

Melpomeni Sofia Mente



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Current Position: Ph. D. student

Director of Studies: Diana Sarno

Internal Supervisor(s): Leonilde Roselli

External Supervisor: Anke Kremp

Program: Open University, XXV cycle

Affiliation:

Department of Research Infrastructures for Marine Biological Resources (RIMAR), Stazione Zoologica Anton Dohrn, Napoli, Italy

Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
Department Biology, Aristotle University of Thessaloniki, Greece	Bachelor	2012-2017	Biology
Department Biology, Aristotle University of Thessaloniki, Greece	Bachelor Thesis in M. Moustaka Lab, 'Hydroecology'	2015-2016	The Phytoplankton Biodiversity of Thermaikos Bay
Hellenic Agricultural Organization Demeter – Fisheries Research Institute, Kavala, Greece	Bachelor trainee in S. Orfanidis lab, 'Benthic Ecology and Technology'	2016	Utilization of marine vegetation as tool for marine environment management: biofilters, biomarkers, biofuels
Department of Biology, University of Crete, Heraklion, Greece	Master	2017-2019	Environmental Biology - Management of marine and terrestrial biological resources

Department of Biology, University of Crete, Heraklion, Greece	Master Thesis in ‘Plant physiology and biochemistry’	2018-2019	Study of photosynthetically controlled pH differentiation of microalgae environment in order to create a bio- electrochemical system
Hellenic Agricultural Organization Demeter– Fisheries Research Institute, Kavala, Greece	Assistant Researcher in National Research Program ‘Smart-Bio- Real’	2021-2022	Microalga <i>Chlorella vulgaris</i> innovative cultivation in a smart photobioreactor using micro-bubble technology, in the frame of ‘blue cyclic economy’
Hellenic Agricultural Organization Demeter– Fisheries Research Institute, Kavala, Greece	Assistant Researcher in National Research Program: ‘Monitoring and recording the status of the marine sub- regions of Greece’	2023	Upgrading and operational updating of the monitoring network

Workshops, Conferences and Training Courses

26-28 May 2016, Poster presentation: ‘The Biodiversity of Phytoplankton of Thermaikos Bay’, *Annual Conference of Hellenic Association for Biological Sciences*, Kavala, Greece

20-26 August 2023, Poster presentation: ‘*Chlorella vulgaris* cultivation in low-cost bioreactors’, 8th *European Phycological Congress*, Brest, France

November-December 2023, Training course: R certification track - *Data analysis with R (Think R)* - 100% remote - 37 hours

9-12 April 2024, Poster presentation: ‘High Frequency Imaging to capture Phytoplankton Morpho-functional Traits’, *Embo Lecture Course Imaging Marine Organisms Across Scales*, Napoli, Italy

6-24 October 2024, Auditor at the *13th Advanced Phytoplankton Course* - Identification, Taxonomy, Systematics, Stazione Zoologica Anton Dohrn, Napoli, Italy

3-8 August 2025, Oral presentation: ‘Investigating seasonal patterns of morpho-functional traits of planktonic diatoms in the Gulf of Naples, Western Mediterranean Sea’, 27th *International Diatom Symposium*, Kruger National Park, Skukuza, South Africa

24-26 Sep 2025: Poster presentation: ‘Building training sets and classifiers to explore plankton diversity using IFCB in the Gulf of Naples, Mediterranean Sea’, *ICES-IOC Workshop on automated plankton analysis using imaging in flow methods*, Oslo, Norway

19-23 January 2026: Biocean5D Training Course: Plankton Taxonomy from Quantitative Imaging Devices (using ECOTAXA), IMEV – Villefranche-sur-mer, France

Publications

List of publications of the last 10 years

Journal Papers

Orfanidis, S., Stamatis, N., Parasyri, A., **Mente, M. S.**, Zerveas, S., Pigada, P., ... & Kotzabasis, K. (2019). Solving nuisance cyanobacteria eutrophication through biotechnology. *Applied Sciences*, 9(12), 2566.

Zerveas, S., Kydonakis, E., **Mente, M. S.**, Daskalakis, V., & Kotzabasis, K. (2021). Hydrogen gas as a central on-off functional switch of reversible metabolic arrest–New perspectives for biotechnological applications. *Journal of Biotechnology*, 335, 9-18.

Zerveas, S., **Mente, M. S.**, Tsakiri, D., & Kotzabasis, K. (2021). Microalgal photosynthesis induces alkalization of aquatic environment as a result of H⁺ uptake independently from CO₂ concentration–New perspectives for environmental applications. *Journal of environmental management*, 289, 112546.

Mente, M. S., Houliez, E., Scalco, E., Roselli, L., & Sarno, D. (2025). Annotated IFCB plankton images from the Mediterranean Sea. *Scientific Data*, 12(1), 1689.

Databases and repositories (ZENODO)

Mente, M.S. & Houliez, E., Scalco, E., Roselli, L., Sarno, D., (2025). Dataset-Open MedPlanktonSet - A dataset of labeled IFCB images from the Mediterranean Sea. *Zenodo*, 10.5281/zenodo.15471023.

Patent

Zerveas S., Kydonakis E., **Mente M.S.**, Daskalakis V., Kotzabasis, K.: Method of microorganism and product functional maintenance in hydrogen atmosphere, *Industrial Property Organization* n. 1009935, 2021.