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To the Subcommittee on Education, Joint Committee on Ways and Means,

I am writing this letter in strong support of the Oregon's Oceangoing Research Vessel Program that is part of the State Programs line item in the Higher Education Coordinating Committee support bill, **SB 5528**. As an awardee of this program in 2017 and 2019, I would like to provide testimony to the impact of this program on my research and my undergraduate students at Portland State University. As you know, Portland State serves almost 50% first-generation college students, and, as a faculty member in STEM, one of my biggest motivators is helping students use PSU as a launchpad to future careers in the sciences.

With funding from this program in 2017, I took 8 students aboard the R/V Oceanus for a 5-day research cruise in summer 2018 to study animals living in a naturally occurring, low oxygen body of water off our coast.

Educational Impacts: For the students, an opportunity to benefit from oceangoing research is life changing, whether on the boat, or researching the animals back in the lab. Of the 8 students who participated in 2018, all are still active in marine research: 2 have Master's degrees, 2 are enrolled in PhD programs, 1 is enrolled in a Master's program, 1 runs a research lab for a researcher at OHSU (and is now applying to PhD programs), and 1 worked as a Marine Tech for OSU for several years before now running a research lab for an OSU faculty member. Our high school student is completing her degree in Environmental and Biological Science at OSU. These students all credit their time at sea with helping them stay engaged in STEM.

Research Impacts: As a non-tenure track faculty serving as Director for the Center for Life in Extreme Environments at PSU, this opportunity provided a new area of research, leading to new collaborations, and publications.

Outreach Impacts: As a science communication fellow working with OMSI, I have used material we collected to engage with over 1000 K-8 students at events at OMSI, at PSU, and other venues. We also brought the sea to students, engaging in several "Zoom from the ship" opportunities with elementary schools.

With funding in 2019, I had planned a second cruise with new group of students for summer 2020. Due to COVID, we were unable to take students to sea in 2021, which was heartbreaking. The idea of being able to conduct at sea research kept many of them fully engaged during our first remote term in spring 2020. However, the material collected when the cruise happened in 2021 has benefitted PSU students immensely. In Fall 2022, 40 students in my Introduction to Marine Biology (BI 361) lab used these fish to learn molecular techniques. Students thawed, photographed, dissected tissue, performed DNA extractions, learned how to do PCR, load, and run gels and analyze sequence data. This opportunity gave students critical molecular bench training that has allowed 2 to obtain jobs at OHSU and 5 have applied to graduate school, citing this research experience as a primary motivator.

The impact of the Oceangoing Research Vessel program is far-reaching and is leading to direct, measurable success in Oregonians electing to stay in-state for college. The new R/V *Taani* is going to provide an even more immersive learning opportunity to students and researchers. This program affords faculty the opportunity to give students unparalleled access to research, launching them to success in STEM fields. It allows us to connect the public to the dynamic offshore marine environment that so strongly impacts Oregon's economy. I strongly urge you to not only fund but increase funding for this program such that we can continue to increase our impact on Oregonians in STEM.

Thank you for your time.

Sincerely,

Annie R Lindgren
Director, Center for Life in Extreme Environments
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Portland State University