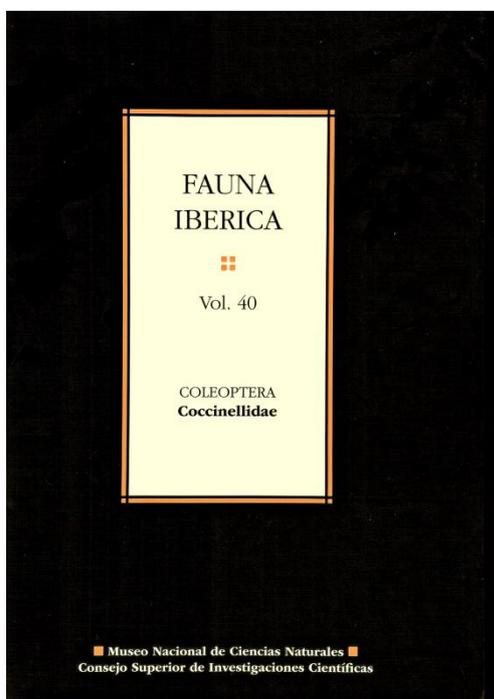


Book Review

Eizaguirre, S. 2015. Coleoptera, Coccinellidae In: Fauna Iberica vol. 40. Ramos . M.A. *et al.* (Eds) . Museo Nacional de Ciencias Naturales. CSIC Madrid. 514pp. ISBN: 978-84—00-0710-0



While this volume is written in Spanish, except the scientific names which are in Latin, I believe that biodiversity is also “language” (see Pimm 2000). Most representatives of the Coleoptera family to which this work of the “Fauna Ibérica” Series devotes its attention are commonly known by the Portuguese public as “joaninhas” and in Anglo-Saxon culture as “ladybugs” or “ladybirds”. As the author of this work says, this group of beetles is one of the few exceptions in terms of the sympathy that the people in general have for insects. Many cultures around the world incorporate these small beetles in their popular traditions, associating them with fecundity, the spread of good news, good luck, etc. In this monograph the author offers us a modern taxonomic approach to the Coccinellidae present in the Iberian Peninsula and Balearic Islands (121 species), associating faunistics information for each species/subspecies, with emphasis on the Spanish territory. Thus, it begins with a review of its systematics and biogeography, followed by some

chapters on the morphology and anatomy of the imago, namely on the male and female genitalia and larval morphology (six main types). A chapter on the natural history of these beetles incorporates information on quiescence, reproduction, myrmecophily, defence mechanisms, parasitism, diet, cannibalism, phototaxis and their use in biological control projects. Perhaps, due to its more taxonomic scope, the work has not a chapter dedicated to aspects of sampling and capture, conservation and study techniques.

The bulk of the volume is then devoted to the detailed description of all *taxa*, from the subfamily to the species and subspecies level. Within the classification of the groups analysed, the author provides identification adult keys at all taxonomic levels, from subfamily to species/subspecies. The descriptions are clear, providing drawings of the genitalia and spermathecal parts of the female reproductive system and sometimes even of other structures (e.g. antennae, maxillary palps, abdomen) for most species of the subfamilies Chilocorinae and Scymninae and sporadically for some species of other subfamilies (Microweiseinae, Sticholotidinae, Epilachninae and Coccidulinae). However, the description of the Coccinellinae species is not accompanied by the drawings of the reproductive apparatus mentioned above. It is worth highlighting the quality and detail of the drawings presented, which greatly contribute to the correct identification of each *taxon*. For each species, information is given on its geographic distribution, both worldwide and in the context of the Iberian Peninsula plus the Balearic Islands, as well as on biological and ecological aspects. Comments on the distribution of species in the Iberian Peninsula do not follow an analogous typology. Sometimes the author mentions the localities of the material examined, other times he indicates a less specific distribution (e.g. north of the Peninsula, Portugal, etc.), so there still seems to be a certain heterogeneity regarding this topic (see review of “Fauna Ibérica” for other Coleoptera families (e.g. Serrano 2013). Eventually, distribution maps would be a valuable tool to complement this issue. Although the work does not cover Macaronesia, it can also be useful for entomologists interested in this Biogeographic Region, as many of the species treated here also occur in the

Azores, Madeira, Canary and Cape Verde archipelagos, with emphasis on the first two. Indeed, almost all species that are not Macaronesia endemics can be found in this work (see Oromi *et al.* 2005, 2009, 2010; Boieiro *et al.* 2008).

The volume ends with around 717 bibliographic references, more a very useful appendix on synonyms and combinations, as well as an index of all Iberian *taxa* (including the Balearic Islands). Finally, further an annex with a set of 14 illustrations with the habitus and chromatic forms of all species/subspecies, with the cryptic variation of some species, enriches this work.

Due to its didactic and scientific contribution to the knowledge of this Coleoptera family, and also for what was left to be mentioned, we have no doubt that this is a reference work for anyone dedicated to the study of the Coccinellidae of the Iberian Peninsula and Balearic Islands.

REFERENCES

- Boieiro, M., A.R.M. Serrano and A.M.F. Aguiar 2008. Coleoptera. Pp. 308-327 in: Borges, P.A.V., C. Abreu, A.M.F. Aguiar, P. Carvalho, R. Jardim, I. Melo, P. Oliveira, C. Sérgio, A.R.M. Serrano and P. Vieira (Eds). *A list of the terrestrial fungi, flora and fauna of Madeira and Selvagens archipelagos*. Direcção Regional do Ambiente da Madeira and Universidade dos Açores, Funchal and Angra do Heroísmo. 438pp.
- Oromí, P. S de la Cruz and M. Báez 2009. Coleoptera. Pp. 254-301 in: Arechavaleta, M., S.M. Rodriguez, N. Zurita and A. García (Eds). *Lista de especies silvestres de Canarias. Hongos, plantas y animales terrestres*. Gobierno de Canarias, 577pp.
- Oromí, P., J.L. Martín, N. Zurita and A. Cabrera 2005. Coleoptera. Pp.78-86 in: Arechavaleta, M., N.Zurita, M.C. Marrero and J.L. Martín (Eds). *Lista preliminar de espécies silvestres de Cabo Verde (hongos, plantas y animales terrestres)*. Consejería de Medio Ambiente y Ordenación Territorial, Gobierno de Canarias. 155pp.
- Oromí, P., A.R.M Serrano and P.A.V. Borges 2010. Coleoptera. Pp. 222-232 in Borges, P.A.V., A. Costa, R. Cunha, R. Gabriel, V. Gonçalves, A.F, Martins, I. Melo, M. Parente, P. Raposeiro, P. Rodrigues, R.S. Santos, L. Silva, P. Vieira, V. Vieira (Eds). *A list of the terrestrial and marine biota from the Azores*. Princípiã, Cascais. 429pp.
- Pims, S. 2000. Biodiversity is us. *Oikos* 90: 3–6.
- Serrano, A.R.M. 2013. Crítica de livros. Otero, J.C., 2011. Coleoptera, Monotomidae, Cryptophagidae. En: Fauna Ibérica, vol. 35. Ramos, M.A. et al. (Eds). Museo Nacional de Ciencias Naturales. CSIC. Madrid. 365 pp. ISBN: 978-84-00-09386-0. *Boletim da Sociedade portuguesa de Entomologia* 8 (13): 254–255.

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