

Book reviews

Identification Guide of Freshwater Macroinvertebrates of Spain, by Javier Oscoz, David Galicia and Rafael Miranda (Eds.), 1st Edition., 2011, XXI, 153 p., 43 illus. in color., 300 pages, Publisher: Springer, English, Hardcover, ISBN: 978-94-007-1553-0, Publication Country: Netherlands, Dordrecht.

This book is a reference publication for all researchers interested in the freshwater macroinvertebrates of Spain (Iberian Peninsula). There is an obvious interest in the use of this particular group of animals to serve as biological indicators, especially when Europe is near to the dead line by which the targets set by the Water Framework Directive (2000/60/EC) need to be met. Recent studies on macroinvertebrates are abundant, but frequently involve just a partial update of a few families. There are a few useful studies for the accurate identification of the specimens obtained in field surveys or monitoring studies; unfortunately, these tend to be poorly illustrated.

The present book is comprised by 3 chapters. Chapter 1 presents a general introduction to the identification of macroinvertebrates, with emphasis on the management of river systems and the correct identification of these animals in field surveys. A very valuable part of this chapter is the description of the photographic methods used, which are *state of the art techniques* and as such have allowed for photographs of a truly exceptional quality. A remarkable aspect was the authors' dedication to photograph each of the specimens that might be useful when working on the identification of macroinvertebrates. This is sometimes difficult because many groups are scarce, some specimens are small, and their conservation often leads to substantial modification of shapes and colours. However, this was not an obstacle for the authors, who carried out an impressive and careful job taking digital photographs using modern equipment and the latest software, so that pictures have the highest possible contrast and focus. This meticulous effort resulted in beautiful as well as useful pictures.

Chapter 2 includes keys to identify macroinvertebrates present in the Iberian Peninsula (and some absent which were included because of their interest) . The keys are accompanied by plates with photographs of the *habitus*, as well as essential details for identification. This allows for a rigorous use of the keys, which facilitate the work of experts, and encourage people who are taking the first steps into the world of freshwater macroinvertebrates identification. The hierarchy of the keys (14 in total) is remarkable, with a "major groups" key that facilitates a quick identification even from a hypothetical total lack of knowledge in systematics. In addition, keys for adults or larvae in groups where this is necessary are provided.

Chapter 3 covers Taxa Description and Biology. In this chapter some of the most relevant researchers for each group of Iberian freshwater macroinvertebrates (31 researchers) collaborated. This has provided a fair balance between the quality and extension of descriptions. This section includes 146 families belonging to 30 orders, showing the magnitude of the work, especially in terms of the photographic effort.

This book will be very useful to entomologists and other researchers in the field of aquatic biology, especially those working with biological indicators. It is an example of how the researchers' activity can contribute to applied areas, in this case environmental management and specifically the monitoring and management of freshwater quality.

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