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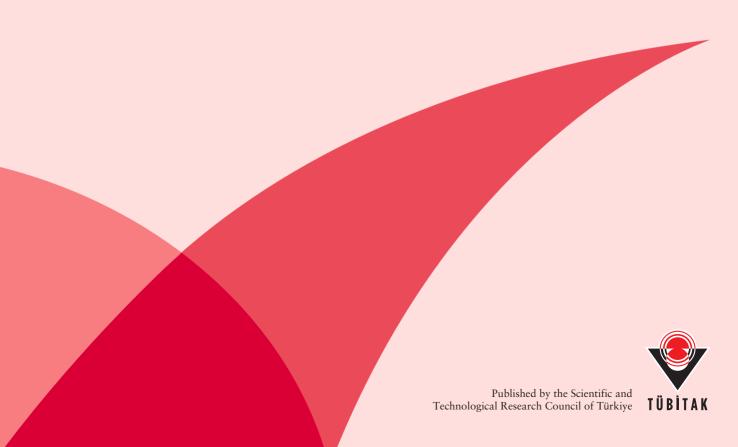
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# TURKISH JOURNAL OF ZOOLOGY

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Marine Animal Diversity of Türkiye



#### **TURKISH JOURNAL OF ZOOLOGY**

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#### **SCOPE OF JOURNAL**

- The Turkish Journal of Zoology is published electronically 6 times a year by the Scientific and Technological Research Council of Türkiye (TÜBİTAK).
- Accepts English-language manuscripts in various fields of zoology including systematics, developmental biology, behaviour biology, animal models, molecular biology and molecular phylogeny, genomics, physiology (cell communication and signaling systems), biochemistry and immunohistochemistry, applied parasitology and pathology, nanobiotechnology, ecology, evolution, and paleontology of animal taxa.
- Contribution is open to researchers of all nationalities.
- Short communications are also welcome, such as reports of a preliminary nature or those including new records from specific localities or regions, and the editor reserves the right to decide that a paper be treated as a short communication.
- The papers that deal with purely checklists, new host and non-regional new locality records will not be consider for publication.
- Letters to the editor reflect the opinions of other researchers on the articles published in the journal. The editor may also invite
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#### **ABSTRACTED AND INDEXED**

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#### Preface - Special Issue on: "Marine Animal Diversity of Türkiye"

The compilation of faunal inventories is one of the most fundamental and important tasks in the biological sciences. These inventories provide not only a comprehensive overview of the species present in a given geographical area but also offer crucial information on high-priority taxa in conservation biology, including the status of endangered species and the distribution trends of invasive alien species. By comparing successive checklists, the impacts of environmental changes and human activities can be monitored over time, enabling governments to develop informed resource management policies and environmental protection strategies. Moreover, taxonomic inventories facilitate international research and conservation efforts by integrating local data into global biodiversity databases and serve as essential references for taxonomists and researchers studying species classification, evolution, and distribution.

The unique marine biodiversity of Türkiye has been the focus of numerous studies since historical times. However, most of these studies were typically limited to specific subregions or groups of organisms, making it impossible to gain a comprehensive understanding of the country's marine biodiversity for a long time. A significant breakthrough in addressing this gap was the special issue published in 2014 by the *Turkish Journal of Zoology* (Volume 38, Number 6, edited by Çınar ME and Bilecenoğlu M), which serves as a cornerstone in this field. This issue presented the most comprehensive treatise on Turkish marine fauna to date, featuring 11 scientific papers by 29 authors and documenting a total of 4860 species along the coasts of Türkiye.

The compilation of species checklists is undoubtedly essential for national biodiversity assessments, but it is equally important to update them regularly. Outdated national faunal inventories can undermine conservation efforts, impede scientific understanding of biodiversity, result in misguided environmental policies, and leave significant ecological gaps. Thanks to the invaluable opportunity provided by the *Turkish Journal of Zoology* to update existing marine faunal inventories, the current special issue titled "Marine Animal Diversity of Türkiye" has been published with contributions from 24 authors across nine scientific papers. This issue presents comprehensive checklists of marine phyla, from Porifera to Chordata, in the same taxonomic format as the 2014 issue, incorporating updated classifications and nomenclature.

Each paper includes species lists with their documented occurrences in the Black Sea, Sea of Marmara, Aegean Sea, and Levantine Sea, as well as their ecological features, such as habitat and depth distributions. Alien species and the conservation status of endangered species, as listed in international and national treaties, are indicated with special symbols (including references to the appendices of the Bern and Barcelona Conventions, IUCN Regional Red Lists, and fisheries notifications from the Ministry of Agriculture and Forestry of the Republic of Türkiye). The updated checklists have revealed the presence of 5,837 species (as of May 2024), representing a significant 20% increase over the past decade. It is evident that conducting extensive field surveys in underexplored localities and on poorly known taxa will lead to an even greater understanding of marine diversity, and regular expert assessments of the fauna remain crucial. The cumulative increase in species records along the coasts of Türkiye in recent years underscores the importance of sustained scientific effort for achieving a comprehensive inventory of biodiversity. Targeted studies on less-explored groups (e.g., meiobenthic groups, platyhelminthes, nemerteans) are likely to further enhance our understanding of Türkiye's marine biodiversity.

The conservation of Türkiye's marine biodiversity faces multiple challenges, including overfishing, pollution, the introduction of alien species, climate change, and habitat destruction. Consequently, efforts to protect and manage marine ecosystems are crucial, with numerous marine protected areas established to safeguard key habitats and species. Ongoing taxonomic research, sustainable management practices, and collaboration among stakeholders are essential to conserving Türkiye's marine diversity and ensuring the resilience and health of its marine environment for future generations.

We believe that this current issue of the *Turkish Journal of Zoology* will once again serve as a valuable reference and be highly beneficial for marine biologists, governmental and nongovernmental organizations, as well as amateur naturalists. Additionally, given the declining number of taxonomists dedicated to marine sciences worldwide, we aim to inspire students from Biology Departments and Faculties of Fisheries who wish to pursue this fascinating branch of science.

The guest editors would like to thank Prof. Dr. Mustafa YAMAN (Editor-in-Chief, *Turkish Journal of Zoology*) and Mr Yücel UYAR (Journal Administrator) for their constant availability and support during the preparation of the special issue. We are also deeply indebted to the Academic Journals Group of The Scientific and Technological Research Council of Türkiye (TÜBİTAK), for giving us the opportunity to undertake this important task.

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