Appeal Nos. 23-35322, 23-35323, 23-35324, 23-35354

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

WILD FISH CONSERVANCY,

Plaintiff/Appellee/Cross-Appellant,

v.

JENNIFER QUAN, in her official capacity as Regional Administrator of the National Marine Fisheries Service; JANET COIT, in her official capacity as the Assistant Administrator for Fisheries of the National Marine Fisheries Service; NATIONAL MARINE FISHERIES SERVICE; GINA M. RAIMONDO, in her official capacity as Secretary of the United States Department of Commerce; UNITED STATES DEPARTMENT OF COMMERCE,

Defendants/Appellants/Cross-Appellees,

v.

ALASKA TROLLERS ASSOCIATION and STATE OF ALASKA,

Intervenor-Defendants/Appellants/Cross-Appellees.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON.

MOTION OF LAW OF THE WILD, ORCA CONSERVANCY, AND WILD ORCA FOR LEAVE TO FILE AMICI CURIAE BRIEF IN SUPPORT OF PLAINTIFF/APPELLEE/CROSS-APPELLANT

Brett Sommermeyer
Law of the Wild
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048
Attorney for Amici Curiae

I. Introduction

Law of the Wild (LAW), Orca Conservancy, and Wild Orca (collectively "Amici") respectfully move this Court for leave to file the accompanying Amici Curiae brief in support of the Plaintiff/Appellee/Cross-Appellant, Wild Fish Conservancy, pursuant to Federal Rule of Federal Procedure 29(a). In accord with Circuit Rule 29-3, counsel for Amici endeavored to obtain the consent of all parties to the filing of the brief before filing this motion. Plaintiff/Appellee/ Cross-Appellant, Wild Fish Conservancy consented to Amici filing the brief. Defendants/Appellants/Cross-Appellees Jennifer Quan et al., and Intervenor-Defendant/Appellant/Cross-Appellee State of Alaska did not take a position on Amici's request to file a brief. Defendant/Appellant/Cross-Appellee Alaska Trollers Association reserves its position until such time as it may review this motion and the underlying brief.

II. Interest of the Amici Curiae.

Amici share an interest in addressing the challenges preventing the recovery of the Southern Resident Killer Whale (SRKW) population. The Amici are interested in the Appeal because the SRKW population relies on Chinook salmon as their primary food source. By contributing to the decline in wild Chinook abundance, the Southeast Alaska Troll (SEAK) fishery directly affects the SRKWs' access to their essential prey.

III. Desirability and Relevance of the Amici Curiae Brief.

The Amici Curiae brief offers the court compelling ecological and economic perspectives to further understand the need to close the SEAK fishery. The insights provided, such as the inadequacy of hatchery-raised salmon for the nutritional needs of SRKWs, the precarious state of SRKW pods, and the significant economic value of whale watching in the Puget Sound Region, contribute essential context to the broader implications of the SEAK fishery. The Amici bring a unique perspective and expertise to the appeal that will not be represented by other parties and amici.

IV. Conclusion

The Amici respectfully request that the Court grant leave to file the accompanying Amici Curiae brief.

Dated: December 6, 2023
Seattle, WA

Respectfully submitted,

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048

CERTIFICATE OF COMPLIANCE

I certify that this memorandum contains 1,280 words, in compliance with Cir. R. 27-1(1)(d) and Fed. R. App. P. 27(d)(2)(A), excluding the items exempted by Cir. R. 27-1(1)(d) and Fed. R. App. P. 27(a)(2)(B) and 32(f). The type size and typeface comply with Fed. R. App. P. 27(d)(1)(E), 32(a)(5), and 32(a)(6).

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048

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BRIEF OF LAW OF THE WILD, ORCA CONSERVANCY, AND WILD ORCA, AS *AMICI CURIAE* IN SUPPORT OF PLAINTIFF/APPELLEE/CROSS-APPELLANT

Brett Sommermeyer
Law of the Wild
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048
Attorney for Amici Curiae

DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure, Law of the Wild, Orca Conservancy, and Wild Orca, by and through their undersigned counsel, hereby certify that they have no parent corporation and that no publicly held corporation owns 10% or more of their stock.

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048

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STATEMENT OF IDENTIFICATION

Amici Curiae Law of the Wild (LAW), Orca Conservancy, and Wild Orca (collectively "Amici")[1] share an interest in addressing the challenges preventing the recovery of the Southern Resident Killer Whale (SRKW) population. The Amici are interested in the Appeal because the SRKW population relies on Chinook salmon as their primary food source. By contributing to the decline in wild Chinook abundance, the Southeast Alaska Troll (SEAK) fishery directly affects the SRKWs' access to their essential prey.

LAW is a public interest environmental law and policy firm committed to the global conservation of wildlife, habitats, and ecosystems. LAW boasts a substantial outreach, with nearly 13,000 supporters and active participation in high-volume global networks such as the Species Survival Network, the High Seas Alliance, and the IUCN World Commission on Environmental Law.

Orca Conservancy is a non-profit organization that operates in Washington State. Established in 1996, the Orca Conservancy seeks to protect killer whales and their habitat. With over 64,000 members and supporters, Orca Conservancy

[1] Pursuant to Fed. R. App. P. 29(a)(4)(E), counsel for Amici certify that (i) no parties' counsel authored this brief in whole or in part, (ii) no party and no parties' counsel contributed money that was intended to fund preparing or submitting the brief; and (iii) no person (other than Amici) contributed money that was intended to fund preparing or submitting the brief.

collaborates with top research institutions and environmental groups to address the most critical issues facing killer whales.

Wild Orca is a non-profit organization registered in Washington State. Established in 2014, Wild Orca is dedicated to saving the SRKWs from extinction. Through non-invasive conservation research in the Salish Sea, Wild Orca fills knowledge gaps, providing policymakers and the public with up-to-date science.

Amici file this brief pursuant to Rule 29(a) of the Federal Rules of Appellate Procedure upon the accompanying Motion for Leave to File Amici Brief.

INTRODUCTION

Amici strongly advocate for the closure of the SEAK fishery to promote the recovery of Chinook salmon, a crucial food source for the endangered SRKWs. Three points underscore the severity of the situation. First, hatchery-raised salmon, with lower caloric content and unpredictable availability, fail to meet the nutritional needs of SRKWs, resulting in foraging inefficiencies and nutritional stress. Second, the precarious state of SRKW pods (comprised of only 74 individuals), with the absence of critical reproductive age males and declining numbers of post-reproductive females, poses severe threats to genetic viability and population growth. Third, the potential economic fallout of a diminishing SRKW population on whale watching in the Puget Sound Region is profound. Closing the

SEAK fishery stands out as one of the only approaches that will result in an immediate enhancement of Chinook salmon availability for SRKWs.

ARGUMENT

I. Hatchery-raised Chinook salmon are an inadequate substitute for wild Chinook salmon as prey for SRKWs.

SRKWs rely on Pacific salmon as their primary food source, and Chinook salmon are the predominant prey consumed during the spring, summer, and early fall.[2] Chinook salmon, being the largest among the Pacific salmon species, are the preferred choice for SRKWs, likely due to the potential for maximizing net energy intake.[3] Wild Chinook salmon has been declining for several decades.[4] Despite the introduction of hatcheries as a potential remedy to augment wild populations, salmon raised in hatcheries have not proven to be an adequate substitute in size or abundance.[5] Accordingly, the conservation of wild Chinook salmon is of paramount importance to sustain high-calorie prey availability for SRKWs.

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[2] John K.B. Ford & Graeme M. Ellis, *Selective foraging by fish-eating killer whales Orcinus orca in British Columbia*, 316 Marine Ecology Progress Series (2006), 197, available at https://www.int-res.com/abstracts/meps/v316/p185-199.
[3] *Id.* at 196.
[4] Sandra M. O'Neill et al., *Energy content of Pacific salmon as prey of northern and southern resident killer whales*, 25 Endangered Species Research (2014), 266, available at https://www.int-res.com/articles/esr_oa/n025p265.pdf.
[5] *See e.g.*, Raphael Bouchard et al., *Effects of stocking at the parr stage on the reproductive fitness and genetic diversity of a wild population of Atlantic salmon*, 15 Evolutionary Applications (2022), 839, available at, https://doi.org/10.1111/eva.13374; National Marine Fisheries Service, *Recovery*

A. Hatchery-raised Chinook salmon typically possess a lower caloric content than wild Chinook salmon.

As recognized by the National Marine Fisheries Service (NMFS), there is a notable difference in the caloric content of hatchery and wild salmon.[6] Hatchery salmon generally have lower relative fitness than wild salmon, impacting the overall quality of the fish as a food source for SRKWs.[7] The age of Chinook salmon plays a pivotal role in their nutritional profile. Returning hatchery Chinook are generally younger and smaller than wild Chinook and, thus, differ significantly in size and lipid content.[8] SRKWs exhibit a distinct preference for older Chinook salmon, indicating a notable preference for larger, more lipid-rich wild salmon.[9]

The consequences of these nutritional differences are profound. Caloric limitations resulting from the consumption of smaller, lower-quality hatchery Chinook prompt SRKWs to spend more time foraging to meet their nutritional needs.[10] Of particular relevance here, the National Marine Fisheries Services

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Plan for Southern Resident Killer Whales (2008), II-81, available at https://repository.library.noaa.gov/view/noaa/15975 [hereinafter NMFS 2008].

[6] NMFS 2008, *supra* note 5, at II-82 – II-82.

[7] John R. McMillan et al., *A global synthesis of peer-reviewed research on the effects of hatchery salmonids on wild salmonids*, 30 Fisheries Management and Ecology (2023), 1, available at https://doi.org/10.1111/fme.12643.

[8] NMFS 2008, *supra* note 5, at II-81; *see also* Peter F. Galbreath et al., *Precocious maturation of hatchery-raised spring chinook salmon as age-2 Minijacks is not detectably affected by sire age*, 151(3) Transactions of the American Fisheries Society (2021a), 334, available at https://doi.org/10.1002/tafs.10343.

[9] Ford 2006, *supra* note 2, at 196.

[10] O'Neill 2014, *supra* note 4, at 278-79.

(NMFS) is well aware of the significance of this caloric deficit to SRKW health. In discussing salmon size in its 2008 SRKW Recovery Plan, NMFS aptly observed:

> Hatcheries also have a tendency to produce returning adults that are younger and smaller . . . Reduced body size not only poses a number of risks to natural salmon populations, but may also impact killer whales and other predators. Smaller fish may influence the foraging effectiveness of killer whales by reducing their caloric intake per unit of foraging effort, thus making foraging more costly. A combination of smaller body sizes and declines in many stocks means an even greater reduction in the biomass of salmon resources available to killer whales.[11]

The increased energy expenditure required for extended foraging can induce nutritional stress in SRKWs.[12] Nutritional stress has been associated with unsuccessful pregnancies within the SRKW population.[13] Additionally, since lactating females require 2-4 times as many calories as other adult females,[14] prolonged periods of caloric limitations have also been shown to impact their ability to rear healthy offspring.[15]

The negative impact of reduced prey availability on SRKWs – and female

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[11] NMFS 2008, *supra* note 5, at II-82 – II-82.
[12] Katherine L. Ayres et al., *Distinguishing the Impacts of Inadequate Prey and Vessel Traffic on an Endangered Killer Whale Orcinus orca Population*, PLoS ONE (2012), 9, available at https://doi.org/10.1371/journal.pone.0036842.
[13] Samuel K. Wasser et al., *Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales (Orcinus orca)*, PLoS ONE (2017), 14, available at https://doi.org/10.1371/journal.pone.0179824.
[14] Dawn P. Noren, *Estimated field metabolic rates and prey requirements of resident killer whales*, 27 Marine Mammal Science (2011), 71, available at https://core.ac.uk/download/pdf/17247938.pdf.
[15] Wasser 2017, *supra* note 13, at 14.

whales in particular – was further illuminated by a 2023 study of foraging behaviors among SRKWs and the considerably healthier populations of Northern Resident Killer Whales (NRKWs) that also consume salmon.[16] The study found that NRKW females were "257% more efficient" in conducting prey capture dives than their SRKW counterparts, equating to "167% more prey per hour than SRKW females."[17] Furthermore, the more efficient NRKW females spent 91% more time in prey capture dives than SRKW females. Accordingly, SRKW females were not only less successful per dive but also spent less time pursuing prey.[18] Additionally, the study found that "SRKW males spent 114% more time engaged in prey capture dives than SRKW females" – behavior potentially indicative of prey-sharing by males "as a compensation strategy to offset their pod's caloric deficits."[19] Based upon this data, the researchers observed that, in the face of scarce and uncertain prey resources, SRKW mothers with calves may conserve energy by conducting fewer prey capture dives and by depending upon prey received from SRKW males.[20] Thus, the study provides yet additional evidence of the substantial, negative impact of reduced prey availability upon SRKW females, particularly

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[16] Jennifer B. Tennessen et al., *Divergent foraging strategies between populations of sympatric matrilineal killer whales*, 34 Behavioral Ecology (2023), available at https://doi.org/10.1093/beheco/arad002.
[17] *Id.* at 380.
[18] *Id*.
[19] *Id.*
[20] *Id*. at 382.

those with calves.

For a species with already limited population numbers, any factor that hinders reproductive opportunities can have a profound impact on the population's ability to recover and thrive. The plight of the AT1 Transient orcas in Alaska serves as a stark illustration of the dire consequences of reproductive stress on a population. Having lost its reproductive capacity and failing to produce a calf since 1984, the AT1 population now faces the ominous prospect of extinction.[21] With only seven remaining individuals, representing a mere 32% of its 1984 population level, the absence of successful reproduction for over three decades has pushed this killer whale population to the brink.[22] The challenges posed by the small population size, combined with uncertainties in the dynamics of such populations, highlight the urgency of conservation efforts to address the unique vulnerabilities of SRKWs.

B. Temporal aspects of hatchery-raised Chinook runs negatively impact the SRKWs' ability to meet their caloric needs.

The inherited ecological knowledge of SRKWs in predicting and intercepting wild Chinook salmon has been significantly impacted by the

[21] Marcia M. Muto et al., *Killer Whale (Orcinus orca): AT1 Transient Stock*, National Marine Fisheries Service (2020), 152-53, available at https://media.fisheries.noaa.gov/dam-migration/2019_sars_alaska_killer_whale_-_at1_transient_stock.pdf.
[22] *Id*. at 153.

unpredictable behavior of hatchery salmon. Hatchery salmon do not follow these same predictable run patterns and their return time is often condensed.[23] NMFS has long acknowledged the detrimental effects of such disruptions, citing instances in its 2008 SRKW Recovery Plan where the condensed return timing of hatchery salmon in Washington significantly affected food availability for killer whales.[24] Despite these well-documented challenges, NMFS has, with a perplexing audacity, asserted that hatchery production continues to benefit resident killer whales. This assertion stands in stark contrast to the evident challenges posed by the restricted and changing run timing of hatchery Chinook, limiting the accessibility of these fish to SRKWs and thereby compromising their ability to meet caloric needs.[25]

A 2023 study of Fraser River Chinook salmon reveals yet another hatchery related temporal factor negatively impacting SRKW nutritional needs – seasonal

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[23] Joshua W. Chamberlin et al., *The influence of hatchery rearing practices on salmon migratory behavior: is the tendency of Chinook Salmon to remain within Puget Sound affected by size and date of release?*, 140 Transactions of the American Fisheries Society (2011), 1406, available at https://doi.org/10.1080/00028487.2011.623993 (discussing delayed release of hatchery fish); Neala W. Kendall, et al, *Density-dependent marine survival of hatchery-origin Chinook salmon may be associated with pink salmon.* 11(4) Ecosphere (2020), 15, available at https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.3061 (describing condensed hatchery fish runs).

[24] NMFS 2008, *supra* note 5, at II-83.

[25] Fanny Couture et al., *Requirements and availability of prey for northeastern pacific southern resident killer whales*, 17 PLoS One (2022), 17-21, available at https://doi.org/10.1371/journal.pone.0270523.

variation in lipid content.[26] The study shows that the energy density of Chinook decreases as the year progresses, so in the fall, SRKWs may need up to 30% more fish to meet their energy demands.[27] Notably here, although the larger size of Fraser fall Chinook may partially compensate for their lower lipid content, both Fraser fall and Puget Sound origin Chinook populations (also relied upon by SRKWs in the fall) "have significant hatchery influence."[28] Given that hatchery-raised Chinook tend to be smaller than wild Chinook, the prevalence of hatchery-influenced stocks in fall-run Chinook populations likely attenuate any benefit from the larger sized fall Fraser River Chinook.[29]

C. Limited prey availability negatively impacts SRKW social structure.

As discussed above, pods may need to disperse over a larger area to locate available Chinook salmon. A recent study found a significant decline in SRKW pod presence in their core summer habitat, the Salish Sea, coinciding with a more than 50% reduction in the average daily Fraser River Chinook salmon count

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[26] Jacob E. Lerner & Brian P.V. Hunt, *Seasonal variation in the lipid content of Fraser River Chinook Salmon (Oncorhynchus tshawytscha) and its implications for Southern Resident Killer Whale (Orcinus orca) prey quality*, 13 Scientific Reports (2023), available at https://doi.org/10.1038/s41598-023-28321-9.
[27] *Id.* at 1.
[28] *Id.* at 11.
[29] *Id.*

between 2004 and 2020.[30] The study suggests that the diminishing salmon availability in the core summer habitat is likely compelling SRKW to forage in alternative areas, contributing to the observed pod fragmentation.[31] As a consequence, the social cohesion of the community is strained.

II. Each SRKW fulfills a crucial function within a pod such that the loss of even a single whale could jeopardize the survival of the entire population.

SRKWs exhibit a complex and tightly knit social structure. They live in matrilineal family groups, or pods, led by older females.[32] The bonds within these pods are strong, with individuals relying on each other for various aspects of daily life, including hunting, navigation, and communication. The loss of a single whale disrupts the delicate balance within the pod, affecting the social dynamics and coordination essential for their collective survival.

A. The survival of reproductive-age males across all three SRKW pods is imperative to mitigate the risks of inbreeding.

While males are generally considered reproductive by age 20, females preferentially select older males for mating. The current absence of SRKW males between the ages of 23 and 29, coupled with the growing mortality risk for

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[30] Joshua D. Stewart et al., *Traditional summer habitat use by Southern Resident killer whales in the Salish Sea is linked to Fraser River Chinook salmon returns*, 39 Marine Mammal Science (2023), https://doi.org/10.1111/mms.13012, at 11.
[31] *Id.* at 15.
[32] Mia L. K. Nielsen, et al., *A long postreproductive life span is a shared trait among genetically distinct killer whale populations*, 11 Journal of Ecology and Evolution (2021), 9131-32, available at https://doi.org/10.1002/ece3.7756.

SRKWs over 30, poses a significant threat to the population.[33] K34 Cali, at 22 years old, would have been the next whale to reach maturity, but he has not been observed with the pod since July 2023.[34] He is the fifth male lost in his twenties since 2018.

The prospect of poor male survivorship beyond 30 is not only unsustainable but also heightens the risk of a genetic bottleneck or inbreeding.[35] Between 1990 and 2018, only two adult males sired 52% of the SRKW population and four offspring were identified to be the result of inbred mating.[36] It was recently confirmed that deleterious genetic variation and inbreeding depression have a substantial impact on the population dynamics of the SRKW population.[37]

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[33] The demographic information provided herein concerning the SRKW population was extracted from Wild Orca's Conservation Research Database. Wild Orca builds its database using raw data taken from the Center for Whale Research (CWR). *See* https://www.whaleresearch.com/orcasurvey (describing the nature and extent of SRKW demographic data compiled by CWR for over 4 decades). Wild Orca is then able to use the database to view the changing SRKW demographics over time since CWR first began collecting data.

[34] *Id.*

[35] National Marine Fisheries Service, *Southern Resident Killer Whales (Orcinus orca) 5-Year Review: Summary and Evaluation* (2021), available at https://media.fisheries.noaa.gov/2022-01/srkw-5-year-review-2021.pdf.

[36] John K.B. Ford et al., *Inbreeding in an endangered killer whale population*, 21 Animal Conservation (2018), available at https://fnw.ratcatinc.com/121521ar/AR027655.pdf.

[37] Marty Kardos et al., *Inbreeding depression explains killer whale population dynamics*, 7 Nature Ecology & Evolution (2023), available at https://pubmed.ncbi.nlm.nih.gov/36941343.

B. The survival of post-reproductive female SRKWs is critical to pod survival.

Female SRKWs typically live an average of 22 years post-reproduction, during which time they play a distinctive role in providing crucial social support to their male offspring.[38] The 2023 foraging study discussed above highlighted the vital role of post-reproductive females in SRKW populations, acting as leaders and providers of prey, especially in times of limited resources.[39] Adult SRKW males with living mothers exhibit different foraging behavior than their counterparts in the NRKW population – males have greater prey capture than females and spend less time resting or traveling.[40]

Additionally, in the presence of their post-reproductive mothers, male offspring experience reduced socially inflicted injuries, as measured by tooth rake marks.[41] This unique social support dynamic is exclusive to male offspring and does not extend to female offspring, grand-offspring, or other non-offspring members of the social unit.[42] This phenomenon, is made possible by the unique social structure of resident killer whale societies, with males remaining in close

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[38] Nielsen 2021, *supra* note 32, at 9131-32.
[39] Tennessen 2023, *supra* note 16, at 383-84.
[40] *Id.*
[41] Charli Grimes et al., *Post-reproductive female killer whales reduce socially inflicted injuries in their male offspring*, 33 Journal of Current Biology (2023), 3251, available at https://doi.org/10.1016/j.cub.2023.06.039.
[42] *Id.*

association with their mothers.

For these reasons, the drastic decrease in the number of post-reproductive female resident killer whales is a cause for concern. In 1995, within a population of 98 individuals, there were 16 females over the age of 43.[43] Presently, in a population of 74 individuals, the number of post-reproductive females has dwindled to just eight.[44] Moreover, among the 11 males of reproductive age (over 20 years), only five have living mothers, and merely three are post-reproductive.[45] These numbers are in stark contrast to the peak population in 1995 when there were 11 adult reproductive males, with eight having living mothers, and six being post-reproductive.[46] Between 2019 and 2023, seven males died ranging in age from 11-43, with five aged over 28.[47] This decline underscores the precarious situation faced by SRKWs, highlighting the imperative role of post-reproductive female killer whales in ensuring the survival and well-being of the entire pod.

III. Puget Sound Region communities derive substantial economic benefits from whale watching, and the loss of the SRKW population would have a significant impact.

Whale watching plays a pivotal role in the economic landscape of San Juan

[43] This demographic information was drawn from Wild Orca's Conservation Database, *See* database description *supra* note 33.
[44] *Id.*
[45] *Id.*
[46] *Id.*
[47] *Id.*

County and the Puget Sound Region, contributing a significant $171 million annually.[48] This economic activity generates a significant multiplier effect, producing $1.26 for every $1 spent.[49] The consequential impact is evident in the support of nearly 2,000 jobs and the facilitation of $67 million in wages throughout the Puget Sound Region, with 1,400 jobs specifically anchored in San Juan County.[50] This economic infusion underscores the industry's crucial role in job creation, income generation, and overall economic prosperity within the local and regional context.

Underpinning the significance of whale watching's economic contribution is the looming threat of a collapse in the SRKW population, revealing substantial economic repercussions. The projected losses are stark, with an anticipated annual economic downturn of $34 million.[51] Additionally, the potential disappearance of 330 jobs and a reduction of $2.2 million in local and state taxes underscore the pressing need for conservation efforts.[52] These figures not only illuminate the economic vulnerability tied to the SRKW population's decline but also emphasize the critical importance of protective measures now to preserve both the ecological

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[48] Matt Van Deren, *The Whales in Our Waters: The Economic Benefits of Whale Watching in San Juan County*, Earth Economics (2019), 13, available at https://www.eartheconomics.org/srkw.
[49] *Id.* at 21.
[50] *Id.*
[51] *Id.* at 23&25.
[52] *Id.*

and economic values derived from whale watching in the region. The closure of the SEAK fishery requested by Wild Fish Conservancy is the best means of meeting this immediate need.

CONCLUSION

The immediate closure of the SEAK fishery is necessary to safeguard the 74 remaining endangered SRKWs and their critical Chinook salmon food source. This measure is essential to address the imminent threats to SRKW population sustainability, social dynamics, and the economic well-being of Puget Sound Region communities relying on whale watching. For the foregoing reasons, this court should affirm the District Court's partial vacatur of the Incidental Take Statement to close the SEAK fishery.

Dated: December 6, 2023
Seattle, WA

Respectfully submitted,

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048

CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rules of Appellate Procedure 29(a), 32(a), and 32(g), and Circuit Rule 32-1, I hereby certify that the foregoing brief has been prepared in a proportionally spaced typeface (using Microsoft Word 365, in 14-point Times New Roman font), contains 3,350 words total, excluding items exempted by Federal Rule of Appellate Procedure 32(f).

Dated: December 6, 2023
Seattle, WA

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on December 6, 2023.

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Dated: December 6, 2023
Seattle, WA

s/ *Brett Sommermeyer*

Brett Sommermeyer
LAW OF THE WILD
Attorney for Amici Curiae
7511 Greenwood Ave N #4214
Seattle, WA 98103
(206) 774-0048