

- *Ultimate Animal*. Starting with a discussion of the evolutionary success of humans, this episode suggests that being bilateral with a brain may not be the best animal design. It goes on to show how the Echinoderm body plan, with its five-part symmetry, is well suited for its life on the ocean floor. They can move in any direction through the use of thousands of tube feet, and have a nerve ring which coordinates the movements of arms. There is an excellent video of *Pyenopodia*, the “hit man” of all sea stars. It eats everything in its path, and things that can move get out of its way when it approaches. Ultimately, sea stars and their relatives show that you don’t need eyes, ears, a brain, or the ability to run fast in order to be successful.

- *Bones, Brawns, and Brains*. The final episode in this series describes the phylum Chordata, both the invertebrate (salp and tunicates) and the vertebrates. It discusses the characteristics that humans share with all other organisms, and that when bones, skulls, and jaws developed, these animals were able to move to the top of the food chain. The great apes show further development, with their complex social behaviors and their abilities to mimic and learn. The episode demonstrates that humans share origins with every animal and are not the sole survivors of the journey of evolution.

**The Shape of Life** is one of the most outstanding documentaries ever produced. It describes each of the major animal phyla in a manner that is both informative and entertaining. While the series is designed to be used in its entirety, it can also be shown one episode at a time. Some of the footage is a bit graphic (animals eating other animals), but this series

is appropriate for any middle or high school life science/biology class. It would also be an asset to a marine biology curriculum, as life began in water and all the animals discussed live there. This quote from the box sums it up in one sentence: “The series celebrates the splendors and struggles of evolution, unveiling eight biological designs that are the underpinnings of nearly all animal life.”

Jeffrey D. Sack  
Valley Regional High School  
Deep River, CT 06417  
[jsack@vrhs.com](mailto:jsack@vrhs.com)

## BIOLOGICAL ANTHROPOLOGY

**Biological Anthropology: An Evolutionary Perspective.** A collection of videotaped lectures taught by Professor Barbara J. King, The College of William and Mary, Williamsburg, VA. Produced by The Teaching Company, 4151 Lafayette Center Drive, Suite 100, Chantilly, VA 20151-1232. (800) 832-2423. [www.teach12.com](http://www.teach12.com). For pricing information, contact The Teaching Company directly, since significant discounts (up to 70%) can be obtained.

**Biological Anthropology** combines scientific analysis of the fossil record and behavioral studies of modern humans and their closest living evolutionary “relatives” (apes and monkeys), to model possible scenarios for human physical and social development. These lectures cover topics related to the evolution of humans, starting at the point of divergence with other primates.

The video set comprises 24 half-hour lectures that are most valuable when viewed in order. The continuity of the lectures reinforces the timeline of human evolution and also provides insight into the development of biological anthropology as a modern academic field. While these

videos are not designed to be used as teaching aids in the classroom, they can be useful to those who want to learn about and/or teach evolution in any context.

For teachers who feel that evolution is not their “area of expertise,” this course can provide a comprehensive look at the theory of evolution while simultaneously focusing on the evolutionary history of humans to examine the origins of modern human behavior, anatomy, and language. Moreover, for teachers experienced with this subject material, it is a useful source of examples for teaching evolution, a difficult topic to cover adequately within a limited scope. In addition to pure content, a valuable aspect of this course is its presentation of the study of human evolution within the changing contexts of leading models. The lectures include personal anecdotes about researchers and academic debates, which bring the subject to life.

The lectures in this video collection contain very few visual aids. They lack animated graphics, interviews with researchers, and other multi-media possibilities that would be useful to incorporate into video format. However, Dr. Barbara King is an engaging speaker, and watching her lecture on videotape helps the viewer remain focused. (I have listened to several of the Teaching Company lecture series on audiotape and have often been distracted.) Also, while the graphics are plain, the synaesthetic mixing of audio and video with timelines, maps, and pictures of fossils helped me to grasp the chronology and geography of the events in human evolution differently than I would by simply reading textbooks and articles. The outline notes in the video (and provided in a separate booklet) are also useful for following the structure of the lectures, especially when Dr. King sets up several predominant theories and then analyzes them critically.

For students, the video set would be a valuable asset to have in their library; it can be viewed to make up content missed in class or serve as an excellent source of independent projects for those intrigued by biological anthropology.

Catherine King  
New York University  
New York, NY 10012

## PARASITOLOGY

<http://www.aavp.org>, American Association of Veterinary Parasitologists.

<http://asp.unl.edu>, American Society of Parasitologists.

As a follow-up to the article by Seville et al.<sup>1</sup>, I decided to reiterate the notion that parasites are great models to teach every aspect of biology. The American Society of Veterinary Parasitologists maintains a spectacular Web site that provides the latest information about parasites of veterinary significance. For instance, the biology of *Cryptosporidium* is covered extensively, and is accompanied by a comprehensive bibliography, useful links (such as the notorious Milwaukee outbreak), and additional useful information for student projects. There is a section titled "Companion

Animal Parasitology" that covers a wide spectrum of diseases, such as heartworm. There are separate links for both canine and feline parasites, including the flea life cycle and how to control it. A great feature of this Web site is that questions may be posted, and the answers to some provocative questions already posted may be viewed.

For those in need of more information about parasites and classroom activities, the Web site of the American Society of Parasitologists, the premier association devoted to

this field, is the place to visit. The "Education" applet will transport the user to a wide array of resources and activities hardly anticipated. Teachers and students can access the "Wonderwise Parasitology Kit" (a project of the Women in Science Learning Series), which includes a section called "Parasite Sleuth." This feature, which meets *National Science Education Standards* and is published in both English and Spanish, allows students to get firsthand experience in an interactive format. Another feature is the number of links to digitized images and systems.

Besides providing one of the best examples of successful life strategies, parasites overlap a wide range of interests that may captivate any biology student at the pre-college and college levels. Parasites not only have medical, biological, and economic significance, they also serve as the one of the best models of how organisms interact with one another.

José Vázquez  
New York University  
New York, NY 10012

This month's section is dedicated to my former Parasitology instructor, Dr. Larry S. Roberts. He has made the field of parasitology captivating for thousands of students, and inspired me to write about science. His legendary textbook continues educating and inspiring students throughout the world. We are very fortunate that he continues revising his work and conveying the excitement of studying parasites.

## NABT Affiliate Members

- Biology Association of Teachers of St. Louis
- Biology Teachers Association of New Jersey
- California Biology Education Association
- Cleveland Regional Association of Biologists
- Colorado Biology Teachers Association
- Empire State Association of Two-Year College Biologists
- Illinois Association of Biology Teachers
- Illinois Association of Community College Biologists
- Indiana Association of Biology Teachers
- Kansas Association of Biology Teachers
- Louisiana Association of Biology Educators
- Maryland Association of Biology Teachers
- Massachusetts Association of Biology Teachers
- Michigan Association of Biology Teachers
- Mississippi Association of Biology Educators
- New York Biology Teachers Association
- South Carolina Association of Biology Teachers
- Texas Association of Biology Teachers
- Virginia Association of Biology Teachers
- Western Pennsylvania Biology Teachers Association

*The National Association of Biology Teachers thanks its affiliate organizations for their support & for their efforts to further biology & life science education.*

<sup>1</sup>Seville, R.S., Couch, L., Seed, R., Chappell, C., Caira, J. & Patton, S. (2004). Infection in the classroom: Parasites as models to teach biology. *The American Biology Teacher*, 66, 43-49.