born at cooperative member facilities between 2012 and 2018, and only four survived past age 2: Kimalu (born August 27, 2012); unnamed male housed at SeaWorld San Antonio (born July 9, 2013); unnamed male housed at SeaWorld San Antonio (born September 17, 2017); and unnamed male housed at SeaWorld San Antonio (born August 11, 2016). National Marine Fisheries Service, Beluga Records Spreadsheet (2012) (acquired through FOIA request) (on file with author).

[60] Colleen Weiler, *A Sad Legacy: Captive Beluga Pregnant with Her First Calf*, WHALE & DOLPHIN CONSERVATION (July 7, 2017, 9:34 PM), http://us.whales.org/blog/2017/07/sad-legacy-captive-beluga-pregnant-with-her-first-calf [https://perma.cc/APU2-4BLE] (accessed Jan. 4, 2019).

[61] James Cave, *Georgia Aquarium's Celebrated Baby Beluga Dies Less than a Month After Birth*, HUFFINGTON POST (updated June 9, 2015), https://www.huffingtonpost.com/2015/06/05/-georgia-aquarium-baby-beluga-death_n_7522704.html [https://perma.cc/XQ5T-66S6] (accessed Jan. 4, 2019).

[62] *Id*.

[63] Christal Hayes, *Newborn Beluga Whale Dies Shortly After Birth at SeaWorld*, ORLANDO SENTINEL (July 8, 2017, 4:20 PM), http://www.orlandosentinel.com/travel/blogs/

Aquarium, suffered a stillbirth, the third failed attempt to produce a healthy beluga calf at that facility in five years.[64]

Between 1994 and 2012, when the Aquarium filed its application, approximately twenty-four belugas were born in captivity in the United States; on average, slightly more than one each year.[65] Since then, however, the birth rate has slowed substantially, with many stillbirths and infant deaths.[66]

III. THE MMPA AND THE PERMIT APPLICATION

A. The Marine Mammal Protection Act

The MMPA was enacted to protect marine mammals from "diminish[ing] beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part [and] . . . diminish[ing] below their optimum sustainable population."[67] The MMPA is "not intended as a 'balancing act' between the interests of industry and the animals"; its primary purpose is to protect marine mammals.[68]

In furtherance of this purpose, the MMPA provides for a "moratorium on the taking and importation of marine mammals"[69] subject to certain exceptions, including for scientific research, "enhancing the

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theme-park-rangers/os-seaworld-beluga-whale-dies-20170708-story.html [https://web.archive.org/web/20170908215735/ http://www.orlandosentinel.com:80/travel/blogs/theme-park-rangers/os-seaworld-beluga-whale-dies-20170708-story.html] [https://perma.cc/Y7WH-E6BF] (accessed Jan. 4, 2019).

[64] *Updates on Qinu*, GA. AQUARIUM (Nov. 8, 2017, 9:00 AM), http://news.georgiaaquarium.org/-stories/qinu-updates [https://perma.cc/34ZW-RNH4] (accessed Jan. 4, 2019). There have, however, been some successful captive beluga births through the breeding cooperative. For example, two belugas at SeaWorld San Antonio have successfully birthed calves in recent years. Crissy gave birth to a calf in September 2017. Sarah Martinez, *SeaWorld Has a New Baby Beluga Whale*, SAN ANTONIO CURRENT (Sept. 18, 2017, 10:20 AM), https://www.sacurrent.com/the-daily/archives/2017/09/18/seaworld-has-a-new-baby-beluga-whale [perma.cc/9A9H-MJ3Y] (accessed Jan. 4, 2019). Luna gave birth in August 2016. Joshua Fetcher, *Beluga Whale Calf Born at San Antonio SeaWorld*, MYSANANTONIO (Aug. 11, 2016, 6:27 PM), https://www.mysanantonio.com-/business/local/article/Beluga-whale-calf-born-at-SeaWorld-San-Antonio-9137684.php [https://perma.cc/2MMR-NYYX] (accessed Jan. 4, 2019).

[65] Barringer, *supra* note 54.

[66] *See* National Marine Fisheries Service, *supra* note 59. According to information provided by NMFS, the following beluga calves have died since 2012: Unnamed female calf housed at the Georgia Aquarium (bronchopneumonia; aged 5 days); unnamed female calf housed at the Georgia Aquarium (congenital legions and viral infection; aged 25 days); unnamed female calf housed at the Georgia Aquarium (stillborn); unnamed female calf housed at SeaWorld Orlando (neonatal death); and an unnamed female housed at SeaWorld San Antonio (neurologic disease; aged 2). National Marine Fisheries Service, Beluga Records Spreadsheet (2012) (acquired through FOIA request) (on file with author).

[67] 16 U.S.C. § 1361(2) (2012).

[68] *Ga. Aquarium*, 135 F. Supp. 3d at 1292 (citing Fed'n of Japan Salmon Fisheries Co-op Ass'n v. Baldridge, 679 F. Supp. 37, 46 (D.D.C. 1987)).

[69] 16 U.S.C. § 1371(a).

survival or recovery of a species or stock," and public display.[70] The MMPA expressly prohibits the importation of certain marine mammals under all circumstances, including those marine mammals nursing at the time of the taking.[71]

When a person or entity seeks to import a marine mammal under one of the exceptions to the moratorium, NMFS may issue permits allowing the importation.[72] NMFS's regulations contain "issuance criteria" for a permit, and NMFS requires the applicant to show that the "proposed activity by itself or in combination with other activities, will not likely have a significant adverse impact on the species or stock"; that any import "will not likely result in the taking of marine mammals . . . beyond those authorized by the permit"; and that animals to be imported were not "nursing at the time of the taking."[73]

The MMPA "imposes a strict burden of proof" on the applicant to "show that the taking should be allowed and will not work to the disadvantage of the species . . . ."[74] "If that burden is not carried—and it is by no means a light burden—the permit may not be issued."[75]

B. The Aquarium's Permit Application

In 2012, the Aquarium applied for an import permit for the eighteen beluga whales "'to enhance the North American beluga breeding cooperative by increasing the population base . . . to a self-sustaining level . . . .'"[76] A secondary stated goal was to "'promote conservation and education.'"[77] Russia is the "sole regular supplier of belugas to the public display industry" and has been since 1992, when Canada stopped live capture operations.[78]

The whales the Aquarium sought to import had been captured between 2006 and 2011 in the Sakhalin Bay of the Sea of Okhotsk and held at the Utrish Marine Mammal Research Station in Russia.[79] They were held at the facility specifically for the Aquarium and other members of the breeding cooperative.[80]

After a public notice and comment period, in August 2013, NMFS denied the permit application, citing the Aquarium's inability to satisfy the permit criteria.[81] Specifically, NMFS found that the Aquarium had not proven: (1) that the import "by itself or in combination with other activities, will not likely have a significant adverse impact on the

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[70] *Id.* § 1371(a)(1).
[71] *Id.* § 1372(b).
[72] *Id.* § 1374(a).
[73] 50 C.F.R. § 216.34(a)(4), (7) (2017); 50 C.F.R. § 216.12(c)(2) (2017).
[74] *Ga. Aquarium*, 135 F. Supp. 3d at 1293.
[75] *Id*.
[76] *Id.* at 1286 (citing Permit Application).
[77] *Id*.
[78] *Id*. at 1324–25.
[79] *Id*. at 1286.
[80] *Id*. at 1297.
[81] *Id*. at 1286–87.

species or stock"; (2) that the import would not likely result in the taking of marine mammals beyond those authorized by the permit sought; and (3) that none of the whales were nursing at the time of the taking.[82]

In September 2013, the Aquarium sought judicial review under the Administrative Procedure Act (APA).[83] The AMMPA "strongly support[ed]" the Aquarium's petition for judicial review, claiming that the Aquarium "met the requirements of the [MMPA] and made a compelling case for the importance of this import to the long term sustainability of the population in human care, as well as to the continued scientific research and education programs, which help ensure the sustainability of the species in the wild."[84]

On September 28, 2015, Judge Amy Totenberg of the United States District Court for the Northern District of Georgia, issued an opinion holding that NMFS had not acted arbitrarily and capriciously in denying the Aquarium's permit application.[85] The litigation ended when the Aquarium announced that it would not appeal the decision.[86] While initial reports suggested that the Aquarium and other members of the breeding cooperative might try to acquire beluga whales from other sources,[87] that report has, thus far, not held true.

IV. THE GEORGIA AQUARIUM ORDER

A. The Standard of Review and the Aquarium's Identified Errors

In *Georgia Aquarium*, the court was tasked with reviewing the propriety of NMFS's permit denial. Under the APA, a court may only consider whether the agency's decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[88] That standard is an "exceedingly deferential"[89] one, and the court may only find the agency's action arbitrary and capricious where the agency: "[R]elied on factors which Congress has not intended it to consider,

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[82] *Id*. at 1287–88.

[83] The court also allowed many amici curiae to file briefs, including Defenders of Wildlife, the Humane Society of the United States, and many well-known conservationists, including Kim Basinger, David Blaine, Jean-Michel Cousteau, and Dr. Jane Goodall. *Id.* at 1340.

[84] *Alliance of Marine Mammal Parks and Aquariums Statement on Georgia Aquarium's Complaint Seeking to Overturn Permit Denial for Beluga Whale Import*, ALL. OF MARINE MAMMAL PARKS & AQUARIUMS (Sept. 30, 2013) http://www.ammpa.org/_docs/131001AlliancestmtGAIcomplaint.pdf [https://web.archive.org/web/20161227025245/http://www.ammpa.org/_docs/131001AlliancestmtGAIcomplaint.pdf] [https://perma.cc/DK5T-KURZ] (accessed Jan. 4, 2019).

[85] *Ga. Aquarium*, 135 F. Supp. 3d at 1340.

[86] Carla Caldwell, *Georgia Aquarium Will Not Appeal Decision to Block Import of Beluga Whales*, ATLANTA BUS. CHRONICLE (Nov. 18, 2015, 3:47 AM), https://www.bizjournals.com/-atlanta/morning_call/2015/11/georgia-aquarium-will-not-appeal-decision-to-block.html [https://perma.cc/DSE6-QHVP] (accessed Jan. 4, 2017).

[87] *Id*.

[88] 5 U.S.C. § 706(2)(A) (2012).

[89] Defenders of Wildlife v. U.S. Dep't of Navy, 733 F.3d 1106, 1115 (11th Cir. 2013).

entirely failed to consider an important aspect of the problem, offered any explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."[90]

If the agency "examined the relevant data and articulated a satisfactory explanation for its action,"[91] the reviewing court may not "substitute [its] judgment for the agency's as long as [the agency's] conclusions are rational."[92] According to one study, between 1982 and 2014, administrative agency decisions were upheld under the arbitrary and capricious standard 92% of the time by the United States Supreme Court.[93] While the lower courts have upheld agency decisions at a lower percentage,[94] challengers still must overcome this high hurdle. As explained below, the Aquarium did not.

The Aquarium identified ten errors in NMFS's denial of its permit application, which the court characterized as "cast[ing] a wide net, but haul[ing] in little of substance."[95] Beyond claiming that NMFS's denial of its permit application was arbitrary and capricious on three main grounds, the Aquarium also argued that the denial was "inconsistent with the Congressional policy to further the public display of marine mammals" and a "setback to marine mammal conservation, research, and education."[96]

B. The Finding that the Aquarium Failed to Show the Import Permit Will not Likely Have an Adverse Impact on the Stock From Which the Whales to be Imported Were Taken.

The whales to be imported under the permit had already been caught when the Aquarium submitted the application.[97] Thus, the Aquarium claimed that the taking would not occur from the wild and viewed the permit application as "only for importation for public display"[98] (i.e., a transfer request). Thus, according to the Aquarium, any potential impacts would occur regardless of the proposed import, and

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[90] Miccosukee Tribe of Indians of Fla. v. U.S., 566 F.3d 1257, 1264 (11th Cir. 2009) (citations omitted).

[91] Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng'rs, 781 F.3d 1271, 1288 (11th Cir. 2015) (citations omitted).

[92] *Defenders of Wildlife*, 733 F.2d at 1115 (citations omitted).

[93] Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355, 1358 (2016).

[94] *See* Kent Barnett & Christopher J. Walker, *Chevron in the Circuit Courts*, 116 MICH. L. REV. 1 (2017) (finding in a study that circuit courts upheld 71% of reasonable federal agency interpretations and applied *Chevron* deference in 77% of relevant cases but when circuit courts applied *Chevron* deference, there was almost a 25% difference in agency-win rates compared to when they did not apply *Chevron* deference).

[95] *Ga. Aquarium*, 135 F. Supp. 3d at 1295.

[96] *Id.* at 1294 (quoting Permit Application).

[97] *Id.* at 1296.

[98] *Id.*

the import, therefore, "would not directly result" in effects on the whales or stock.[99]

NMFS, however, viewed the application as one to import wild-caught belugas rather than one to transfer previously caught whales.[100] This position was based on the permit request, which contained evidence that at least some of the eighteen whales were caught for the Aquarium in anticipation that it would apply for the import permit and all were held at a non-public display facility in Russia "exclusively" for the Aquarium pending the permit approval.[101]

The Aquarium knew that it bore the burden of proving that the import would not likely have an adverse impact on the stock from which the animals were taken.[102] Thus, before it applied for the permit, the Aquarium and other cooperative members commissioned a study of the Sakhalin-Amur beluga population (the Sakhalin "population" or "stock") to determine "the number of animals that could be removed without initiating a population decline" in that stock.[103] The research results were sent to an "independent scientific review panel" with the International Union for Conservation of Nature to determine a "potential biological removal level" (PBR) for the Sakhalin stock.[104] PBR is defined by the MMPA as "the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population."[105]

Based on the research, the review panel calculated the Sakhalin stock PBR at an average of thirty whales per year over a five-year period.[106] The Aquarium looked at the number of belugas taken from the Sakhalin population and concluded that the average number of belugas taken over the previous five years was 22.4, and with the exception of 2010 and 2011, fewer than thirty belugas were collected from the Sakhalin Bay each year.[107] This 22.4 figure included whales that were taken but were not part of the import request.[108] Thus, according to the Aquarium, because the average number of whales taken was below

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99 *Id.*

100 *Id.* at 1297.

101 *Id*.

102 *See id.* at 1339 (explaining Congress purposely "put teeth" in the MMPA by placing a strict burden on those seeking permits).

103 *Id.* at 1297.

104 *Id.*

105 16 U.S.C. § 1362(20) (2012).

106 *Ga. Aquarium*, 135 F. Supp. 3d at 1297. This calculated PBR was based on a minimum population estimate of 2,972, an estimated net productivity rate of 0.4, and a recovery factor of 0.5, which is applied to stock of unknown recovery status. *Id*. at 1298. A stock with unknown recovery status is one in which "the populations have been depleted, and their recovery trajectory is unknown." *Id.* at 1298–99.

107 *Id.* at 1300.

108 *Id.*

the PBR, "the effects of combined takes of beluga whales from this area . . . are not anticipated to result in adverse impacts" on the stock.[109]

The Aquarium's first four errors all related to the NMFS's determinations vis-à-vis the Aquarium's submitted PBR.

1. NMFS's finding that PBR is not "an appropriate method to assess adverse impacts to a declining species stock."[110]

NMFS disagreed with the Aquarium's contention that the import would not have adverse impacts on the Sakhalin stock, concluding that the Aquarium did "not adequately consider the impacts of the proposed importation in combination with other past, present, and foreseeable future actions affecting the stock . . . ."[111] Specifically, NMFS concluded that "looking only at the PBR and comparing that to the number of animals removed by a single activity is not an appropriate way to assess whether the proposed activity by itself or in combination with other activities, would likely have a significant adverse impact on the species. . . ."[112]

NMFS further noted that the Sakhalin stock had declined in recent years, making PBR an inappropriate "proxy to determine the sustainability of the live-capture activity."[113] Thus, according to NMFS, "the . . . [Sakhalin] stock has experienced a small, yet significant and unsustainable decline over the past several decades that has gone undetected given the minimal amount of monitoring that has occurred over the years," and NMFS could not discount "the live capture of beluga whales . . . as a possible contributing factor to this decline."[114]

NMFS also noted that the Sakhalin stock population was "data-poor and ha[d] considerable uncertainty" because "[t]here is very little documented information about past abundance levels that can be compared to the present and there is limited information on past and current threats to this population."[115] Finally, NMFS concluded that it would be appropriate to only consider PBR where the stock population

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[109] *Id.*

[110] *Id*. at 1302.

[111] *Id*. at 1301.

[112] *Id*.

[113] *Id*.

[114] *Id*.

[115] *Id*. The entire beluga population—not just the Sakhalin stock—is data-poor. Scientists cannot even agree on the estimated number of belugas that remain in the wild worldwide. SeaWorld puts that number at between 60,000 and 80,000; the World Wildlife Fund estimates the worldwide population at more than 150,000; and the International Union for the Conservation of Nature believes that the mature population alone is around 136,000. *See Beluga Habit and Distribution*, *supra* note 13 (noting SeaWorld's estimated beluga population); WORLD WILDLIFE FUND, *supra* note 27; *The IUCN Red List of Threatened Species,* Delphinapterus leucas, INT'L UNION FOR CONSERVATION OF NATURE & NAT. RES., https://www.iucnredlist.org/species/6335/-50352346# population [https://perma.cc/UEG3-J832] (accessed Jan. 4, 2019).

is increasing, which "does not appear to be to case for the stock in question."[116]

In claiming that NMFS's decision was arbitrary and capricious, the Aquarium alleged that NMFS's finding that PBR was an inappropriate standard to measure the effect of the taking was "newly-contrived" and that NMFS was selectively applying it to the Aquarium's application.[117] The Aquarium alleged that NMFS had a "practice and policy" of using PBR for assessing declining populations and pointed to several rules, permits, and litigation in which NMFS had relied on PBR.[118]

NMFS responded that PBR is not a required standard under the MMPA for determining an appropriate level of taking but was added to the MMPA as a commercial fisheries management tool and is not included or referenced in the section of the MMPA relating to permits.[119] NMFS further stated that its prior use of PBR had been "limited."[120]

The court agreed that NMFS's "discretionary consideration of PBR in a handful of situations involving scientific research and subsistence take[s] do not establish a 'practice and policy' of relying on PBR in all circumstances."[121] NMFS had placed "variable" weight on PBR in other contexts, had identified PBR "as only 'an upper threshold level of mortality,'" and had noted in other cases that "allowing harvest up to the level of PBR would have an adverse impact."[122] The court held that NMFS "appropriately exercised" its discretion in considering but not relying on the Aquarium's PBR.[123]

2. *The determination that the PBR could be exceeded "due to sources of removal other than live-capture."*[124]

The court also held that NMFS's conclusion that the Aquarium's PBR could be exceeded from "removals from sources other than public display" was proper.[125] NMFS concluded that the Aquarium's sustainability claim was "dependent on the assumption that the number of animals being removed from the population during live-captures will remain under the calculated PBR and that no other human-caused factors are contributing to loss of animals from the population."[126] NMFS noted that "in three separate years, [thirty] or more animals were taken," which "allow[ed] for no buffer to account for other sources

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116 *Ga. Aquarium*, 135 F. Supp. 3d at 1301.
117 *Id*. at 1302.
118 *Id*.
119 *Id*. at 1303.
120 *Id*.
121 *Id*. at 1304.
122 *Id.*
123 *Id*. at 1305.
124 *Id.*
125 *Id*.
126 *Id*.

of human-caused mortality,"[127] and the number of takings "appear[ed] to be trending upward over time."[128]

Further, NMFS identified "at least six potential sources of removal" that, when added to the live captures, "could cause PBR to be exceeded."[129] NMFS's guidelines "require that other sources of human-caused mortality . . . be considered."[130] And according to NMFS, the information necessary to evaluate the likelihood that other sources of human-related activity could cause PBR to be exceeded was "largely anecdotal" or absent entirely for the Sakhalin stock, and the court agreed that the Aquarium's "absence-of-evidence argument" was not compelling.[131]

The genesis of NMFS's decision as to the impact on the population stock was that "although the full extent of other sources of mortality cannot be determined, it cannot be fully discounted or assumed to be zero,"[132] leaving "too much room for error."[133] The court held that NMFS's determination that the Aquarium had failed to meet its burden was appropriate and that its denial of the application was reasonable and consistent with the MMPA because the Aquarium's calculated PBR "failed to take into account these other potential mortality sources . . . ."[134]

3. NMFS's reliance on the International Council for the Exploration of the Seas criteria.

Though NMFS contended that it could have based its denial solely on the PBR evaluation, it also looked at the propriety of the Aquarium's application "under a population management framework established by the International Council for the Exploration of the Seas or 'ICES.'"[135] NMFS noted that the ICES criteria was not controlling, but considered it because it provided an "additional tool" to examine the Sakhalin population's sustainability.[136] While the court "strained" to see how NMFS could "logically be considered to have acted in an arbitrary and capricious manner in alternatively examining the permit's impact on sustainability under a tool . . . [NMFS] acknowledged was

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[127] *Id*. at 1305–06.

[128] *Id* at 1306.

[129] *Id*. The six additional sources include subsistence hunting, death during taking operations, entanglement in fishing nets, vessel strikes, climate change, and pollution. *Id*. "Ice-associated animals," such as beluga whales, "may be sensitive to changes in Arctic weather," the NMFS noted, and the effects of pollution in the Sakhalin Bay on belugas is "difficult to determine," but "cannot be fully discounted or assumed to be zero." *Id*. at 1309–10.

[130] *Id*. at 1306.

[131] *Id*.

[132] *Id*. at 1310.

[133] *Id*.

[134] *Id*. at 1306.

[135] *Id*. at 1311.

[136] *Id*. at 1311–12.

not controlling," the court nonetheless addressed and dismissed the Aquarium's argument.[137]

The court held that the decision to consider the ICES criteria was not arbitrary and capricious because, under the permit criteria, NMFS should consider "opinions or views of scientists or other persons or organizations knowledgeable of the marine mammals" at the center of the application.[138] The court further rejected the Aquarium's argument that NMFS had used incorrect historical maximum and minimum population estimates in performing the ICES analysis, in part because both the PBR calculation under the MMPA and the ICES framework used the same conservative minimum population estimate, and because in its application the Aquarium relied on the same historical maximum figure of the Sakhalin population that it criticized NMFS for using.[139]

Further, the Aquarium argued that NMFS' reliance on the ICES criteria was flawed because there is no evidence that the Sakhalin population is "currently declining."[140] The court held that argument resulted from a "misunderstanding of . . . [the Aquarium's] own burden in seeking a permit under the statute's issuance criteria."[141] The court analyzed the three different scenarios NMFS had used, all of which "pointed to a decline" in the Sakhalin population[142] before noting that the relevant question is not "whether NMFS offered conclusive proof" that the population was declining, but whether the Aquarium met its burden of proving that its import application was "consistent with the purposes of the MMPA."[143] Because the court held the Aquarium did not meet that burden, NMFS's use of the ICES criteria was appropriate.[144]

4. NMFS's use of the Aquarium's calculated PBR level.

Surprisingly, one of the Aquarium's contentions on appeal was that NMFS "departed from its normal practice when computing the PBR against which to measure the proposed takes," and had NMFS used the proper calculation, the PBR for the Sakhalin population would be forty-six, not thirty.[145] The court made short work of that argument, holding that the Aquarium itself had calculated the appropriate PBR at thirty in its application and NMFS did not make "a clear error of judgment in its consideration of the PBR expressly proposed by the [Aquarium]."[146]

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[137] *Id*. at 1312.
[138] *Id*. at 1314 (citing 50 C.F.R. § 216.34(b)).
[139] *Id*. at 1316–17.
[140] *Id*. at 1319.
[141] *Id*.
[142] *Id*.
[143] *Id*. at 1321–22.
[144] *Id*. at 1322.
[145] *Id*.
[146] *Id*. at 1322–23.

C. NMFS's Finding that the Aquarium Failed to Show That its Import Would Not Likely Result in Additional Captures of Belugas Beyond Those Authorized by the Permit.

Under the second permitting criteria at issue, the Aquarium was required to show that the import was "not likely to result in replacement takes or otherwise increase demand for protected species or protected species parts resulting in takes to meet such anticipated demand."[147] To satisfy this requirement, NMFS had previously required that applicants confirm that the foreign facility from which the animals were to be imported would not replace them "with additional animals of the same species."[148]

To meet its burden, the Aquarium had provided information that the Russian Ministry of Fishery issues a maximum number of annual capture permits, which had ranged from forty to fifty-seven, that the quota had "never been fulfilled" since the permits had been issued, and that the quota "[would] not change due to the importation of belugas under [the Aquarium's] permit."[149] The Aquarium further claimed that the importation would actually "reduce the demand for wild-caught beluga whales for public display" by enabling the beluga breeding cooperative to reach a self-sustaining level.[150]

NMFS found, however, that "additional beluga whales are likely to be captured as part of the ongoing, legal marine mammal capture operation in Russia"[151] and that the Aquarium had failed to meet its burden of proving that granting the import permit would not result in additional takings.[152]

NMFS noted that in previous imports of beluga whales, "the shipping facilities . . . provided assurances that additional animals would not be acquired as a result of the import."[153] One request was granted in 2004 to permit SeaWorld to import a beluga whale from a German zoo to improve the whale's quality of life, and the zoo director provided confirmation that the zoo had "no intentions of acquiring [a] substitute animal [ ] . . . from the wild or from other facilities" and did not plan to display belugas in the future.[154] Another application was granted in 2005 to permit the Aquarium to import two belugas as a medical rescue from a facility that confirmed in writing that it did not intend to obtain additional belugas to display.[155]

NMFS found the Aquarium's permit request was "different" because the "ongoing legal marine mammal capture operation in Russia

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147 *Id*. at 1323 (discussing NMFS's interpretation of 50 C.F.R. § 216.34(a)(7)).
148 *Id*.
149 *Id*.
150 *Id*.
151 *Id*. at 1324.
152 *Id*.
153 *Id*.
154 *Id*. at 1325.
155 *Id*.

is expected to continue," meaning that the Aquarium could not "obtain the assurance that an additional [eighteen] whales would not be captured in the future in place of the [eighteen] whales request for import."[156] According to NMFS, "[i]f these [eighteen] beluga whales are not imported to the U.S. they could be made available to public display facilities in other countries and it is possible that [eighteen] fewer beluga whales would be captured in Russia to supply to other facilities."[157]

The Aquarium argued that NMFS improperly interpreted its regulations, improperly relied on a proposed rule that was not adopted in assessing the sufficiency of the Aquarium's certification, and applied the incorrect standard in determining that granting the permit would likely result in replacement captures.[158]

1. NFMS's interpretation of its regulations as prohibiting replacement takes.

Initially, the court noted that an agency's interpretation of its regulations is "controlling unless plainly erroneous or inconsistent with the regulation."[159] The Aquarium argued that NMFS's interpretation of the regulation as effectively "requir[ing] that a foreign nation and its citizens must agree to not collect or export other animals of that species before NMFS will allow import of animals collected in a foreign nation" was plainly erroneous.[160]

The Aquarium first claimed that the MMPA is not applicable to conduct in foreign countries.[161] NMFS responded that it was not interpreting the MMPA as being applicable to conduct in foreign countries as it was not attempting to regulate conduct occurring outside the United States; that is, "[b]ecause the whales are to be imported into the United States, NMFS's interpretation . . . is that the MMPA regulates U.S. importing practices, not foreign conduct."[162]

The court held that the Aquarium's argument "attempt[ed] to confuse the regulated conduct with the foreign effects of that regulation."[163] The court held that while the MMPA cannot be applied "extraterritorially to criminalize an American citizen for his conduct in another country," NMFS's permit decision "was focused on the discrete act of importation—which primarily occurs in this country, not extra-

156 *Id*. at 1324.

157 *Id*.

158 *Id*. at 1325; *see also* 50 C.F.R. § 216.34(a)(7) ("Any requested import or export will not likely result in the taking of marine mammals . . . beyond those authorized by the permit.").

159 *Id*. at 1325–26 (citing Sierra Club v. Johnson, 436 F.3d 1269, 1274 (11th Cir. 2006)).

160 *Id*. at 1326 (internal citations omitted).

161 *Id*.

162 *Id*. at 1327–28.

163 *Id*. at 1328.

territorially."[164] This was appropriate, said the court, even though the decision could have an "incidental effect on the Russian capture operation caused by conditions placed on any import permit . . . ."[165] The court further concluded that NMFS "did not find any foreign conduct unlawful or require any foreign nations to halt any activity" and, in fact, "admitted . . . that [it] does not have the jurisdiction to regulate capture activities in Russia."[166]

2. NFMS's interpretation of its regulations as requiring the applicant to show that the permit would not likely result in replacement takes.

The Aquarium next argued that NMFS's requirement that the Aquarium show that the import "is not likely to result in replacement takes" was based on the text of a 1993 proposed rule that was not adopted or included in the final regulation.[167] NMFS acknowledged that this was true but argued that the replacement take interpretation "describes the intent of" that regulation and NMFS has consistently used it in past permitting decisions.[168]

The court first held that the Aquarium implicitly adopted NMFS's replacement take standard and included it in the application.[169] Further, the court did not accept the Aquarium's argument that the replacement take provision in the proposed rule was intentionally removed as part of an overhaul of the public display provisions of the MMPA.[170] Instead, the court held that there is no "general rule regarding the propriety of an agency's reliance on omitted language from a proposed rule in interpreting its existing regulations," and an agency's interpretation, "even if only presented in a proposed rule, 'warrants respectful consideration' if [its] position is consistent with the statute the agency is charged with implementing."[171] The court held that NMFS's interpretation was not an "expansion of the final rule or a substantive change to the scope of the regulation as promulgated" but was consistent with its prior interpretation of the MMPA as "requir[ing] permit applicants to secure [the appropriate assurances regarding no additional takings] from the exporting facility."[172]

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164 *Id*.

165 *Id*.

166 *Id*. at 1329.

167 *Id*. at 1324; *see* 50 C.F.R. § 216.34(a)(7) (explaining that import or export will not likely result in the taking of marine mammals beyond those authorized in the permit).

168 *Id*. at 1329.

169 *Id*. at 1324.

170 *Id*. at 1331.

171 *Id*. at 1332 (quoting Wis. Dept. of Health & Family Servs. v. Blumer, 534 U.S. 473, 497 (2002)).

172 *Id*. at 1333.

3. NMFS's determination that granting the permit would likely result in replacement takes.

In its final replacement takes argument, the Aquarium claimed that NMFS's determination that granting the permit would result in additional takes was improper because there was "no causal connection between granting the Aquarium's permit and Russia's continued acquisition of beluga whales," which the regulations require an applicant to show, and because NMFS applied an incorrect evidentiary standard.[173] Specifically, the Aquarium argued that (1) the permit would not result in the taking of belugas beyond those authorized by the permit because the trapping of belugas authorized by Russian authorities would continue regardless of the permitting decision, and (2) that granting the permit would decrease the demand for additional belugas from Russia because it would enable a "captive, self-sustaining U.S. population via the breeding cooperative."[174]

The court disagreed, finding that no authority existed to support the argument that NMFS "must provide proof akin to proximate cause when it is the permit applicant's burden to demonstrate it has satisfied the statutory and regulatory issuance criteria for special exception permits."[175] In fact, the court noted that "Congress, in enacting the MMPA, established as a matter of law the requisite causal relationship between American importing practices and [conduct by foreign entities]."[176]

The court categorized the second argument, that NMFS applied an incorrect legal standard, as a "red herring."[177] The relevant regulation requires that the applicant show that any import "will not likely" result in takings beyond those authorized under the permit, and the court held that NMFS applied the proper standard.[178] Even though NMFS stated at one point that it was "possible" that the import would result in additional takings, it stated other places in its denial that additional belugas "are likely to be captured as part of the ongoing, legal marine mammal capture operation in Russia . . . ."[179] Thus, NMFS applied the proper standard in assessing the permit application.[180]

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173 *Id*.

174 *Id*.

175 *Id*.

176 *Id*. at 1334 (quoting Animal Welfare Inst. v. Kreps, 561 F.2d 1010, 1010 n.40 (D.C. Cir. 1977)).

177 *Id*.

178 *Id*.

179 *Id*.

180 *Id*. at 1335.

D. Failure to Show the Beluga Whales Were Not Nursing at the Time of Capture

In its final main argument, the Aquarium claimed that NMFS's finding that the Aquarium failed to show that the whales to be imported were not nursing at the time they were captured was arbitrary and capricious.[181] The Aquarium's application did not "directly address" the ages of the belugas to be imported but instead stated the estimated ages of the whales at the time they were captured (five of which were estimated to be 1.5 years old) and stated that when the whales were captured, the collection team performed visual inspections using binoculars to check that the taking did not include "newborn calves, mother-calf pairs, or juveniles less than one year old."[182] Based on the application, NMFS determined that the Aquarium had failed to show that none of the eighteen whales to be imported were nursing when they were captured.[183] The Aquarium claimed that NMFS improperly determined that five of the whales were nursing even though "no mother-calf pairs or lactating females were collected and even though [the NMFS had] no evidence of any nursing behavior."[184]

According to the court, NMFS interpreted the MMPA's prohibition against the taking of nursing mammals "as requiring a consideration of whether a calf is fully dependent on its mother for survival" or whether the calf is in the process of weaning and is "still occasionally nursing from its mother," something that is "difficult to visually determine . . . ."[185] NMFS relied on scientific studies that show that beluga calves nurse for two years and "associate with their mothers for a considerable time thereafter . . . ."[186] Based on this literature, NMFS determined that the five whales who were estimated to be only 1.5 years old at the time of their taking were "likely not independent from their mothers" and were still nursing, even if they were not entirely dependent on their mothers for food.[187]

The Aquarium claimed that even if some of the juvenile whales were still nursing, "the proper standard is whether that nursing was obligatory, i.e., necessary for the whale's survival . . . ."[188] The court rejected that argument, relying on the D.C. Circuit's holding in *Animal Welfare Institute v. Kreps*, which included a determination that the agency's prior distinction between "obligatory" and "convenience" nursing was inconsistent with the text or purpose of the MMPA and, instead, the term "nursing" was intended to be used "as a measure of

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[181] *Id*.
[182] *Id*.
[183] *Id*.
[184] *Id*.
[185] *Id*.
[186] *Id*.
[187] *Id*. at 1336.
[188] *Id*.

infancy, of vulnerability and helplessness . . . ."[189] Thus, the court held that NMFS's finding was "consistent with the MMPA's clear nursing prohibition."[190]

The Aquarium countered that NMFS offered no evidence that any of the five juveniles to be imported were nursing when they were captured.[191] But the court held that the Aquarium was again improperly seeking to "place the burden of proving compliance with the MMPA's permit requirements on NMFS . . . ."[192] Additionally, the court noted that despite the Aquarium's claim that the "capture operation did not engage groups with mother-calf pairs," the collection procedures used could not ensure with certainty that calves who were apart from or not observed with their mothers but were still nursing at the time of capture were not taken.[193]

The Aquarium also offered evidence that all the juveniles caught "took food immediately" after they were captured, but the court held that "[u]nder the MMPA . . . the question is whether the juveniles 'were nursing at the time of taking,' not at some point after capture and removal from the wild."[194]

And finally, the court noted that NMFS had found that the application contained "deficiencies" and inconsistencies that "raise[d] questions about the accuracy of the estimated age at collection of the animals proposed to be imported."[195] For example, the estimated ages of some of the juvenile animals, captured in 2010, were changed.[196] Of the five belugas originally estimated to be 1.5-years-old in 2010, the ages of two were estimated to be 2.5-years-old in 2012, meaning that at the time they were captured, those two juveniles were approximately 1-year-old, not 1.5-years-old.[197] Shortly thereafter, the Aquarium amended its application to estimate the ages of these two juveniles as 3.5-years-old (making them 1.5-years-old at the time of capture), but the discrepancies "provide[d] for ambiguity regarding whether these two animals were potentially younger than the estimated 1.5-years-old at the time of collection . . . provided in the preliminary draft application."[198]

Having rejected each of the Aquarium's ten alleged errors in NMFS's permitting decision, the court granted NMFS's motion for summary judgment and upheld NMFS's permit denial.[199]

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189 *Id*. (citing *Kreps*, 561 F.2d at 1012).

190 *Id*.

191 *Id*.

192 *Id*. at 1337.

193 *Id*.

194 *Id*.

195 *Id*. at 1338.

196 *Id*. at 1337.

197 *Id*. at 1338.

198 *Id*.

199 *Id*. at 1340. As a lover of all things legal writing, the author would be remiss in omitting from note in this article some of the aquatic puns the court uses in its opinion. The court calls one of the Aquarium's arguments "fishy," *id*. at 1305, and notes that

V. AFTER THE GEORGIA AQUARIUM ORDER

A. The Eighteen Belugas

The Russian belugas had been captured between 2006 and 2011 and were held in Russia until after the *Georgia Aquarium* opinion was issued in 2015, meaning that some of the belugas had been in captivity for nearly a decade. After the litigation ended, decisions had to be made about what to do with the belugas, which could not be released back into the wild because of "disease transmission between released animals and wild animals; the elimination of behaviors developed in human care that could negatively impact survival; and the ability of the released animal to adequately forage for itself, defend itself from predators and be integrated into a social group."[200]

The Aquarium did fund the continued care of the eighteen belugas while it worked with Russian authorities to locate permanent homes for the whales.[201] In January 2017, the Aquarium learned that seven of the belugas were sent to Japan and was later told that the remaining eleven whales found homes in China, though the Aquarium has no idea which facilities any of the whales were sent to.[202]

B. Analysis of the Georgia Aquarium Holdings

This was not a case in which the Aquarium failed to submit supporting documentation for its assertions that the permit would not impact the species in an adverse way, result in the taking of belugas beyond those authorized by the permit, or that no nursing whales would be imported. The study of the Sakhalin stock that the Aquarium helped fund took place over five years and involved the use of satellite tagging to study the population, movements, and genetic makeup of the Sakhalin belugas.[203] At least as to the first two major holdings—regarding adverse effects on the whales and additional takings beyond those authorized by the permit—it is not clear what else the Aquarium could have done to meet its strict burden of proof.

Perhaps the Aquarium would have fared better had it sought to import fewer belugas at once, though that seems unlikely. At least according to NMFS, the "data-poor" nature of the Sakhalin stock sunk

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another Aquarium assertion "has sailed," *id*. at 1322. The court describes the Aquarium as "flounder[ing]" in its attempt to distinguish a case, *id*. at 1328 n.42, explaining that an argument's logic "evaporates" after "diving deeper into the analysis," *id*. at 1326, and suggests the Aquarium "goes overboard" in making certain arguments, *id*. at 1328.

200 Georgia Aquarium, *Beluga Whales: An Uncertain Future*, BELUGA IMPORT PROJECT, http://www.belugaimportproject.org/uncertain-future/ [https://perma.cc/GAQ3-YYGZ] (accessed Jan. 4, 2019).

201 Georgia Aquarium, *Beluga Whale Conservation Update,* YOUTUBE (Jan. 24, 2017), https://youtu.be/1gd5Mfd08is [https://perma.cc/Y937-NE3R] (accessed Jan. 4, 2019).

202 *Id*.

203 Georgia Aquarium, *Beluga Population Assessment*, BELUGA IMPORT PROJECT, http://www.belugaimportproject.org/beluga-population-assessment/ [https://perma.cc/6M88-JNXL] (accessed Jan. 4, 2019).

the Aquarium's argument that thirty whales could be captured each year from that stock without adversely affecting the population. Given the lack of information about the population, it is not clear that the NMFS would have found that any number of whales could be taken from the population without adversely affecting it.

As for the possibility of importing wild-caught belugas later, the future seems bleak for the Aquarium. While advances in technology will continue to allow for better study of belugas, the Arctic waters that belugas inhabit make study of them difficult, even with improved technology.[204] Thus, absent substantial advancements or environmental changes that make studying the Sakhalin stock easier and absent findings that the stock is either maintaining the status quo or increasing, the likelihood that NMFS will allow future importation of any belugas from that stock is low. And there is nothing to suggest that studying other beluga stocks is any easier. For example, researchers of beluga feeding habits in the Cook Inlet in 2013 encountered numerous obstacles that delayed and hindered their efforts, including large ice caps, high winds, cold temperatures, and quick-moving currents.[205]

Further, Russia is the only country currently in the business of exporting belugas for display and has been the only country to do so in the last twenty-five years. The likelihood that other countries with beluga populations will begin catching them to export for display and that the populations from which those whales are caught will be both amenable to study and show evidence of holding steady or increasing in number seems remote, at best.

And even if the Aquarium were to locate belugas caught from a non-data poor population of increasing number, the likelihood that an application to import even a small number (say, for example, five) would be approved also seems low. The intentionality of the taking was the crux of NMFS's decision.[206] Thus, a future application seeking to import fewer whales, even ones from a more robust population, would likely suffer the same fate.

While it is certainly *possible* that some belugas that cannot be returned to the wild will either be caught or rescued, and that NMFS will approve permits to import those animals or otherwise place them with the Aquarium or other cooperative program members, that number will almost certainly not be high enough to save the captive breed-

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[204] *A Better Understanding of Belugas,* GA. AQUARIUM, https://www.georgiaaquarium.org/-conserve/caring-for-animals/caring-together-for-belugas/a-better-understanding [https://perma.cc/L7X2-2SDK] (accessed Jan. 4, 2019).

[205] Aaron Selbig, *Winter Study of Beluga Whales Difficult, Scientists Say*, ALASKA PUB. MEDIA (Sept. 25, 2013), https://www.alaskapublic.org/2013/09/25/winter-study-of-beluga-whales-difficult-scientists-say/ [https://perma.cc/L7X2-2SDK] (accessed Jan. 4, 2019).

[206] *Georgia Aquarium Application to Import 18 Beluga Whales Denied (File 17324): Recommendation Memo*, NOAA FISHERIES (Aug. 5, 2013), https://www.fisheries.noaa.gov/national/marine-mammal-protection/georgia-aquarium-application-import-18-beluga-whales-denied-file-no-17324 [https://perma.cc/S5DB-YJXR] (accessed Jan. 4, 2019).

ing program. Since the *Georgia Aquarium* decision, only one beluga whale, a young male named Tyonek, who was stranded and could not be returned to the wild, has been sent to a United States facility.[207]

As to the NMFS's third major finding—that the Aquarium failed to show that no whales to be imported were nursing—the Aquarium should have directed Russian authorities to capture only whales that appeared to be at least 3-years-old. The literature NMFS relied on to show that beluga calves may be dependent on their mothers for as long as three years was equally available to the Aquarium, and it should have erred on the conservative side so that there would be no doubt that no belugas were nursing at the time of capture. And the Aquarium hurt its case by failing to exercise great care in estimating the ages of the captured belugas on the preliminary application. The changing estimated ages of two of the juvenile belugas hurt the Aquarium's credibility and left open the possibility that the Aquarium was unable to or failed to properly estimate the ages of those belugas.

Could NMFS, under the current administration or a future one, reverse course? It could, but that result seems unlikely. NMFS has for many years required that an applicant show that (1) both the proposed import "by itself and in combination with other activities, will not likely have a significant adverse impact on the species or stock"[208] and (2) that the import "will not likely result in the taking . . . beyond those authorized by the permit."[209] It seems highly unlikely that the agency would wholesale reverse course on these regulations.

First, NMFS has interpreted the "in combination with other activities" language to require consideration of many criteria, including past historical levels and threats to the population, and this seems unlikely to change.[210]

Second, the Aquarium's application was anomalous to others filed in the last twenty years, many of which were for the taking or importation of marine mammals for research, because it was the "first application to import wild caught marine mammals for public display" since at least 1994.[211] To meet the regulations, NMFS required the Aquarium to show that the whale trade involving the relevant population is "sustainable," which the Aquarium was unable to show and which seems unlikely that any applicant could show.[212] Given that this was the first application in nearly twenty-five years to import whales spe-

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[207] *See* Kate Brogan & Marjorie Mooney-Seuss, *From Alaska to Texas: New Home Announced for Beluga Whale Calf*, NOAA FISHERIES: ALASKA REG'L OFFICE (Feb. 8, 2018), https://alaskafisheries.noaa.gov/node/58143 [https://perma.cc/35PG-XFEY] (accessed Jan. 4, 2019) (showing that Tyonek was permanently housed in the U.S. at SeaWorld San Antonio).

[208] 50 C.F.R. § 216.34(a)(4).

[209] *Id.* § 216.34(a)(7).

[210] NOAA FISHERIES, *supra* note 206.

[211] *Ga. Aquarium*,135 F. Supp. 3d at 1304.

[212] *Id*. at 1301.

cifically captured for display, the possibility that NMFS would alter criteria first applied in this case in the near future seems slim.

Could Congress amend the language of the MMPA to redefine certain terms, such as "depleted" or "optimum sustainable population" to make importation standards easier to satisfy? Of course, but the express purpose of the MMPA is to "assure"[213] the protection of marine mammals. Given our increasing understanding of and appreciation for the value of animals and the steps needed to ensure their continued well-being, this too seems highly unlikely. If anything, laws intended to protect animals will become stronger, not weaker, in the future.[214] And, at any rate, it is NMFS's regulations that provide the issuance criteria for an importation permit, not the language of the MMPA, and, as outlined above, the NMFS's interpretation is unlikely to change.

The *Georgia Aquarium* result is unsurprising, but the implications are staggering. Without importing wild-caught beluga whales, the captive whale breeding program almost certainly will not survive. Since 2012, at least six adult beluga whales in captivity in North American parks and aquariums have died, and only a handful of belugas born through the cooperative breeding program during that time have survived infancy.[215] In its permit application, the Aquarium itself noted that "the North American beluga breeding cooperative has a 56% probability of declining over the next [thirty] years if [the population is] not supplemented" through importation of wild caught belugas.[216] Given the number of captive adult beluga deaths since 2012 and the difficulties the cooperative members have had in successfully breeding the captive belugas, the Aquarium's 56% figure appears low. The executive director of the AMMPA called the permit decision a "seminal" one.[217]

Since the *Georgia Aquarium* holding, the Aquarium has attempted to gain public sympathy for the cooperative breeding program's cause. In promoting its efforts to import the Russian belugas, the Aquarium warns that "[a]quariums will no longer be able to pro-

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[213] *Id.* at 1292 (quoting Fed'n of Japan Salmon Fisheries Co-op. Ass'n v. Baldridge, 679 F. Supp. 37, 46 (D.D.C. 1987)).

[214] Jessica Vapnek & Megan Chapman, Food and Agriculture Organization of the United Nations: Legislative and Regulatory Opinions for Animal Welfare 27 (2010).

[215] National Marine Fisheries Service, Beluga Records Spreadsheet (2012) (acquired through FOIA request) (on file with author). According to information provided by NMFS in response to a FOIA request, the following adult belugas have died since 2012: Maris (heart failure; aged 21); Naku (cardiac event; approximate aged 33); unnamed male housed at Mystic Aquarium, believed to be Miki (prolonged illness; aged 9); unnamed female housed at SeaWorld San Diego (neurologic disease; approximate aged 36); unnamed male housed at SeaWorld Orlando (systemic infection; approximate aged 31); and an unnamed female housed at SeaWorld San Antonio (neurologic disease; aged 4); *see also* Emerson, *supra* note 59 (describing setbacks the Georgia Aquarium faced due to deaths of belugas).

[216] *Ga. Aquarium*, 135 F. Supp. 3d at 1323.

[217] Barringer, *supra* note 54.

vide [beluga viewing experiences] unless they increase the number of beluga whales in North America to maintain a genetically healthy population."[218] And Eric Gaglione, the Georgia Aquarium Vice President of Zoological Operations, has expressed his "concern[ ] about the long term [sustainability] of beluga whales . . . at accredited facilities in North America"[219] absent the importation of new belugas with whom the existing captive belugas can mate.

A review of the number of captive belugas, the captive beluga infant mortality rates, and the death rates for adult captive belugas, along with the Aquarium's own predictions, leads to the conclusion that beluga whales will cease to be displayed in United States aquariums and facilities soon, likely by 2050.[220]

Even assuming that the belugas currently in captivity live to age 40, fewer than ten will still be living by 2050.[221] And particularly problematic for the breeding cooperative is the lack of young female belugas to breed. Based on information provided by NMFS in response to a FOIA request, there appear to be about sixteen female belugas currently housed at cooperative facilities. Of those sixteen, at least four are too old to birth calves: Mauyak (approximate age 37); Naya, (approximate age 29); Kela (approximate age 37); and an unnamed female housed at SeaWorld San Antonio (approximate age 38). Another three are nearing the end of their calf-bearing years: Kayavak (age 19); an unnamed female housed at SeaWorld Orlando (age 19); and an unnamed female housed at SeaWorld San Antonio (age 18). Further, since the Aquarium's petition was filed, only one female beluga calf has been born through the cooperative breeding program, Kimalu (age 6).[222]

The captive beluga population in the United States is simply not sustainable without an influx of "new blood" in the form of wild caught belugas. The Aquarium and other members of the cooperative breeding program recognized this, as evidenced by the extent of their efforts to import the Russian belugas. The *Georgia Aquarium* holding, however, ended the cooperative members' collective hope to build a long-term, sustainable captive beluga breeding program.[223]

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[218] Georgia Aquarium, *Facing Extinction*, BELUGA IMPORT PROJECT, http://www.beluga-importproject.org/facing-extinction/ [https://perma.cc/35PG-XFEY] (accessed Jan. 4, 2019).

[219] Georgia Aquarium, *supra* note 201.

[220] GA. AQUARIUM: BELUGA IMPORT PROJECT, *supra* note 218.

[221] GA. AQUARIUM: BELUGA IMPORT PROJECT, *supra* note 200.

[222] National Marine Fisheries Service, Beluga Records Spreadsheet (2012) (acquired through FOIA request) (on file with author).

[223] The *Georgia Aquarium* decision was lauded by many animal rights activists, as it should be. David Kirby, *A Win for Whales: Georgia Aquarium Can't Import Belugas*, TAKEPART (Sept. 30, 2015), http://www.takepart.com/article/2015/09/30/georgia-aquarium-no-beluga-whales-russia/ [https://perma.cc/FS25-6XVH] (accessed Jan. 4, 2019); *Federal Court Upholds Denial of Georgia Aquarium Beluga Whale Import*, SEA SHEPHERD, https://seashepherd.org/news/federal-court-upholds-denial-of-georgia-aquarium-beluga-whale-import/ [https://perma.cc/4ERD-YVZG] (accessed Jan. 4, 2019). But while

VI. CONCLUSION

Beluga whales are fascinating creatures—who should not live in aquariums or zoos. While efforts to raise awareness about these beautiful creatures should be lauded, belugas are a money-making attraction for the breeding cooperative members.[224] The Aquarium and other cooperative members touted the import request as necessary to enable research and raise awareness about issues affecting belugas and their habitats, but others saw the main incentive as "keep[ing] people entertained" through display.[225] Regardless of their intent, the Aquarium and other cooperative program members could not show that the import request was consistent with the MMPA and NMFS's regulations, and the court ultimately concluded that NMFS had not acted arbitrarily or capriciously in denying the request.[226] As one commenter noted: "[t]he MMPA . . . was enacted to protect marine mammals from harm and exploitation, and that is exactly what it has done in this case."[227]

Members of the breeding cooperative should voluntarily end their beluga display and exhibition programs, as the Vancouver Aquarium did in 2018. But even if they do not, the captive breeding program will not survive, and this is true even if cooperative members are able to successfully breed the belugas currently in captivity for another ten years. By 2050, even belugas born in captivity in United States aquariums before 2028 will be past the average lifespan for captive belugas.

The impact of the *Georgia Aquarium* opinion cannot be overstated: Judge Totenberg's decision is a welcome beginning to the end for captive belugas in the United States.

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the end of belugas on display in the United States may benefit the species as a whole, it may harm belugas already in captivity elsewhere and those caught and exported by Russian authorities in the future to zoos, aquariums, and facilities in other countries that may lack the types of animal welfare laws applicable to United States facilities. *See* Heil, *supra* note 54 (reviewing public opinion on Georgia Aquarium's request to import belugas). Nonetheless, in the long-run, without the American market for wild-caught belugas, the number of belugas captured by Russian authorities will likely decrease, leading to a net-positive result.

[224] *See* SEAWORLD PARKS & ENT., *supra* note 50 (detailing "in-water interaction" experience that allows participants to touch and feed beluga whales); Barringer, *supra* note 54 (highlighting Georgia Aquarium and Shedd Aquarium programs that offer small-group and one-on-one interactions with belugas).

[225] Barringer, *supra* note 54.

[226] Kirby, *supra* note 223.

[227] *Id.*