

that sets the focus and a very useful index. At the beginning of the book, there is a world map that shows the various locations for photographing the organisms. This map is valuable but might be misinterpreted as showing that Europe and Asia do not have organisms with “extreme behaviors,” because few if any of the locations were in these regions. This reviewer has seen parts of the video series. They are exciting because you see the behavior in action, and the cinematography is excellent. As a companion to the videos, the descriptions in the book are enhanced to incorporate the evolutionary time-frame and ecological relationships. On its own, this beautiful book has value and could be used by biology educators at all levels to capture the attention of students. The images in the book are captivating. Placing the book in a classroom where students could peruse it will engage many otherwise uninterested students. *Life: Extraordinary Animals, Extreme Behaviour* provides the reader with a greater sense of the difficulties organisms encounter and the extreme approaches species use to meet the challenges.



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The Earwig’s Tail: A Modern Bestiary of Multi-legged Legends. May R. Berenbaum. 2009. Harvard University Press (ISBN 9780674035409). 194 pages. Hardcover. \$23.95.

The Earwig’s Tail is a collection of stories meant to clarify the urban legends of the insect world. It seems there is an incredible amount of tall tales concerning the “little creatures” in our lives. Berenbaum’s mission is to track down the kernel of truth in these insect tales – and admittedly, yes, there usually is a speck of truth that gets dangerously out of control and becomes an urban legend. This arthropod book is mostly devoted to the insect, but the occasional arachnid crawls into the book as well.

Why do people believe all the “bad” about insects? Why do these tales continue to spread? Insects, all in all, do not have the best reputation with humans. Humans tend to prefer cute, cuddly, furry mammals to any other group of living organisms. There certainly isn’t anything cute or cuddly about a housefly, a corn earworm, a cockroach, or a praying mantis. So I suppose that is it: it is easy to believe the worst of something that is not cute and cuddly.

The first chapter is devoted to none other than the bumblebee. Bumblebees, as the urban legend goes, should not be able to fly. If you read the various e-mails out there, you will find that

“physicists agree” that bees are aerodynamically unsound. Of course, we know that couldn’t be true, because every one of us has witnessed a bumblebee flying. Unfortunately, the scientist (by the way, not a physicist) who first issued this declaration made a few faulty assumptions that led to this urban legend – and somehow the accurate information never makes it into the e-mails that everyone wants to circulate.

The earwig of the book’s title is claimed to have burrowed into many ears, according to urban legends. Berenbaum found only one reference (in 10 centuries) to an earwig being found in an ear canal. Actually, the most common object found in ears was a cockroach, according to Johns Hopkins. Now that is a bit freaky. I’d much prefer the earwig to a cockroach in my ear any day!

Berenbaum doesn’t forget the filmmaker’s favorite – the insects’ many-faceted compound eyes. Think of the countless movies that show the insects’ supposed compound-vision viewpoint. The movies I’m recalling seem to assume that a creature with a compound eye has better vision and perhaps multiple visual fields. While no one is certain, it appears that the image produced is more like a black-and-white newspaper picture. Although their vision is likely not what the moviemakers show, insects are very good at detecting motion.

My daughter, a junior high scientist, thought the chapter on the Iraqi Camel Spider was really surprising. The legend tells us there are spiders 3 feet long (or more) that travel at 25 mph, scream as they run, and inject a powerful anesthetic before they start eating our American soldiers in the desert. As it turns out, the creature described does belong to the arachnids, but it is not technically a spider. They are fast (10 mph) for an eight-legged creature, but they don’t eat soldiers in the Iraqi desert. So much for that urban legend.

In all, there are 26 different stories, including the four mentioned above as well as crab louse, jumping face bug, kissing bug, Olympian flea, and toilet spiders to mention just a few, not to exclude the sex-enhancing Spanish fly. The book is a fast and easy read and could be used in the junior high setting through the college level. A chapter could easily be read as an attention-grabber at the beginning of the class in a unit covering the phylum Arthropoda at any level. These stories would certainly get my attention.



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SCIENCE LITERACY & ETHICS

The Immortal Life of Henrietta Lacks. By Rebecca Skloot. 2010. Crown Publishing (ISBN 9781400052172). 384 pages. Hardcover. \$26.00.

If you want to bring science reading into your classroom and show why an understanding of science is needed by everyone and why scientists need to be aware that there is more to life than just science, then the *The Immortal Life of Henrietta Lacks* by Rebecca Skloot should be a first read. This is an important book for the understanding of science in American history. It brings to light some of the debate over access to health care and access as well as policies within the scientific community.

The book is about the cancer cells removed in 1951 from Henrietta Lacks, a mother of five living in Baltimore, by doctors from Johns Hopkins. During the initial diagnosis and before the treatment of the cancer, samples of cancerous tissues were removed from her cervix. These cells were grown in a lab by Dr. George Gey, the attending physician and researcher, and eventually labeled “HeLa” cells after Mrs. Lacks’s name. This was done without the permission of Henrietta or the Lacks family. Such taking of tissues during biopsies was a common practice, especially within research hospitals. HeLa cells have continued to be grown and cultured in tubes and plates around the world and studied by some of the most legendary scientists as well as many of the students taking biology today. HeLa studies contributed to some fantastic scientific discoveries, such as the development of the polio vaccine and of medicines used to treat Parkinson’s disease and cancer, and the discovery of telomerase. HeLa cells have even been sent into space for study and have been so prolific that they have contaminated cell cultures worldwide. Over 50 million tons of these cells have been grown and studied.

The book follows three different story lines. First is the life of Henrietta Lacks and her family, both past and present. The life of poor African Americans in the 1940s through the 21st century in light of medicine is skillfully addressed. Second, the development of the HeLa cell line and its use in the scientific community is presented – cells that seem to have a life of their own and have literally traveled around the world. Most scientists were in “scientific denial” or too arrogant to acknowledge the cells’ ability to propagate. Third, and possibly the most important, are the bioethical issues surrounding the development of the HeLa cell line. Skloot does a masterful job of addressing the past practice of nondisclosure of medical information to patients. She highlights well the suspicious view of the medical profession by African Americans after the Tuskegee syphilis studies of the late 1940s, and how often they felt that they were the test subjects for many untested or experimental procedures. In the words of Henrietta’s daughter Deborah, “If our mother cells