Pest Biologies

Ant adults have distinct elbowed antennae. They often nest in and around the home. The adults frequently leave and return to the nesting site to gather food for the colony. *Numerous species exist in the Pacific Northwest, but common species include the pavement, sugar, citronella, black garden, and formica ant.*

Clothes Moth adults are small insects that commonly infest closets. Larvae (caterpillars) are cream colored with a red head. They feed on various fabric materials—sometimes carrying around silken cases full of excrement and fibers. *The most common species is the webbing clothes moth, but the casemaking clothes moth can also infest homes.*

Dermestid Beetle adults are mobile and many species can fly. Larvae (shown on left) molt multiple times, leaving behind cast skins in their food source. Larvae are not as mobile but cause the most feeding damage. Once fully developed, larvae often seek wooden material to pupate in. *Common species include carpet, larder, and hide beetles.*

Flour Beetle adults can live for about a year. They are quite mobile as they search for food or a mate. Larvae have limited mobility. In a warmer environment they can go from egg to adult in as short as six weeks. Most adults do not fly, except for the confused flour beetle. *Common species include the red and confused flour beetle.*

Flour Moth adults are found in and around the pantry. The larvae (caterpillars) are the damaging stage and feed on a wide variety of foods. Larvae cannot chew through packaging, so the eggs are typically laid near a crack/crevice of certain foods in the pantry. *Common species include the Indian meal moth and the Mediterranean flour moth.*

Cockroaches prefer areas that are moist, dark, and warm. They can move fast and tend to hide. They are mostly active at night. Nymphs and adults look and behave similarly, but in some species, adults have wings. Roaches can reproduce quickly. *German, American, Oriental, and brown-banded cockroaches are common pest species.*

Weevils chew small holes into whole grains and then lay their eggs inside. Nearly sealed off inside the kernels, larvae are protected from most outside forces. Larvae feed from the inside, unable to move, until they pupate and then emerge as adults leaving the kernel to mate and lay eggs. *Common species include the granary and rice weevil.*

About This Guide

The purpose of this guide is to help residents in the Pacific Northwest to identify common insect pests that occur in pantries and kitchens. This guide is not meant to be all inclusive, but is meant to cover the most common-occurring species you may encounter. If you find a species that you are unsure of please contact your local county Extension office for further help.

How to Use This Guide

Every pest infestation may differ due to circumstances. It is helpful to find both adult and juvenile insects if possible (see adult and juvenile identification). Using these specimens and other clues such as the food source (see common diet chart) may help you identify the pest and then take appropriate action (see management chart). A magnification device, such as a hand lens, may help with the identification of insects.

THE AUTHORS—Jason Thomas, Extension Educator, UI Extension Minidoka County; Brad Stokes, Extension Educator, UI Extension Elmore County; Julie Buck, Extension Educator, UI Extension Bingham County

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PANTRY PEST GUIDE

Common Insect Culprits in Homes and Kitchens of the Pacific Northwest

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Adult Identification

Are the antennae at least 1/2 length of the entire body?

YES → 

COCKROACH

NO

Does it have a long snout like this? 

YES → 

WEEVIL

NO

Does it have elbowed antennae like this? 

YES → 

ANT

NO

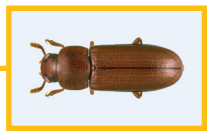
Is the body wedge shaped and/or covered in small fuzzy hairs?

YES → 

DERMESTID

NO

Is it reddish brown in color, approximately 1/8″ long and pill shaped?

YES → 

FLOUR BEETLE

NO

Is it mothlike in appearance?

YES → Use the Diet Chart (pg. 4) to determine potential moth species.

NO

Preserve the specimen in a container with rubbing alcohol or in the freezer and seal the container. Contact your local Extension office for identification help.

Juvenile Identification

Are the antennae clearly visible and at least 1/2 length of the entire body?

YES → 

COCKROACH

NO

Does it look wormlike, but with lots of long fuzzy hairs on it?

YES → 

DERMESTID

NO

Is it wormlike, legless, and the body bends in a C shape?

YES → 

WEEVIL

NO

Look for adult specimens and use the other charts and information included in this guide to help you resolve what species it may be.

Common Diet Chart

	Ant	Clothes Moth	Dermestid Beetle	Flour Beetle	Flour Moth	Roach	Weevil
Animal hides and skins (e.g., feathers, furs, leather, and taxidermy)			★				
Clothing (e.g., cotton, wool, or silk)		★	✓				
Sugar and common cooking spices	✓			✓	✓	✓	
Whole kernel grains (e.g., whole wheat, rice, corn kernels)	✓		✓	✓	✓	✓	★
Ground or broken grains (e.g., flour, cornmeal, corn grits)	✓		✓	★	★	✓	
Other human foods	✓			✓	✓	✓	
Dried dog food	✓			✓	✓	✓	

★ = preferred food

Management Chart

	Ant	Clothes Moth	Dermestid Beetle	Flour Beetle	Flour Moth	Roach	Weevil
Remove food crumbs and particles in cupboards, countertops, and floors.	✓		✓	✓	✓	✓	✓
Store food or susceptible products in airtight containers to prevent infestations.	✓	✓	✓	✓	✓	✓	✓
Check regularly for expired foods and discard foods past the expiration date.	✓	✓	✓			✓	
Seal cracks and holes in walls or cupboards to create physical barriers into your house or pantry.	✓		✓	✓	✓	✓	✓
Use baits labeled for target pest. Keep baits out of reach of pets/children. Baits are effective for roaches.	✓	✓	✓			✓	
Use pesticides labeled for the pest. Boric acid is effective against roaches and ants.	✓	✓				✓	
Use sticky traps for roaches or pheromone lure traps to monitor some moths or dermestids in the home.		✓	✓			✓	
Limit moisture and humidity in pantry areas (e.g., sealing leaky pipes).						✓	

Chart Key

DIET

- Animal hides and skins (e.g., feathers, furs, leather, and taxidermy)
- Clothing (e.g., cotton, wool, or silk)
- Sugar and common cooking spices
- Whole kernel grains (e.g., whole wheat, rice, corn kernels)
- Ground or broken grains (e.g., flour, cornmeal, corn grits)
- Other human foods
- Dried dog food

MANAGEMENT

- Remove food crumbs and particles in cupboards, countertops, and floors.
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- Use pesticides labeled for the pest. Boric acid is effective against roaches and ants.
- Use sticky traps for roaches or pheromone lure traps to monitor some moths or dermestids in the home.
- Limit moisture and humidity in pantry areas (e.g., sealing leaky pipes).