Home Invasion: Insects that Overwinter in Your House

College of Agriculture, Food and Environment
Entomology

Dr. Jonathan L. Larson
Extension entomologist

Our homes can be extremely attractive to arthropods

Food

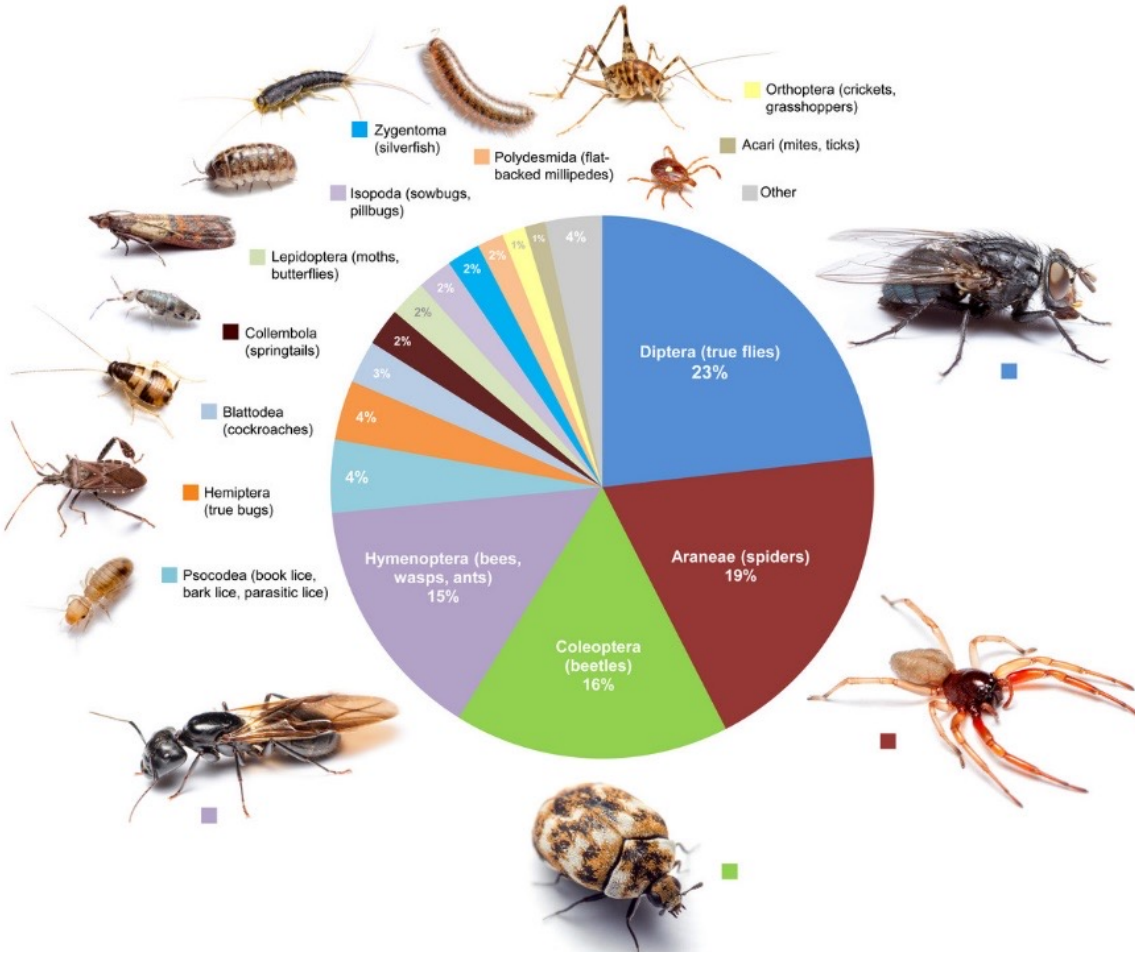
Water

Shelter

Breeding ground

As with all living things they need food, water, and shelter; we provide these in abundance in our domiciles

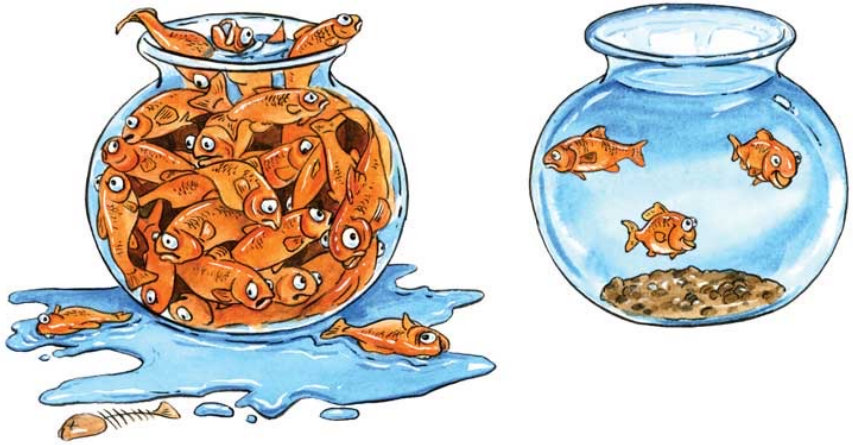
Recent research has shown that human dwellings typically have over 100 species of arthropods

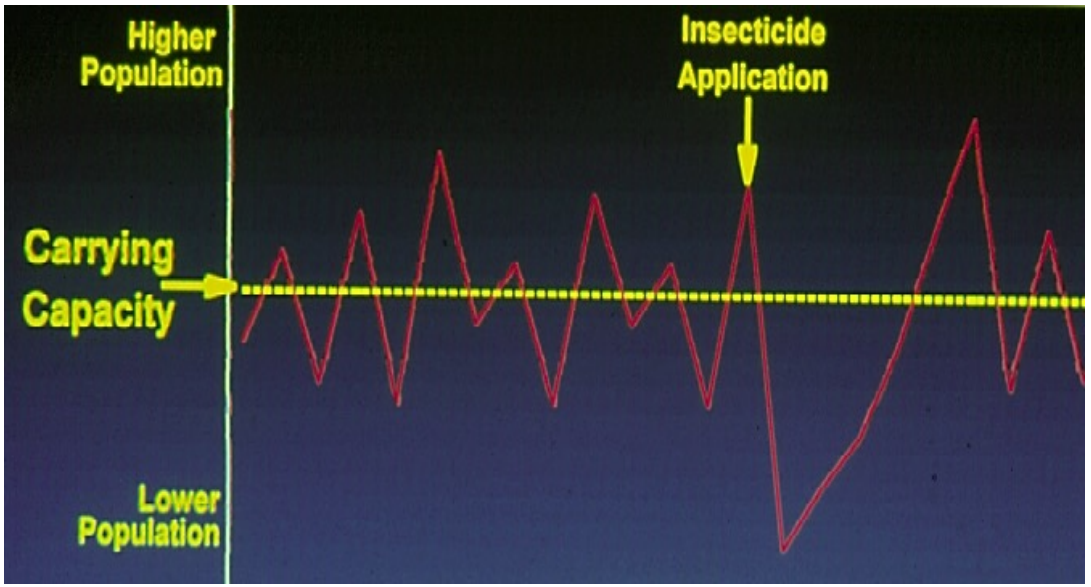


Some of these are more “pesty” than others, some we can go our whole life never meeting

Ants, cockroaches, termites, etc. can be serious issues for homeowners

These pests can be managed through elimination of sources of food and water



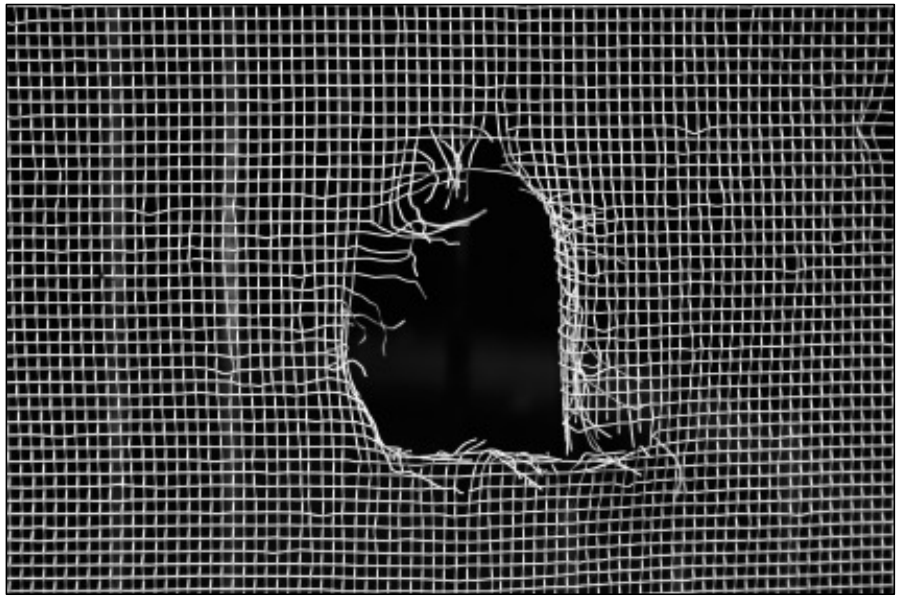


This integrated approach ensures that present populations are eliminated and curtails future issues as well

Cultural control methods are things we can do everyday to lessen pest pressure

Sanitation to remove food and water, emptying garbage regularly, limiting manageable shelter spaces

Securing the perimeter of homes with screens, caulk, etc. reduces the amount of pests inside



A pest outside is usually not a pest at all!

Some insects are more difficult to deal with once they get inside

These insects are using our homes as an overwintering site, they do not need food, water, or space to lay eggs

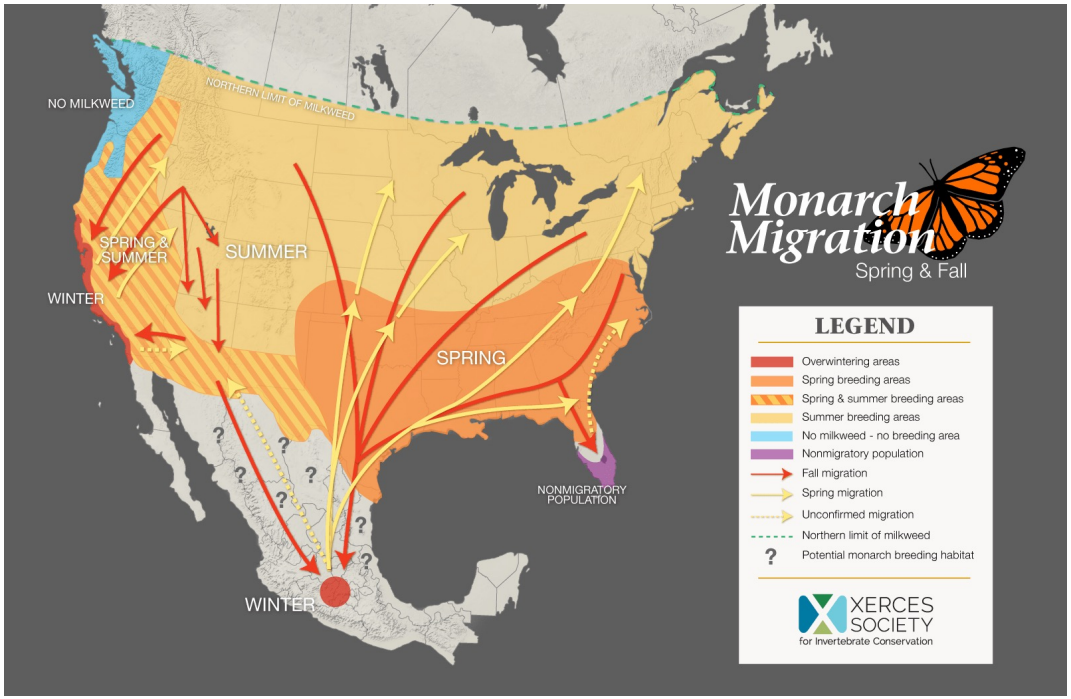
Insects do not tolerate cold temperatures well, in the winter they must come up with an “overwintering” strategy

This boils down to either avoiding cold temperatures or being able to survive them

To survive cold, some insects will use their bodily fluids to control freezing

These insects may be “freeze tolerant” or “freeze intolerant”

Some other species may actually migrate away from cold temperatures



Famous examples include monarch and painted lady butterflies

Finally, there are those that avoid freezing by finding a warm spot

Insects can find harborage in many spaces: deep in soil, in leaf litter, under logs, some may even construct a harborage

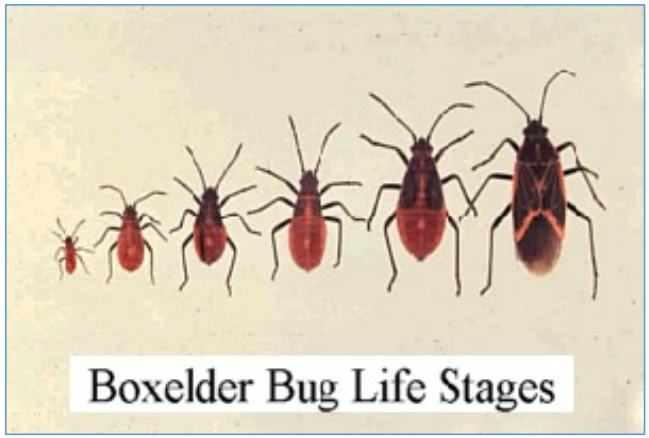
Our homes can mimic or even supplant some of these natural overwintering sites

Key attractions: Warmth, color, south/western exposures, height, and ease of access

Boxelder bugs around 1/2 an inch long and are black and red, 3 vertical stripes right behind their head

During the summer boxelder bugs move into seed bearing boxelder trees. They are found more commonly on female trees, may also go to ash or maple trees

Exhibit incomplete metamorphosis, nymphs start out all red and grow darker (also have a bright yellow dot on their back)



Egg, nymph, adult; nymphs are like adults but smaller

Can cause minimal damage to trees, but is considered more of a nuisance pest due to their invading homes in the fall

Adults move from overwintering spot in April-May and seek out boxelder trees and lay eggs in bark crevices in June/July

Nymphs develop over the summer and there can be 2 generations a year

As we head into September and October they make their way towards overwintering sites

They congregate on the south side of buildings, rocks, and trees

On homes they will find any nook or cranny and set up there for insulation from cold

They do not feed on house or people but can be smelly and sometimes stain fabric surfaces

Multicolored Asian lady beetles are invasive species but are beneficial predators in summer

They are also known as: Asian ladybugs, Halloween beetles, Asian beetle

Lady beetles all go through complete metamorphosis and tend to eat pests

Most species overwinter as adults in large aggregations under logs or leaf litter, but a house can be a nice substitute

Most species are famous for exhibiting “warning coloration” or aposematism

Lady beetles can reflexively “bleed”; they leak a foul smelling and bitter compound from their knees

Multicolored Asian lady beetle: Can be red, orange, yellow-orange, can have 0-19 spots

Identification can be made by finding the “M” on top of thorax

MALB was introduced to the US on purpose as part of biological control experiments

First introduced in CA in 1916, later introductions in the 80's led to establishment in Louisiana

In fact, it is sold as a retail bio control agent still

Though it controls pests like soybean aphid, there is concern that it feeds on and reduces native species

Other issues: This species will bite you if you handle it

No disease transmission and doesn't break the skin, still doesn't feel very good

MALB will also infest fall-ripening fruit, usually needs a wound to begin

They are also known to infest grapes and end up in wine vats causing “lady bug taint”

As temperatures drop and food dwindles MALB begins to move towards overwintering sites

They are attracted to light colored houses with large south or western facing exposures, prefer higher houses

They can find cracks and crevices and will enter concealed areas to wait out winter

Can end up in attics, wall voids, ceilings, crawl spaces, and soffits- do not feed or mate at this time

They can be annoying, noisy, and smelly

The reflexive bleeding can stain light colored objects, can also induce allergic reactions

Brown marmorated stink bugs are invasive stink bugs, introduced from Asia

First discovered in Allentown, PA in 2001- serves primarily as an ag pest feeding on fruits and veggies

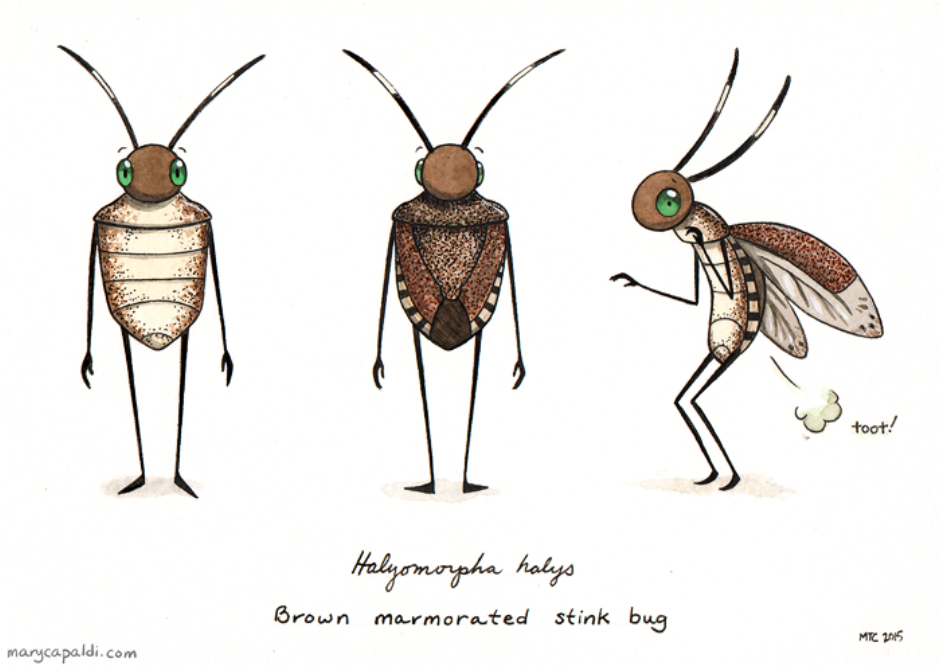
Name comes from its mottles brown and bronze appearance

They have smooth shoulders, white bands on the antennae, and a grey colored belly

Aside from being an ag pest, they love to venture inside of human buildings

Have been found in homes, office buildings, and warehouses

Once inside, they no longer feed or mate but are active on warmer days



They are smelly (coriander like odor) and some people are allergic to exposure

They prefer high and cool locations, may first infest soffits, attics, and siding

Like narrow spaces: cracks under/behind baseboards, around window and door trim, and around exhaust fans or lights in ceilings;

These incursions are true “invasions”; there can be thousands of BMSB in and on home

Reducing lights outside during peak flight (Autumn) will help

How do we deal with overwintering pests: Prevention is your greatest defense

Window and door caulk.

Gutter and flashing sealant.

Blacktop and roof sealant.

and west sides of the home

Install weather-stripping around doors and windows, replace rubber seals along bottom of garage doors, check screens, fix caulking gaps

Insecticide applications outside can be warranted; timing is key and its best to hire a pro

Homeowners can use bifenthrin around foundation and around windows as a preventive measure

If you find clusters of bugs outside trying to get in, simply spray them with soapy water

Soap destroys parts of their body and they quickly perish; low stain hazard, low toxicity for the environment

Indoors use a vacuum or broom to remove bugs, dead bugs attract other insects like carpet beetles

Indoor insecticide use is not advised when dealing with overwintering pests, particularly bug bombs which rarely work

Questions?

Jonathan L. Larson

jonathan.larson@uky.edu

@bugmanjon

Let me know if I can help in any way!