The preservation of cultural heritage damaged by anobiids (Insecta, Coleoptera, Anobiidae)

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Abstract.

The paper presents the research done in 61 locations (memorial houses, libraries, churches, monasteries, storage facilities for heritage objects), focusing especially on the species of Anobiidae that damage the heritage goods, the type of damage they do, as well as testing some methods of pest control in the context of preserving the cultural heritage. 9 anobiids have been identified: Anobium punctatum, A. pertinax, Lasioderma serricorne, Oligomerus ptilinoides, O. brunneus, O. retowskii, Ptilinus pectinicornis, Stegobium paniceum and Xestobium rufovillosum. In some churches Ernobius mollis and Priobium carpini have been collected too, without being identified in the damaged objects. The O. retowskii and O. ptilinoides species were discovered for the first time as pests that damage the heritage goods in Romania. The O. brunneus species was discovered as well for the first time in Moldova as a pest that damages the cultural collections. The Anobbidae attack on the heritage goods was found in all the locations, the most frequent species being Anobium punctatum in the objects made of wood and S. paniceum in the old book collections. Monitoring the S. paniceum species was performed by means of adhesive and pheromones traps. The pest control was done by means of mechanical, physical (freezing) and chemical methods (pyrethroids, basil and absinth essential oils).

Key words: anobiidae, cultural heritage, preservation

1. Introduction

Faunistic and taxonomic research

The study of anobiids was started by C. Linnaeus who in *Systema Naturae* (1758) included *Ernobius mollis, Anobium pertinax, Ptilinus pectinicornis and Stegobium paniceum* in the *Dermestes* genus. In 1767 Linnaeus transferred some species from the *Dermestes* genus to the *Ptinus* genus. In 1774 Charles de Geer describes the *Anobium punctatum* species and adds the *Ptinus rufovillosum* species to the genus.

Towards the end of the 18th and during the 19th centuries different authors enlarged the number and ranked the species and genera of this family. Müller (1764) was the author of the *Ptilinus* genus. In 1792 the *Dorcatoma* genus was created by Herbst. Latreille (1809) formed the *Xyletinus genus*, one of the richest genera of this family. Jaquelin du Val (1860), Mulsant & Rey (1863-1868),