

AMONG THE RAREST: SAVING THE EASTERN NORTH PACIFIC RIGHT WHALE

*Elza Bouhassira**

ABSTRACT

The North Pacific Right Whale (NPRW) is perhaps the rarest, most endangered large whale species in the world. Only about thirty surviving individuals make up the eastern population, which lives in waters around Alaska. This note aims to highlight the crisis facing eastern NPRWs and the steps that can be taken to support the recovery of this rare whale. The paper first presents information on the history of the species and its importance. It next examines existing international and domestic U.S. legal regimes as well as a pending petition to revise NPRW critical habitat off of Alaska. Finally, it advances six recommendations to support the eastern NPRW's recovery: (1) more data collection should be facilitated; (2) the precarious situation of the NPRW should be shared to raise public awareness and support for protection measures; (3) the critical habitat designation should be expanded, but to a lesser extent than the petition has requested; (4) a whale-ship interaction risk reduction regime should be adopted; (5) whale-friendly fishing gear should be widely adopted; and (6) commercial whaling must remain illegal. It argues that with the right protections, eastern NPRWs can avoid extinction.

I. INTRODUCTION

“Save the Whales” has long been a rallying cry of the American environmental movement.¹ Some whale species have begun to recover

*J.D. Candidate, Duke University School of Law, 2024; B.A., Sustainable Development, Columbia University, 2019; B.A., Political Science, Sciences Po Paris, 2019. Thank you to Professor Steve Roady for his feedback and guidance on this topic in his Ocean and Coastal Law & Policy course. I would also like to thank the amazing *Alaska Law Review* team for their careful edits during the publication process. Finally, a big thank you to my friends and family for their continuous support.

1. *Calls From the Deep: Do We Need to Save the Whales All Over Again?*, THE GUARDIAN (Dec. 31, 2020), <https://www.theguardian.com/environment/2020/dec/31/calls-from-the-deep-do-we-need-to-save-the-whales-all-over-again> (explaining the origins of the Save the Whales slogan). See also Sebastian Stelios, “Save the Whales” 35th

thanks to protection efforts,² but others have decidedly not: the North Pacific Right Whale (NPRW) is perhaps the rarest, most endangered large whale species in the world.³ Whales are iconic megafauna — they are big, friendly animals that humans are drawn to.⁴ They have a legendary aura, appearing on bucket lists and in everything from mythology to Melville and *Free Willy*. Recordings of whale song were even included on a Voyager spacecraft sent beyond our solar system.⁵ Our ability to save them is a barometer for how we interact with the rest of the living creatures on Earth.⁶ If we cannot muster enough concern to save the whales, a flagship species, how are we going to save the endangered bats, snakes, and spiders that provide vital ecosystem services and yet have a bad reputation among humans?

Whales, like all species, “have value in themselves, a value neither conferred nor revocable, but springing from [their] long evolutionary heritage and potential or even from the mere fact of [their] existence.”⁷

Anniversary, GREENPEACE (Apr. 27, 2010), <https://www.greenpeace.org/usa/save-the-whales-35th-anniversary> (explaining Greenpeace’s role in the start of the Save the Whales movement).

2. See, e.g., Kirsten Thompson, Humpback Whales Have Made a Remarkable Recovery, Giving Us Hope for the Planet, *Time Magazine* (May 16, 2020), <https://time.com/5837350/humpback-whales-recovery-hope-planet/> (“Many humpback whale populations, previously devastated by commercial whaling, are making a comeback.”).

3. NAT’L MARINE FISHERIES SERV. OFFICE OF PROTECTED RES. ALASKA REGION, NORTH PACIFIC RIGHT WHALE (*EUBALAENA JAPONICA*), FIVE-YEAR REVIEW: SUMMARY AND EVALUATION 9 (2017), <https://media.fisheries.noaa.gov/dam-migration/2018northpacificrightwhale5yrreview.pdf> [hereinafter *2017 Five-Year Review*].

4. See Mazzoldi et al., *From Sea Monsters to Charismatic Megafauna: Changes in Perception and Use of Large Marine Animals*, *PLOS ONE* (Dec. 31, 2019), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6938407/> (exploring the evolution of human perception of whales from fearing them to revering them).

5. Ashley Strickland, *One of the Most Iconic Pieces of Space Exploration History Goes up for Auction*, *CNN* (July 26, 2023), <https://www.cnn.com/2023/07/26/world/sagan-voyager-golden-record-auction-scn/index.html>; *What Is on Voyager’s Golden Record*, *SMITHSONIAN MAGAZINE* (Apr. 22, 2012), <https://www.smithsonianmag.com/science-nature/what-is-on-voyagers-golden-record-73063839/> (describing how two copies of a golden record were included on the Voyager spacecraft to “serve as time capsules and transmit . . . information about life on Earth should extraterrestrials find it”).

6. See Matt Soniak, *Why You Want to Save the Whales, but Not the Crickets*, *THE WEEK* (Jan. 8, 2015), <https://theweek.com/articles/450037/why-want-save-whales-but-not-crickets> (“Not all wildlife is created equal in our eyes, and our perception matters a lot when it comes to conservation. Large, iconic species — think elephants, lions, pandas, and other “charismatic megafauna” — usually reap the lion’s share of attention and conservation funding while leaving many other species out in the cold.”).

7. See Michael E. Soulé, *What Is Conservation Biology?*, 11 *BIOSCIENCE* 727, 731 (1985); Roger Payne, *I Spent My Life Saving the Whales. Now They Might Save Us*,

Nevertheless, whales do also have a great deal of extrinsic worth.⁸ They boost fisheries and help maintain our climate.⁹ They also support local economies by attracting tourists.¹⁰ It is one of the great tragedies of the industrial and technological eras that humans have pushed North Pacific Right Whales to the very margins of existence. This note aims to highlight the crisis facing NPRWs and the steps that can be taken to support the recovery of this rare whale.

This paper is divided into three parts. Part II covers the importance and decline of the NPRW, Part III examines existing and pending protection efforts, and Part IV advances six recommendations to support the eastern NPRW's recovery. It argues that with the right protections, NPRWs can avoid extinction.

II. THE IMPORTANCE AND DECLINE OF THE NORTH PACIFIC RIGHT WHALE

NPRWs are critically endangered, largely due to human actions. This Part highlights the value of the NPRW and examines the precarious status of eastern NPRWs. It first presents background information on the NPRW. It then considers the importance of NPRWs. Finally, it examines historical and current challenges that impact the species.

A. Background Information on the North Pacific Right Whale

Right whales are mostly black, have broad tails, large heads, and typically grow to be between forty-five and fifty-five feet long.¹¹ They are baleen whales, and “skim feed” by filtering tiny organisms, like copepods and zooplankton, out of ocean water as it passes through their baleen plates.¹² They reach sexual maturity between ages eight and ten, with females calving one juvenile at a time every three to five years.¹³ Their life expectancy is uncertain but is believed to be at least seventy years.¹⁴

TIME MAGAZINE (June 2, 2023), <https://time.com/6284884/whale-scientist-last-please-save-the-species/> (“[T]he reason humanity finds itself in its present predicament is in major part because we have always put the needs of humans before the needs of the rest of life.”).

8. See *infra* Part II, Subpart B.

9. See *id.*

10. See *id.*

11. 2017 *Five-Year Review*, *supra* note 3, at 8.

12. NOAA FISHERIES, *North Pacific Right Whale* (Sept. 16, 2022), <https://www.fisheries.noaa.gov/species/north-pacific-right-whale> (last visited Nov. 28, 2022) [hereinafter *North Pacific Right Whale*]; 2017 *Five-Year Review*, *supra* note 3, at 8.

13. *Id.*

14. NAT'L MARINE FISHERIES SERV., ALASKA FISHERIES SCI. CENTER, HABITAT

There are three types of right whales: the North Atlantic Right Whale, which lives in the Atlantic Ocean; the Southern Right Whale, which lives in the southern hemisphere; and the NPRW.¹⁵ Whalers named them the “right” whale to hunt because they swim slowly, are rich in oil, and float at the surface once killed.¹⁶

Before 2000, the NPRW was thought to be one cohesive species.¹⁷ But in the early 2000s, scientists discovered that NPRWs actually live in two discrete populations: a western and an eastern population, which might not interbreed.¹⁸ The western population lives in Russian, Japanese, Chinese, and international waters.¹⁹ The eastern NPRW population, the focus of this paper, lives in the Gulf of Alaska and the Bering Sea.²⁰ It is critically endangered, with only about thirty individuals making up the entire population.²¹ The eastern population has a male-biased sex imbalance with an estimated ratio of two females to five males.²² In 2019, researchers discovered that eastern NPRWs sing,²³ something that no

REQUIREMENTS AND EXTINCTION RISKS OF EASTERN NORTH PACIFIC RIGHT WHALES 1 (Kim E.W. Shelden and Phillip J. Clapham eds., 2006), <https://repository.library.noaa.gov/view/noaa/8577> [hereinafter *Shelden*] (“[O]ne female was believed to be at least 70 years old based on photo documentation over a 60-year period.”).

15. Hope McKenney, *A Fisherman Photographed a Group of Whales. His Images May Be the First Ever Taken of the Species in the Bering Sea in the Winter*, KUCB (Feb. 15, 2022, 5:22 PM), <https://www.kucb.org/science-environment/2022-02-15/bering-sea-fishermen-photographed-a-group-of-whales-those-images-may-be-the-first-ever-taken-of-the-species-feeding-in-the-waters-in-the-winter>; Kirsten Williams, *How Can We Protect the North Pacific Right Whale?*, OCEAN CONSERVANCY (Aug. 19, 2022), <https://oceanconservancy.org/blog/2022/08/19/protect-north-pacific-right-whale/>.

16. *Id.*

17. J.G. Cooke & P.J. Clapham, *North Pacific Right Whale, Eubalaena japonica*, THE IUCN RED LIST OF THREATENED SPECIES (2018), <http://dx.doi.org/10.2305/IUCN.UK.2018-1.RLTS.T41711A50380694.en>.

18. McKenney, *supra* note 15; R.G. LeDuc et al., *Genetic Analysis of Right Whales in the Eastern North Pacific Confirms Severe Extirpation Risk*, 18 ENDANG. SPECIES. RES. 163, 167 (2012), <https://doi.org/10.3354/esr00440>.

19. 2017 *Five-Year Review*, *supra* note 3, at 5; NOAA FISHERIES, *Recovery Plan for the North Pacific Right Whale (Eubalaena japonica)*, v (2013), <https://www.fisheries.noaa.gov/resource/document/final-recovery-plan-north-pacific-right-whale-eubalaena-japonica> [hereinafter *2013 Recovery Plan*].

20. 2017 *Five-Year Review*, *supra* note 3, at 5.

21. Brenda K. Rone et al., *Abundance and Distribution of Cetaceans in the Gulf of Alaska*, 164 MAR. BIOL. 22, 23 (2016).

22. 2017 *Five-Year Review*, *supra* note 3, at 10–11; Koji Matsuoka et al., *North Pacific Right Whale (Eubalaena japonica) Sightings in the Gulf of Alaska and the Bering Sea During IWC-Pacific Ocean Whale and Ecosystem Research (IWC-POWER) Surveys*, 38 MARINE MAMMAL SCI. 822, 831 (2022).

23. Marina Pitofsky, *Scientists Make First Recording of Rare Whale Song*, THE HILL (June 19, 2019), <https://thehill.com/blogs/blog-briefing-room/news/449447-scientists-make-first-recording-of-rare-whale-song/>; Jacob

other right whale population has ever been observed doing.²⁴

There are gaps in information on both populations of NPRWs due to their small population sizes.²⁵ The range of the species as a whole is uncertain, with historic data showing it used to be present throughout the North Pacific in many areas where these whales do not live today.²⁶ The whales' migratory behavior and feeding areas are largely unknown while their calving and breeding grounds have never been found.²⁷

B. The Importance of North Pacific Right Whales

NPRWs, like other species of whales, bring many benefits to the ecosystems and human societies around them.²⁸ First, whales are ecosystem engineers and a key part of oceanic ecosystems, recycling nutrients and enhancing primary productivity where they feed.²⁹ Their poop is effectively ocean fertilizer, supporting phytoplankton populations that take in carbon dioxide and release oxygen.³⁰ Their presence may also lead to more robust fisheries.³¹ Second, strong whale populations draw in tourists for whale watching, bolstering local economies.³² For instance, more than 500,000 visitors spent \$86 million on whale watching tours in Alaska in 2019.³³ Third, whales have long captured human attention, inspiring stories and becoming a cultural

Resneck, *Rare Species of North Pacific Right Whale Carries a Tune Across the Bering Sea*, ALASKA PUB. MEDIA (June 20, 2019), <https://alaskapublic.org/2019/06/20/rare-species-of-north-pacific-right-whale-carries-a-tune-across-the-bering-sea/>.

24. CENTER FOR BIOLOGICAL DIVERSITY & SAVE THE NORTH PACIFIC RIGHT WHALE, PETITION TO REVISE THE CRITICAL HABITAT DESIGNATION FOR THE NORTH PACIFIC RIGHT WHALE (*EUBALAENA JAPONICA*) UNDER THE ENDANGERED SPECIES ACT 3 (filed Mar. 10, 2022) [hereinafter PETITION TO REVISE].

25. *2017 Five-Year Review*, *supra* note 3, at 12.

26. *Id.* at 13; Cooke and Clapham, *supra* note 17, at 1.

27. *2017 Five-Year Review*, *supra* note 3, at 12, 15; Cooke and Clapham, *supra* note 17, at 1.

28. See Univ. of Vt., *Whales as Ecosystem Engineers*, PHYS.ORG (July 3, 2014), <https://phys.org/news/2014-07-whales-ecosystem.html> (describing the various benefits whales provide to ocean ecosystems).

29. *Id.*

30. Andrew Rogan, *Why Protect Whales?*, WASHINGTON EXAMINER (Apr. 22, 2022, 6:30 AM), <https://www.washingtonexaminer.com/restoring-america/faith-freedom-self-reliance/why-protect-whales>.

31. See Univ. of Vt., *supra* note 28 (indicating from recent research that an increase in the presence of whales may lead to higher rates of primary productivity that support more robust fisheries in the area).

32. *New Study Shows Economic Importance of Alaska's Whale-Watching Industry*, NOAA FISHERIES (Nov. 19, 2020), <https://www.fisheries.noaa.gov/feature-story/new-study-shows-economic-importance-alaskas-whale-watching-industry> [hereinafter *Importance of Alaska's Whale-Watching Industry*].

33. *Id.*

touchstone.³⁴

Fourth, whales are important to the ocean's carbon cycle.³⁵ Whales have enormous bodies that store large amounts of carbon dioxide.³⁶ When they die, they sink to the bottom of the ocean, bringing that CO₂ to the depths, where it stays for centuries.³⁷ A 2010 study found that prior to industrial whaling, whales were causing between 190,000 and 1.9 million tons of carbon per year to sink to the bottom of the ocean.³⁸ One of the study authors estimated that whaling in the 1900s added seventy million tons of CO₂ to the Earth's atmosphere.³⁹ If the NPRW goes extinct, these benefits would be lost. Moreover, scientists do not fully understand all the complex interactions that take place in ecosystems. The full impacts of the loss of a whale species are uncertain but could lead to ecological disruption like a trophic cascade.⁴⁰

C. The Historic and Current Causes of the North Pacific Right Whale's Decline

Intensive whaling decimated the NPRW population and is the reason the population is so small today.⁴¹ The Japanese hunted NPRWs starting in the late 1500s, with European and American whalers entering the Pacific in the 1830s.⁴² Whalers hunted NPRWs for their oil, meat, and

34. See Peter Kareiva et al., *Whales Are Big and It Matters*, in *WHALES, WHALING, AND OCEAN ECOSYSTEMS* 379, 379–80 (James A. Estes et al. eds., 2007), <https://www.degruyter.com/document/doi/10.1525/9780520933200-034/html> (demonstrating the popularity of whales by listing references to whales in popular culture, books, and theme parks).

35. See Sophie Yeo, *How Whales Help Cool the Earth*, BBC (Jan. 19, 2021), <https://www.bbc.com/future/article/20210119-why-saving-whales-can-help-fight-climate-change> (noting that whales function as a “huge organic carbon pump” that increase the ocean's ability to absorb carbon).

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.*

40. See Donald A. Croll et al., *Ecosystem Impact of the Decline of Large Whales in the North Pacific*, in *WHALES, WHALING, AND OCEAN ECOSYSTEMS* 212 (James A. Estes et al. eds., 2007), <https://doi.org/10.1525/california/9780520248847.003.0016> (“[L]arge whales are important trophic interactors and . . . their declines from commercial harvest have significantly altered energy flow in marine food webs.”); Jonathan L. Payne et al., *Ecological Selectivity of the Emerging Mass Extinction in the Oceans*, 353 *Science* 1284, 1284 (2016) (describing the impacts of selective extinction of large-bodied animals in marine ecosystems due to human activities).

41. Cooke and Clapham, *supra* note 17, at 5.

42. *Id.* at 6.

baleen,⁴³ which were used to make corsets and buggy whips.⁴⁴ The hunt in the Pacific arena intensified in 1835,⁴⁵ kicking off a “remarkably short and bloody chapter in the history of whaling.”⁴⁶ From 1839 to 1909, an estimated 26,500 to 37,000 NPRWs were killed, including whales that were struck and lost.⁴⁷ The 1840s were a brutal decade for NPRWs: 21,000 to 30,000 individuals were killed in those years alone.⁴⁸ By 1900, the NPRW fishery was commercially extinct because the whales had been made scarce throughout their range.⁴⁹

After a 1935 League of Nations agreement protecting right whales, it appeared that the species had begun a slow recovery process.⁵⁰ But in 1993, Professor Alexei Yablokov pulled back the curtain on illegal Soviet whaling operations at a marine mammalogy conference.⁵¹ He told the world that the Soviets had combed through the oceans since 1948, “leaving ‘a desert in their wake,’” and that in the 1960s they had devastated the remaining NPRWs.⁵² In the years since the professor’s announcement, studies have estimated that the Soviets killed 771 right whales between 1935 and 1971, with 517 of those being eastern NPRWs.⁵³ These illegal takings of eastern NPRWs “drastically reduced the recovery potential for the species.”⁵⁴

The NPRW fishery was just one chapter of the killing of almost three million whales between 1900 and 1999.⁵⁵ Whaling at this scale has been

43. Alejandra O’Connell-Domenech, *U.S. Agency to Study Protecting More Habitat for Rare North Pacific Right Whales*, THE HILL (July 13, 2022), <https://thehill.com/changing-america/sustainability/environment/3556612-us-agency-to-study-protecting-more-habitat-for-rare-north-pacific-right-whales/>.

44. Justine Hunter, *Hunted to the Brink of Extinction, the Return of North Pacific Right Whales to B.C. Waters Brings Hope*, THE GLOBE AND MAIL (July 31, 2021), <https://www.theglobeandmail.com/canada/british-columbia/article-hunted-to-the-brink-of-extinction-the-return-of-north-pacific-right/>.

45. Phillip J. Clapham et al., *Distribution of North Pacific Right Whales (Eubalaena japonica) as Shown by 19th and 20th Century Whaling Catch and Sighting Records*, 6 J. OF CETACEAN RSCH. & MGMT 1, 1 (2004).

46. ELIZABETH A. JOSEPHSON ET AL., DEPLETION WITHIN A DECADE: THE AMERICAN 19TH-CENTURY NORTH PACIFIC RIGHT WHALE FISHERY 133 (1 ed. 2007).

47. 2017 Five-Year Review, *supra* note 3, at 21.

48. Cooke and Clapham, *supra* note 17, at 5.

49. *Id.*

50. Shelden, *supra* note 14, at 2.

51. Jessica Crance, *Right on the Edge: Can Their Pacific Cousins Be Saved?*, 44 WHALEWATCHER: J. OF THE AM. CETACEAN SOC’Y 49, 50, <https://acs.memberclicks.net/assets/Whalewatchers/Whalewatcher-2021-final.pdf>.

52. *Id.* at 50.

53. 2017 Five-Year Review, *supra* note 3, at 21; Cooke and Clapham, *supra* note 17, at 5.

54. 2017 Five-Year Review, *supra* note 3, at 9.

55. See RYAN TUCKER JONES, RED LEVIATHAN: THE SECRET HISTORY OF SOVIET

described as “the closest thing to genocide we can observe in the history of human relations with their large mammalian relatives.”⁵⁶ The annihilation of the NPRW, particularly its eastern population, shows the damage done by unchecked whaling. Despite the egregious overhunting of the NPRW, the whales are still extant, with individuals spotted in the last few years.⁵⁷ Today, the NPRW is so uncommon that individual sighting events have been the basis for entire scientific papers.⁵⁸

Although whaling is no longer a major threat, NPRWs still face challenges that may slow their recovery and reduce the positive effects they bring.⁵⁹ Entanglement in fishing gear can reduce a whale’s reproductive success.⁶⁰ Entanglement can also reduce a whale’s life span by inflicting injuries or wasting the whale’s energy as it struggles to break free.⁶¹ Scientists do not know how much of a problem fishing gear poses for NPRWs, but it is the most common cause of death for North Atlantic Right Whales and so likely also threatens NPRWs.⁶² Vessel strikes are another risk to NPRWs.⁶³ Although vessel interactions with NPRWs are rare and there is little data on them, the rarity of these whales means that even occasional vessel strikes could have significant consequences.⁶⁴ Further, in almost all of the NPRW’s habitat there are very few people around to monitor or observe NPRWs, so injuries or mortalities from vessel strikes are likely going undetected.⁶⁵ Oil shipping through NPRW habitat creates the risk of oil spills that could lead to various negative health outcomes for whales.⁶⁶

Next, noise pollution impedes whale communication and has been

WHALING x (2022).

56. *Id.* at x.

57. See 2017 *Five-Year Review*, *supra* note 3, at 25 (noting that “recent sightings have shown that right whales are still extant in the North Pacific”).

58. *Id.*

59. See *North Pacific Right Whale*, *supra* note 12 (noting that human activity other than commercial whaling continues to endanger the NPRW).

60. 2013 *Recovery Plan*, *supra* note 19, at I-23.

61. See *id.* (explaining that “injuries and entanglements that are not initially lethal may result in a gradual weakening of entangled individuals, making them more vulnerable to other causes of mortality”).

62. 2017 *Five-Year Review*, *supra* note 3, at 23.

63. See *North Pacific Right Whale*, *supra* note 11 (noting that vessel strikes are likely a threat to North Pacific Right Whales since vessel strikes are a significant cause of death for North Atlantic Right Whales).

64. 2017 *Five-Year Review*, *supra* note 3, at 23.

65. 2013 *Recovery Plan*, *supra* note 19, at I-18 (stating that the “level of observer effort” is “low to none” in almost all of the NPRW’s habitat).

66. See 2017 *Five-Year Review*, *supra* note 3, at 18 (noting that oil and gas shipping may result in health risks for North Pacific Right Whales including “ingestion of contaminated prey, irritation of skin and eyes, inhalation of toxic fumes, change in distribution to lower quality habitat, and compromised immune function”).

shown to diminish whale call rates.⁶⁷ It may also impact foraging behavior patterns.⁶⁸ Noise is caused by the engines and pumps needed to run a ship,⁶⁹ oil and gas exploration activities, and naval training exercises.⁷⁰ The Navy is active in NPRW habitat, and, in August 2022, it requested authorization for nonlethal incidental take of marine mammals under the Marine Mammal Protection Act (MMPA), including NPRWs, in the Gulf of Alaska for military readiness activities.⁷¹ Because NPRWs sing to communicate, ocean noise pollution likely interrupts their interactions more than previously realized.⁷²

Finally, climate change may harm NPRWs. First, it may lead to a large increase in shipping through NPRW habitat as the Arctic Ocean freezes for less time each year.⁷³ This increase will intensify the harms caused by noise pollution and vessel strikes.⁷⁴ Second, ocean currents and water temperatures may change, which would alter the NPRW's habitat and food sources.⁷⁵ Zooplankton distribution is strongly impacted by sea ice coverage and may change as the oceans warm.⁷⁶ This may impact the whales' migration, feeding, and breeding locations, potentially causing nutritional issues and decreasing reproduction rates.⁷⁷

In sum, the presence of NPRW populations comes with many

67. See *id.* at 20 (explaining that whale call rates diminished for whales that were in the presence of passing vessels due to ship noise exposure).

68. *Id.* at 6.

69. *Id.* at 20.

70. *Id.* at 6.

71. See Taking and Importing Marine Mammals, 87 Fed. Reg. 49656, 49656–57, 49688 (proposed Aug. 11, 2022) (to be codified 50 C.F.R. pt. 218) (describing the Navy's request to take marine mammals for training exercises conducted in the Gulf of Alaska and providing the definition of take under the MMPA).

72. Press Release, Center for Biological Diversity, Expanded Alaska Habitat Protections Sought for World's Most Endangered Whale (Mar. 10, 2022), <https://biologicaldiversity.org/w/news/press-releases/expanded-alaska-habitat-protections-sought-for-worlds-most-endangered-whale-2022-03-10/> [hereinafter CBD Press Release].

73. See 2013 Recovery Plan, *supra* note 19, at v (noting that an increase in commercial maritime traffic in the Arctic “may increase as climate change makes the Arctic more accessible for longer periods of the year.”).

74. Cooke and Clapham, *supra* note 17 at 7; 2017 Five-Year Review, *supra* note 3, at 23.

75. 2013 Recovery Plan, *supra* note 19, at I-26.

76. See 2017 Five-Year Review, *supra* note 3, at 25 (explaining how altered oceanographic conditions could lead to diminished reproduction and migration of the zooplankton into the whales' habitat).

77. See 2013 Recovery Plan, *supra* note 19, at I-26 (noting that “[w]hale migration, feeding, and breeding locations may be influenced by factors such as ocean currents and water temperatures”); see 2017 Five-Year Review, *supra* note 3, at 25 (explaining that the “cumulative impacts of all anthropogenic activities likely suppress right whale reproductive rates and compromise immune function”).

benefits, and a variety of anthropogenic threats increase whale mortality, impede NPRW communication, and complicate the whales' migration and feeding.

III. NORTH PACIFIC RIGHT WHALE PROTECTION EFFORTS

Various countries have sought to protect NPRWs since the 1930s, but despite these efforts NPRW population numbers remain dangerously low. This Part delves into NPRW protection efforts. First, it surveys existing protections and touches on their shortcomings, looking at both international and domestic U.S. regimes. Second, it examines pending U.S. protections, focusing on a petition to revise the current critical habitat designation for the NPRW.

A. Established International and U.S. Domestic Protections and Their Limits

NPRWs are protected or recognized as endangered under a number of different international and domestic U.S. regimes. The earliest international protection for right whales was a 1935 League of Nations agreement which banned commercial hunting.⁷⁸ However, the Soviet Union and Japan remained outside of that agreement and continued whaling, undermining its effectiveness.⁷⁹ In 1946, the International Whaling Commission (IWC) was established,⁸⁰ and it simultaneously adopted its implementing convention, the International Convention for the Regulation of Whaling (ICRW), which banned commercial hunting of right whales in 1949.⁸¹ The ICRW made it illegal for the Soviets and the Japanese to continue whaling without oversight.⁸² It created restrictions on catch, hunting season, and hunting areas.⁸³ After the 1949 ban on hunting right whales, the Japanese and Soviets legally killed twenty-three NPRWs in accordance with the agreement, which allowed them to do so

78. *The North Atlantic Right Whale's Fight for Survival*, INT'L FUND FOR ANIMAL WELFARE (Sept. 16, 2021), <https://www.ifaw.org/journal/right-whale-fight-survival>.

79. See Shelden, *supra* note 14, at 2 (explaining that since neither Japan nor the USSR signed the League of Nations agreement, "both nations were theoretically free to continue hunting right whales").

80. *The North Atlantic Right Whale's Fight for Survival*, *supra* note 78

81. See 2013 *Recovery Plan*, *supra* note 19, at I-30.

82. See Shelden, *supra* note 14, at 2 (explaining that Japan and the USSR were free to hunt right whales until the International Whaling Commission's 1949 Convention because neither country signed the 1935 League of Nations agreement).

83. Rone et al., *supra* note 21, at 1.

for scientific research purposes.⁸⁴ Researchers have now shown that the Soviets had also engaged in widespread illegal whaling of NPRWs into the 1960s.⁸⁵ In 1982, the IWC instituted an international moratorium on the commercial hunting of all whales, but Japan still hunts right whales in the North Pacific, allegedly for scientific research purposes.⁸⁶

In 2010, Australia sued Japan in the International Court of Justice over its Japanese Whale Research Program under Special Permit in the Antarctic (JARPA II).⁸⁷ Australia alleged that Japan breached its obligations under the ICRW by whaling on a large scale through JARPA II.⁸⁸ In 2014, the court found that the program's design and implementation were unreasonable as compared to its stated objectives, ordering Japan to end the program and revoke any active permits to kill, take, or treat whales.⁸⁹ However, Japan resumed its whaling program just over a year after the court's decision, defying the order that it cease whaling.⁹⁰

Other international regimes protect NPRWs as well. The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), which works to prevent international commercial trade of NPRW products, lists NPRWs in the most protective category under the agreement, called Appendix I.⁹¹ The eastern NPRW population is also listed as critically endangered on the International Union for Conservation of Nature (IUCN) Red List.⁹²

Domestically, right whales received their first protection under American law in 1970 when they were listed as endangered under the Endangered Species Conservation Act (ESCA) of 1969 (35 FR 18318, December 2, 1970), the precursor to today's Endangered Species Act (ESA).⁹³ In 1973, the ESA came into effect, repealing ESCA, and right

84. Sheldon, *supra* note 14, at 2.

85. *See id.* (noting that the USSR illegally caught right whales in the North Pacific in the 1960s).

86. Rone et al., *supra* note 21, at 2.

87. *Whaling in the Antarctic (Australia v. Japan: New Zealand Intervening)*, INT'L CT. OF JUST., <https://www.icj-cij.org/en/case/148> (last visited Nov. 2, 2022).

88. *Id.*

89. *Id.*

90. *Japan to Resume Whaling in Antarctic Despite Court Ruling*, BBC (Nov. 28, 2015), <https://www.bbc.com/news/world-asia-34952538>.

91. *2013 Recovery Plan*, *supra* note 19, at I-30; NOAA FISHERIES, *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, <https://www.fisheries.noaa.gov/national/international-affairs/convention-international-trade-endangered-species-wild-fauna-and/#>. (last visited Nov. 18, 2023) ("Appendix I includes species threatened with extinction and provides the greatest level of protection, including a prohibition on commercial trade.")

92. *Ten Updated Baleen Whale Red List Assessments Published in July 2018*, IUCN (2018), <https://iucn-csg.org/2879/>.

93. *2013 Recovery Plan*, *supra* note 19, at I-30.

whales were automatically listed as endangered under the ESA.⁹⁴ That year, right whales were also listed as depleted under the 1972 Marine Mammal Protection Act.⁹⁵

The ESA gives the Secretary of Commerce authority to protect endangered marine species, and the National Marine and Fisheries Service (NMFS) is responsible for developing and implementing recovery plans.⁹⁶ A recovery plan is a “non-regulatory document that describes, justifies, and schedules the research and management actions necessary to support recovery of a species.”⁹⁷ In 1991, NMFS issued a recovery plan for the northern right whale, which included both the Atlantic and Pacific populations.⁹⁸ The 1991 plan “recommended that a separate plan be prepared for the North Pacific stock” of right whales once data were available.⁹⁹ The plan was revised in 2001, 2004, and 2005, with the 2005 plan acknowledging developments in research that showed that the North Atlantic and North Pacific populations were distinct and may have needed separate ESA listings.¹⁰⁰ The revisions also highlighted that right whale populations continued to decrease after the 1991 recovery plan.¹⁰¹ In 2013, the first recovery plan specific to the NPRW was published.¹⁰² It examined the species’ history, gaps in knowledge about it, threats to recovery, and listed recovery goals.¹⁰³

The ESA also states that critical habitat should be designated for threatened or endangered species. NMFS created the first critical habitat for the northern right whale in 1994, designating areas in the Atlantic.¹⁰⁴ The ESA defines critical habitat for threatened or endangered species as
the specific areas within the geographical area currently occupied by the species, at the time it is listed . . . on which are found those physical or biological features (I) essential to the conservation of the species and

94. *Id.*; Shelden, *supra* note 14, at 2.

95. *2013 Recovery Plan*, *supra* note 19, at I-30.

96. *Id.*

97. *Recovery of Species Under the Endangered Species Act*, NOAA FISHERIES (2022), <https://www.fisheries.noaa.gov/national/endangered-species-conservation/recovery-species-under-endangered-species-act> (last visited Nov. 2, 2022).

98. Shelden, *supra* note 14, at 2.

99. Endangered and Threatened Species; Determination on a Petition to Revise Critical Habitat for Northern Right Whales in the Pacific, 67 Fed. Reg. 7660, 7660 (Feb. 20, 2002) (to be codified in 50 C.F.R. pt. 226).

100. THE OFFICE OF PROTECTED RESOURCES & NATIONAL MARINE FISHERIES SERVICE, RECOVERY PLAN FOR THE NORTH ATLANTIC RIGHT WHALE (*EUBALAENA GLACIALIS*): REVISION, at i (2005).

101. *Id.* at v.

102. See generally *2013 Recovery Plan*, *supra* note 19 (outlining recovery plan produced by the National Marine Fisheries Service).

103. *Id.* at ix-x.

104. Shelden, *supra* note 14, at 3.

(II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . upon a determination by the Secretary that such areas are essential for the conservation of the species.¹⁰⁵

Joint regulations from NMFS and the National Oceanic and Atmospheric Administration (NOAA) further define how critical habitat is designated.¹⁰⁶ The physical and biological features essential to the conservation of a species are defined as

[t]he features that occur in specific areas and that are essential to support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.¹⁰⁷

The joint regulations also set out the criteria for designating critical habitat, stating that “[t]he Secretary will make a final designation of critical habitat on the basis of the best scientific data available, after taking into consideration the probable economic, national security, and other relevant impacts of making such a designation.”¹⁰⁸ They further state that “[t]he Secretary has discretion to exclude any particular area from the critical habitat upon a determination that the benefits of such exclusion outweigh the benefits of specifying the particular area as part of the critical habitat.”¹⁰⁹ They also state that “[t]he Secretary, however, will not exclude any particular area if, based on the best scientific and commercial data available, the Secretary determines that the failure to designate that area as critical habitat will result in the extinction of the species concerned.”¹¹⁰

Critical habitat designations help protect listed species because they require federal agencies to consult with NMFS prior to authorizing, funding, or carrying out an action that could “jeopardize the continued existence of any endangered species” or “result in the destruction or

105. 16 U.S.C. § 1532(5)(A).

106. 50 C.F.R. § 424 (2022).

107. 50 C.F.R. § 424.02 (2022).

108. 50 C.F.R. § 424.12 (2019).

109. 50 C.F.R. § 424.19(c) (2013).

110. *Id.*

adverse modification of its critical habitat.”¹¹¹ Moreover, critical habitat designations help identify areas that need special consideration and help determine if proposed projects conflict with protected species “early in the planning process.”¹¹² Further, “they help focus federal, state, and private conservation management activities” on areas that need the most support.¹¹³

In 2000, the Center for Biological Diversity (CBD) petitioned NMFS to create more critical habitat for right whales in the North Pacific.¹¹⁴ NMFS announced in 2002 that it could not designate the requested habitat because the essential biological requirements of right whales in the Pacific were not understood well enough.¹¹⁵ In response, the CBD sued in federal court, resulting in a 2005 decision invalidating NMFS’ reasoning and ordering it to designate critical habitat in the North Pacific.¹¹⁶ NMFS then designated areas in the Gulf of Alaska and the southeastern Bering Sea as northern right whale critical habitat in 2006.¹¹⁷ The two areas cover about 36,750 square miles of marine habitat.¹¹⁸ Map 1 below shows the areas designated. In 2008, NMFS reclassified the northern right whale as being two endangered species, the North Atlantic Right Whale and the NPRW, each with their own ESA listing.¹¹⁹ With that change, the 36,750 square miles of critical habitat created in 2006 were re-classified as specifically being the critical habitat of the NPRW, rather than critical habitat for right whales generally.¹²⁰ The change marked a pivot in NPRW conservation because it opened the door to more specific consideration of the threats facing NPRWs and of the conservation measures needed.¹²¹

111. 16 U.S.C. § 1536(a)(2).

112. PETITION TO REVISE, *supra* note 24, at 13.

113. *Id.*

114. Sheldon, *supra* note 14, at 3.

115. *Id.* at 3-4.

116. *Id.* at 4; Center for Biological Diversity v. Evans, No. C 04-04496 WHA, 2005 WL 1514102, at *1 (N.D. California June 14, 2005).

117. 2017 Five-Year Review, *supra* note 3, at 17.

118. See 50 C.F.R. § 226.215 (2008); 50 C.F.R. § 226.203 (2016).

119. 2013 Recovery Plan, *supra* note 19, at v.

120. 2017 Five-Year Review, *supra* note 3, at 3; 73 Fed. Reg. 19000, 19000 (Apr. 8, 2008) (to be codified at 50 C.F.R. pt. 226).

121. The recognition allowed the agency to dive more into the needs of NPRWs specifically, rather than generally administering programs that needed to accommodate diverse whale populations as it did under the previous system. For example, after the change NMFS established a geographic range for the species. See *supra* notes 120 and *infra* 123-125 and the accompanying text.

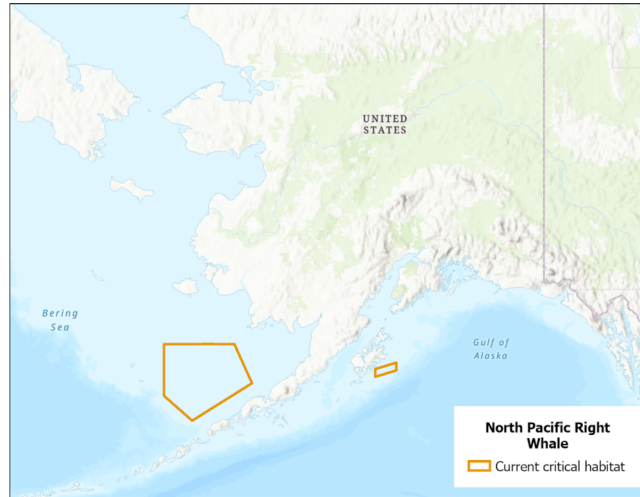


Figure 1. Current critical habitat designation for the North Pacific right whale. Map by Kara Clauser, Center for Biological Diversity (critical habitat shapefiles from NMFS).

Map 1: This map is from the 2022 petition to revise the NPRW's critical habitat.¹²² It shows the current critical habitat designation for NPRWs.

In the 2008 reclassification, NMFS also clarified the “geographical area occupied by the species at the time it was listed under the ESA,” as required by the ESA in its definition of critical habitat.¹²³ NMFS highlighted that by 1973 the NPRW population had been reduced so drastically that it was difficult to determine its range. Stating that the NPRW’s “habitat use is unlikely to be different today” from during the time of Soviet whaling, NMFS designated a large area of the North Pacific Ocean, shown in Map 2, as the geographical area occupied by the NPRW.¹²⁴

122. PETITION TO REVISE, *supra* note 25, at 16.

123. 73 Fed. Reg. at 19001.

124. *Id.*

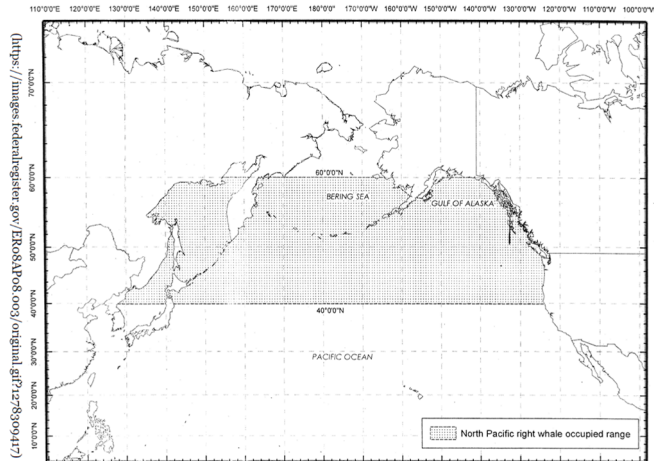


Figure 1. Occupied range of North Pacific right whales at time of listing under the Endangered Species Act.

Map 2: This map is Figure 1 from the 2008 NOAA rule which clarified the geographic range of the NPRW. The range covers 120° E to 123° W longitude and 40° N to 60° N latitude.¹²⁵

B. Pending U.S. Protections: Petition for Critical Habitat Revision

On March 10, 2022 the CBD and Save the North Pacific Right Whale, environmental conservation groups, filed a formal petition requesting an expansion of the NPRW's critical habitat under the ESA.¹²⁶ ESA procedures specify that after receiving a request to revise critical habitat, NMFS must "make a finding as to whether [a] petition presents substantial scientific information indicating that revision may be warranted" within 90 days.¹²⁷ On July 12, 2022, NMFS announced that the information provided in the petition indicates "that revision of critical habitat may be warranted."¹²⁸ The ESA states that upon such a finding, the Secretary has twelve months to publish whether it will proceed with the requested revision in the Federal Register.¹²⁹ The public comment period concluded on September 12, 2022, and just over twelve months later, on September 26, 2023, NMFS announced that it intends to revise

125. *Id.* at 19002-03.

126. CBD Press Release, *supra* note 72.

127. 16 U.S.C. § 1533(3)(D)(i).

128. 87 Fed. Reg. 41271, 41273 (July 12, 2022) (to be codified at 50 C.F.R. pt. 226).

129. 16 U.S.C. § 1533(3)(D)(ii).

the NPRW's critical habitat designation.¹³⁰ In the announcement, it outlined a six-step process for reviewing data and conducting further study to determine the extent to which the critical habitat should be expanded.¹³¹ Before any revision is finalized, it will be open to public comment.¹³²

The petition seeks to connect the two existing areas of critical habitat in the Gulf of Alaska and the Bering Sea.¹³³ The expanded critical habitat would extend the boundary of the Bering Sea area west to the Fox Islands and encompass Unimak Pass.¹³⁴ It would then cover part of the continental shelf east toward Kodiak Island¹³⁵ and the other existing

130. NOAA Fisheries to Review Critical Habitat for Rare Large Whale Species in Alaska, NOAA FISHERIES (July 11, 2022), <https://www.fisheries.noaa.gov/feature-story/noaa-fisheries-review-critical-habitat-rare-large-whale-species-alaska> [hereinafter NOAA Fisheries to Review]; 88 Fed. Reg. at 65940; Yereth Rosen, *Ultra-Rare Whales Swimming in Alaska Waters Could Get Bigger Areas of Protection*, ALASKA BEACON (Sept. 28, 2023), <https://alaskabeacon.com/2023/09/28/ultra-rare-whales-swimming-in-alaska-waters-could-get-bigger-areas-of-protection/>.

131. 88 Fed. Reg. at 65943 (stating that the steps are "Step 1: Analyze Acoustic Data Collected in Areas Recommended by the Petitioners and Currently Designated as Critical Habitat," "Step 2: Assess Spatial and Temporal Patterns of Prey Species (i.e., Copepods and Euphausiids) in Conjunction With Oceanographic Information," "Step 3: Analyze Sighting Data for Evidence of Feeding Behavior," "Step 4: Synthesize Available Acoustics Data, Trends in Zooplankton, and Sightings Data To Identify Areas That Meet the Definition of Critical Habitat," "Step 5: Section 4(b)(2) Impacts Analysis," and "Step 6: Develop Proposed Rule for Public Comment.").

132. 88 Fed. Reg. at 65944.

133. 87 Fed. Reg. at 41271.

134. *Id.*; NOAA Fisheries to Review, *supra* note 130; *Four Endangered North Pacific Right Whales Spotted in the Gulf of Alaska*, NOAA FISHERIES (Sept. 9, 2021), <https://www.fisheries.noaa.gov/feature-story/four-endangered-north-pacific-right-whales-spotted-gulf-alaska>. Unimak Pass is one of only a few dozen passes through the longitudinally oriented Aleutian Island archipelago. PETITION TO REVISE, *supra* note 24, at 19. It is about 10 miles wide at its narrowest point, but is the "only major, direct conduit between the [continental] shelves of the North Pacific and eastern Bering Sea." *Id.* (quoting Phyllis J. Stabeno et al., *Transport through Unimak Pass, Alaska*, 49 DEEP SEA RESEARCH PART II: TOPICAL STUDIES IN OCEANOGRAPHY 5919, 5919 (2002)). It is home to some of the greatest biodiversity and productivity on the planet with sea lions, fur seals, porpoises, several species of whale, and millions of seabirds travelling through it. *Id.* at 19–20. Shipping traffic is increasing in the area and passing through Unimak Pass, creating marine noise pollution, and increasing the possibility of vessel strikes on marine species. *Id.* at 1.

135. Kodiak Island is the second largest island in the U.S., after Hawaii, and the largest island in the Kodiak Island Archipelago. *About Kodiak*, KODIAK COLL. UNIV. OF ALASKA ANCHORAGE, <https://koc.alaska.edu/about/community/> (last visited Nov. 2, 2022) [hereinafter *About Kodiak*]. It has been inhabited for the last 8,000 years. *Id.* Kodiak National Wildlife Refuge covers 90 percent of the island and is a designated brown bear habitat. *Id.* It is Alaska's largest commercial fishing port and is one of the top three fishing ports in the U.S., with 650 boats, including Alaska's largest trawl and long-line vessels, and twelve shore-based processors.

critical habitat (including Barnabas Trough and Albatross Bank,¹³⁶ features on the seafloor).¹³⁷ Map 3 shows the proposed expansion, and Map 4 shows the location of Barnabas Trough. The expansion would overlap with “productive fishing areas and high-volume maritime transit routes.”¹³⁸ Map 5 shows a snapshot of boat traffic in the area.

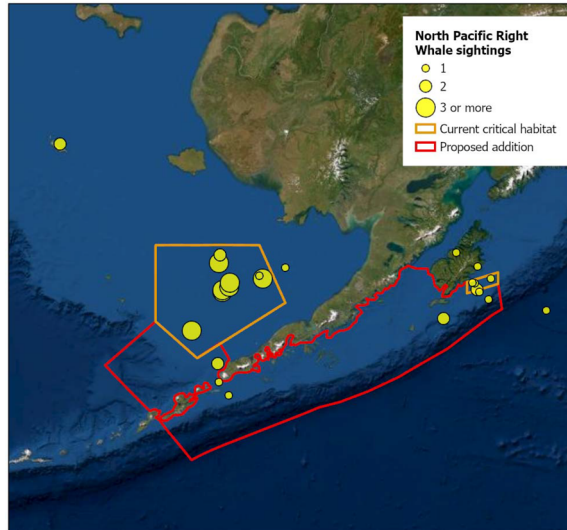


Figure 2. The proposed revision to critical habitat is outlined in red, the current critical habitat designation is outlined in orange, and North Pacific right whale sightings since 1970 are shown in yellow. In addition to visual sightings, there were 480 acoustic detections of right whales in Unimak Pass on 37 days between 2009 and 2015.¹³⁸ Map by Kara Clauser, Center for Biological Diversity (sighting data compiled by Save the North Pacific Right Whale, <https://www.northpacificrightwhale.org/recent-sightings>).

Map 3: This map is Figure 2 in the 2022 petition to revise the critical habitat designations. The red lines show the requested expansion of the critical habitat, connecting the existing critical habitat which is outlined in orange.¹³⁹

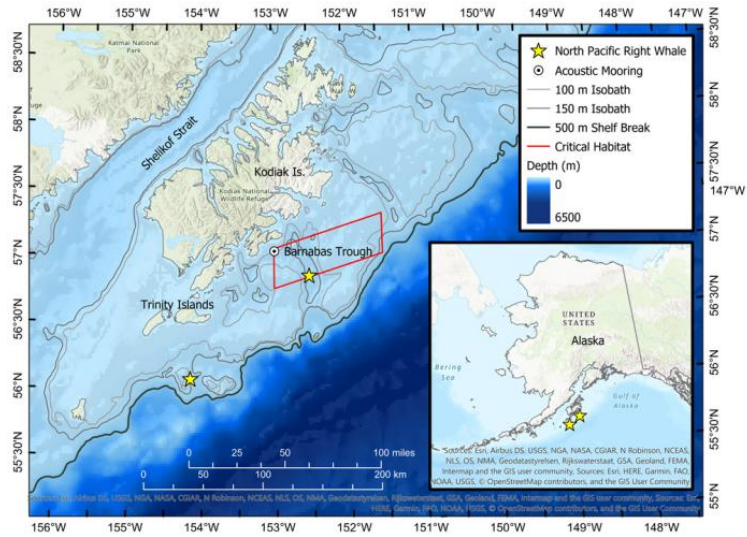
Id.; see also Kodiak, TRAVEL ALASKA, <https://www.travelalaska.com/Destinations/Cities-Towns/Kodiak> (last visited Nov. 3, 2022). It also houses the world’s largest U.S. Coast Guard base. *About Kodiak*, *supra* note 135.

136. Barnabas Trough and Albatross Bank are part of the continental shelf about twenty-five nautical miles south of Kodiak. Four Endangered NPRWs, *infra* note 140.

137. 87 Fed. Reg. at 41271; NOAA Fisheries to Review, *supra* note 130; *Four Endangered North Pacific Right Whales Spotted in the Gulf of Alaska*, NOAA FISHERIES (Sept. 9, 2021), <https://www.fisheries.noaa.gov/feature-story/four-endangered-north-pacific-right-whales-spotted-gulf-alaska>.

138. NOAA Fisheries to Review, *supra* note 130.

139. PETITION TO REVISE, *supra* note 24, at 18.



Map 4: This map is from NOAA and shows the location of Barnabas Trough off Kodiak Island.¹⁴⁰

140. Four Endangered North Pacific Right Whales Spotted in the Gulf of Alaska, NOAA FISHERIES (Sept. 9, 2021), <https://www.fisheries.noaa.gov/feature-story/four-endangered-north-pacific-right-whales-spotted-gulf-alaska> [hereinafter Four Endangered NPRWs].

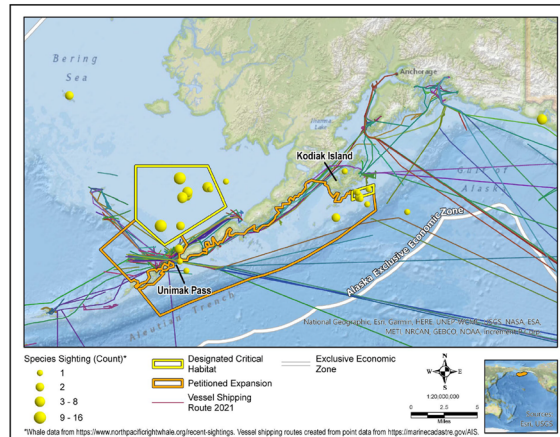
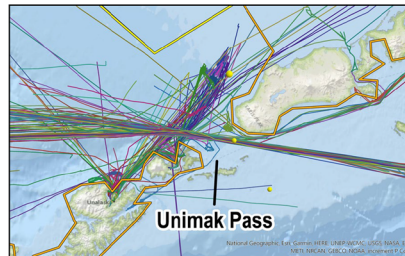


Figure 1. North Pacific Right Whale Sightings Overlaid on Designated and Petitioned Critical Habitat and Vessel Shipping Routes.

Figure 1 demonstrates the whales migrating through Unimak Pass and the bottleneck of ships at that location. Figure 2 zooms into the area, presenting a clearer picture. Of the 392 vessel shipping routes displayed in Figure 1, 125 traverse Unimak Pass.

Figure 2. Close-up of Unimak Pass.



Map 5: Figures 1 and 2 are from Nancy Beecher's public comment to the 2022 petition to revise the critical habitat. They show boat traffic through the proposed critical habitat and a zoomed in snapshot of boat traffic in Unimak Pass.¹⁴¹

The petition highlights recent research that has helped to fill knowledge gaps on NPRW needs and behaviors, arguing that it shows these areas should be designated NPRW critical habitat.¹⁴² For example, long-term acoustic surveys revealed that NPRWs traverse Unimak Pass throughout the year, rather than only during a migratory period, using it to reach areas important to their life functions.¹⁴³ Scientists also believe that Unimak Pass is part of a larger migratory corridor through the Fox Islands.¹⁴⁴ Moreover, research showed that there are essential NPRW

141. See Nancy Beecher, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 5, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0008>.

142. 87 Fed. Reg. 41271, 41272 (July 12, 2022).

143. *Id.* at 41273; PETITION TO REVISE, *supra* note 24, at 20.

144. See CBD Press Release, *supra* note 72; Four Endangered NPRWs, *supra* note 140.

feeding grounds along Albatross Bank and Barnabas Trough off Kodiak Island.¹⁴⁵ Based on this new research, the petitioners argued that “the best available science shows the proposed, revised designation is prudent, determinable, and warranted—containing physical and biological features that are essential to the species’ conservation and survival.”¹⁴⁶

The petition also highlights various threats to NPRWs that may hamper their recovery, stating that the loss or injury of even a single NPRW would significantly impact the small population.¹⁴⁷ Vessel strikes, noise pollution, entanglements, climate change, and oil and gas exploration and spills are all mentioned.¹⁴⁸ The petition states that whales are “particularly vulnerable to ship collisions if they are slow swimmers, spend a lot of time at the surface, or use areas near shipping lanes.”¹⁴⁹ It emphasizes that NPRWs check all three boxes, making them “highly susceptible” to vessel strikes.¹⁵⁰ Moreover, shipping traffic to and from the U.S. Pacific Northwest is expected to increase between one to nine percent every year through 2030, raising the possibility of collision.¹⁵¹ It states that noise pollution can cause hearing damage to whales, displace them from key feeding areas, and disrupt mating and courtship.¹⁵²

Next, the petition discusses a study which found that NPRWs and walrus are the marine mammals most vulnerable to the impacts of climate change.¹⁵³ It then highlights how rough seas in the requested critical habitat area bring a high possibility of an oil or gas spill which would lead to whales inhaling, aspirating, ingesting, and having dermal contact with oil.¹⁵⁴ The petition concludes by arguing that the anthropogenic threats to NPRWs, their small population size, and new scientific findings demonstrate that the critical habitat must be expanded to connect the existing designated areas.¹⁵⁵

During the public comment period, several organizations and individuals expressed support for the petition. The Ocean Conservancy submitted a letter in support of the petition with over 200 pages of signatures attached.¹⁵⁶ The CBD submitted a comment emphasizing that

145. PETITION TO REVISE, *supra* note 24, at 16.

146. *Id.* at ii.

147. *Id.* at 1–2.

148. *Id.* at 26–38.

149. *Id.* at 26–27.

150. *Id.*

151. *Id.* at 28.

152. *Id.* at 34.

153. *Id.* at 32.

154. *Id.* at 36.

155. *Id.* at 40.

156. Ocean Conservancy, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 8, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0009>.

the designation of critical habitat would provide “NMFS with regulatory and conservation tools to address growing threats these whales” face.¹⁵⁷ Oasis Earth, an environmental sustainability consulting firm, endorsed the inclusion of Unimak Pass in the requested critical habitat, urging the establishment of ship speed limits of ten knots or less, bow watches to detect whales, and the establishment of an ocean rescue tug on 24/7/365 standby to save ships in distress in the narrow pass.¹⁵⁸ It also emphasized that there are currently “no sufficient ship speed restrictions in Unimak, or ship casualty prevention and response assets in the area.”¹⁵⁹

The public comments also revealed some of the concerns regarding approval of an expanded critical habitat designation. Comments from the Alaska Whitefish Trawlers Association (AWTA), a Kodiak-based organization representing independently owned catcher-vessels, and from Matson, a shipping and navigation company that provides services in Alaska, expressed related concerns.¹⁶⁰ Both focused on the possible impacts on rural Alaska communities, marine traffic, and commercial fishing.

For instance, AWTA argued that there “is little data showing substantial presence of right whales in this huge area, no data on actual ship strikes, and almost no understanding of current right whale population” behaviors, but “guaranteed . . . tremendous negative impact on the viability and local economies of Alaska rural coastal communities.”¹⁶¹ Similarly, Matson stated that it brings food and supplies to remote communities and that any reduction of its services “would cause severe economic hardship and jeopardize food security” for remote communities.¹⁶² AWTA also emphasized the importance of shipping and

157. Center for Biological Diversity, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 12, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0014> [hereinafter CBD Comment].

158. Oasis Earth, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Aug. 25, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0006> [hereinafter Oasis Earth Comment].

159. *Id.*

160. Alaska Whitefish Trawlers Association, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 12, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0010>; Matson, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 12, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0013>.

161. Alaska Whitefish Trawlers Association, *supra* note 160. It further stated that the “petition clearly anticipates restrictions on both commercial fishing, and marine traffic.” *Id.*

162. Matson, *supra* note 160.

fishing to Kodiak's community.¹⁶³ Kodiak needs cargo ships to deliver groceries and other goods to the island and to transport processed seafood for sale.¹⁶⁴ Those cargo ships would have to cross through the proposed critical habitat.¹⁶⁵ Fishing is a pillar of Kodiak's economy, with trawlers delivering fish and processing plants operating almost year-round, supporting the local workforce.¹⁶⁶ AWTA stated that decisions must be based on "good data, not just conjecture" and that costs to rural Alaska communities "must be fully understood."¹⁶⁷ Matson similarly urged NMFS to resist overly broad critical habitat boundaries because "undue constraints on commerce . . . could result in major implications for remote Alaskan communities."¹⁶⁸

The State of Alaska submitted a comment arguing that there are insufficient data for the full requested expansion, but that a limited expansion is supported based on the data.¹⁶⁹ The State of Alaska supported expanding the critical habitat around Kodiak Island to match the outline of a biologically important area for the NPRW identified in a 2015 paper near Barnabas Trough and Albatross Bank.¹⁷⁰ The figure the State referenced as creating the outline for a proposed expansion is in Map 6 below.

163. Alaska Whitefish Trawlers Association, *supra* note 160.

164. *Id.*

165. *Id.*

166. *See id.* (describing the importance of fishing to Kodiak).

167. *Id.*

168. Matson, *supra* note 160.

169. State of Alaska, Comment on 90-Day Finding on a Petition to Revise the Critical Habitat Designation for the North Pacific Right Whale (Sept. 13, 2022), <https://www.regulations.gov/comment/NOAA-NMFS-2022-0050-0015> [hereinafter State of Alaska Comment].

170. *Id.*

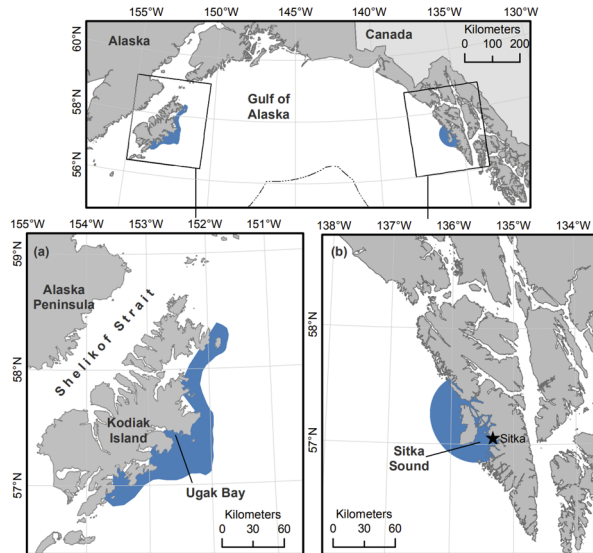


Figure 6.3. Two gray whale (*Eschrichtius robustus*) feeding BIAs were delineated in the Gulf of Alaska. These areas were substantiated through boat and aerial survey data, photo-identification studies, genetics, fecal samples, and direct prey sampling. (a) Kodiak Island BIA (greatest densities from June through August); (b) Southeast Alaska BIA (greatest densities from May through November). The U.S. EEZ is shown in the overview panel as a dashed line.

Map 6: This is Figure 6.3 in a 2015 paper.¹⁷¹ Map (a) on the left shows the outline of the biologically important area the State of Alaska supports designating as expanded NPRW critical habitat.

The State of Alaska opposed a greater expansion of the critical habitat, citing a lack of sightings of NPRWs since 1970 in the area around Kodiak and Unimak Pass.¹⁷² It also referred to the language in the ESA which states that critical habitat must be limited to “specific areas” where essential physical and biological features are found, stating that the petition does not provide any data on where the identified features “actually occur for a large portion of the proposed [critical habitat] expansion.”¹⁷³ It argued that “NMFS cannot assume on a strictly qualitative basis, without data, that a specific area contains features identified as essential to conservation. To do so would be to violate a fundamental tenet of the ESA: that decisions cannot be based on ‘speculation or surmise.’”¹⁷⁴

The State of Alaska also discussed possible economic impacts of the

171. M. C. Ferguson, C. Curtice & J. Harrison, *Biologically Important Areas for Cetaceans Within U.S. Waters – Gulf of Alaska Region*, 41 *AQUATIC MAMMALS (SPECIAL ISSUE)* 65, 65–78 (2015), <http://dx.doi.org/10.1578/AM.41.1.2015.1>.

172. State of Alaska Comment, *supra* note 169.

173. *Id.*

174. *Id.*

designation, arguing that the potentially significant economic impacts to fisheries and shipping compared to the low potential for conservation benefits to NPRWs tip the scales away from approving the full requested expansion.¹⁷⁵ The state supported further data collection in and around Unimak Pass, suggesting that it was not clear from existing data whether the pass and the area around it are important to the NPRW.¹⁷⁶ It also recommended continuing an existing relationship with the U.S. Coast Guard “to provide for alerts on whale presence” and for implementing a “slow traffic zone during migration when whales are more likely to be present.”¹⁷⁷

One further challenge to protection efforts, alluded to throughout the comments, is the difficult data collection process. The NPRW population is miniscule and lives in a vast and remote region, replete with rough waters and “notoriously bad weather” that complicates research.¹⁷⁸ Acquiring data on the eastern NPRW is a search for a needle in a haystack and will present ongoing challenges for protection efforts.¹⁷⁹

IV. RECOMMENDATIONS FOR FUTURE NORTH PACIFIC RIGHT WHALE RECOVERY

Despite their deeply reduced numbers and the many challenges on the road ahead, eastern NPRWs may yet recover.¹⁸⁰ Six strategies for supporting NPRW recovery are discussed here. First, more data collection should be facilitated. Second, the plight of the NPRW should be shared more widely to garner public attention and support for protection measures. Third, the critical habitat designation should be expanded, but to a lesser extent than the petition has requested. Fourth, a whale-ship interaction risk reduction regime should be adopted. Fifth, whale-friendly fishing gear should be widely adopted. Finally, commercial whaling must remain illegal.

First, one of the most urgent needs in NPRW conservation is more data that will give researchers and decision makers a better understanding of these rare marine mammals.¹⁸¹ More high-quality data will help make conservation efforts maximally effective by safeguarding the resources and places that NPRWs depend on. Moreover, arguments

175. *Id.*

176. *Id.*

177. *Id.*

178. Crance, *supra* note 51, at 50; Rone et al., *supra* note 21, at 22.

179. *See* Crance, *supra* note 51, at 50.

180. *Id.* at 53.

181. *See* 2017 *Five-Year Review*, *supra* note 3, at 27 (“The most urgent need is better information on the basic distribution and occurrence of right whales in the eastern North Pacific.”).

that there are insufficient data to take steps to protect NPRWs will hold less and less weight as scientists have more quality data to support the protections being sought. As such, determining what information is necessary for NPRW protection and then facilitating its collection should be a priority.

Past assessments and recovery plans have identified information that would support conservation efforts. This includes studies to more accurately assess population size and abundance trends, determine NPRW distribution and range, locate essential habitat like breeding and calving grounds so that they can be protected, and continue monitoring and assessing anthropogenic threats to NPRWs.¹⁸² Further, migration routes and wintering areas need to be located.¹⁸³ Ship-based surveys, autonomous underwater recording technology, and satellite-monitored radio tags should all be employed in pursuit of these answers.¹⁸⁴ Such tools have already been used to study the NPRW, but challenges like satellite tags falling off too early have limited the knowledge that researchers have been able to glean.¹⁸⁵

The Alaska state government and the federal government should set aside funds to enable research so that as much information can be gathered about NPRWs as quickly as possible. At the state level, Alaska could dedicate funds in its annual budget to fund research grants for NPRW-focused projects. At the federal level, there are already-allocated funds that could be used for NPRW research. For instance, the 2022 Inflation Reduction Act allocates huge sums of money which can be used to fund NPRW research.¹⁸⁶ Congress allocated the National Oceanic and Atmospheric Administration (NOAA) \$2.6 billion for climate change preparation and resilience projects, which includes marine mammal stock assessments, and could be used to better understand NPRW populations.¹⁸⁷ The Act also allocated \$50 million for research into climate impacts, including “impacts of changing ocean conditions on marine life,”¹⁸⁸ which could be used to examine the impacts of climate change on NPRWs as they are considered very vulnerable to the impacts of climate

182. 2013 *Recovery Plan*, *supra* note 19, at vi.

183. 2017 *Five-Year Review*, *supra* note 3, at 27; Hunter, *supra* note 44.

184. 2017 *Five-Year Review*, *supra* note 3, at 27.

185. Crance, *supra* note 51, at 51.

186. See *Statement from NOAA Administrator on Signing of Historic Inflation Reduction Act*, NAT'L OCEANIC AND ATMOSPHERIC ADMIN. (Aug. 16, 2022), <https://www.noaa.gov/news-release/statement-from-noaa-administrator-on-signing-of-historic-inflation-reduction-act> [hereinafter *Statement from NOAA Administrator on IRA*] (explaining how the NOAA will be allocating the \$3.3 billion investment from the IRA).

187. *Id.*

188. *Id.*

change.¹⁸⁹

Moreover, the 2021 Infrastructure Investment and Jobs Act allocated \$20 million for NOAA's species conservation work, specifying ESA-related work as one of the areas for the money's use.¹⁹⁰ These funds could be used to support NPRW research projects. The same bill allocated \$172 million in support of Pacific coastal salmon recovery.¹⁹¹ A future federal bill could include an allocation of resources specific to NPRWs, as was done for salmon. Such a bill could be proposed by a member of Congress or included in a presidential budget proposal.

In addition to collecting new data on living NPRWs, studies of historical data and whaling logbooks should continue. NPRW populations were depleted before the modern era of scientific investigation, and consequently historical data may be the only way to learn about certain aspects of the NPRW.¹⁹² For instance, to date, a great deal of what is known about NPRW distribution came from whaling logbooks.¹⁹³ However, it is important to note that such data has its limits. It typically does not tell much more than where to hunt the whales¹⁹⁴ and can be inaccurate. As a result, historical records will need to be carefully examined, traced back to primary sources, and both the secondary and primary data sources should be scrutinized.¹⁹⁵ This work is time-consuming, requires specialized training,¹⁹⁶ and likely could benefit from increased funding.

Finally, fishermen and operators of shipping vessels should be turned into citizen scientists. They should be provided with information on how to spot NPRWs and encouraged to keep a phone or other camera on hand to record possible sightings. Their jobs necessitate that they spend hours upon hours at sea in the region, putting them in a unique position to contribute to knowledge on NPRWs. For instance, the first ever sighting of NPRWs in the Bering Sea in winter was made by the

189. See *supra* text accompanying note 153.

190. Statement from NOAA Administrator Rick Spinrad on the Signing of the Bipartisan Infrastructure Investment and Jobs Act, NAT'L OCEANIC AND ATMOSPHERIC ADMIN. (Nov. 15, 2021), <https://www.noaa.gov/news-release/statement-from-noaa-administrator-rick-spinrad-on-signing-of-bipartisan-infrastructure-investment>.

191. *Id.*

192. See Elizabeth Josephson et al., *Historical Distribution of Right Whales in the North Pacific: Right Whales in the North Pacific*, 9 FISH AND FISHERIES 155, 156 (2008), <https://onlinelibrary.wiley.com/doi/10.1111/j.1467-2979.2008.00275.x> (using historical information to draw conclusions about NPRWs).

193. Hunter, *supra* note 44.

194. *Id.*

195. Josephson et al., *supra* note 192, at 166.

196. *Id.*

captain of a fifty-eight-foot fishing boat searching for cod.¹⁹⁷ Increasing familiarity with the NPRW in a community likely to be highly impacted by NPRW protection efforts may also help garner more support for protection efforts. In sum, there are a number of different information gathering initiatives that could be used to increase our understanding of NPRWs.

Second, the dire situation of the NPRW needs to be put into the spotlight and the species transformed into “as common a household name as [its] North Atlantic cousins.”¹⁹⁸ People tend to protect what they know and like, so bringing attention to the NPRW will benefit protection efforts.¹⁹⁹ There are already several initiatives under way. Save the North Pacific Right Whale is a nonprofit that was founded by biologists and educators seeking to raise awareness about NPRWs and advance conservation efforts.²⁰⁰ Its founder, Kevin Campion, is also involved in the production of an upcoming documentary, called *Right Over the Edge*, focused on the NPRW’s struggle.²⁰¹ Jim Scarff, who has researched NPRWs using historical data, maintains a website with recent news and scientific publications on NPRWs.²⁰² Local news organizations should also continue reporting on NPRW sightings and protection efforts so that communities know about the species.²⁰³ In addition to these existing projects, environmental nonprofits like Oceana, Earthjustice, the Natural Resources Defense Council, and their peer organizations should dedicate more resources to raising awareness on the NPRW’s precarious status through advocacy campaigns and high-profile legal avenues.

Third, the critical habitat designation should be expanded, but to a lesser extent than the petitioners requested because of the weighty economic concerns of local communities and the remaining knowledge gaps in the current understanding of NPRWs. Unimak Pass and the

197. McKenney, *supra* note 15.

198. Crance, *supra* note 51, at 53.

199. See Crance, *supra* note 51, at 53 (proposing that people’s willingness to help save a species is positively linked to their level of familiarity with that species).

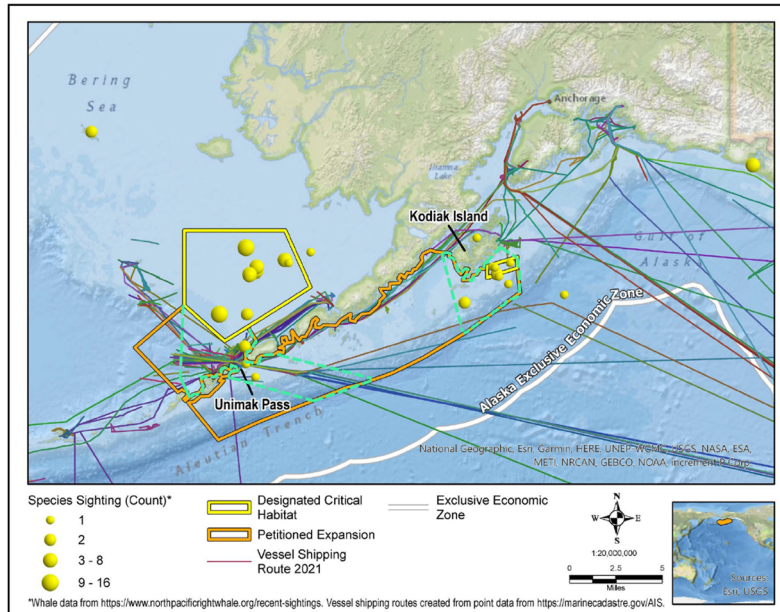
200. SAVE THE NORTH PACIFIC RIGHT WHALE, <https://www.northpacificrightwhale.org/> (last visited Nov. 29, 2022).

201. *The Film, RIGHT OVER THE EDGE*, <https://www.rightwhalefilm.com/the-film> (last visited Nov. 29, 2022).

202. Jim Scarff, *The North Pacific Right Whale*, <http://www.sfcelticmusic.com/js/RTWHALES/nprightw.htm> (last updated May 9, 2022).

203. See McKenney, *supra* note 15 (reporting on a captain who was “likely the first person to take photos and video of the whales feeding in the Bering Sea in the winter”); *More Protection Sought for Right Whales*, THE CORDOVA TIMES (Mar. 18, 2022), <https://www.thecordovaitimes.com/2022/03/18/more-protection-sought-for-right-whales/>.

waters leading up to it on either side of the Aleutian Islands should be part of the expanded critical habitat. The critical habitat expansion in that area should extend to the line drawn by petitioners to the south of the Aleutian Islands. Near Kodiak Island, the critical habitat should be expanded to the west to include the western shoreline of Kodiak Island and be extended to the south to the line petitioners requested. A rough approximation of the areas referred to is outlined below in a dotted teal line, sketched onto a figure which also shows shipping traffic, borrowed from Nancy Beecher's comment on the petition.



Map 7: This map shows the critical habitat expansion advocated for in this paper, outlined with a dotted teal line. The map was originally in Nancy Beecher's public comment to the critical habitat petition and was adapted to illustrate this paper's position.²⁰⁴

The critical habitat petition should be granted in the revised form suggested here because of the severe risk of eastern NPRW extinction and developments in research since NPRW critical habitat was first designated in the early 2000s. At that time, even less was known about NPRWs and there has been sufficient progress made in understanding the essential needs of these whales that the critical habitat designation should be updated to more appropriately protect the NPRW.

204. See Beecher, *supra* note 141.

Unimak Pass and the waters leading up to it should be included in a habitat expansion for a number of reasons. First, scientific research has led to acoustic detection of NPRWs in Unimak Pass,²⁰⁵ suggesting that the whales use the corridor to reach important feeding grounds already designated as critical habitat. The data are limited, as the State of Alaska mentioned in its public comment, but that is a function of there being only about thirty eastern NPRWs left on Earth. Due to whaling decimating the NPRW population, there will never be mountains of data upon which to base the decision of whether to grant this critical habitat. The decision under consideration here is not being made based on speculation, but on limited, yet very real, observations of NPRWs in the region and their needs. Moreover, the ESA does not demand that critical habitat designations be made based on substantial or conclusive science, but on best available science, which indicates the presence of NPRWs and their reliance on these areas.

Moreover, Unimak Pass and the surrounding waters should be designated as critical habitat because of the high potential for harm to NPRWs which exists within them. Unimak Pass is narrow, frequented by large vessels, and only expected to see more vessel traffic as climate change continues to melt Arctic Sea ice. In this area, there is high potential for vessel strikes and harm to a population which cannot sustain any more losses. Emphasizing the sensitivity of these areas and the NPRWs within them by designating them as critical habitat will send an important signal to those travelling through to use caution.

The critical habitat near Kodiak Island should be expanded because repeated sightings of NPRWs in the area indicate that those are important foraging grounds. The State of Alaska, which largely opposed the proposed expansion, supported a version of this expansion. The western part of Kodiak Island is almost entirely the Kodiak Island National Wildlife Refuge.²⁰⁶ As a result, surrounding its shores with marine critical habitat may have a smaller impact on locals than if waters on the eastern side of the island (which is home to the large fishing industry) were designated as critical habitat.

The economic concerns in this area are serious given Kodiak Island's reliance on fishing to support local livelihoods and on shipping to receive essential goods. National security concerns may also be implicated as a large U.S. Coast Guard base is nearby and trains in the area.²⁰⁷ The comment from AWTA assumes that the designation of critical habitat will

205. CBD Comment, *supra* note 156.

206. See *About Kodiak*, *supra* note 135 ("Approximately 90 percent of Kodiak Island is . . . the Kodiak National Wildlife Refuge.").

207. See *id.*

lead to new restrictions on fishing and marine traffic. This concern, however, does not reflect the reality of what a critical habitat designation does.²⁰⁸ Critical habitat designations do not create closed-off areas guaranteed to disrupt activities like fishing or shipping. Instead, they make it so that federal agencies must consult with NOAA Fisheries “to ensure actions they fund, authorize, or undertake are not likely to destroy or adversely modify the critical habitat.”²⁰⁹ While it is likely that the designation would bring change to the region, the new approaches to management of the area can be navigated thoughtfully and with an aim to find balance between the needs of the people living nearby and the whales swimming below the surface.

The changes brought by conservation measures like the granting of increased critical habitat and related recovery of NPRW populations should lead to long-term positive impacts for local communities. NPRW recovery could lead to the growth of the Alaska whale watching industry and more tourist revenue.²¹⁰ A 2020 study showed that whale watching in Alaska “supported 850 jobs and \$23.4 million in labor income” and had a total economic footprint of \$103 million.²¹¹ Protecting NPRWs could help the long-term growth of the Alaska whale watching industry. Further, the presence of more large whales could also benefit fisheries – research shows that whales fertilize the oceans as they travel, stirring up the water column, and leading to more fish being present in ecosystems.²¹² Such an increase in fish populations could benefit fisheries in the long term.

The proposed expansion suggested here is smaller than the one requested by the petitioners in an effort to give NPRWs the most effective protection possible while minimizing feared, immediate economic harm to rural communities. The comments from Matson, AWTA, and the State of Alaska all strongly stated the importance of the continued flow of cargo and shipping vessels to and from rural Alaska communities. The lack of

208. See *supra* notes 104–112 and accompanying text.

209. *Critical Habitat*, NOAA FISHERIES, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#critical-habitat-requirements> (last visited Nov. 30, 2022).

210. See *The Benefits and Impacts of Whale Watching*, INT’L WHALING COMM’N, <https://wwhandbook.iwc.int/en/responsible-management/benefits-and-impacts-of-whale-watching> (last visited Nov. 28, 2022) (discussing the benefits of whale watching, and specifically how it can create jobs and income).

211. Importance of Alaska’s Whale-Watching Industry, *supra* note 32.

212. See Joe Roman et al., *Whales as Marine Ecosystem Engineers*, 12 FRONTIERS IN ECOLOGY AND THE ENV’T 377, 377 (2014) (“Whales facilitate the transfer of nutrients by releasing fecal plumes near the surface after feeding at depth and by moving nutrients from highly productive, high-latitude feeding areas to low-latitude calving are.”).

data on NPRWs between Unimak Pass and the waters west of Kodiak Island makes it difficult to create critical habitat there when regulations require consideration of economic consequences and there is essentially no science upon which to base a decision about critical habitat designation. While future research may reveal those areas to be significant to NPRWs, an expansion of critical habitat into those waters should wait until there is some clearer indication of how NPRWs use the area. Researchers should determine if the gap between the two areas has any significance to NPRWs. Such a determination could lead to a future revision of the critical habitat designation based in the best available science if research reveals that the space truly is critical to the NPRW.

Fourth, a whale-ship interaction risk reduction regime should be adopted since NPRWs are highly susceptible to vessel strikes.²¹³ On the East Coast, the North Atlantic Right Whale is protected by a mix of mandatory and voluntary whale-ship interaction rules.²¹⁴ There, regulation requires vessels sixty-five feet or longer to travel at a speed of less than ten knots in specified areas, called Seasonal Management Areas, during certain time periods to decrease the likelihood of death or injury to North Atlantic Right Whales.²¹⁵ Vessels less than sixty-five feet are encouraged to comply,²¹⁶ and proposed rules currently under consideration are seeking to expand the program to include most vessels more than thirty-five feet long as well.²¹⁷ Two voluntary programs also help protect North Atlantic Right Whales. First, NOAA can establish Dynamic Management Areas (DMAs) based on “visual sightings documenting the presence of three or more right whales within a discrete area.”²¹⁸ DMAs are shared through customary maritime communication channels so that mariners are on notice and can slow down.²¹⁹ Second, Right Whale Zones can be established for fifteen days off the East Coast

213. See Oasis Earth Comment, *supra* note 158 (highlighting that trans-Pacific shipping traverses NPRW habitat).

214. *Reducing Vessel Strikes to North Atlantic Right Whales*, NOAA FISHERIES, <https://www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales#seasonal-management-areas--northeast> (last visited Nov. 4, 2022) [hereinafter *Reducing Vessel Strikes*].

215. *Id.*

216. *Id.*

217. Jose Antunes, *NOAA Fisheries' New Proposal: A "Roadmap" for Use of Ropeless Gear*, NAT'L FISHERMAN (Aug. 2, 2022), <https://www.nationalfisherman.com/northeast/noaa-fisheries-new-proposal-a-roadmap-for-use-of-ropeless-gear>; *North Atlantic Right Whale (Eubalaena glacialis) Vessel Speed Rule Assessment*, NOAA FISHERIES, OFFICE OF PROTECTED RESOURCES (2020), https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null.

218. *Reducing Vessel Strikes*, *supra* note 214.

219. *Id.*

from Maine to Virginia after right whales have been spotted or detected acoustically.²²⁰ As with DMAs, notifications are sent about slow zones so mariners know of possible whale activity.²²¹ These programs also help keep mariners and passengers safe as collisions with whales can damage vessels and injure or kill those aboard.²²²

Given that there are such robust warning and speed reduction programs on the East Coast which could provide roadmaps for creating similar programs near Alaska, voluntary and/or mandatory speed reduction and alert programs should be implemented for NPRWs. The State of Alaska also expressed support for a speed reduction program, suggesting that the state may be willing to devote resources to creating one. Some challenges to implementation may include that NPRWs are rare, can be hard to identify, and that the lack of data on NPRWs may make it difficult to know where to create Seasonal Management Areas. Nevertheless, there is sufficient data to create such zones in or around the existing NPRW critical habitat, where it is agreed the whales are present, and in Unimak Pass, where it is certain that there are very high levels of ship traffic and where there have been confirmed NPRW sightings.

As part of NMFS' impact assessment for the East Coast whale vessel speed restriction rule, a consulting company estimated economic impacts. It found that the rule's impact on transit times would cost between \$28.3 and \$39.4 million each year.²²³ It also found that seventy-four to eighty-seven percent of these costs would be borne by the commercial shipping industry.²²⁴ In other words, speed restrictions would likely increase operational costs for shipping companies. This analysis was tailored to East Coast concerns, factoring in the type of marine traffic there and the lengths of time that speed restrictions are imposed seasonally. A similar assessment would need to be done in the North Pacific to have a very precise understanding of possible impacts.

Both Matson and AWTA brought up Kodiak Island's dependence on cargo shipping for food security and delivery and shipping of other

220. *Help Endangered Whales: Slow Down in Slow Zones*, NOAA FISHERIES (Dec. 23, 2021), <https://www.fisheries.noaa.gov/feature-story/help-endangered-whales-slow-down-slow-zones>.

221. *Id.*

222. *Understanding Vessel Strikes*, NOAA FISHERIES, <https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes#:~:text=Collisions%20involving%20larger%20marine%20animals,sometimes%20fatal%20injuries%20to%20people> (last visited Nov. 28, 2022).

223. INDUSTRIAL ECONOMICS, INC., *Economic Analysis of the North Atlantic Right Whale Vessel Speed Restriction Rule*, at ES-1 (Mar. 2020), https://media.fisheries.noaa.gov/2021-01/FINAL_Appendix_B-Economic_Assessment_of_the_Vessel_Speed_Rule.pdf?null (prepared for Office of Protected Resources National Marine Fisheries Service).

224. *Id.*

important goods, like fish processed on the island. These are important concerns that deserve consideration before any such rule were to be implemented, and if alternate shipping routes or other solutions could be devised to minimize them, they should be pursued. Making speed reduction programs voluntary until the impacts of a mandatory rule are understood could be one way to balance the conflicting interests here. Another option could be to offer state or federal fuel subsidies to local fishermen and shipping companies supplying essential goods to remote local communities to offset the cost of longer transit times to comply with the speed limits and minimize harm to remote communities dependent on the seas. The \$2.6 billion allocation under the Inflation Reduction Act, which includes protection measures for marine mammals, could be a source of funding for the fuel subsidies as the speed limits are a measure to protect marine mammals.²²⁵

Beyond speed limits for marine traffic, other measures can be implemented to reduce the risk of harm to NPRWs and mariners. When NPRWs were spotted in February 2022, NOAA recommended that boats stay 500 yards away from whales.²²⁶ Such precautions could be encouraged on a regular basis in NPRW habitat. Further, ships should employ bow watches to spot whales when they have been seen recently or are known to frequent the area, as suggested by Oasis Earth in its comment.²²⁷ Moreover, an ocean rescue tug should be on 24/7/365 standby to assist vessels in distress in the narrow Unimak Pass.²²⁸ Such an emergency response system could reduce the likelihood of ship strikes, groundings, and possible oil spills.

Fifth, whale-friendly fishing gear should be widely adopted where possible. The technology exists and is being deployed because entanglement is one of the leading causes of North Atlantic Right Whale mortality.²²⁹ In July 2022, NOAA published a roadmap to ropeless fishing

225. See Statement from NOAA Administrator on IRA, *supra* note 186 (noting that an aim of the Inflation Reduction Act includes better protecting marine habitats).

226. *New Photos May Be First Visual Evidence Of North Pacific Right Whales Feeding In Bering Sea In Winter*, NOAA FISHERIES (Feb. 11, 2022), <https://www.fisheries.noaa.gov/feature-story/new-photos-may-be-first-visual-evidence-north-pacific-right-whales-feeding-bering-sea>.

227. Oasis Earth Comment, *supra* note 158.

228. *Id.*

229. John Cannon, *U.S. Charts Course for Adopting Ropeless Fishing to Reduce Whale Deaths*, MONGABAY (Sept. 21, 2022), <https://news.mongabay.com/2022/09/u-s-charts-course-for-adopting-ropeless-fishing-to-reduce-whale-deaths/#:~:text=The%20National%20Oceanic%20and%20Atmospheric,endangered%20North%20Atlantic%20right%20whale.>

gear, also called “on-demand fishing.”²³⁰ The system, which is based on fifty-year old acoustic technology, uses remote retrieval to trigger the release of a buoy line which a fisherman can then use to bring gear to the surface.²³¹ The new system does not eliminate the use of rope in fishing equipment, but decreases the length of time that the rope poses an entanglement risk.²³²

The technology should be adapted if necessary and deployed in NPRW habitat to reduce the risk of entanglement to the whales while minimizing disruptions to the fishing industry, given its centrality to Kodiak Island’s economy. As emphasized in the comments from AWTA, the State of Alaska, and Matson, NPRW habitat overlaps with productive fisheries that fuel local economies. Adopting such technology would help strike a balance between environmental conservation and economic needs. To account for those areas in which ropeless gear cannot be used, a plan and procedures for rescuing entangled whales should be established so that whales can be rescued as quickly as possible, minimizing the energy they expend trying to free themselves. Such rescues can be dangerous and so having trained experts ready to intervene would help protect both people and whales.²³³

Finally, state, federal, and international actors must work together to ensure that whaling bans are upheld.²³⁴ The population of eastern NPRWs is so depleted that further hunting would destroy any chance of recovery that the population has: “the loss of even a single animal, especially a female, would be detrimental.”²³⁵ If data comes to light that Japan or another country is hunting NPRWs, another challenge like Australia’s 2010 complaint could be brought in the ICJ to block the hunting operation. Although the 2010 lawsuit was ultimately unsuccessful (because Japan defied the court’s order), it still sent an important signal to all nations that

230. *Draft Ropeless Roadmap: A Strategy to Develop On-Demand Fishing Available for Public Input*, NOAA FISHERIES (July 29, 2022), <https://www.fisheries.noaa.gov/bulletin/draft-ropeless-roadmap-strategy-develop-demand-fishing-available-public-input>.

231. *Draft Ropeless Roadmap: A Strategy to Develop On-Demand Fishing*, NE. FISHERIES SCI. CTR. 4 (2022), <https://media.fisheries.noaa.gov/2022-07/RopelessRoadmapDRAFT-NEFSC.pdf>.

232. *Id.*

233. Walter Bonora, *Freeing Entangled Whales: A Task Best Left to the Experts*, NOAA NAT’L MARINE SANCTUARIES (July 31, 2017), https://sanctuaries.noaa.gov/news/features/0107_whalerescue.html; see also *Veterinary Medicine and Drone Technology Can Help Free Whales Trapped in Fishing Gear*, INT’L FUND FOR ANIMAL WELFARE, <https://www.ifaw.org/projects/entangled-whale-rescue-global> (last visited Nov. 3, 2022) (highlighting innovative techniques being used to improve whale disentanglement efforts).

234. *2013 Recovery Plan*, *supra* note 19, at vi.

235. See Crance, *supra* note 51, at 50.

whaling is unacceptable under international law. Having a second such decision in the face of continued whaling would underscore the illegal nature of a whaling country's actions.

In conclusion, the eastern NPRW population is in crisis and faces severe risk of extinction.²³⁶ Yet, this population of rare whales still has the potential to recover.²³⁷ In November 2021, a juvenile NPRW was discovered and named Phoenix, showing that there is successful reproduction occurring in the population and providing hope for revitalization.²³⁸ If the right protections are implemented with dispatch, the eastern NPRW population may yet rise from the ashes and roam the seas of the North Pacific in large numbers.

236. See LeDuc et al., *supra* note 18, at 167 (concluding that genetic analyses indicate NPRWs “are in severe danger of immediate extirpation”).

237. Matsuoka et al., *supra* note 22, at 13.

238. *Signs of Hope*, *supra* note 16.