EUROPEAN MARINE SCIENCE EDUCATORS ASSOCIATION

BOOK OF ABSTRACTS

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Researching Coastal Lagoons: an educational guide for primary and secondary school students

Kevrekidis T.[1], Boubonari T.[1], Apostoloumi C.[1], Malea P.[2], Mogias A.[1], Kevrekidou A.[1],

[1]Department of Primary Education, Laboratory of Environmental Research & Education, Democritus University of Thrace, Alexandroupolis, Nea Chili, Greece
[1]Department of Botany, School of Biology, Aristotle University of Thessaloniki, Greece

Coastal lagoons constitute a common type of coastal environment. Coastal lagoons are transitional systems between land and sea, which are formed, in most cases, at river deltas. They are also characterized as dynamic systems with vast environmental variability, which, differ seasonally or even daily between coastal lagoons, within regions in the same coastal lagoon. These systems host exceptional biotic communities and are deemed as one of the most productive ecosystems on earth, whilst providing social services and cultural value to humans and the society in general.
The educational guide titled "Researching the Coastal Lagoons", was developed within the framework of the Research Project with title “Engaging Primary and Secondary school students in Marine Sciences”, 3rd Call for Action “Science and Society” - Research, Innovation and Dissemination Hubs, of the Hellenic Foundation for Research and Innovation - H.F.R.I.
The development of this educational guide has as its ultimate goal to literate the students and teachers in relation to coastal lagoon ecosystems and to raise their awareness regarding their sustainable management. This purpose can be achieved by field research in coastal environment and more specifically by collecting biological samples, following a specific research formula, that aims to learn the flora and fauna of these ecosystems. Further, the aforementioned purpose of this research will be accomplished through the analysis of the avifauna as well as the measurement of physical and chemical parameters.
Specifically, the educational guide, designated for both the teacher and the student, includes elementary information on coastal lagoon characteristics, organisms found in coastal lagoons, food web, as well as the preparation needed before and after the visit in the field, along with the field activities. Finally, it includes assessment sheets for teachers and students alike.
The utilization and application of the educational guide will give students the opportunity to define coastal lagoons, to recognize geomorphological coastal lagoon types, to comprehend the variability of coastal lagoon environment, to account for the plant and animal organisms of this ecosystem as well as to interpret its food web. Simultaneously, the guide will give students the opportunity to cultivate observational and research skills, to compose and evaluate data, as well as to familiarize with the application of scientific methodology criteria for the study of ecosystems, encouraging the conversion of scientific information to innovation. Additionally, the usage of internet technologies as well interactive teaching environments, through the accomplishment of the activities of the educational guide, could enhance students’ interest in research and critical thinking, regarding the most efficient way to approach and understand the modern environmental problems of coastal lagoon ecosystems.
The application and usage of this educational guide could be considered as a valuable tool in the educational development of teachers and students, capable of raising their awareness in matters concerning costal lagoon ecosystems and the protection of the marine environment in general.