

Paulo C. Alves    Nuno Ferrand    Klaus Hackländer (Eds.)

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Lagomorph Biology  
Evolution, Ecology, and Conservation

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# Lagomorph Biology

## Evolution, Ecology, and Conservation

With 78 Figures, 3 in Color, and 21 Tables

 Springer

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## Preface

The idea to publish this book was born at the 2nd World Lagomorph Conference in Vairão, Portugal, in July 2004. Twenty-five years after the 1st World Lagomorph Conference, a vast amount of literature on this mammalian taxon had been published and it was time to bring together researchers from all over the world to present and discuss the latest knowledge about hares, rabbits, and pikas. After the first announcement for the meeting we received several encouraging e-mails, among them a very special one:

*“We want to offer you and your committee congratulations and best wishes on holding the 2nd World Lagomorph Conference in Portugal 25 years after the 1st World Lagomorph Conference in Canada in 1979. The world’s lagomorph workers are a large, widely separated group with broadly different research programs, but, as Guelph showed, form a strongly united group with common interests when they get together like this. A statement on the present position of world lagomorphs, and its publication, are both timely and immensely valuable.*

*Good luck to you. Yours fraternally,*

*Ken Myers, Australia, and Charles McInnes, Canada,  
Convenors, 1st World Lagomorph Conference, Guelph, Canada, 1979”*

The approximately 150 participants from over 27 countries and all continents created a great atmosphere in Vairão, and the discussions promoted by the numerous talks, posters, and workshops certainly increased considerably the enthusiasm in working in such a fascinating mammal group. At the end of the conference, nearly all colleagues recognized that there is an urgent need to provide a comprehensive overview on the current fields in Lagomorph research. Therefore, we asked all participants in Vairão to submit manuscripts on their scientific work. As we did not intend to produce a classical conference proceedings, we also encouraged the participants to write reviews on some important issues, and we then made a peer-reviewed selection of the various topics. This book contains 26 contributions covering different topics in Lagomorph biology. All chapters are organized into sections. The first chapter, “Introduction to the Lagomorpha” by Joseph

Chapman and John Flux is an updated version of the introduction done in 1981 (Myers and McInnes 1981, Proceedings of the World Lagomorph Conference held in Guelph, Ontario, August 1979, University of Guelph). Here the reader will be introduced to the main aspects of taxonomy, ecology, behaviour, and conservation in Lagomorphs. In addition, the authors present a historical overview on the research activities in these fields.

Then, four chapters will highlight some reviews and aspects in *Palaeontology and Evolution* to understand how humans have contributed to the nearly world-wide distribution of rabbits and hares and to demonstrate the state-of-the-art in modern phylogenetics and phylogeography. In the section *Population Ecology and Dynamics* readers will gain insight into the general role of Lagomorphs in the ecosystems, how environmental conditions affect populations, and how scientists try to uncover the mechanisms of population dynamics. In the section that follows, *Physiology and Behaviour*, we will get deeper into Lagomorph biology and learn about reproduction and mother–young relationships as well as interspecific competition between Lagomorphs. Another major factor affecting population dynamics is covered in the section *Diseases*, in which the authors present all the current knowledge on important viral diseases and why these viruses are of interest for conservation and pest control. As some Lagomorph species are highly endangered while others are treated as pest, in the section *Conservation and Management* a number of chapters will contribute to a better understanding of this apparently antagonistic treatment of Lagomorph species. Here, readers will be updated on the current conservation status of each species and learn why some selected species should be managed and how this should be done.

We close the book by highlighting those aspects of Lagomorph biology that have been improved over the last 25 years, and then follow with some open aspects that should be, in our opinion, developed in the future.

This book evolved with the help of many colleagues who assisted in reviewing the submitted manuscripts. We want to thank Vilmos Altbäcker, David Hik, Karen Hodges, Robyn Hudson, Diana Pöttschacher, Toni Lavazza, John Litvaitis, Jérôme Letty, Pierre Mein, Dennis Murray, Greg Mutze, Benoïst Schaal, Ferdy Rühle, Thomas Ruf, Andrew Smith, Becs Smith, Phil Stott, Jean-Denis Vigne, and Dan Williams. In addition, we appreciate the support of the team at Springer Heidelberg, especially Ursula Gramm and Dieter Czeschlik.

Paulo C. Alves, Nuno Ferrand, and Klaus Hackländer

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