

1. Record Nr.	UNINA9910298286803321
Titolo	Processionary Moths and Climate Change : An Update // edited by Alain Roques
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015
ISBN	94-017-9340-9
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (440 p.)
Disciplina	551.6 570 595.7 613
Soggetti	Entomology Climate change Forestry Public health Climate Change/Climate Change Impacts Public Health
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Preface de Houiller -- Acknowledgements -- 1 Introduction -- 2 Natural history of the processionary moths (Thaumetopoea spp.): new insights in relation to climate change -- 3 Climate warming and past and present distribution of the processionary moths (Thaumetopoea spp.) in Europe, Asia Minor and North Africa -- 4 Genetic diversity and structure at different spatial scales in the processionary moths -- 5 Modeling the spatio-temporal dynamics of the pine processionary moth -- 6 Insect – Tree interactions in Thaumetopoea Pityocampa -- 7 Ecological responses of parasitoids, predators and associated insect communities to the climate-driven expansion of the pine processionary moth -- 8 Medical and veterinary impact of the urticating processionary larvae -- 9 Development of Environment-Friendly Strategies in the management of Processionary Moths.
Sommario/riassunto	Because of its peculiar biology, its negative impacts on forestry, and its

urticating larvae affecting human and animal health, pine processionary moth has largely been studied in many European countries during the last century. However, knowledge remained scattered and no synthesis has ever been published. Moreover, the predictions sometimes appear inconsistent with the present situation where warming up is triggering the expansion in both latitude and altitude of this species showing a winter larval development very sensitive to weak variations in temperatures. Thus, this forest pest is turning to an urban sanitary threat. Since the IPCC retained the moth as one of the two insect indicators of climate change, filling this knowledge gap became increasingly important. Successive projects developed since 2000 at the European and French levels (ANR URTICLIM) made large progresses in characterizing the processes underlying past, present and future moth expansion, in precisizing the adaptive mechanisms acting during expansion, in predicting the risks for specific biodiversity as well as for human and animal populations, and in identifying management methods adapted to the colonized areas. The international network PCLIM (International research network about the adaptive response of processionary moths and their associated organisms to global change') was then founded by INRA in 2011, with the publishing of this book as a major target. It associates 101 authors from 22 countries of Europe, Minor Asia and North Africa, combining all the concerned research fields (entomology, ecology, genetics, mathematical modelling, medical and veterinary science, pest management) in a multidisciplinary approach of the natural history, genetics, phylogeography, impact on all organisms (tree, insect biodiversity, humans, animals), risk modelling, and management strategies for pine processionary moth. Besides, the major biological patterns of the related processionary species are detailed.
