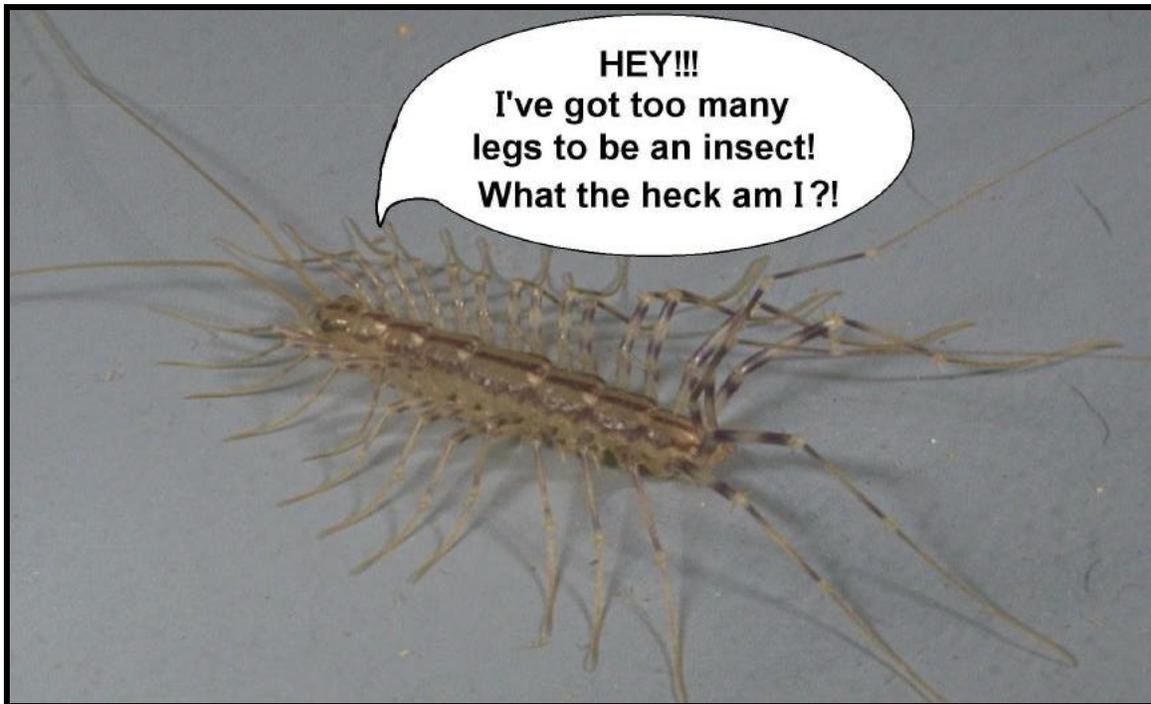


UNIVERSITY OF KENTUCKY DEPARTMENT OF ENTOMOLOGY

WEE BEASTIES

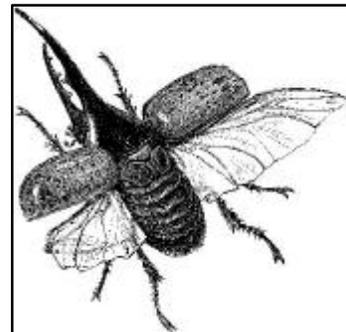
Entomology Newsletter for Educators

SPRING 2001



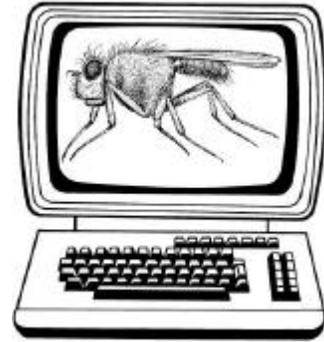
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INTERNET PROJECT: INSECTS A-Z

The Internet is packed with information about insects. Students can use the Internet to learn more about entomology and get experience with a valuable research tool at the same time. How about a project that challenges students to use an Internet search engine to find insect common names that begin with each letter of the alphabet? Have students provide you with each insect name and the link where they found the name, and maybe a sentence or two with information about the animal (where it lives, what it eats, etc). This can be a challenging and fun cyber-scamper hunt, especially for letters like “Q” and “X.”



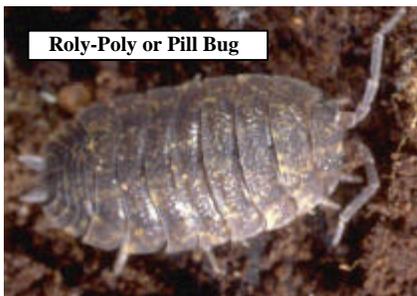
If anyone needs some extra help (including the teacher!), there are a couple of places on the net where you can find a ton of insect common names at once:

<http://www.biology.ualberta.ca/esc.hp/englishcommonnames.htm>: this site contains the names of many Canadian insects (most of which occur in the U.S. as well)

<http://www.naba.org/pubs/enames.html>: is a list of butterflies found north of Mexico, as compiled by the North American Butterfly Association.

Remember when using the Internet in the classroom that most search engines have filters to remove offensive content. Also, some search engines are better than others for finding different kinds of information. Experiment and see which ones work the best for you.

ROLY-POLIES: CRUSTACEANS vs. INSECTS



Most elementary students can tell you the difference between insects and spiders (“spiders have eight legs! insects have six!”). But what about crustaceans? Lobsters, crabs, and shrimp are all crustaceans, and few people are going to mistake them for insects. But how about so-called “roly-polies” or “pill bugs?” The little guys that roll themselves up into balls when they are disturbed? Roly-polies and pill bugs are really the same thing. But they aren’t “bugs” at all. They are one of the few kinds of fully terrestrial crustaceans. And because they are so easy to find, they can be used to show the differences between insects and crustaceans. The differences? Crustaceans typically have 5-7 pairs of legs (pill bugs have 7), and insects have 3 pairs. Crustaceans have 2 pairs of antennae (1 pair is very small on a pill bug, but it’s there), insects have only 1 pair. Also: insects have three main body regions (head, thorax, abdomen), crustacean just have two (cephalothorax, abdomen). Just bring a

beetle and a pill bug to show the differences. Turning over a few logs or a rocks in the spring or summer will likely yield both pill bugs and beetles. Throw in a crayfish (also very easy to find) to show that it, like the pill bug, has more antennae and legs than an insect. The hardest part of this exercise will be getting a look at the underside of the pill bug! Try placing a few of them in a see-thru plastic container and viewing from below to catch a glimpse of the legs and antennae.

DID YOU KNOW?

- Insects don't breath through their mouths. And they don't even have noses! Insects breath through holes (called spiracles) on the sides of their bodies. The spiracles are easy to see in the tobacco hornworm (below).



- The African honey badger (also called the “ratel”) finds and destroys active beehives to get food! Beehives are full of food: honey for energy, bee larvae for protein. Although honey badgers have thick skin that can help protect them from stings, they are sometimes killed by defending bees.

Check out <http://www.honeybadger.com/> for more info about the tenacious honey badger!

- One of the largest kinds of wasp in the world is the tarantula hawk, some of which are over 1.5” long. A female tarantula hawk wasp will attack and sting fully grown tarantulas. The wasp will then drag the paralyzed prey back to her nest, lay her eggs in the spider, and bury it. When her babies hatch, they have a big, live, paralyzed tarantula to eat! The tarantula hawk is also the State Insect of Arizona, thanks to the efforts of sixth graders!

See <http://www.nmga.org/nminfo/symbols.html> for more info!

- The critter at the top of the newsletter (the one with too many legs to be an insect) is a house centipede. These guys are common in homes and can run really fast. They're kind of creepy, and they can bite. They're pretty harmless though, and they eat everything they can catch, including many pest species.

A BUG'S LIE: This "Flik" Needs Legs To Stand On **The Picky Entomologist Reviews: Disney's *A Bug's Life***

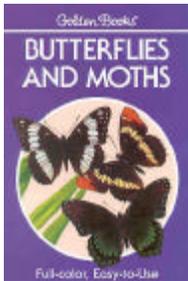


This isn't really a review for Disney's *A Bug's Life*. But, as an educator, you can use this movie for a quick lesson in insect anatomy. After teaching some of the insect basics (3 body parts, 6 legs, etc.) show a couple of minutes of the movie in class and have students point out the places where Disney's representation of insects isn't quite on the money.

For example: remember Flik? The main character of the movie? He's the one who is on a journey to save the ant colony from the grasshoppers. But he's only got 4 legs! Not 6. The rest of the ants have 4 legs as well. But the designs are inconsistent. The evil grasshoppers are made to spec, 6 legs and all. What about some of the other insects? Do they have the right number of legs? And hey, should there be that many males in an ant colony?

There are lots of things for the junior entomologist to watch out for in this movie. Do these inconsistencies make it a bad film? Of course not! It's just a cartoon! Plus, it gets kids excited about insects. But looking for the "errors" in this popular movie can be a fun exercise.

BOOK REVIEWS



Butterflies and Moths: A Guide to the More Common American Species (Golden Guide)

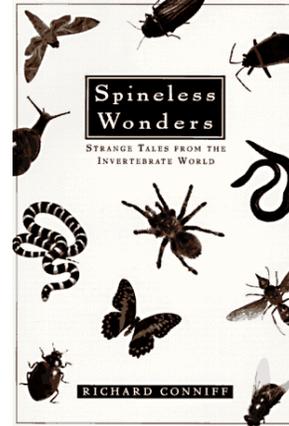
By Robert T. Mitchell and Herbert S. Zim

Originally published in 1962, this handy book has been riding in the back pockets of amateur lepidopterists ever since. Although small in size and price, and often overlooked for these reasons, this book actually contains very nice and accurate drawings of just about every butterfly and moth species that most folks are likely to encounter. In addition to adult insects, illustrations of the caterpillars and pupae for many species are included as well. A great book for students interested in collecting, watching, or learning more about local butterflies and moths.

Spineless Wonders: Strange Tales from the Invertebrate World

By Richard Conniff

Not limited to insects, *Spineless Wonders* is a good read for any teacher dealing in the mysteries of the life sciences. This isn't a field guide or a textbook, and there are no activities inside. And it isn't an appropriate book for young students. *Spineless Wonders* is an anthology of true and unusual stories, most of which concern the interactions between humans and some of the most spectacular arthropods, mollusks, and annelids on earth. A modern Ahab searches for the elusive giant squid. Repulsive slime eels form the "backbone" of an unusual economy. Beetles and spiders are the objects of tireless scientific expeditions. These stories can be summarized and interspersed with other material. They are ammunition for students who think that biology is boring. Most importantly, this kind of book can serve as a behind-the-scenes cheerleader for you, as an educator. Who better to teach a subject than someone excited about it?



UPCOMING EVENTS

The Entomology Department will be present with displays, insects, and information at the following events and locations in Summer 2001:

Lexington Living Arts and Science Center: Saturday, May 19th, 10 am -2 pm

Clark County Public Library: Thursday, June 28th, 6:30 pm

Clark County Fair: Monday, July 30th and Tuesday, July 31st

2001 RAVEN RUN NIGHT INSECT WALK

Each Summer, the University of Kentucky Department of Entomology hosts the Night Insect Walk at the Raven Run Nature Sanctuary in Lexington. This year, the date is Friday, July 27th. The fun begins at 8:30 pm. Come along for insect activities, the insect petting zoo, and, of course, a nocturnal trip into wilds of Raven Run for arthropod close encounters!

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, phone, or email:

Blake Newton
S-225 Agriculture Science Center - North
University of Kentucky
Lexington, KY 40546-0091
859-257-5107
Email: blnewt00@pop.uky.edu

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