

Infestation and reinfestation of relining adhesive used for easel paintings by *Stegobium paniceum*

Schedule: research began in 2004

Programme description

The multidisciplinary research programme on *Stegobium paniceum* aims to understand all factors responsible for deteriorations observed on paintings having been subjected to restoration treatments using starch-based adhesives (relining and edging) based on a study of works found in the PACA region.

It encompasses the development of a method for monitoring infestations (source, evolution, seasonal variations, annual progress, etc.) within an institution and its region using geographic information system (GIS) methodology and on the object itself (image analysis).



Stegobium paniceum's life cycle

From left to right : egg, larva, nymph, imago (adult) - Photo : Fabien Fohrer, CICRP.

This programme also involves the examination of:

- the insect's life cycle
- the gustatory preferences of *Stegobium paniceum* through studies of the main adhesive recipes most frequently used
- the development of a mobile disinsectisation unit that would be easy to use in cultural institutions
- the development of a system for the monitoring and control of infestations
- a procedure for photographic follow-up through computer analysis of images of flight holes on objects
- characterisation and composition of paste adhesives

The portal

In conjunction with this research programme, an extranet portal has been designed and developed to further the inter-institutional approach and offer participants access to collaborative tools.

To register, contact Katia Baslé by sending an e-mail to the address provided on the portal's contact page.

Partners

INRA, Montpellier: Specialised bibliographic research (specialised entomology databases), identification of insects on the basis of reference insect collections and publication of specialised articles relating to insect species found in heritage collections.

INRA, Bordeaux: Expertise in the study of insects present in stored food products and in particular *Stegobium paniceum*, protocol for the pinpointing of infestations in food products using radiography (as well as the acoustic method), and preparation of a protocol for conducting experimental tests.

Université de Perpignan TIG Carcassonne: GIS tool for the assessment and implementation of a geographic information system for the evaluation of works in order to locate and count flight holes and track their development, creation of an environmental geographic information system.

Université de Bordeaux III (CRP2A): Development of a semi-rigid and modular enclosure for the anoxia treatment of works using the mixed method (nitrogen and oxygen absorbers)

City of Marseille: Direction des Musées and Health Department, Musée des Beaux-Arts

Moulins Panzani, Moulins Storione, Etablissements Aget: Etiological survey sites (study of causes of infestation) and preparation of an environmental geographic information system

Restorers: Aubert Gérard, Philippe Hazael-Massieux, Grazia de Terris, Roch Payet, Aline Raynaud, Alain Renard

Anoxia treatment practitioners: Michèle Günn (Musée du Quai Branly), Laurent Collovati, Jean Melot