



Wild Fish Conservancy
N O R T H W E S T
S C I E N C E E D U C A T I O N A D V O C A C Y

September 6th, 2024

Submitted via Electronic Filing to the [Federal Registrar](#)

Re: Comments re: 90-Day Finding on a Petition to List Gulf of Alaska Chinook Salmon as Threatened or Endangered Under the Endangered Species Act (NOAA-NMFS-2024-0042-0001)

Dear NMFS Office of Protected Resources,

Wild Fish Conservancy (WFC) submits these comments on National Marine Fisheries Service's (NMFS) 90-Day Finding on a Petition to list Gulf of Alaska (GOA) Chinook salmon as threatened or endangered under the Endangered Species Act (ESA). WFC is a nonprofit conservation organization headquartered in Washington State and working from California to Alaska to preserve, protect and restore the northwest's wild fish and the ecosystems they depend on, through science, education, and advocacy.

I. INTRODUCTION

On May 24, 2024, NMFS announced a 90-day finding on a petition from WFC to list GOA Chinook salmon (*Oncorhynchus tshawytscha*) as threatened or endangered under the ESA. The petition also requested that NMFS designate critical habitat concurrently with the listing. NMFS is soliciting scientific and commercial data, including traditional ecological knowledge pertaining to Chinook salmon that spawn in the rivers of Southern Alaska

WFC is highly qualified to comment on the 90-day finding announced by NMFS regarding the petition to list the GOA Chinook salmon under the ESA and possesses the expertise to assess the legal requirements for the listing, ensuring that it aligns with national laws. WFC's focus on the region's wild fish provides them with the scientific and practical insight necessary to contribute valuable data and perspectives on the ecological needs of the Chinook salmon and the potential impacts of their listing and habitat designation under the ESA.

II. DISCUSSION

Facing the critical situation of GOA Chinook salmon, and with the troubling bycatch by trawl fisheries, WFC urges NMFS to take urgent, decisive action to list Chinook salmon under the ESA.

A. The ESA mandates a strict, time-bound process for listing endangered species, and adherence to timelines is crucial for conservation of GOA Chinook salmon.

The ESA serves as a cornerstone of environmental legislation in the United States, aimed at conserving endangered and threatened species and the ecosystems upon which they depend.¹ To ensure the timely protection of species, Congress mandated **a detailed and time-bound process for listing species under the ESA**. Congress described this listing process as “[t]he cornerstone of effective implementation of the Endangered Species Act.”²

The listing process begins with NMFS making a preliminary 90-day finding to determine if a petition presents substantial scientific or commercial information indicating that the action may be warranted.³ Upon determining that the petition contains substantial information, NMFS must publish this finding in the Federal Register, opening the process to public review and comment. *Id.*

Subsequently, NMFS has a maximum of 12 months from the date the petition was received to make a further determination.⁴ This period involves a thorough review of the species’ status, culminating in one of three possible outcomes: (1) the petitioned action is not warranted; (2) the petitioned action is warranted, leading NMFS to propose a rule to list the species as threatened or endangered; or (3) the petitioned action is warranted but precluded by other higher priority actions. Significantly, this statutory period is not discretionary. If the agency fails to timely issue its 12-month finding, it is in violation of the ESA.⁵ If NMFS decides to list the species, it publishes a proposed rule in the Federal Register for public comment.⁶ The final listing determination must be made within one year of publishing the proposed rule.⁷

The case of GOA Chinook salmon is particularly urgent. On May 24, 2024, NMFS announced a 90-day finding on a petition from WFC, highlighting the critical status of Chinook salmon populations. These populations are integral not only to the ecosystem but also to the cultural and economic fabric of the region. Any delay in the 12-month finding, as observed in past instances such as the failure to timely address the listing of the cauliflower coral,⁸ could

¹ 16 U.S.C. § 1531(b).

² S. Rep. No. 418, 97th Cong., 2d Sess. at 10; see also H. Rep. No. 567, 97th Cong., 2d Sess. at 10 (describing section 4 of the ESA, 16 U.S.C. § 1533).

³ 16 U.S.C. § 1533(b)(3)(A).

⁴ 16 U.S.C. § 1533(b)(3)(B).

⁵ See 16 U.S.C. §§ 1533(b)(3)(B) & 1540(g). The failure to meet this deadline is also agency action “unlawfully withheld or unreasonably delayed” within the meaning of the Administrative Procedure Act, 5 U.S.C. § 706(1).

⁶ 16 U.S.C. § 1533(b)(5).

⁷ 16 U.S.C. § 1533(b)(6)(A)(i).

⁸ Center for Biological Diversity, *Lawsuit Advances Protections for Hawaii’s Cauliflower Coral* (2020), available at: <https://biologicaldiversity.org/w/news/press-releases/lawsuit-advances-protections-for-hawaiis-cauliflower-coral-2020-03-04>. The case of the cauliflower coral (*Pocillopora meandrina*), known as Ko‘a in Hawaiian, is a recent and relevant example of NMFS’s failure to meet its legal obligations under the ESA. In that instance, NMFS did not

have severe consequences for the survival of Chinook salmon populations. WFC urge NMFS to strictly adhere to the ESA’s mandatory timelines to avoid a repeat of past delays, which can significantly endanger vital species.

B. The ESA requires a comprehensive analysis of all mortality sources, including indirect take, for listing GOA’s Chinook salmon under the ESA.

ESA Section 4(b)(1)(A) requires that the decision to list a species under the ESA be made on a comprehensive analysis of “the best scientific and commercial data available.”⁹ This includes evaluating factors like “present or threatened destruction, modification, or curtailment of its habitat or range” and “overutilization for commercial, recreational, scientific, or educational purposes.”¹⁰ In the context of assessing the status of GOA Chinook salmon within the GOA Evolutionarily Significant Unit(s) (ESU), this provision requires a thorough examination of all mortality sources impacting these populations.

The current exploitation rates (ERs) reported by fisheries targeting specific species do not adequately account for the indirect take, or bycatch, of non-target species such as Chinook salmon. This is particularly significant due to the tendency of Chinook salmon populations to aggregate densely in certain areas. Because of this spatial clustering, catch figures may not accurately reflect the severe impact of fishing activities on small, localized Chinook populations. Therefore, a detailed analysis at the level of individual fishing vessel’s catch and/or source population is necessary to understand the impact on Chinook salmon. To comply with the ESA, the status review must extend beyond direct mortality rates to encompass indirect mortality, a critical concern highlighted by the substantial bycatch of Chinook salmon in British Columbia (BC) and Alaska fisheries.

Additionally, a new, standardized international Pacific Rim baseline for genetic stock identification (GSI) of Chinook Salmon has recently been published. We recommend any past GSI analysis take into account any difference in reporting groups this new baseline may reveal. In addition, special attention is warranted in regard to some of the inaccuracies reported for the new baseline in regards to the Taku, Stikine, and SE Alaska stocks based on the results reported by Van Doornick et al (2024) in figure 4. Additional genetic analyses use next generation genetic analysis techniques (more loci across the entire Chinook salmon genome) may be necessary to adequately identify ESU’s.

adhere to the mandatory 12-month finding deadline following a positive 90-day finding that listing the coral species might be warranted. This delay not only violated the express statutory requirements of the ESA but also potentially exacerbated the threats to the species’ survival. The Center for Biological Diversity had to resort to legal action to compel NMFS to fulfill its duty. This situation should serve as a cautionary tale in the current deliberations over the Chinook salmon.

⁹ 16 U.S.C. § 1533(b)(1)(A).

¹⁰ 16 U.S.C. § 1533(a)(1)(A)-(B).

1. NMFS should consider Chinook bycatch data in BC fisheries for ESA evaluations of GOA stocks.

A draft report by Fisheries and Oceans Canada (DFO Report), recently shared with the WFC by an independent journalist, highlights the concerning levels of bycatch involving Chinook salmon in the BC groundfish trawl fisheries.¹¹ The DFO Report analyzed tissue samples recovered from the BC groundfish fisheries conducted from September 26, 2022 to February 20, 2023. During that time period, a total of 28,117 Pacific salmon were captured, of which 26,273 were Chinook.¹² The majority of Chinook caught were from the mid-water troll fleet.¹³ This represents a tripling of the previous 14-year average and the highest level of bycatch since 2008.

Stock composition analyses of the Chinook caught included both coded wire tag (CWT) recoveries from Pacific Salmon Treaty exploitation rate indicator stocks in BC, Puget Sound, and the Washington Coast, and genetic assignment methods (for Chinook that lacked a coded-wire tag).¹⁴ Genetic stock identification analyses included parent-based tagging (PBT) analyses and genetic stock identification (GSI) analyses.¹⁵ PBT analyses were applicable only for BC hatchery stocks for which appropriate parental genetic data had been acquired.¹⁶ GSI analyses were applied to the remaining Chinook samples that were not resolved by PBT.¹⁷

This method allowed researchers to determine the stock composition for Chinook salmon that originated in Canada. While the study did not determine the stock composition for Chinook salmon that originated in the United States, it is reasonable to infer that Chinook salmon that did not originate in Canada, originated in the United States, some of which could have been from GOA Chinook populations.¹⁸ As noted in the DFO report, “stock composition of Chinook salmon represented by Canadian-origin stocks, as estimated based upon combined CWT and PBT-GSI information, varied from 21% to 83% among catch strata.”¹⁹

These results suggest that significant numbers of US stocks, including the petitioned GOA stocks, were also taken by the BC groundfish fishery. Accordingly, as part of its review, NMFS should acquire the BC groundfish bycatch data evidenced by the DFO Report and conduct appropriate stock identification analyses on all Chinook samples not identified as belonging to BC Chinook stocks.

¹¹ C.R. Lagasse et al., *Review of Salmon Bycatch in the Pacific Region 2022/23 Groundfish Trawl Fishery and Preliminary Results of an Enhanced Monitoring Program*, Can. Manusc. Rep. Fish. Aquat. Sci. 273 (2023).

¹² *Id.* at 14.

¹³ *Id.*

¹⁴ *Id.* at 5.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.* at 30.

¹⁹ *Id.* at 8.

2. NMFS should consider bycatch data from the Alaska Bering Sea (BSAI) and GOA groundfish trawl fisheries for ESA evaluations of GOA stocks.

In addition to the recent Chinook bycatch in the BC groundfish fisheries, there has been significant bycatch of Chinook in the Alaska groundfish fisheries, notably within the Bering Sea and Aleutian Islands (BSAI) and the GOA Pollock fisheries. The latest data from Guthrie et al. shows estimated stock contributions of Chinook bycatch across the Northwest Gulf of Alaska, Copper, Coastal Southeast Alaska, among others.^{20,21} NMFS should evaluate the two reports by Guthrie et al. and include the catches of both adult, and subadult, Chinook salmon that are likely captured from populations being evaluated for listing in the Petition.

3. Additional scientific publications relevant to the evaluation of the petition.

We recommend adding the following publications to the list of relevant scientific information that should be considered by the Biological Review Team:

Brendan Byrne, Junjie Liu, Kevin W. Bowman, Madeleine Pascolini-Campbell, Abhishek Chatterjee, Sudhanshu Pandey, Kazuyuki Miyazaki, Guido R. van der Werf, Debra Wunch, Paul O. Wennberg, Coleen M. Roehl & Saptarshi Sinha. Nature 2024. Carbon emissions from the 2023 Canadian wildfires.

Davies, B., McNabb, R., Bendle, J., Carrivick, J., Ely, J., Holt, T., Markle, B., McNeil, C., Nicholson, L., Pelto, M. 2024. Accelerating glacier volume loss on Juneau Icefield driven by hypsometry and melt-accelerating feedbacks. Nature Communications.

Gayeski, N., Swanson, D., MacDuffee, M., Rosenberger, A. Productivity and resilience of Chinook salmon compromised by ‘Mixed-Maturation fisheries in marine waters.’ In review, 2024. BioRxiv

Van Doornik, D.M., Moran, P., Rondeau, E.B., Nichols, K.M., Narum, S.R., Campbell, M.R., Clemento, A.J., Hargrove, J.S., Hess, J.E., Horn, R.L., Seeb, L.W., Stephenson, J.J., McKinney, G.J. 2024. A new, standardized international Pacific Rim baseline for genetic stock identification (GSI) of Chinook Salmon. North American Journal of Fisheries Management. 44:857-869.

Von Biela, V. R., L. Bowen, S. D. McCormick, M. P. Carey, D. S. Donnelly, S. Waters, A. M. Regish, S. M. Laske, R. J. Brown, S. Larson, S. Zuray, and C. E. Zimmerman. 2020. Evidence of prevalent heat stress in Yukon River Chinook Salmon. Canadian Journal of Fisheries and Aquatic Sciences 77:1878–1892.

²⁰ C. M. Guthrie III et al., *Genetic stock composition analysis of Chinook salmon (*Oncorhynchus tshawytscha*) bycatch samples from the 2020 Bering Sea pollock trawl fisheries*, US Department of Commerce, NOAA Technical Memo NMFS-AFSC-446 (2022), 30.

²¹ C. M. Guthrie III et al., *Genetic stock composition analysis of Chinook salmon (*Oncorhynchus tshawytscha*) bycatch samples from the 2020 Gulf of Alaska trawl fisheries*, US Department of Commerce, NOAA Technical Memo NMFS-AFSC-445 (2022), 30.

Von Biela et al. Fisheries 2021. Premature Mortality Observations among Alaska's Pacific Salmon During Record Heat and Drought in 2019.

III. CONCLUSION

WFC strongly support the prompt listing of GOA Chinook salmon under the ESA. Given the substantial evidence of high bycatch rates in both domestic and international fisheries, WFC urge NMFS to adhere strictly to the ESA-mandated timelines and procedures. It is imperative that NMFS incorporates comprehensive bycatch data and all other relevant scientific and commercial information in its status review to ensure a well-informed and timely decision. Prompt and thorough attention to this process will not only serve the immediate needs of the Chinook salmon but will also positively reinforce the commitment to conservation efforts for similarly situated species in the future.

Attached:

1. Additional References
2. References from Footnotes