Funds Distribution Report

CHARITABLE CONTRIBUTIONS

8802 27th Ave NE
Tulalip, WA 98271

TulalipCares.org

Recipient Organization:
Oceans Initiative

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Seattle, WA 98102

Contact:
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Organization's General Goals:
Oceans Initiative is a team of scientists on a mission to protect marine life and the ecosystems on which they depend, and to share our innovative science to guide conservation action.

Date of Award:
2022 Q3

Level:
$7,501 to $10,000

For more information, please read the attached report from Oceans Initiative.

Tulalip Tribes Charitable Contributions
Oceans Initiative Final Report

URL: www.oceansinitiative.org
Code: Q3 2022 14.2
Number of recipients impacted: 100+

Oceans Initiative is a team of scientists on a mission to protect marine life and the ecosystems on which they depend, and to share our innovative science to guide conservation action. We were truly honored to receive grant funding from the Tulalip Tribes Charitable Contributions Fund. These funds provided General Operating Support for our ocean conservation work and was vital in turning our science into meaningful action.

Oceans Initiative serves multiple populations—the wildlife we aim to protect, the policy-makers who rely on our science, and the people whose lives benefit from the ocean. We are dedicated to the health and sustainability of the waters of Puget Sound and want to ensure that future generations inherit a Puget Sound ecosystem with healthy, thriving populations of all marine life. One of Oceans Initiative's greatest contributions to our Puget Sound community is the work that we do to protect Chinook salmon and guide recovery of the Southern resident killer whale population. Often, our immediate customers are stakeholders and policy-makers such as Governor Inslee's Orca Recovery Coordinator, the Washington Department of Fish & Wildlife, Puget Sound Partnership, NOAA Fisheries, and Port of Seattle's Quiet Sound, who act on our science to drive real impact.

PROJECTS
In 2023, our team completed a number of crucial projects that aim to protect Chinook salmon and address various aspects of SRKW recovery.

1. Modeling Cumulative Effects to Guide Southern Resident Killer Whale Recovery
   Oceans Initiative generated critical new science to understand the impact of Chinook salmon abundance on SRKW survival and reproduction, analyzing new data since our reports to Governor Inslee's Orca Task Force in 2018. We partnered with colleagues to publish the findings in a peer-reviewed scientific publication that is currently in press and made the tool available in an electronic format for end users.. Our new models revealed that 30% more salmon is no longer enough to prevent extinction. With so few reproductive females left in the SRKW population, we now need every calf to survive, and that will require much more salmon than managers are leaving the whales now. We used the results of our new model to build a more comprehensive population evaluation tool that adds in all of the other stressors that the whales are facing, in addition to the lack of salmon. This allows us to understand the relative importance of the three main identified threats (lack of salmon, vessel noise and disturbance, contaminants), the importance of emerging or cryptic threats (e.g., vessel strike and fisheries interactions, inbreeding, disease), and to assess whether mitigation measures that currently emphasize noise reduction, will allow SRKWs to recover. Our findings were presented in open forums where managers, tribes,, stakeholders, policy-makers and other scientists involved in establishing and monitoring the effectiveness of mitigation measures were in attendance.

2. **Assessment of SRKW critical habitat usage throughout their range**
   We completed a study assessing SRKW critical habitat usage, updating a previous study (Ashe et al. 2010) with additional and more recent SRKW behavioral observations, along with historical data covering nearly 20 years of SRKW behavior and habitat use. Our aim was to identify and map SRKW habitat use (feeding, resting and socializing) as functions of Chinook salmon density in each year. We found that the core summer foraging areas within the Salish Sea have remained remarkably consistent over the 20-year study period. Patterns in SRKW foraging activity did vary among good, average, and bad salmon years. SRKW spend more time engaged in travel or prey-searching behavior in bad salmon years than in good or average salmon years and importantly, observations of resting activity have declined dramatically since 2003. Our findings are being submitted to a peer-reviewed scientific journal for publication.

3. **Protecting endangered salmon from pinniped predation**
   We continued our leadership and guidance in the use of a non-invasive acoustic startle device to reduce harbor seal predation on Chinook salmon. Oceans Initiative has implemented the GenusWave Targeted Acoustic Startle Technology (TAST) as a mitigation tool to reduce harbor seal predation at several waterways known to be "bottlenecks" for migrating salmon. This technology provides a non-lethal alternative to protecting endangered salmon without harming or killing seals. We presented results from the first four of our five trials at the 2023 Salmon Recovery Conference, sponsored by the Washington State Recreation and Conservation Office, and shared lessons learned from use of the TAST to safely deter pinniped predation on salmon. We also presented findings from our TAST case studies to the Washington State Academy of Sciences at a workshop attended by 60 scientific peers and other participants. Overall, we are encouraged by the success of the TAST as a non-lethal method to reduce pinniped predation on salmon, and that our science is guiding the non-lethal management of pinniped predation on endangered salmon at pinch points throughout the Pacific Northwest.

IMPACT

Grant funds from Tulalip Tribes Charitable Contributions supported the much needed staff time to translate our project outputs into real-world conservation outcomes. Sharing knowledge is an essential part of the social contract for science, and we are obliged ethically to share best available science to protect endangered species. And by sharing our work with colleagues, and taking our science to the tables where decisions are made, we can multiply our conservation impact. Funding from Tulalip Tribes Charitable Contributions allowed us to get the science to the decision-makers, advocate for evidence-based solutions to conservation problems, make our science actionable, and ensure that it's acted upon. Our senior scientists shared tools with managers to guide real-world activities to get more salmon in the mouths of orcas. Our team met with decision-makers to show how non-lethal methods could be used to protect ESA-listed salmon. We engaged with managers to develop and implement ecologically meaningful mitigation measures (i.e., revised whale-watching guidelines and enhanced protection for key killer whale foraging areas) in years when salmon abundance falls below certain thresholds. And we shared our expertise with Port of Seattle's new Quiet Sound program on why complying with ship slow-downs is particularly important in lean salmon years. We are grateful for the funding from Tulalip Tribes Charitable Contributions that allowed us to turn our science into meaningful action to protect Chinook salmon and Southern resident killer whales.