

## BOOK REVIEW

**INTEGRATED PEST MANAGEMENT FOR CULTURAL HERITAGE, 2015, David Pinniger.** (Archetype Publications, London, Great Britain, 180 pp.) Are institutions able to save money with Integrated Pest Management (IPM)? Can new pest species infest our collections as a result of climate change? What pesticides are still used today to treat pest-infested objects, and what new alternatives do we have, such as the use of parasitic wasps? Many new, important questions and subjects are covered in this updated book by David Pinniger, in addition to state-of-the-art information on pest prevention, identification, and treatment.

Pinniger's first version of this book was published in 1989, titled *Insect Pests in Museums*. Forty-five pages long, it was written for museum staff working with pests in museums, libraries, and historic buildings. The work was a response to the needs of the conservators and curators who deal with insect problems in their collections, many of whom also received training from Pinniger and his colleague Bob Child in insect identification, pest prevention, treatment, and developing IPM concepts. In 1994, a second edition was published with 13 added pages. A third edition, 115 pages long, was published in 2001, titled *Pest Management in Museums, Archives and Historic Houses*. Most IPM professionals have this version on their shelf from the time they enter the field; I got my copy in 2002. This version, with illustrations by Annette Townsend and a chapter on rodents by Adrian Meyer, covered all important aspects of IPM in specimen collections and cultural heritage. The chapters in this new version, which is 142 pages, are the same as in previous editions: (1) Introduction to Integrated Pest Management in Cultural Heritage; (2) Insect Pests; (3) Insect Detection and Monitoring; (4) Prevention of Insect Infestation; (5) Control of Insects; (6) Rodents and Birds; and (7) Implementing IPM.

New to the latest edition are color photographs and illustrations, which are often combined with the original drawings by Townsend to help to identify the pests by picture. A few additional pest species are discussed. An identification key is not included in the book. This might be unnecessary for most people using this practical working handbook but might be desired by some entomologists. Identification keys indicate characters for species identification, but for conservators or curators, comparing images with trapped specimens is most likely the best and most efficient way for pest identification. Some information, such as species distribution, new species arriving in individual museums, and the problems of pests in historic houses, is focused primarily on the UK, where IPM has been applied for over 20 years. This shows how information gathered by long-term monitoring can be used to track pests (see also the database at <http://www.whatseatingyourcollection.com>). Citations have

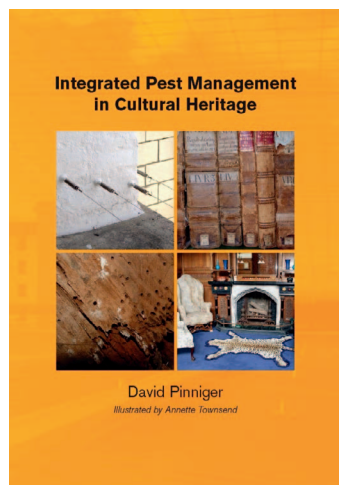


Figure 1. Cover of the book by David Pinniger.

been added to the text, as are a reference list and new aspects of IPM such as risk areas, climate change effects, and new treatment methods, such as biological control.

The chapters on pest trapping and detection, physical and chemical control measures, and concerns about pesticide use were rewritten. Additions to the text are often helpful, especially for the practical application section, such as guidelines for pest recordings. In addition Pinniger demonstrates that IPM is a more cost-effective solution than pesticide application to the complex problem of pest control. Many heads of museums and collections may use this fact to justify funding an IPM program, which includes staff training, pest monitoring, setting priorities, and improving pest prevention, in addition to buying this book.

Pinniger is an entomologist and international IPM consultant who has contributed to the development and progress of IPM in museums throughout the UK and worldwide. Retired from his former profession, he actively publishes, gives lectures at conferences, and leads IPM workshops in the UK and abroad. I recommend not only acquiring this book to inform yourself about IPM, but also attending one of his workshops, where he uses practical exercises presented in the book.—*Pascal Querner, University of Natural Resources and Applied Life Sciences, Department of Integrated Biology and Biodiversity Research, Institute of Zoology, Gregor-Mendel-Straße 33, A-1180 Vienna, Austria*