



WEE BEASTIES



Entomology Newsletter for Teachers

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University of Kentucky - Department of Entomology

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Introducing Wee Beasties

Entomology Newsletter for Teachers

Wee Beasties was created as a means of sharing information with teachers about how to use insects in the primary and secondary classroom. The newsletter will be published quarterly during the school year, in September, January and April, and will be available through email and download from the University of Kentucky, Department of Entomology web site.



UK Entomology on the Internet

For a wide variety of insect related information including insect fact sheets on both pest and beneficial insects, Youth Facts, insect activity sheets for kids, information for teachers working with insects, and much, much more, check out the UK Entomology web site at:

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

To reach the youth and teacher related information, click on the Katerpillars & Mystery Bugs picture on the home page.

This section is designed for teachers, 4-H'ers, young people, and anyone else who wants to pursue an interest in Entomology. Several articles give resources and basic

information about insects and their relatives, while others outline activities with different insect themes. Feel free to copy and distribute any of this material for your own personal use or for use in the classroom, but please give credit to the authors and the University of Kentucky Entomology Department.



Use of KTLN in Teacher In-Service Training

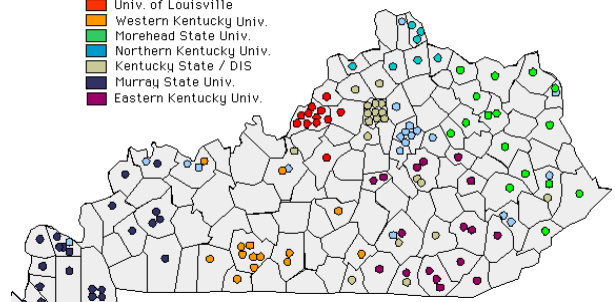
Have you ever wanted to attend a workshop but found that you had to travel great distances from your school for the training? We are trying to alleviate this problem through use of the KTLN system. By definition, "Kentucky TeleLinking Network (KTLN) is an educational telecommunications "network of regional networks" intended to improve access to, and the quality of, educational offerings provided for elementary and secondary schools (P-12) and continuing through graduate and professional school preparation." The Entomology Department hopes to use the available technology to increase access to Entomology training. Traditionally, teacher-training sessions have been held in Fayette County, but now they can be held in any county that has a KTLN site (most counties). KTLN uses interactive video, audio, and data to link sites throughout the Commonwealth of Kentucky. The first KTLN-based training session is scheduled for May 4, 1998, from 4 to 6 pm. If you would like to participate, please see the following web site for

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KTLN Sites by Hub

- Univ. of Kentucky
- Univ. of Louisville
- Western Kentucky Univ.
- Morehead State Univ.
- Northern Kentucky Univ.
- Kentucky State / DTS
- Murray State Univ.
- Eastern Kentucky Univ.



further information:

<http://www.murraystate.edu/kate/forms/details.cfm?ID=185>

Entomology faculty members will be present at each participating site. They will bring hands on activities as well as some live insects. This training session will also allow teachers to identify colleagues across the state with an interest in entomology and increase the opportunity for collaborative learning (e.g. future KTLN sessions with multiple classes of students participating.)

Classroom Mascots



Spring is a great time of year to add some pet insects to the classroom setting. Many students like to bring in insects for show-and-tell. Most insects are small, therefore requiring only a minimal amount of space and care. On the small side, a container should be twice the insect's width and 5 times its length. Glass jars, plastic food containers, and small fish tanks



Giant millipedes and hissing cockroaches make excellent classroom pets

(minus the water of course) make good temporary bug homes. Lids or covers should be ventilated so that the insect can get plenty of fresh air but should be secure so that it cannot escape. Mesh-type material such as plastic screening or nylon stocking can be placed over the top and secured with a rubber band. Be sure to provide the insect with water and food. Most insects will not be able to use a water dish, so instead mist the cage or provide moisture via a clean wet sponge or a cotton-stoppered test tube filled with water. Although some insects are hard to keep alive for more than a day or two, others can be maintained for a longer period of time. For more information on insects and other arthropods that work well in a classroom setting, see UK Entomology Youth Fact entitled "Classroom Mascots" at the site listed below:

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

If you have a success story about using insects in the classroom, please write or email us. We want to hear what

others are doing with insects in the classroom. Stories may be used in future issues of Wee Beasties.

Boxes - O - Bugs

Insects are everywhere. To impress on students the ubiquitous nature of insects, have each student make an insect collection or have the class work collaboratively to make a class collection. Insect collections can be used to show insect diversity. Making a collection will allow students to explore new insect habitats. With minimal searching, insects can be found in homes, yards, on playgrounds, around building foundations, in basements and crawlspaces, in the soil, especially in vegetable and flower gardens, around porchlights and streetlights after dark, and in and near streams and lakes.

Tools to take along on a collecting adventure include forceps or tweezers to pick up insects, small jars or sealable plastic bags to hold captured insects, and a kitchen strainer or collander to scoop aquatic insects out of the water. Specialized collecting equipment such as nets, a killing jar, aspirators, and various traps will aid students in their collecting efforts. UK Entomology Youth Facts "Tools of the Trade" and "Insect Collecting Techniques" give directions to make some inexpensive collecting equipment as does Unit I of the Kentucky 4-H Entomology Manuals and can be found at the following addresses:

<http://www.uky.edu/Agriculture/Entomology/ythfacts/ythfacts/yf808.htm>

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

<http://www.uky.edu/Agriculture/Entomology/ythfacts/4h/unit1/unit1.htm>

It is best to pin insects immediately after they are caught and killed, while the body is still soft and pliable. Insects can be frozen for pinning at a later date, although defrosted insects tend to be harder to work with because they fall apart and are stiffer than fresh insects.

After insects are collected, make labels that include date, location, and habitat where the insects were collected as well as the collector's name. A journal or notebook can be used to keep track of this information while students are collecting.

Insect collections can be displayed in a variety of ways. Some type of box with a foam pinning bottom works the best. Cardboard shoeboxes, cigar boxes and even styrofoam meat trays that you get at a butcher counter of the grocery store can all be used to make useful collection containers.

The most difficult part of making an insect collection is identifying the insects. There are several insect guidebooks

available at your local library or at most large bookstores. Try to find books with good pictures that students can compare to the insects that they have collected. Older students should try to use an insect key for identification.



Blue ribbon insect collection from the Kentucky State Fair

Your County Extension 4-H Agent can be a useful resource person. If your school has an active 4-H program, collections can be prepared according to 4-H specifications (found in the Kentucky Entomology Manuals obtained from the 4-H agent or at the web site listed above) and entered into county fairs and competitions.

Have a Bug Day!

A good way to end an insect unit is to have a Bug Day. A Bug Day is an educational event designed to allow students to show off all of their newfound knowledge about insects. Most Bug Days have a carnival or festival atmosphere. Bug Days can be set up for a single classroom or can include the entire school. Some activities that could be a part of the festivities include:

- ⌘ **Hands-on activities** such as arts and crafts, build a bug, putting together insect puzzles, and planting a butterfly garden
- ⌘ **Participatory activities** such as games and learning songs with hand or body motions
- ⌘ **Exploration activities** such as an insect walk
- ⌘ **Exhibits, demonstrations, and speakers**, which expose students to community members that have an interest in entomology; invite local entomologists, farmers, pest control operators, beekeepers, county extension agents and anyone else who may have something special to share with the students

- ⌘ **Audio-visuals** such as movies, slide shows and computer games
- ⌘ **Show and tell** which allow students to show off the projects that they have been working on; create a temporary insect zoo to exhibit the insects that students bring in
- ⌘ **Costumes** add a dramatic flare to the day; have students or teachers dress up as their favorite insect

The most important thing to remember when planning a Bug Day is to make it fun. Students will get excited about an event such as this and not even realize that they are learning or reinforcing the information that they have studied in a classroom setting.

For more information and a wealth of activity ideas for Bug Days, look at "Organizing Bug Days and Insect Fairs" by Gary A. Dunn. This book is published by Young Entomologists' Society (address: 1915 Peggy Place, Lansing, MI 48910-2553 web site: <http://insects.ummz.lsa.umich.edu/yes/yes.html>).

Did You Know?

- ⌘ The Asiatic silkworm moth (*Bombyx mori*) has been so domesticated over the centuries that it probably does not exist in the wild anymore.
- ⌘ Each cocoon of a silkworm moth produces a single thread about 1,000 feet long. More than 25,000 cocoons are needed to make a pound of silk

A Note from the Editor:

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:

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Lexington, KY 40546-0091

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