

FREEZING AS AN ERADICATION METHOD FOR INSECT INFESTATIONS IN HISTORIC TEXTILES

All growth stages of textile insect pests, including eggs, larvae and adults of clothes moths and carpet beetles, are killed by freezing. To be effective, the process must be carried out correctly or the insects will adapt to the cold temperatures and survive.

- ❖ Use a chest-type freezer that reaches -20°C and that does not have a frost-free cycle.
- ❖ Enclose the textiles in clear polyethylene sheeting or bags, and seal them securely. Reduce excess air in the enclosure.
- ❖ For large textiles, fold them so they are in a thin layer to increase the speed of freezing.
- ❖ Have the textiles at room temperature before putting them into the freezer.
- ❖ Freeze for at least one week.
- ❖ Allow the textiles to come to room temperature naturally, over the course of a day or more.
- ❖ Keep the textiles enclosed in the plastic for several weeks to enable monitoring to ensure that the treatment was successful.
- ❖ If there are signs that the treatment was not effective, repeat the freezing process.
- ❖ Vacuum the textiles thoroughly before returning them to storage.

For more information, see:

Mary-Lou Florian, [Heritage Eaters: Insects and Fungi in Heritage Collections](#), James & James, London, 1997.

Thomas J. K. Strang, "Controlling Insect Pests with Low Temperature", CCI Notes 3/3, Canadian Conservation Institute, Ottawa, 1997.

<http://www.cci-icc.gc.ca/crc/notes/index-eng.aspx>

© Deborah Bede 2011