

# School & Home Integrated Pest Management (IPM) Newsletter – July 2015



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
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## Preparing Your School IPM Plan

New publication “[Preparing Your School Integrated Pest Management \(IPM\) Plan](#)” by Gouge, D. H., Stock, T., Nair, S., Li, S., Bryks, S., Hurley, J. and Fournier, A.

This document is intended to help you develop an implementable IPM Plan for your school or school district. This template is a combination of instructions, sample text and references. You can download a PDF file at

<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1669-2015.pdf>



We have also provided a modifiable template which can be downloaded at <http://cals.arizona.edu/apmc/westernschoolIPM.html#pubs>

Detailed information on the EPA IPM in Schools program is available on the Internet at: <http://www2.epa.gov/managing-pests-schools>

## Giant Mesquite Bugs

**Giant mesquite bugs** (*Thasus neocalifornicus*) are a common sight in desert southwest landscapes, particularly on mesquite trees during May-August. These impressively sized bugs

may also be found on other garden and landscape plants. **They cause no significant plant damage, are harmless to humans, and do not have a venomous bite or sting.**

The **adults** are large, dark brown or black bugs, about 1½ - 2 inches in length, they are one of the largest 'true bugs' (Heteroptera) in the southwest U.S. Despite the large size of adults, they have relatively small heads compared to their body size. Antennae are dark brown or black at the base, but the top two segments are colored dark orange or red and the second segment from the top has a distinct flattened, leaf-like enlarged area. Legs are black, with dark red patches or bands; the femora of the hind legs are enlarged with spines along the inner edge. Adult wings have prominent orange or yellow veins on a dark background. Adults are usually seen on mesquite trees in small groups and are slow, clumsy fliers. **The insects feed on tree leaves but do not harm the tree.**

The **nymphs (immatures)** are patterned with vivid red, yellow, white and black and change patterns as they pass through 5 molts before finally turning into adults in the summer. The leaf-like protuberance on the antennae is present in all stages. The nymphs are often seen in clusters, maybe giving the appearance of a larger animal to ward off predators. Adults and nymphs can occur together on the same trees, and may emit a foul-smelling defensive secretion when threatened.

**Life history:** Eggs are laid in chains under stems, leaves or loose bark on mesquite trees during late fall. The adults die soon afterwards. Every year about the middle of April, depending on temperatures in southern Arizona, eggs begin to hatch on mesquite trees and small, strange, blue bugs appear in large numbers. Egg hatch coincides with the blooming season in mesquites. People don't notice the insects until sometime in May when they are about an inch-long, red and white-banded insects with antennae that have an enlarged segment towards the tip. These brilliantly colored bugs stick together because their advertising is more effective in large groups. This seemingly dangerous exposure is Nature's way of warning predators that these insects have some kind of defense. In this case, each nymph has glands that produce a smelly substance normally repugnant to predators.



Giant mesquite bug adult  
Photo: Jillian Cowles



Giant mesquite bug nymph  
Photo: Jillian Cowles

Normally these insects live and suck plant sap from young stems and tender pods in the tops of the mesquites, but move towards the base of the tree as the temperatures rise. During years when the temperatures are high, residents may suddenly observe these bugs on the lower parts of the trees or on the ground in large numbers and panic can ensue. The bugs are trying to escape the extreme temperatures and as a result become more obvious to the casual observer.



The adults can fly and are active June-September. Adults are more subtly colored, having olive-drab wings marked with creamy diagonal stripes. Their most striking features are the massively enlarged hind legs of the males, the reason they are classified in the leaf-footed bug family Coreidae. Females have enlarged hind legs, but are not nearly as robust as the male legs. The legs are red and black-banded. Adults also have the enlarged antennal segment as mentioned earlier. The adults mate and lay eggs on the mesquites in late summer, and then die.

The nymphs and adults have beaks for feeding on the juices of the mesquite tree. In the early stages, nymphs will pierce into leaves or petioles and take a drink. Adults will cluster on the seed pods as the preferred feeding site.

Don't worry about the bugs or the trees. The bugs and mesquite have evolved together and a relationship has been worked out so neither party suffers significant injury. The bug feeds enough to mature and probably helps stimulate more tree growth as a result of feeding.

We suggest that you enjoy your mesquite, and enjoy your giant mesquite bugs as well.

*The article above is authored by Nair, S., Gouge, D. H., Olson, C., Li, S., Schuch, U., Hall, G. and Ellsworth, P.*

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## **Bed Bug Battle – We Want to Hear From You**

The University of Arizona and several partnering research institutions are working to battle the bed bug resurgence in the United States. Researchers hope to determine the real impact and social cost of bed bugs, the risks to individuals and society, as well as the significant causes of infestations.

We hope you will complete an online bed bug survey. This survey asks brief questions on how bed bugs affect your life, how bed bugs cause people stress, and what people do when trying to get rid of them. This voluntary survey should take about ten minutes. The survey is available in English and Spanish. There is no compensation available for your participation. Your answers

are anonymous and confidential while you contribute information that will help us battle the pesky parasites.

**Who should take this survey? Everyone!** We would like to hear from people who currently live with bed bugs, people who have dealt with them in the past, and people who have never experienced bed bugs. We are dedicated to helping community members who need it most, and sharing your experience will be extremely helpful to develop strategies to reduce the bed bug problems.

English version of Bed Bug survey: <http://www.surveymonkey.com/s/DGLQS52>

Spanish version of Bed Bug survey: <https://es.surveymonkey.com/s/F5NZXJK>

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## Indoor Air Quality (IAQ) Master Class Webinar Series Continues

As part of EPA's ongoing effort to continue the momentum to create healthy school indoor environments in all our nation's schools, they are pleased to announce the launching of a new [IAQ Master Class Webinar Series](#).

At the June 2014, the School Health and Indoor Environments Leadership Development (SHIELD) Network began work on designing ten 1-hour technical core-competency web-based trainings intended to build the capacity of school district staff across the country to start, improve, or sustain an IAQ management program.

The webinars will feature technical experts, industry leaders and model school districts from the SHIELD Network. CEU's are pending and certificates of completion will be provided to all who complete the post-training evaluation.

Mark your calendar to join the Master Class Technical Webinar Series. Schedule below.

Webinar Topic	Webinar Date
Materials Selection	7/16/15
Source Control	9/17/15

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## Upcoming Webinars and Events

Attend Free Sessions of the [Green Strides Webinar Series](#). View archived webinars [here](#).

The [Green Strides Webinar Series](#) provides school communities the tools to reduce their schools' environmental impact and costs; improve health and wellness; and teach effective environmental literacy, including STEM, green careers, and civic engagement.

**July 23-24, 2015, [Tribal School IPM Workshop](#), Wild Horse Pass Hotel and Casino, Chandler, Arizona**

The Inter Tribal Council of Arizona (ITCA), along with University of Arizona and US EPA Region IX, is organizing a Tribal School IPM Workshop, July 23-24, 2015. The workshop will include classroom instructions and a hands-on practicum. The purpose of this workshop is to provide information for the tribal school community on: IPM philosophy and the best way to manage pests, pesticide safety, controlling vector pests, and developing a School IPM Plan specifically for each school.

Contact Africa Dorame-Avalos from Inter Tribal Council of Arizona for agenda questions and to inquire about financial support to attend this workshop: (602) 258-4822 or [Africa.Dorame-Avalos@itcaonline.com](mailto:Africa.Dorame-Avalos@itcaonline.com).

For more information about the EPA Schools program, visit:  
<http://www.epa.gov/schools/>

For more information about the Community IPM, visit:  
<http://www.extension.org/pages/23359/urban-integrated-pest-management-community-page>



For more information about School IPM in Arizona, visit:  
<http://cals.arizona.edu/apmc/westernschoolIPM.html>

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