EUROPEAN MARINE SCIENCE EDUCATORS ASSOCIATION

WE ARE OCEAN LITERACY

# BOOK OF ABSTRACTS

## EMSEA Virtual Summit

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# Are in-service elementary school teachers ocean literate? A case study from Greece

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The ocean is the root of the creation and perseverance of life on Earth. However, human activities have had a disastrous impact on it across the years foreshadowing its future ominous. Today's students will be the ones who will need to make their best to reverse this situation. The task of raising awareness among young students, regarding the ocean, lies within the hands of their teachers, who of course need to first raise the level of their ocean literacy accordingly.

This study constitutes a first attempt to portray Greek elementary school in-service teachers' ocean literacy, according to the essential principles and fundamental concepts of the Ocean Literacy Framework, by combining quantitative and qualitative methodological approaches. The results revealed a limited level of ocean literacy and incomplete mental models with a slight lead of males over females, making the introduction of ocean-related subjects into their classes a hard task. Although teachers consider themselves to possess adequate pedagogical content knowledge, their ocean content knowledge on several issues is missing, especially when it comes to geomorphological features of the ocean bottom, ocean acidification and carbon cycle, productivity issues, and pollution sources such as microplastics. The study concludes with suggestions concerning the training of future teachers as well as in-service teachers on relevant issues, aiming at the best possible introduction of ocean sciences issues into formal education.