

New horizons for the *Panhellenic Symposium of Oceanography & Fisheries*

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The *Panhellenic Symposium of Oceanography and Fisheries* was firstly launched in Athens, 35 years ago sparked by the enthusiasm of the Greek aquatic scientists, massively supported by the voluntary contribution of the Hellenic Centre for Marine Research (HCMR) employees. Over the last three decades, the Symposium established and flourished as the forum for a wide range of marine and freshwater disciplines in the country. It became a tradition to a large audience since it has attracted researchers, academicians, students, entrepreneurs and the industry both from Greece and adjacent countries. The initial enthusiasm and support is growing with the inclusion of Universities and other educational/research institutes in the organization scheme.

The “12th *Panhellenic Symposium of Oceanography and Fisheries*”¹ did not only deliver big changes in its operational mode but also opened new horizons to the scientific communities of Greece and adjacent areas. It has been a tipping point in this type of events in many aspects, such as:

- The overall theme of the Symposium was on the Blue Growth for the Adriatic-Ionian Macro-Region and the Eastern Mediterranean in order to provoke discussions on the large societal demands in this area and to promote integration of all aquatic science disciplines by attracting scientists from multiple domains, including the socio-economics.
- The official language of the Symposium was English in all sessions but two (see below). This choice, was particularly made in order for the Symposium to: (a) train the participating students and young colleagues to perform in international scientific events and fora, (b) allow our colleagues from the Eastern Mediterranean countries and from around the world to participate and attend entirely to all the sessions, and (c) boost Greece to play its leading role in the field of Aquatic Sciences in the area of the Balkans, Eastern Mediterranean and beyond.
- World-class scientists were invited to give inspirational talks on topics spanning from -omics to invasive species, geological studies, climate

change, marine platforms, ecosystem management, research infrastructures and socioeconomic issues.

- The option to present poster contributions, projects and research infrastructures (including ES-FRIs) in the form of speed-up presentations was offered to the participants.
- Two special sessions were organized to demonstrate regional (e.g. Region of Ionian Islands) and national issues, such as the scientific results of the recent wreck of the vessel *Agia Zoni II* in the Saronikos Gulf, Greece. Additional round-tables framed these sessions in order to allow for more results to be presented and discussions to be expanded. Naturally, the use of Greek language was necessary in these sessions as it was well attended by representatives of regional authorities, local management bodies, fishers' associations and the greater audience.
- The Research Vessel of HCMR “AEGAEO”, was docked in the port of Corfu all along the duration of the Symposium in order for the audience and the local and regional stakeholders to visit and observe its infrastructures and capabilities, thus increasing awareness concerning marine science and triggering collaborations in research.

The above choices resulted in a well-attended Symposium in which 255 studies were presented by more than 800 (co)authors, 5 inspirational speakers, 7 keynote speakers, allocated in 20 special sessions. In total, more than 350 participants from more than 13 countries worldwide (Bulgaria, Canada, Croatia, Cyprus, Greece, France, Italy, Montenegro, the Netherlands, Spain, Turkey, UK and USA) participated in the Symposium.

All abstracts went through the peer-review process by two or more independent referees and were published in the form of structured mini-summaries (Karachle *et al.*, 2018). The scientific importance of this Symposium, however, is mirrored in this Special Issue, which includes selected papers presented during the Symposium, that passed the peer-review process of the *Mediterranean Marine Science* journal.

The papers presented were allocated in four sections:

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Section 1: Physiology of marine species

- Pauly (2019) presents a summary on the Gill-Oxygen Limitation Theory, resulting by the fact that the surface of the gills of the fish and other marine and aquatic invertebrates cannot, as 2-dimensional objects, address the needs of their 3-dimensional body growth, and thus with their oxygen requirements. This is particularly important in the era of the climate change, leading to rising water temperatures but decreasing oxygen concentration.
- The impacts of anthropogenic activities and especially the combination of the increased temperature and of the coming ocean acidification (low pH values) on certain taxa, are presented by Chatzinikolaou *et al.* (2019). The biotic variables used as response variables were the feeding behaviour of two gastropod species, *Hexaplex trunculus* and *Nassarius nitidus*, both in adults and juveniles, in experimental settings.
- The differences in the response of the cardiac activity in the Mediterranean mussel to environmental variables (e.g. salinity), as a possible biomarker to assess water quality of the shallow waters in Montenegro, is explored by Nikolić *et al.* (2019).

Section 2: Aquatic ecology

- Sedano *et al.* (2019) attempt to compare the structure between sessile communities associated with hard natural and artificial substrates in Crete (Eastern Mediterranean). These communities are proved to be different in many respects.
- The patterns of macroinvertebrate guild functional structure, in relation to the taxonomic one, across salinity gradients, and their implications on guild organization and energy flows in the aquatic habitats of the North-Eastern Mediterranean Sea in Greece, Corfu Island, Greece, are discussed by Gjoni *et al.* (2019).
- Mandić *et al.* (2019) present the seasonal distribution of the planktonic communities (phyto-, zoo- and ichthyo-, plankton) in the shallow waters of the Port of Bar, Montenegro, South-Eastern Adriatic coast.
- The freshwater fish species of *Valencia* spp. are investigated by Kalogianni *et al.* (2019) and, in particular, whether the abundance of the species and their somatic condition in habitats co-occurring with the Eastern mosquitofish and in others without, differ. Their study has been carried out in eight Greek freshwater ecosystems.

Section 3: The marine abiotic environment

- De Ruijter *et al.* (2019) provide results of their study on the bathymetric distribution of microplastics in the shallow sediments of Samos Island (Aegean Sea, Greece).

Section 4: Marine platforms

- The paper presented by Mazarakos *et al.* (2019) provides results from coupled hydro-aero-elastic analysis of a multi-purpose floating structure, specifically designed for offshore wind and wave energy exploitation, by comparing experimental data with numerical ones.

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References

- Chatzinikolaou, E., Grigoriou, P., Martini, E., Steriotti, A., 2019. Impact of ocean acidification and warming on the feeding behaviour of two gastropod species. *Mediterranean Marine Science* 20 (4), Special Issue, 669-679.
- De Ruijter, V.N., Milou, A., Costa, V., 2019. Assessment of microplastics distribution and stratification in the shallow marine sediments of Samos island, Eastern Mediterranean sea, Greece. *Mediterranean Marine Science* 20 (4), Special Issue, 736-744.
- Gjoni, V., Ghinis, S., Pinna, M., Mazzotta, L., Marini, G., Ciotti, M., Rosati, I., Vignes, F., Arima, S., Basset, A., 2019. Patterns of functional diversity of macroinvertebrates across three aquatic ecosystem types, NE Mediterranean. *Mediterranean Marine Science* 20 (4), Special Issue, 703-717.
- Kalogianni, E., Koutsikos, N., Vardakas, L., Giakoumi, S., Chatzinikolaou, Y., Oikonomou, A., 2019. Impacts of the alien mosquitofish on the abundance and condition of two

- Mediterranean native fish. *Mediterranean Marine Science* 20 (4), Special Issue, 727-735.
- Karachle, P.K., Loukaidi, V., Kanellopoulos, Th.D., Gerovasileiou, V., Stroglyoudi, E., Papadopoulou, K-N., Gkouvousi, A., Trachalakis, P., Arvanitidis, C. (Eds.), 2018. *Book of Abstracts of the 12th Panhellenic Symposium on Oceanography & Fisheries "Blue Growth for the Adriatic-Ionian Macroregion and the Eastern Mediterranean" (Corfu, Corfu Island, Greece, 30 May - 3 June 2018)*. Hellenic Centre for Marine Research (HCMR), Athens and Heraklion, 247 pp.
- Nikolić, M., Kuznetsova, T., Kholodkevich, S., Gvozdenović, S., Mandić, M., Joksimović, D., Teodorović, I., 2019. Cardiac activity in the Mediterranean mussel (*Mytilus galloprovincialis* Lamarck, 1819) as a biomarker for assessing sea water quality in Boka Kotorska Bay, Southern Adriatic Sea. *Mediterranean Marine Science* 20 (4), Special Issue, 680-687.
- Mandić, M., Pestorić, B., Marković, O., Đurović, M., Drakulović, D., 2019. Plankton community of trafficked ports as a baseline reference for Non Indigenous Species arrivals. Case study of the Port of Bar (South Adriatic Sea). *Mediterranean Marine Science* 20 (4), Special Issue, 718-726.
- Mazarakos, T., Konispoliatis, D., Katsaounis, G., Polyzos, S., Manolas, D., Voutsinas, S., Soukissian, T. Mavrakos, S., 2019. Numerical and experimental studies of a multi-purpose floating TLP structure for combined wind and wave energy exploitation. *Mediterranean Marine Science* 20 (4), Special Issue, 745-763.
- Pauly, D., 2019. A précis of Gill-Oxygen Limitation Theory (GOLT), with some Emphasis on the Eastern Mediterranean. *Mediterranean Marine Science* 20 (4), Special Issue, 660-668.
- Sedano, F., Florido, M., Rallis, I., Espinosa, F., Gerovasileiou, V., 2019. Comparing sessile benthos on shallow artificial versus natural hard substrates in the Eastern Mediterranean Sea. *Mediterranean Marine Science* 20 (4), Special Issue, 688-702.