

Academy of Science Presidents' Meeting, STS *forum* 2023
“Recovery and Conservation of the Ocean's Ecosystems and Biodiversity”

Title: Promoting the Biodiversity and Ocean Literacy in the Anthropocene

Academy: Finnish Academy of Science and Letters

The Earth's oceans and marine biomes are at the center of our planet's functioning. The oceans absorb CO₂ and heat, affecting temporal weather conditions and regulating global climate. Through the services and benefits they provide, marine ecosystems contribute to the global economy, to human wellbeing and food security, and the importance of the oceans is only projected to increase in the future. The biodiversity and resilience of ocean ecosystems are imperative for supportive, provisioning, regulating as well as for cultural benefits to society. However, marine biomes are influenced by multiple interacting drivers shaping the structure and functioning of the ecosystem. Therefore, activities and practices to restore and sustain healthy oceans need to account for driving factors at multiple scales. For example, protected marine areas are a primary management tool for conservation. However, such local protection measures may be disrupted in the face of large-scale, climate-driven increases in sea-surface temperatures, reduced oxygen levels, and more frequently occurring extreme events, such as marine heatwaves. Mitigating pollution, for example in the form of eutrophication, has long been a focal point in marine conservation in Finland, with the aim to sustain biodiversity and resilience in the ecosystem, allowing for sustainable use of marine resources.

In Finland we support global long-term efforts to improve Ocean Literacy as exemplified in the goals and activities outlined under the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). Ocean Literacy is defined as an “*understanding of the ocean's influence on peoples' lives and their influence on the ocean*”. An ocean-literate person can communicate about the ocean in a meaningful way and is able to make informed and responsible decisions regarding the ocean and its resources. We also recognize that transformational shifts in ocean literacy rely on more than just increased and interdisciplinary knowledge about the ocean, and that it encompasses dimensions of awareness, attitude, behavior, and adaptive capacity. Ocean literacy means tools and approaches to transform ocean knowledge into behaviors and actions that promote ocean sustainability. To successfully enhance Ocean Literacy in different geographical contexts and among different audiences or groups of people has proven important in supporting and delivering effective governance of oceans.

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