To: Oregon House Committee on Agriculture, Land Use, Natural Resources, and Water

From: Beatrice Pickett Date: February 7, 2024

Re: Support for House Bill 4132, Relating to Marine Reserves

Dear committee members,

I write today in support of House Bill 4132 in order to safeguard the future of Oregon's marine reserves, which hold great personal significance to me and even greater significance for Oregon's broader coastal environment. My passions for environmental science and conservation were sparked by childhood moments exploring the tidepools that were later designated part of Cape Falcon Marine Reserve. Through my lifetime of beachcombing, wildlife watching, and recreating along the Oregon Coast, I've witnessed firsthand how intertidal ecosystems have both declined and rebounded as results of environmental pressures and conservation efforts. My drive to better understand natural systems and environmental management led me to Yale University, where I completed an undergraduate degree in environmental studies and political science, designing my own concentration in ocean systems and sustainability. My academic studies gave me a new lens through which to appreciate Oregon's exquisite coastal ecosystems and our responsibility to protect them. I strongly believe that Oregon's marine reserves have great potential to bolster ecological resilience against both local and global environmental stressors, as well as to increase Oregonians' engagement with ocean conservation.

Globally, marine reserves are a widely-used conservation tool with notable benefits for ecosystems inside and adjacent to protected zones. By restricting anthropogenic activities, marine reserves preserve patches of ocean in near-pristine condition, creating an oasis where ecosystems are sheltered from fishing pressures and other anthropogenic environmental stressors. Those such as Oregon's marine reserves, which employ strict "no-take" policies against fishing and wildlife harvesting, provide overfished species with a respite where their populations can recover. While these benefits are most acute for fished species, marine reserves support ecosystems as a whole by enhancing biodiversity and providing protected habitat for living and reproducing. Furthermore, by incubating robust populations within their boundaries, marine reserves enhance the productivity of nearby ecosystems through a biomass spillover effect, which actually benefits fisheries adjacent to the reserves. Marine reserves are a valuable conservation tool to bolster ecological resilience by minimizing local anthropogenic stressors.

Though marine reserves are inherently a localized conservation strategy, they have the potential to help ecosystems withstand globalized environmental challenges. While marine reserves cannot halt climate change or ocean acidification, they can nonetheless bolster ecosystem resilience and facilitate recovery after ecological disturbances, potentially mitigating the impacts of large-scale environmental stressors.ⁱⁱⁱ Through incidents such as the sea star wasting epidemic and marine heat waves, the past few years have given us a glimpse of what is to come if the world continues its current climate trajectory. Short of stemming global greenhouse gas emissions, effective ecological management may be our best shot at helping critical ecosystems weather these coming storms.

Beyond direct ecological benefits, one of the most impactful aspects of Oregon's marine reserves program is its ability to increase citizens' engagement with marine environments and conservation. Over the past two summers, I've had the joy of volunteering as a tidepool ambassador with North Coast Land Conservancy. Stationed at Oswald West State Park (within Cape Falcon Marine Reserve) on busy weekend mornings, our crew helps curious beachgoers discover vibrant intertidal fauna while practicing sustainable tidepool etiquette. No matter our audience (young or old, Oregonian native or out-of-state visitor, experienced beachcomber or newbie), I feel grateful to play a role facilitating their connection to marine life and inspiring ecological care through our outdoor classroom. A central tenet of the marine reserves program is safeguarding these pristine spaces for all Oregonians to enjoy, present and future. Oregon's preservation of marine reserves as a public good is fitting for a state known for its visionary commitment to public beach access.^{iv}

Our marine reserves deserve every investment that we can give them. What we are asking for is a drop in the ocean compared to the resiliency benefits that comprehensively-managed marine reserves will provide in the decades to come. I urge you to move this bill out of committee and advocate for its codification so that we can strengthen our marine reserves with the urgency that climate change demands, safeguarding these critical habitats for future Oregonians.

Sincerely,

Beatrice Pickett NW Portland

¹ Graham J. Edgar et al., "Global Conservation Outcomes Depend on Marine Protected Areas with Five Key Features," *Nature* 506, no. 7487 (February 2014): 216–20, https://doi.org/10.1038/nature13022.

Lewis A. K. Barnett and Marissa L. Baskett, "Marine Reserves Can Enhance Ecological Resilience," *Ecology Letters* 18, no. 12 (2015): 1301–10, https://doi.org/10.1111/ele.12524.

iii Barnett and Baskett.

^{iv} Tiffany Camhi, "How Oregonians Came to Own the State's Beaches - OPB," July 3, 2020, https://www.opb.org/news/article/history-oregon-tom-mccall-public-beaches/.