

# MARINE SCIENCE AND TECHNOLOGY BULLETIN

2023 • VOLUME: 12 • ISSUE: 3

## Editor-in-Chief

Adem Yavuz Sönmez

*Kastamonu University, Türkiye*

## Co-Editor

Semih Kale

*Çanakkale Onsekiz Mart University, Türkiye*

## Section Editors

Soner Bilen

*Kastamonu University, Türkiye*

Ertuğrul Terzi

*Kastamonu University, Türkiye*

Ali Eslem Kadak

*Kastamonu University, Türkiye*

Gökhan Arslan

*Atatürk University, Türkiye*

Abdullah Açık

*Dokuz Eylül University, Türkiye*

## Statistics Editor

Aycan Mutlu Yağanoğlu

*Atatürk University, Türkiye*

## Language Editor

Albaris B. Tahliluddin

*Mindanao State University, Philippines*

## Editorial Board

Agus Oman Sudrajat

*Institut Pertanian Bogor, Indonesia*

Antanas Kontautas

*Klaipeda University, Lithuania*

Arya Vazirzadeh

*Shiraz University, Iran*

Barış Bayraklı

*Sinop University, Türkiye*

Deniz Çoban

*Aydın Adnan Menderes University, Türkiye*

Derya Güroy

*Yalova University, Türkiye*

Fazıl Şen

*Yüzüncü Yıl University, Türkiye*

Gouranga Biswas

*Kakdwip Research Centre of Central Institute, India*

Hasan Hüseyin Atar

*Ankara University, Türkiye*

İlhan Altınok

*Karadeniz Technical University, Türkiye*

Katsuyuki Hamasaki

*Tokyo University of Marine Science and Technology, Japan*

Liliana Török

*Danube Delta National Institute for Research & Development, Romania*

Mahmut Elp

*Kastamonu University, Türkiye*

Marina Alexandrovna Sazykina

*Southern Federal University, Russia*

Mehmet Gökoğlu

*Akdeniz University, Türkiye*

Muhammad Naeem Khan

*University of the Punjab, Pakistan*

Sajmir Beqiraj

*University of Tirana, Albania*

Sefa Acarlı

*Çanakkale Onsekiz Mart University, Türkiye*

Shigeki Dan

*Tokyo University of Marine Science and Technology, Japan*

Sonya Uzunova

*Institute of Fishing Resources, Bulgaria*

Süleyman Özdemir

*Sinop University, Türkiye*

Şevki Kayış

*Recep Tayyip Erdoğan University, Türkiye*

Şükrü Yıldırım

*Ege University, Türkiye*

Vijayaram Seerengaraj

*Jimei University, China*

Telat Yanık

*Atatürk University, Türkiye*

Walter Leal Filho

*Hamburg University of Applied Sciences, Germany*



Prensip Publishing and Consultancy Ind. Trade. Co. Ltd.  
Kuzeykent Mah. Orgeneral Atilla Ateş Paşa Cad. No: 15 CD, İç kapı no:31  
37150 Merkez, Kastamonu, Türkiye  
info@prensip.gen.tr  
prensip.gen.tr