Preservation Newsletter—May, 2018

These are the Creatures in your Neighborhood

Integrated pest management [IPM] is a strategy for dealing with insects and other pests that does not involve the use of poisons that can prove harmful to staff and to collections. IPM involves monitoring for pests, targeting treatment only where it is needed, and modifying the environment to discourage pest attacks. The Center's very first comprehensive integrated pest management monitoring program was recently instituted in the building's collections storage and maintenance areas; this April marked the first quarterly collection and analysis of the monitoring data. Bell Laboratories' Trapper Monitor and Insect Traps were placed in 60 locations where collections materials are stored or used. These traps contain no chemicals or pheromones and are completely harmless to both humans and collections. The traps are routinely inspected visually by Preservation and Partner staff and act as an early alert system to prevent insect incursions from blossoming into infestations.

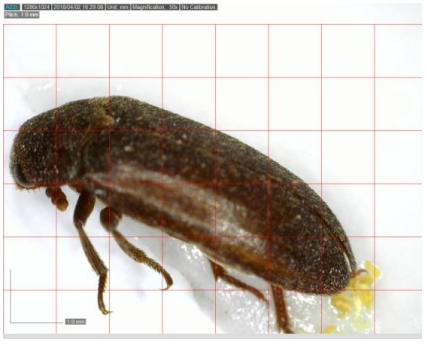
So…what did we catch?

We caught some bugs! Not many, and mostly harmless to collections. All buildings, especially urban buildings that contain a large amount of paper, will have some insect intruders—our goals are to set a tolerance limit and to make sure that we make life especially unpleasant for any insects that blunder into the areas where we keep collections—especially those insects that might be interested in eating our collections. We do this by:

- Keeping our storage and work locations relatively cool and dry;
- Limiting water sources
- Keeping food, plants, dust, extraneous packaging material, dead insect bodies, and other sources of insect nutrition out of storage and work locations;
- Sealing cracks, keeping windows closed, maintaining door gaskets, and otherwise limiting the ways that insects can get into the places where we store and use collections.
- Keeping collections materials in cabinets and boxes

Meet some of your creepy, crawly neighbors

Common furniture beetle—this dark brown beetle is 3-5 mm long and has a wedge-shaped head. The larvae will bore into and eat wood for the 2-3 years it takes for them to reach the adult stage. Eggs and young larvae will not survive if the relative humidity is maintained below 55%.

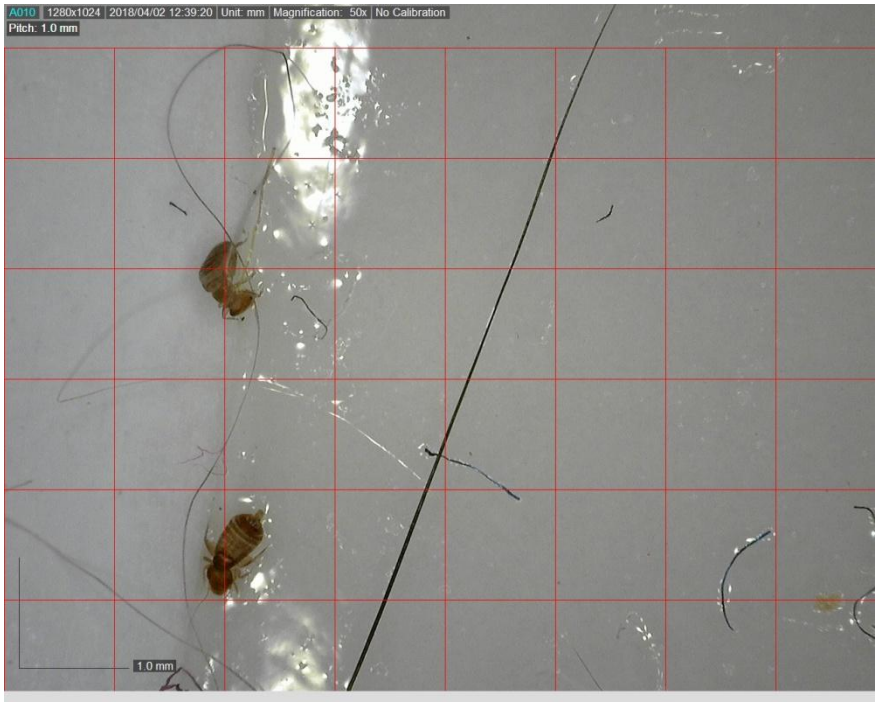


Odd beetle—is indeed very odd: the male of the species has wing cases which remain partly open while the female has no wings and looks like a louse. This insect will eat silk and wool.

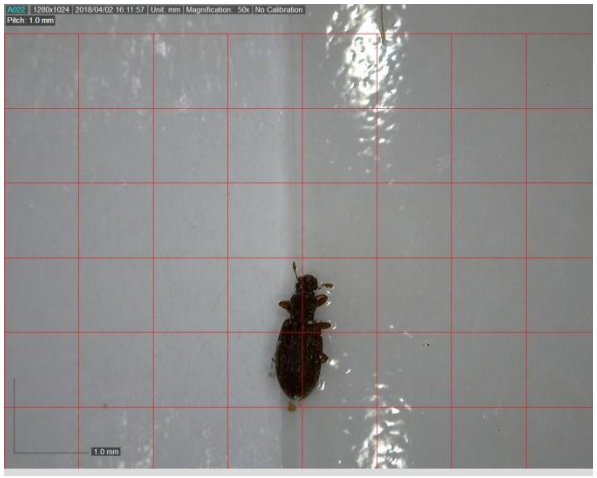
Carpet beetle—eggs hatch into short, fat, hairy larvae that are referred to as “woolly bears” (entomologist humor, I guess). As the larvae grow, they leave empty, hairy, cast skins which may indicate the first signs of a beetle attack. Larvae are voracious feeders and will rapidly demolish fur, feathers, and woolen textiles.

Book lice—one of the most common species found in buildings and one of the most troublesome. The adult louse is less than 1 mm in length and semi-transparent. They feed on the microscopic mold that grows on paper and board. There are no males, and the females do not require fertilization to lay eggs (!!!!). While they are not large enough to cause a

great deal of damage individually, large numbers can graze the surface of books and papers and their squashed bodies encourage mold growth. These thrive in high temperatures and relative humidity (>80degreesF; >65%RH).



Plaster beetles and spider beetles—these beetles eat mold and animal detritus. They do not actively harm collections, but may indicate that there is a moisture or fungal problem.



So far we have not noted any major infestations or damage to collections. Please contact the Preservation Department if you find insects on collections materials and don't hesitate to ask about anything that you find living in the stacks!

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