

UK UNIVERSITY of KENTUCKY DEPARTMENT of ENTOMOLOGY

# WEE BEASTIES

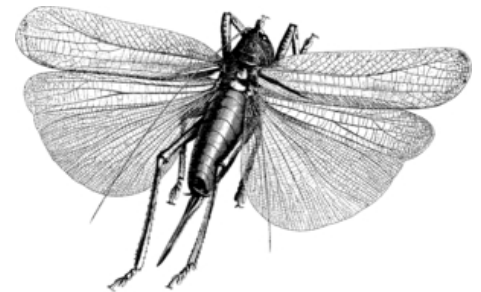
ENTOMOLOGY NEWSLETTER FOR EDUCATORS

FALL 2005



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## USING TOY INSECTS IN THE CLASSROOM

In 2004, the University of Kentucky Department of Entomology worked with the American Printing House for the Blind, the Kentucky Department of Education, and the Crowe's Chase Advisory Board to create a low-vision insect guide called "Common Insects and Their Relatives Found on Kentucky Trees." The goal of this guide is to allow students to study insects using the sense of touch. We based the guide on a set of toy insects sold by the Discovery Channel called "Bugs Party Case"



available on Amazon.com. These are fairly accurate toys, with the correct number of legs, antennae, and other body parts. Using the guide, students can examine the toys to understand the structures and functions on each creature and to learn about identification. This is just a guide, but a clever instructor can create any number of activities based on the guide and the toy insects. Although the guide was designed with low-vision and visually-impaired students in mind, it works well as a way to introduce all young students (elementary and middle school) to insects.

Braille and low-vision versions of the guide were printed by the American Printing House for the Blind. Many of these documents were given to the Kentucky School For the Blind in Louisville, KY. If you are a Kentucky teacher who works with blind or low-vision students, contact us ([blaken@uky.edu](mailto:blaken@uky.edu)) and we will see if it is possible to get you copies of these documents. The low-vision version of the document, which includes pictures which could not be printed in the Braille version, is available online at:

<http://www.uky.edu/Agriculture/CritterFiles/casefile/toybugs/toybugs.pdf>

## KENTUCKY STUDENTS INVESTIGATE LADY BEETLES

Beginning in Fall '05, middle- and high-school students in 3 Kentucky counties began investigating the Asian Multicolored Lady Beetle and a fungus which infects the beetle. The Asian Multicolored Lady Beetle, *Harmonia axyridis*, is an exotic species which was brought to North America to eat aphids and other pests. The beetle does a great job of eating pests, but it also swarms inside homes in huge numbers in the spring and fall. It also eats native lady beetle species, and may be responsible for reducing their populations.

Recently, a fungus was discovered on these beetles. It is not known how widespread the fungus is, if it is harmful to the beetles, or if it can be spread from the Asian beetles to native lady beetles. If the fungus is harmful and kills large numbers of the beetles, there are several implications: on the one hand, fewer

<http://www.uky.edu/Agriculture/Entomology/ythfacts/entyouth.htm>

beetles might enter homes, but, on the other hand, less beetles wouldn't be around to control pests.



Students in Knott, Woodford, and Harrison Counties in Kentucky are helping us study these questions. This year, the students are collecting lady beetles and examining them under microscopes for signs of fungal infection. As they collect data, they will work with entomologists at the University of Kentucky to interpret the results. In March '06, the students will then come to the University of Kentucky to present their findings in a seminar.

We are very excited about this project because it allows Kentucky students to collect real data on a real problem and work with scientists to interpret the data. The scientists at U.K. benefit because, with the help of the students, they are able to gather much more data than they could otherwise.

In upcoming years, we hope to expand the project. Students can design and perform indoor experiments with the beetles, perhaps to determine the different effects that the fungus has on the beetles as they grow and reproduce. Stay tuned for more info and results!

## CRITTER OF THE MONTH: CRANE FLIES



**Crane Flies** are common, well-known creatures, but they are also among the most misunderstood insects. Crane Flies belong to the "True Fly" insect order (Diptera), which also includes house flies and horse flies. The order also includes mosquitoes, which crane flies resemble. In fact, most crane flies look like *giant* mosquitoes, and people mistakenly believe that crane flies will bite. Crane flies never

bite people or animals, however. In fact, many adult crane flies live only a few days and do not eat anything! Also, because crane flies are sometimes called "daddy-long-legs," this leads to confusion involving a popular myth: "daddy-long-legs are very venomous, but cannot bite people." Although this myth usually refers to the spider-like creatures called "daddy-long-legs," it is sometimes applied to crane flies. It is not true about either organism: neither possesses venom glands of any kind!

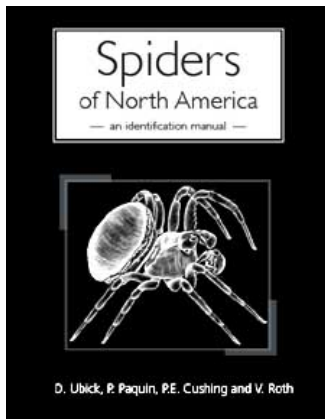
Larval crane flies, like the one pictured above, live in moist soil or in streams. They feed on a variety of things, including decaying plant material and other insects. Sometimes called "leatherjackets," crane fly larvae can grow very large.

Most adult crane flies are gray or brown, but some are shiny black and red like the one at the top of this newsletter. Read more about larval and adult crane flies in the Crane Fly Critter File:

<http://www.uky.edu/Agriculture/CritterFiles/casefile/insects/flies/craneflies/craneflies.htm>

Each issue, Wee Beasties will feature one of the critters from the **Critter Case Files**, University of Kentucky's on-line guide to insects, spiders, and related critters. Visit the Case Files at: <http://www.uky.edu/Agriculture/CritterFiles/casefile/casefile.htm>

## BOOKS



### Spiders of North America: An Identification Guide

by J. L. Capinera, R. D. Scott, and T. J. Walker

*Spiders of North America* is a highly detailed taxonomic key designed for scientists and spider enthusiasts. It allows identification (to the family and genus level) of all spiders found in North America, and was the result of many years of work.

This guide is very technical won't be useful in all classrooms, but it is one of the few guides to spider identification available, and could be an essential tool for a long-term biology project, such as one involving spider identification in a outdoor classroom (for instance). For the manual to be useful, a dissecting microscope is a must.

For a less intense and more user-friendly guide to spiders, consult the excellent *Spiders and Their Kin* by Levi and Levi, a "Golden Nature Guide" which is usually available for about \$7 and contains pictures of most common spiders found in Kentucky.

## UPCOMING EVENTS

The Entomology Department will be present with displays, insects, and information at the following events and locations during the upcoming months in 2005:

DATE	TIME	EVENT/LOCATION
TBA '06 June 5, '06	10am - 3pm All week	Bugs-All-Day, Explorium, (859-258-3253), Lexington, Ky Kentucky Entomology Leadership Program

<http://www.uky.edu/Agriculture/Entomology/ythfacts/entyouth.htm>

## WEEBEASTIES MAILING LIST

Would you like to receive a PDF copy of each fall and spring *Wee Beasties* issue via email as soon as it is printed? If so, send us some email at [blaken@uky.edu](mailto:blaken@uky.edu) and we will put you on the list! If you don't like PDF, we will also send you a link to the HTML version of the issue when it is published.

## Contact Information:

If you have ideas, experiences, or information that you would like to share or would like information about educational resources available through the University of Kentucky, Department of Entomology, write, phone, or email:

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