

BOOK REVIEW

A lovely jelly world – World Atlas of Jellyfish, by Jarms and Morandini

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Jarms G, Morandini AC (2023) World Atlas of Jellyfish – Scyphozoa except Stauromedusae. Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg, Special Volume. Dölling und Galitz Verlag, Hamburg. 827 pp.

From time to time, magnificent compendiums are published to synthesize our knowledge of the fascinating world of jellyfish. This was the case, for example, with Ernst Heinrich Philipp August Haeckel (1880, “Das System der Medusen”), followed 31 years later by Alfred Goldsborough Mayer (1910, “Medusae of the World”), and then another 51 years until Paul Torben Lassenius Kramp (1961, “Synopsis of the medusae of the world”). Now, after almost six decades of anticipation, the remarkable “World Atlas of Jellyfish” by Gerhard Jarms and André Carrara Morandini (Dölling und Galitz Verlag) has finally been released. The book had been published in 2019 as a traditional paper edition. Now, in 2023, the publisher has made it more accessible to the public by releasing an e-book edition, which includes small changes and corrections. It is also easier to read compared to the print version, which is printed in a small font.

The e-book is accompanied by a preface, which is also present in the printed book, written by the renowned researcher Dale R. Calder. The preface encapsulates the authors’ perspectives on the subject matter through a quote from Mayer: “Love, not logic, impels the naturalist to his work”. The authors’ profound affection for jellyfish is evident in the extensive 12-year effort devoted to this “*magnum opus*”, a comprehensive, meticulously crafted compendium spanning 827 pages. One of the most striking aspects of the book is its illustrations, featuring breathtaking photographs showcasing numerous jellyfish species. Additionally, readers are treated to a collection of original color sketches by Ernst Haeckel, graciously provided to the authors by Haeckel Haus (Jena).

The book’s written content is also exceptional. The first section, referred to as the “General Part” by the authors, presents a comprehensive and up-to-date overview of jellyfish. It encompasses a brief historical overview of past publications on the group, discussions on fossils, morphology (with particular emphasis on sensory structures and stinging cells), phylogeny and taxonomy, ecological interactions, life cycles, cultivation techniques (both authors’ expertise spanning seven decades, inherited from Bernhard Werner, although this insightful chapter is authored by Chad Widmer), documentation practices, etymology, and the multifaceted relationship between jellyfish and humans, including the role of jellyfish as food source and the captivating subject of envenomation.

One peculiar decision made by the authors lies in the phylogenetic framework employed in the book. They prioritized a phylogenetic reconstruction based on “morphological and developmental features”. Consequently, the chosen approach centers primarily on a classical Scyphozoa concept predating the contribution of Werner et al. (1971) and Marques and Collins (2004). This traditional taxonomical perspective encompasses coronates, discomedusans, cubomedusans, and stauromedusans. However, stauromedusans are not emphasized in the book due to their exclusive nature as sessile medusae – consequently, they are only briefly mentioned in a few pages towards the end of the compendium. While the adoption of a traditional classification facilitates an extensive examination of “scyphozoans”, it regrettably diminishes the discussion on alternative phylogenetic scenarios with a broader context of Medusozoa, including homology and diversification relationships.

The second section of the book, referred to by the authors as the “Special Part”, is the most extensive, encompassing all known groups of “scyphozoans” and adopting a classical taxonomic approach. This segment is thoughtfully organized, employing a color scheme to delineate each section/taxon, which already assisted in the handling of the book in the printed edition. Commencing with a comparative table referred to as a “pictorial key”, the book provides an overview of the general morphologies and outlines of the groups. Subsequently, there is an introduction to each major group followed by a dichotomous key to the included families. Each family is marked by a charming vignette depicting its outline at the corner of every page that deals with it. Each included species is introduced, highlighting its distinctive characteristics and data on type material. Dichotomous keys to genera and/or species are provided for the most species-rich families. This is followed by detailed accounts on individual species, with information on etymology, synonyms, a concise description, natural history, source of the original description and selected references, type locality and type material, distribution (illustrated with maps), and photographs (sometimes including images of the holotype, live specimens, and original illustrations).

In its third and concluding section, the book includes a comprehensive glossary of both general and specific terms, providing valuable assistance to the readers, particularly those new to the subject. Additionally, this section features a remissive index of genera, species, higher ranks, and vernacular names, facilitating easy reference. The final pages also provide a succinct update, presenting 27 newly described or validated species since the first (printed) edition of the book, and synonymizing five species.

Some researchers speculate that the future ocean will be dominated by jellyfish, particularly in light of the global climate changes that are profoundly transforming ecosystems and their current dynamics. If jellyfish indeed represent the future, a systematic organization of the literature from time to time is welcome. The “World Atlas of Jellyfish” stands as a significant and distinguished contribution, emerging as a prominent presentation in the 21st century. I extend my gratitude to the authors for their efforts and invaluable contributions to this field of science.

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