## **Booklice**

**Injury:** Booklice, sometimes called paper lice, are found in houses, warehouses, herbaria, insect collections, libraries, and in stored food, to name a few places. They are commonly found scurrying around books and papers, especially when they are stored in a damp location. Booklice usually cause negligible damage to commodities. They may become very annoying, however, by crawling over everything in the home. They prefer warm, damp undisturbed situations. Booklice feed for the most part on microscopic molds, but sometimes also upon the sizing of paper stored at high humidity and warm temperatures. Any manufactured material of plant origin (furniture, paper, books, etc.) when stored in damp places, could support molds or mildew and encourage booklice infestations. Booklice may become numerous during the spring and summer in homes, but may practically disappear during winter. We may attribute this to the fact that artificial heat in houses reduces the dampness and therefore the fungi on which they feed.



**Description:** Booklice are small, soft-bodied, transparent to grayish insects, usually about 1 mm (1/16") in length. The common species may have wings or wing pads. The abdomen and head are large, while the thorax or mid-section is narrow. Booklice have long segmented antennae. They belong to the insect Order Psocoptera, and the family Liposcelidae.

**Life History:** Booklice deposit white, oval-shaped eggs near a food source. The young, called nymphs, hatch from the eggs and begin feeding on molds. They may undergo three or four molts while growing up. If ideal conditions of temperature and moisture are met, the entire life cycle may take as little as 25 days. Since ideal conditions do not exist all year round, we usually do not see more than seven or eight generations per year.

Management: Since we believe that house-invading booklice feed primarily on microscopic molds, and are common in damp places, the utilization of methods to reduce dampness is a key factor in control. Ventilate and dry infested areas. Household products that are available to control mold and mildew in homes are also useful in reducing booklouse populations. When molds and mildew are cleaned up, the insects' source of food is gone. If needed treat with deltamethrin. Do not treat books directly with pesticides (Cornell Pesticide Guidelines for Managing Pests Around the Home, Cornell University Cooperative Extension, 2014).

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The New York State Department of Environmental Conservation (NYSDEC) Bureau of Pest Management maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products at <a href="http://www.dec.ny.gov/nyspad/products?0">http://www.dec.ny.gov/nyspad/products?0</a>.

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office. Read the label before applying any pesticide.

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