

# Developing and implementing an Integrated Pest Management (IPM) concept in the Georgian National Museum, a cooperation with the National Museums in Berlin



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Fig. 1-2: Exhibitions and storage (Fig. 3) space in the Oriental Art Collection in the Fine Arts Museum, Georgian National Museum in Tbilisi.

## Introduction

The Georgian National Museum is a complex of eleven museums and two research institutes. Together they constitute a rich network devoted to the fine arts, archaeology, ethnography, and natural history. As part of an **European Union Twinning Project (2010-2012)** the National Museums of Berlin support the institutional development of the Georgian National Museum in Tbilisi. Work was started in the orient collection of the Janashia Museum and the Fine Arts Museum (with a total of 230.000 objects). The Oriental Art Collection (5.000 objects) is exhibited and stored in 370 m<sup>2</sup> under unfavourable conditions (Temp: 8 C-29 C and 59-80% RH) and is a pilot case study in the project to evaluate the collection condition and implement an Integrated Pest Management (IPM) program. The valuable collection comprise of many different materials, a large carpet and textile collection, wood objects, an Egyptian mummy and a mummy case, paintings and drawings.

**We present here the first results from the monitoring in 2010 in exhibition and storage spaces in the Georgian National Museum.**



Fig. 4-5: Open window and Egyptian mummy case in exhibition space in the Oriental Art Collection.



Fig. 6-7: Placing the pheromone traps for webbing clothes moths (*Tineola bisselliella*) in the collections.

## Material and Methods

On July 23rd, 2010, 75 stick (or blunder) traps and 40 pheromone traps for clothes moths (*Tineola bisselliella*) were placed in different rooms of the National Museums of Georgia for the evaluation of the occurrence of insects in both storage and exhibition areas of the Oriental Art Collection in the Fine Arts Museum and the Janashia Building (6<sup>th</sup> and 7<sup>th</sup> floor). The traps were checked one moth later.

## Results

In the first month of the monitoring six pest species were found in the exhibition spaces of the Oriental Art Collection and storage areas: **Case-bearing clothes moths (*Tinea pellionella*), webbing clothes moths (*Tineola bisselliella*), biscuit beetle (*Stegobium paniceum*), furniture beetle (*Anobium sp.*) and carpet beetles (*Attagenus sp.* and *Anthrenus sp.*).**

To treat the infested objects a **nitrogen tent will be build** in the museum and a **freezing chamber will be bought**. Other challenges are the bad state of the building, climatic conditions, regular cleaning and house keeping and the fungal growth on objects. **Museum staff was trained in IPM and its implementation.** In 2012 also further collections will be monitored with insect traps to get a better insight on the presence of pest species.



Fig 8-9: Infested wood objects from a wood boring beetle (probably *Anobium sp*) in the Janashia building.

## Conclusion

We could show that even during a short time of insect pest monitoring a large number of pest species can be detected and problems found. More collections of the Georgian National Museums will be covered by a survey in 2012.

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