

UK UNIVERSITY of KENTUCKY DEPARTMENT of ENTOMOLOGY

WEE BEASTIES

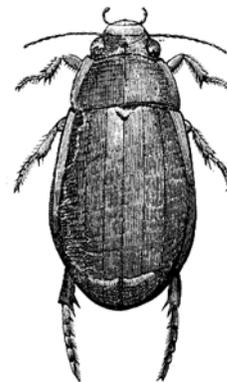
ENTOMOLOGY NEWSLETTER FOR EDUCATORS

FALL 2004



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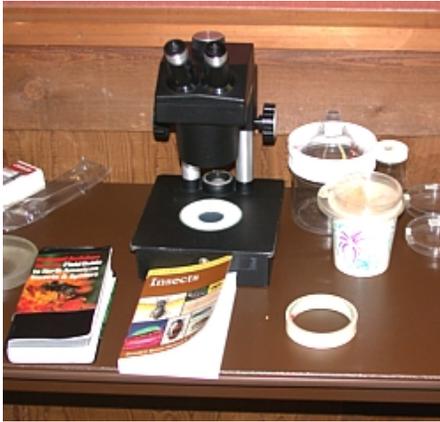
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FOREST ENTOMOLOGY LEADERSHIP PROGRAM

June 2004 marked the inaugural Kentucky Forest Entomology Leadership Program (KFELP). This week-long, overnight program introduced high-school students to insect identification and the complex ecological and economic relationships between insects and the forest.

KFELP was held at the Kentucky Leadership Center in Jabez, Ky. This remote location is surrounded by woods, meadows, and wetlands, and is an ideal spot for insect investigations. KFELP students spent much of their week in the woods, where they collected, identified, and photographed Kentucky arthropods. Students also studied dramatic examples of the impacts that insects have in Kentucky forests. The students spent the remainder of their time working with students from the adjacent Kentucky Forest Leadership Program.



UNIQUE PARTNERSHIP The Entomology Leadership Program is a part of the Kentucky Forest Leadership Program, which has been introducing Kentucky students to forestry for over 40 years. This was the first year that the University of Kentucky Department of Entomology partnered with the Department of Forestry to integrate the two disciplines.

The Forestry and Entomology Leadership Program were run concurrently at the Leadership Center. Students in each program spent many hours studying the details of their respective disciplines, but also converged at key points during the week to share their knowledge and work together to solve forest management problems.

KFELP 2005 If you know Kentucky high school students who are interested in insects, biology, or forestry, let them know about the Kentucky Forest & Entomology Leadership Program. We are now planning for next year's program, which will be June 6-10, 2005, and we will begin processing registrations in late Spring 2005. The program will have limited enrollment, and is only open to Kentucky high school students entering their junior or senior year in Fall '05. For complete details, keep an eye on the Kentucky Department of Entomology website in May 2005, or visit the Kentucky Department of Forestry Website at:

<http://www.uky.edu/Agriculture/Forestry/kflp.htm>

KENTUCKY STUDENTS INVESTIGATE MRLS

This fall, over 200 students in central Kentucky schools are helping scientists at the University of Kentucky study the eastern tent caterpillar, a possible component in mare reproductive loss syndrome (MRLS), a disease which has brought millions of dollars in losses to Kentucky agriculture in recent years.



MRLS in the Bluegrass Kentuckians will probably remember Spring 2001, when there was a high number of foal deaths in central Kentucky. These deaths were blamed on MRLS, a syndrome that has since been linked to the eastern tent caterpillar. This caterpillar is a common insect in Kentucky, and is seen every spring when it makes its messy tents in

Kentucky trees. In Spring 2001, there was an outbreak of these caterpillars, and scientists at the University of Kentucky believe that MRLS can occur when mares accidentally ingest large numbers of these caterpillars.

Students Join the Team Throughout the 2004-05 school year, students from Winburn Middle, Tates Creek High, and West Jessamine High School will monitor local wild black cherry trees and gather eastern tent caterpillar population data. Later in the year, the students will analyze this data, and determine if predictions can be made about future tent caterpillar outbreaks. Hopefully, as this project continues in upcoming years, an accurate eastern tent caterpillar population-prediction model will be developed. With this information, Kentucky scientists and the horse farm industry may be better prepared for future problems with the eastern tent caterpillar.

Real Science This project is a unique collaboration between University of Kentucky scientists and central Kentucky schools. Students benefit by getting a chance to participate in a real scientific investigation, and researchers are able to gather additional data. The University of Kentucky Department of Entomology and its partners in the College of Agriculture are currently developing new projects which will join scientists with Kentucky students. If you have an idea for such a project, contact Blake Newton at blaken@uky.edu.

CRITTER OF THE MONTH: STINK BUGS

Although they have a stinky reputation, stink bugs are only one of many types of insects in the order Hemiptera which possess potent scent glands. The scent glands in these insects are located on the side of the thorax, just above the legs. These glands produce odors which help protect the insects from predation. Most "true bugs" (order Hemiptera), including stink bugs, assassin bugs, and leaf-footed bugs, have scent glands. Stink bugs probably have the worst reputation because they are often the most commonly encountered true bugs. The insect at the top of this newsletter is the "red-shouldered stink bug," and the one pictured on the right is the nymphal form of a green stink bug.



Even though they are smelly, stink bugs aren't all bad. Although there are several important stink bug pests, many stink bug species are predators of other insects. Read more about Stink Bugs in the Critter Case Files at:

<http://www.uky.edu/Agriculture/CritterFiles/casefile/insects/bugs/stinkbugs/stinkbugs.htm>

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

BOOKS



A Guide to Common Freshwater Invertebrates of North America

by J. Reese Voshell, Jr

As many life science educators know, the monitoring of aquatic macroinvertebrates is an important part of water quality assessment. For macroinvertebrate sampling to be valuable, accurate identification is essential. To the untrained observer, many of these creatures can look identical.

J. Reese Voshell Jr.'s *Guide to Common Freshwater Invertebrates of North America* is a great tool to use during water quality sampling. The guide has detailed drawings of all common aquatic macroinvertebrates, plus biological information and the relationship between each creature and water quality. It is the best guide of its kind, and one of the best guides to invertebrates (terrestrial or aquatic) of any kind.

Of course, there are other guides to aquatic macroinvertebrates available, including some on the web. The web-based guides are not as detailed as

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

Voshell's book, but they are smaller (some are one or two pages) and free. Here are links to some of the best:

<http://www.people.virginia.edu/~sos-iwla/Stream-Study/Key/Key1.HTML>

<http://www.iowater.net/PDFs/04%20Benthic%20Key.pdf>

UPCOMING EVENTS

The Entomology Department will be present with displays, insects, and information at the following events and locations during the upcoming months in 2004:

DATE	TIME	EVENT/LOCATION
April (TBA)	10 am - 3 pm	Bugs-All-Day, Lexington Children's Museum, Lexington, Ky
July 29	8:30 pm - 10:30 pm	Raven Run Night Insect Walk (859-272-6105), Lexington, Ky

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 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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