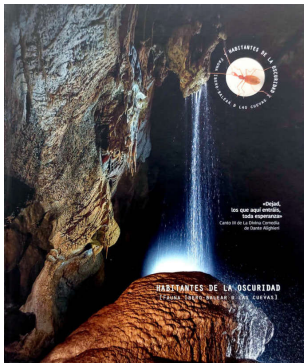


Alberto Sendra Mocholí (Ed.)

Habitantes de la oscuridad (Fauna Ibero-Balear de las cuevas)

2023, Sociedad Entomológica Aragonesa, Zaragoza., 752 p., ISBN 978-84-126135-1-3; Price: €25 (Softcover) and €30 (Hardcover).

<http://sea-entomologia.org/habitantesoscuridad.html>



The initial reaction upon receiving the book "Habitantes de la oscuridad" (Fauna Ibero-Balear de las Cuevas) - "Inhabitants of the Darkness" (Iberian-Balearic Cave Fauna) was astonishment at its sheer size: 752 pages! However, don't let the book's size or its Spanish language deter you, even if you're not a Spanish reader. To paraphrase Dante Alighieri's quote from the Divine Comedy featured on the book's cover, I would have written: "Leave, those of you who enter here, all sadness." This volume is a visual feast filled with color, photographs, illustrations, diagrams, and explanations. It is a rarity to find such a comprehensive and intricate book dedicated to underground fauna. The language is accessible, even though the information is scientific. It is an exemplary instance of presenting scientific knowledge in a way that maintains its rigor while remaining understandable. Notably, this volume exclusively covers a fraction of the world's underground fauna, specifically the Iberian-Balearic fauna.

Comprising 40 chapters, this volume serves as a comprehensive handbook covering geology, karst features, the processes of karstification, caves, ecosystems, and underground habitats. It does not neglect the history of research and exploration, techniques for studying caves and their fauna, or aspects related to conservation education. The spotlight here is on cave fauna, presented through major faunal groups, detailing their diversity, distribution, and origins, accounting for over half of this extensive volume. The volume's first section delves into soluble rocks and the integral role of water in the formation of karst. It introduces various forms of karstification, the processes involved, and different karst types, unveiling the mysteries behind rocks and the caves they create. Following this is the characterization of underground ecosystems, including their zoning, energy sources, classification, and adaptations. This section culminates in explanations and examples illustrating the evolution of cave-dwelling animals. The diversity within these ecosystems, along with detailed descriptions of habitat types and their inhabitants, seamlessly transitions into the volume's second part, which encompasses the various groups of underground fauna.

The volume is divided into three distinct parts, offering a comprehensive overview of the subject matter. The first part begins with invertebrates and progresses to vertebrates. Each group is individually characterized, adopting the approach of a systematic treatise. Moreover, the content includes information about the presence of these groups in the specific Iberian-Balearic region. As a result, a valuable database emerges, replete with localities and species, richly illustrated to facilitate species identification in the field. This resource is indispensable for individuals seeking to acquaint themselves with the fauna or expand the list with new species or localities. Inclusion of identification schemes for groups with numerous representatives and broad distribution areas enhances the faunal information. The addition of photomicrographs and insights into adaptations and behavior adds an engaging dimension even for non-specialists. An extensive chapter dedicated to beetles, a diverse group in the analyzed region, incorporates descriptions of rare and iconic species found in Iberian caves. Of note, bats (Chiroptera) are the most diverse and widespread vertebrates in caves globally, including those in the Iberian region. Their detailed descriptions and behavioral insights within cave habitats are pivotal for the protection of these invaluable species that contribute to surface ecosystems.

The third part of the volume, edited by Alberto Sendra Mocholí, summarizes the information presented in Chapter 2. It commences with an exploration of the biodiversity of Iberian-Balearic caves. This section delves into defining and characterizing the geological regions featuring primary underground systems and the species inhabiting caves. Furthermore, it provides a historical perspective on the origin and colonization of the Iberian-Balearic subterranean domain, tracing through paleogeographical stages, and incorporating phylogenetic research that supports a comprehensive understanding of the current distribution of cave fauna in the studied area. The evolution of speleological

and biospeleological research within the Iberico-Balearic region over time is meticulously detailed, capturing the diversification of interests in studying subterranean fauna and the emergence of scientific coordination centers in Spain. The book dedicates extensive sections to the critical topics of conservation and education, using numerous examples specific to the studied area. The concluding chapter is an exploration of the methods employed in biospeleology, encompassing cave exploration, genetic and phylogenetic collection and analysis, interpretation of climatic data, and photography as integral methods for conserving subterranean habitats and species.

I'm looking forward to the next edition, hoping that it will encompass the remarkable research conducted in Spain on microorganisms in caves. Spain has pioneering teams in this field, and their contributions deserve to be part of this excellent work. The effort invested in writing this volume, compiling illustrations, and creating diagrams and drawings should not be confined to the Spanish version alone. We eagerly await translations into English, Mandarin, Portuguese, and other languages. This volume is a beautifully illustrated odyssey into the subterranean world, catering to specialists, students across disciplines, cavers, educators, and enthusiasts seeking to explore or learn about the underground realm. Even those inclined to a more casual reading experience will find it accessible, given the detailed explanations accompanying the illustrations and diagrams. However, a quick perusal is likely to pique curiosity, inspiring a thorough exploration of the captivating realms within Spanish caves, both living and non-living.

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