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Cave Biology

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Foreword III

In the last couple of decades, China has emerged as a powerhouse of science. We have seen not only when it comes to total scientific output in terms of the number of publications, but also when it comes to the quality of such output. Biospeleology has been one of those fields where such a trend is evident. Many new species of cave organisms have been described, some of them with morphological characteristics not found among many other cave species elsewhere in the world[①].

Now, Dr. Zhixiao Liu, a professor in the College of Biology and Environmental Sciences at Jishou University, has written a biospeleological treatise that incorporates modern views in that area of knowledge. He rightly begins by providing a historical context about the history of the field, more importantly, details of the development of that particular branch of science in China, with a lot of valuable information never published outside his country. Dr. Liu also provides the abiotic factors that create the unique nature of caves around the world, factors many times sidelined in biospeleology.

Part two of the book is dedicated to surveying the biodiversity in caves. That is an important step not only because it gives a comprehensive view of the wide range of organisms inhabiting caves but also because it includes plant diversity. Unlike many other researchers that tend not to include these species into their understanding of cave ecology, Dr. Liu has them as part of the cave biota because they play an essential role in such ecosystems' ecology.

Part three of the book is dedicated to covering many aspects of the ecology of caves, which particular emphasis on the role of bats as a significant source of energy in caves, a critical consideration for the study of tropical and subtropical caves.

Part four shows that Dr. Liu takes a broad view of caves far from typological thinking by incorporating other aspects of cases very rarely dealt with in biospeleology such as archaeology and tourism. The latter is a crucial one because more and more, we have been accumulating data that show how badly managed caves open to tourism have negatively influenced these fragile ecosystems.

The book concludes with a consideration of cave conservation, providing more holistic views than those generated in the usual literature.

In summary, Dr. Liu should be applauded for providing these perspectives, which are rarely found in other publications. I hope that this book is soon translated into English, so his views become more widely known.

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① Romero A, Zhao Y, Chen X. 2009. The hypogean fishes of China. *Environmental Biology of Fishes*, 86(1): 211-278.