BILINGUAL PUBLISHING CO.
Pioneer of Global Academics Since 1984

Journal of Marine Science
https://ojs.bilpublishing.com/index.php/jms

EDITORIAL

Journal of Marine Science: An Open Framework Dedicated to the Presentation of the Discoveries and Insights in Marine Science Research

Eugen Rusu[1,2*]

1. Editor in Chief, Journal of Marine Science
2. Faculty of Engineering, "Dunărea de Jos" University of Galati, 800201, Galati, Romania

ARTICLE INFO

Article history
Received: 3 August 2021
Accepted: 4 August 2021
Published Online: 5 August 2021

Marine environment represents a very important and actual topic. Water bodies cover more than two thirds of the earth's surface and even after thousands of years, scientists have yet to fully uncover their mysteries. At the same time climate, change has visible effects with a growing dynamics in the last decades and the marine environment is very sensitive to these changes. In order to mitigate the effects of the climate change there is an increasing need of reducing the CO_2 emissions and from this perspective the marine environment represents an important source of clean renewable energy. In this respect, the *Journal of Marine Science* represented even from the beginning an open framework dedicated to the presentation of the discoveries and insights in marine science research.

If we refer only to this year, we can notice that in 2021 several valuable works have been published in Volume 3 of *Journal of Marine Science*. Thus, in the first issue, based on the incompressible RANS equation, the first work [1] presents a ship's resistance field's numerical simulation. The bare hull (calm water resistance and wave resistance) and hull-propeller rudder models are studied and compared with the values of the Hydrostatic resistance test. In the hull-propeller-rudder system's performance analysis, the body force method is used to replace the real propeller model. The new calculation domain is set for the hull-propeller-rudder system model and meshed again to obtain the highly reliable numerical simulation results. Further on, in [2] having as target the semi-enclosed basin of the Black Sea, the objective of the paper is to present an overview of its extensive physical features and circulation patterns. To achieve this goal, more than five decades of data analysis - from 1960 to 2015 - were taken into consideration and the results were validated against acknowledged data, both from satellite data over the last two decades and in-

**Corresponding Author:*
Eugen Rusu,
Editor in Chief, Journal of Marine Science; Faculty of Engineering, "Dunărea de Jos" University of Galati, 800201, Galati, Romania;
Email: eugen.rusu@ugal.ro

 DOI: https://doi.org/10.30564/jms.v3i3.3511

situ measurements from the first decades. Based on the perspective of marine tourism, in [3] various types of marine pollution are discussed as well as high-quality development solutions and future extension directions of marine tourism. Through the research, it is found that the main culprits of marine pollution mainly include the following seven points: human activities produce garbage; white pollution; ship pollution; exploration of marine oil and gas resources and mineral pollution highlighted. The causes of marine pollution and countermeasures are also discussed. Starting from the facts that red tides are a major public hazard in the global oceans and that the coast of the East China Sea is the sea area where red tide disasters are the most frequent and serious in China, [4] deals with these aspects. Thus, in order to accurately grasp the occurrence of red tides in the coastal waters of the East China Sea, and to understand the microbial communities in the waters during the occurrence of red tides in the East China Sea, a special survey of red tides in the coastal waters of Zhejiang, China which was carried out in June 2018 is described. Finally, the last paper of this issue, [5] presents a mass spectrometry-based sequencing of venom peptides (conotoxins) from vermivorous cone snail, conus loroisii. Conus loroisii is a marine vermivorous snail found profusely in the southern seas of India. They harbor several toxic peptide components commonly called as 'conotoxins'. In this study, the authors have identified and sequenced five conotoxins using proteome based tandem mass spectrometry analysis through Data analysis 4.1 software.

The second issue of Volume 3 contains also very interesting works. Thus, [6] presents a study related to thermal front variability during the El Nino Southern Oscillation (ENSO) in the Banda Sea using remotely sensed data. The Banda Sea is one of the routes of global ocean currents that move from the Pacific Ocean to the Indian Ocean. This flow is known as Indonesian Through Flow (ITF). The Banda Sea is an area where warm and cold water masses meet, so it has the potential for a thermal front. This study aims to understand the variability of thermal front in the Banda Sea during the El Nino Southern Oscillation period. Southern Oscillation Index (SOI) and sea surface temperature (SST) data in 2010, 2012 and 2015 were used in this study. Further on, [7] presents a study of the coastal vulnerability in Indramayu Regency, Indonesia. Coastal vulnerability is a condition of a coastal community or society that leads to or causes an inability to face the threat of danger. The level of vulnerability can be viewed from the physical (infrastructure), social, demographic, and economic vulnerabilities. Physical vulnerability (infrastructure) describes a physical condition (infrastructure) that is prone to certain hazardous factors. The coastal vulnerability areas can also be interpreted as a condition where there is an increase in the process of damage in the coastal area which is caused by various factors such as human activities and factors from the nature. This research aims to determine the level of coastal vulnerability in Indramayu coastal Regency with a Coastal Vulnerability Assessment (CVA) analysis approach and a Geographic Information System (GIS). Mapping the status of the vulnerability level of the Indramayu coastal area using the CVA method where the index range generated from the calculation of the four physical parameters mentioned above is between 2.887-3.651 or are in moderate vulnerability. In order to solve the technical problems of autonomous berthing of the Unmanned Surface Vehicle (USV), in [8] is presented a research that has met the requirements of manoeuvrability berthing under different conditions by effectively using the bow and stern thrusters, which is a technological breakthrough in actual production and life. Based on the MMG model, the manoeuvrability mathematical model of the USV with bow and stern thruster was established. And the motion simulation of USV manoeuvring was carried out through the numerical simulation calculation. Then the berthing plan was designed based on the manoeuvrability analysis of the USV low-speed motion, and the simulation of automatic berthing for USV was carried out. The research results of this paper can be of certain practical significance for the USV based on the support of the bow and stern thruster in the berthing. At the same time, it also provides a certain theoretical reference for the handling of the USV automatic berthing. [9] describes a hydrocarbon detection based on phase decomposition in Chaoshan Depression, Northern South China Sea. Located in the northern South China Sea, Chaoshan Depression is mainly a residual Mesozoic depression, with a construction of Meso-Cenozoic strata over 7000m thick and good hydrocarbon accumulation conditions. Amplitude attribute of -90°phase component derived by phase decomposition is employed to detect Hydrocarbon in the zone of interest (ZOI) in Chaoshan Depression. And it is found that there are evident amplitude anomalies occurring around ZOI. Phase decomposition is applied to forward modeling results of the ZOI, and high amplitudes occur on the -90°phase component more or less when ZOI is charged with hydrocarbon, which shows that the amplitude abnormality in ZOI is probably caused by oil and gas accumulation. Finally, in the last paper of this second issue, [10] a simulation of deep water wave climate for the Indian Seas is presented.

Finally, issue 3, which is still open for submissions,

DOI: https://doi.org/10.30564/jms.v3i3.3511

presents for now two interesting works. Thus starting from the fact that surfaces submerged in seawater are colonized by various microorganisms, resulting in the formation of heterogenic marine biofilms, [11] aims to evaluate the biofilm formation by Cobetia marina alex and doing a comparative study between this promising strain with the two bacterial strains isolated previously from the Mediterranean seawater, Alexandria, Egypt. Three strains; Cobetia marina alex, Pseudoalteromonas sp. alex, and Pseudoalteromonas prydzensis alex were screened for biofilm formation using the crystal violet (CV) quantification method in a single culture. The values of biofilm formed were OD600= 3.0, 2.7, and 2.6, respectively leading to their selection for further evaluation. However, factors affecting biofilm formation by C. marina alex were investigated. Biofilm formation was evaluated in single and multispecies consortia. Synergistic and antagonistic interactions proved in this work lead to the belief that these bacteria have the capability to produce some interesting signal molecules N-acyl Homoserine Lactones (AHLs). Finally, in [12] a study is presented about dragonflies as an important aquatic predator insect and their potential for control of vectors of different diseases.

The above mentioned articles constituting volume 3 made various analyses related to marine science issues. Finally, we strongly believe that the works included in this volume are useful for many scientists, researchers and industries working on marine issues. At this final point, it has to be also highlighted that the topics targeting marine sciences remain very actual, especially if we take into account the great expectations from the marine environment in short and medium term, expectations requiring very rapid scientific and technical advances while at the same time significant challenges have to be faced.

References

[1] Xie, H., Zhang B., 2021, Numerical Simulation of Resistance Field of Hull-Propeller-Rudder Coupling, *Journal of Marine Science*, Vol 3 (1), https://doi.org/10.30564/jms.v3i1.2506.

[2] Girleanu, A., Rusu, E., 2021, An Evaluation of the Main Physical Features and Circulation Patterns in the Black Sea Basin, *Journal of Marine Science*, Vol 3 (1), https://doi.org/10.30564/jms.v3i1.2552.

[3] Zheng, Y., Liu, D., 2021, Research on Marine Pollution Problems and Solutions in China from the Perspective of Marine Tourism, *Journal of Marine Science*, Vol 3 (1), https://doi.org/10.30564/jms.v3i1.2599.

[4] Huang, B., Wei, N., Hu, Y., Mao, H., 2021 Microbial Communities in Water during Red Tides along the Coast of China-A Case Study of Prorocentrum Donghaiense Red Tide in the East China Sea, *Journal of Marine Science*, Vol 3 (1), https://doi.org/10.30564/jms.v3i1.2622.

[5] Saleh Syed, H., Arun Kumar R., Masilamani Selvam, J. M., Rajesh R. P., Mass Spectrometry-based Sequencing of Venom Peptides (Conotoxins) from Vermivorous Cone Snail, Conus Loroisii: Toxicity of its Natural Venom, *Journal of Marine Science*, Vol 3 (1), https://doi.org/10.30564/jms.v3i1.2416.

[6] Fachruddin Syah, A., Sholehah, S., 2021, Thermal Front Variability during the El Nino Southern Oscillation (ENSO) in the Banda Sea Using Remotely Sensed Data, *Journal of Marine Science*, Vol 3 (2), https://doi.org/10.30564/jms.v3i2.2741.

[7] Waluyo, W., Fitrina Devi, A., Arifin, T., 2021, Study of the Coastal Vulnerability in Indramayu Regency, Indonesia, *Journal of Marine Science*, Vol 3 (2), https://doi.org/10.30564/jms.v3i2.2859.

[8] Wu, G., Zhao, X., Wang, L., 2021, Modeling and Simulation of Automatic Berthing based on Bow and Stern Thruster Assist for Unmanned Surface Vehicle, Journal of Marine Science, Vol 3 (2), https://doi.org/10.30564/jms.v3i2.2962.

[9] Zhong, G., Jiang, R., Yi, H., Wu, J., Feng, C., Zhou, G., Wang, K., Liu, L., Sun, M., 2021, Hydrocarbon Detection Based on Phase Decomposition in Chaoshan Depression, Northern South China Sea, Journal of Marine Science, Vol 3 (2), https://doi.org/10.30564/jms.v3i2.3063.

[10] Swain, J., Umesh, P. A., Baba, M., Murty, A. S. N., 2021, Simulation of Deep Water Wave Climate for the Indian Seas, Journal of Marine Science, Vol 3 (2), https://doi.org/10.30564/jms.v3i2.3126.

[11] Abouelkheir, S. S., Abdelghany, E. A., Sabry, S. A., Ghozlan, H. A., 2021, Biofilm Formation by Marine Cobetia marina alex and Pseudoalteromonas spp: Development and Detection of Quorum Sensing N-Acyl Homoserine Lactones (AHLs) Molecules, Journal of Marine Science, Vol 3 (3), https://doi.org/10.30564/jms.v3i3.3397.

[12] Vatandoost, H., 2021, Dragonflies as an Important Aquatic Predator Insect and Their Potential for Control of Vectors of Different Diseases, Journal of Marine Science, Vol 3 (3), https://doi.org/10.30564/jms.v3i3.3121.

 DOI: https://doi.org/10.30564/jms.v3i3.3511