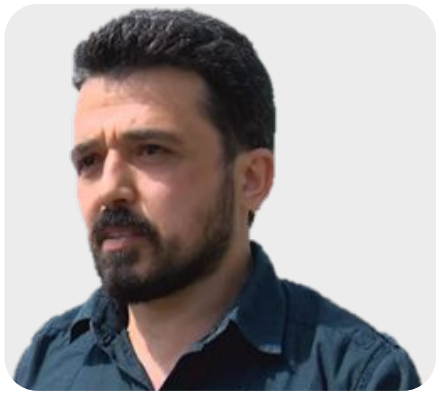
The success of PhD student Rabia Sezgin, the institute, the national and international co -iented Q1 article success…





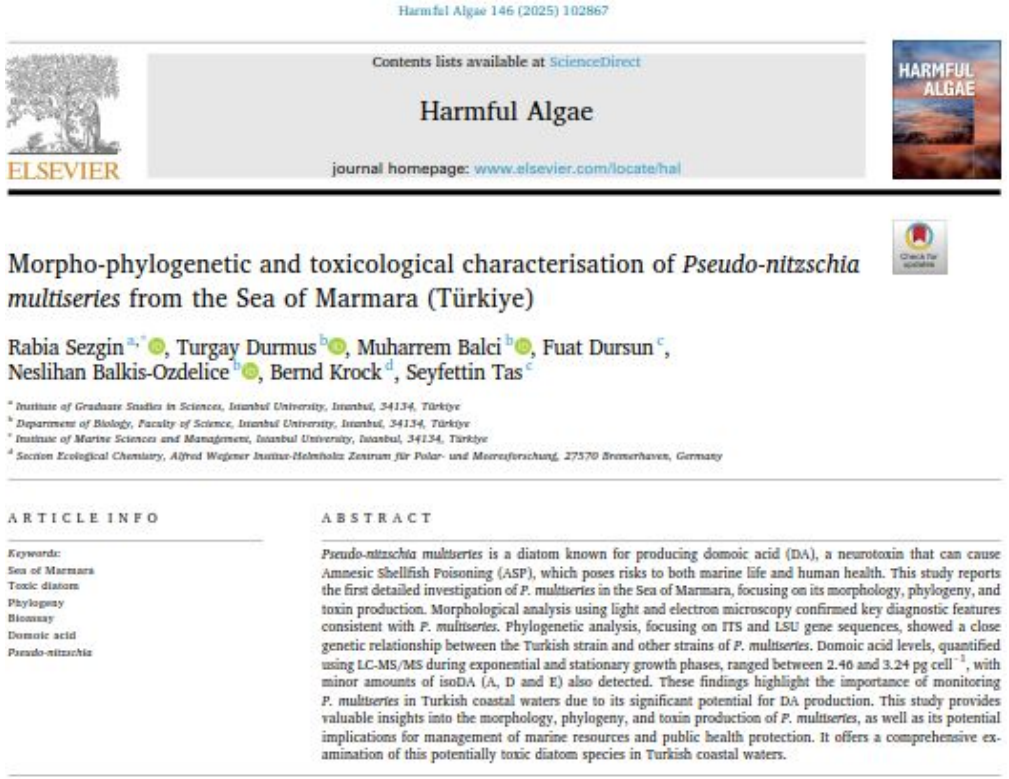
Rabia Sezgin, a student of Hydrobiology in the Department of Biology, has made significant contributions through his research on Pseudo-nitzschia multiseries, a toxic diatom species, conducted in collaboration with national and international partners. This comprehensive study includes **the first record** of *P. multiseries* from the coasts of Türkiye and provides detailed morphological, molecular, and toxicological analyses of the species isolated from the Sea of Marmara.

In the study, it has been pointed out that this species, which has a high production capacity of domoic acid (DA), could be a **potential threat to marine organisms and therefore for human health**. Due to its scientific importance in terms of **marine ecosystem** and public health, this original study has been published in ***Harmful Algae*** (Elsevier) magazine within the scope of SCI-E, which has a high impact value in the **Q1 category** in the field of maritime sciences.

With this study, which contributes to the literature at the international level, **Rabia SEZGİN** has achieved a significant success in terms of both scientific research methodology and publication quality. She continues her research within the scope of her PhD studies under the supervision of **Prof. Dr. Muharrem BALCI**.

We congratulate our institute's student and advisor and wish them continued success.

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Morpho-phylogenetic and toxicological characterisation of *Pseudo-nitzschia multiseries* from the Sea of Marmara (Türkiye)

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ABSTRACT

Pseudo-nitzschia multiseries is a diatom known for producing domoic acid (DA), a neurotoxin that can cause Amnesic Shellfish Poisoning (ASP), which poses risks to both marine life and human health. This study reports the first detailed investigation of *P. multiseries* in the Sea of Marmara, focusing on its morphology, phylogeny, and toxin production. Morphological analysis using light and electron microscopy confirmed key diagnostic features consistent with *P. multiseries*. Phylogenetic analysis, focusing on ITS and LSU gene sequences, showed a close genetic relationship between the Turkish strain and other strains of *P. multiseries*. Domoic acid levels, quantified using LC-MS/MS during exponential and stationary growth phases, ranged between 2.46 and 3.24 pg cell^{-1}, with minor amounts of isoDA (A, D and E) also detected. These findings highlight the importance of monitoring *P. multiseries* in Turkish coastal waters due to its significant potential for DA production. This study provides valuable insights into the morphology, phylogeny, and toxin production of *P. multiseries*, as well as its potential implications for management of marine resources and public health protection. It offers a comprehensive examination of this potentially toxic diatom species in Turkish coastal waters.