

Preface

The Convention on Biological Diversity (CBD) (Rio de Janeiro, 1992) agreed that humans are leading numerous species to extinction and a variety of habitats to destruction, which must therefore be conserved for reasons of ethics, economic benefit, and human survival. Following the presentation of the main goals of the CBD (conservation of biological diversity; sustainable use of biological resources; fair and equitable sharing of the benefits arising out of the utilization of genetic resources), an increased awareness of the exploration of biodiversity was achieved, since it is practically impossible to conserve and manage nature without having the essential relevant biological knowledge. In this manner, any conservation action is clearly and strictly dependent on taxonomical inventories.

The biodiversity of Turkey has long been a focus of interest to biologists, naturalists, and conservationists, owing to the uniqueness of several wildlife taxa and the unexpectedly high number of plant and animal species, primarily as a result of the geological history of the region. With comparison to terrestrial ecosystems, our current knowledge on marine animal diversity of Turkey is extremely scarce and sporadic, and far from being complete. Despite a few previous attempts to compile comprehensive faunal lists, the majority of the studies conducted were confined to subregions or to a range of organisms. It is therefore very important to prepare cumulative annotated checklists of the marine life of Turkey, an overdue initiative yet to be implemented. The current special issue of the *Turkish Journal of Zoology* has thus concentrated on a biodiversity oriented theme that covers presentation of all marine animal taxa hitherto recorded from the Turkish coastlines, associated with previously unpublished new or range expansion records, helping us to better understand the current status of marine animal diversity. Furthermore, anthropogenic pressures that have been directly or indirectly affecting the constituents of biodiversity, such as the introduction of alien species, are also a focus of interest in the special issue, divulging the magnitude of deteriorations in diversity at some localities that have been monitored in time scales.

This special issue of the *Turkish Journal of Zoology* is a collection of 11 papers by 29 authors. Comprehensive checklists of marine phyla such as Porifera, Cnidaria, Ctenophora, Platyhelminthes, Xenacoelomorpha, Nematoda, Acanthocephala, Myxozoa, Tardigrada, Cephalorhyncha, Nemertea, Echiura, Brachiopoda, Phoronida, Chaetognatha, Annelida, Sipuncula, Mollusca, Arthropoda, Bryozoa, Echinodermata, and Chordata are presented. Checklists given in this special issue do not solely simply present a species list but also include their first reports in each sea surrounding Turkey (Black Sea, Sea of Marmara, Aegean Sea, and Levantine Sea), their distributions within a grid system (15 × 15 km) covering the coasts of Turkey, their ecological features such as habitat and depth distributions, and their alien/native status. Compiling all existing data about the marine fauna of Turkey and presenting new records (a total of 51 species) for the marine fauna of Turkey revealed that nearly 5000 marine animals have been reported along the coasts of Turkey to date. Faunistic data plotted on a GIS-based grid system indicated high species diversity in some areas and bays located near fisheries faculties or hydrobiological institutions, where intensive scientific efforts have been traditionally and periodically performed. Having a 8333-km coastline and seas of different hydrographical entities, Turkey is proved to be a hot spot in terms of marine species diversity, but documenting a somewhat real, complete faunistic inventory is a great challenge, due to the lack of experts on some groups of high diversity (i.e. free-living flatworms) in Turkey and the difficulty in the implementation of large, long-term multi-oriented projects (including metabarcoding) due to the time and budget limitations in national research projects.

With reference to the priority objectives and goals of the Turkish National Biological Diversity Strategy and Action Plan (2007), we believe the existing information gap on marine biodiversity is filled now to a great extent, although further detailed monitoring and taxonomical explorations are still imperative.

It is hoped that this issue of the *Turkish Journal of Zoology* will make a good reference source and be of great use to scientists, students, decision makers, nongovernmental organisations, and amateur naturalists who devote their time to understanding marine life.

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