

## IMAGES

### Bringing Bugs Into Focus

Teachers looking for just the right illustration to clarify a microbiology lab or lecture might want to visit the Microbe Library. Since last reviewed by NetWatch (9 June 2000, p. 1699), the educational site from the American Society for Microbiology has begun charging for course materials, but most of the visuals remain free. Check out more than 350 photos, diagrams, and videos from microbial mug shots to animations that explicate biological processes such as gene regulation and DNA repair. Tutorials can help students master tools and techniques such as acid-fast staining, used to identify bugs such as tuberculosis bacteria that shrug off traditional dyes. These stills (above) come from an animation that shows how a coated virus infiltrates an animal cell.

[www.microbelibrary.org](http://www.microbelibrary.org)

## DATABASE

### Bad for the Genes

Need to know which genes the neurotoxic pesticide DDT meddles with? Wondering how the toxic metal cadmium affects erythropoietin, a hormone that spurs blood cell production? Drop by the prototype Comparative Toxicogenomics Database, sponsored by the National Institute for Environmental Health Sciences and the Mount Desert Island Biological Laboratory in Maine. The collection allows you to determine which genes respond to a particular compound, to find out which species the interaction has been studied in, and to answer other questions about hundreds of chemicals.

The information comes from papers cited in PubMed and in databases such as GenBank and SwissProt, but the site's creators hope that researchers will contribute their own findings.

## RESOURCES

### How to Read an Elephant

Elephants trumpet, rumble, roar, and produce a variety of other sounds, but their giant bodies are surprisingly expressive, too. Scientists and pachyderm fans can learn to interpret this sign language at ElephantVoices, hosted by two Norway-based researchers, one of whom has spent 30 years observing the beasts. The site's photo-packed Visual and Tactile Signals Database decodes more than 100 forms of African savanna elephant communication. An elephant that waggles its head usually wants to play, while the youngster below is nudging its mother to ask for a drink. The site also includes a small archive of elephant sounds and backgrounders on why and how the animals communicate.

[www.elephantvoices.org](http://www.elephantvoices.org)

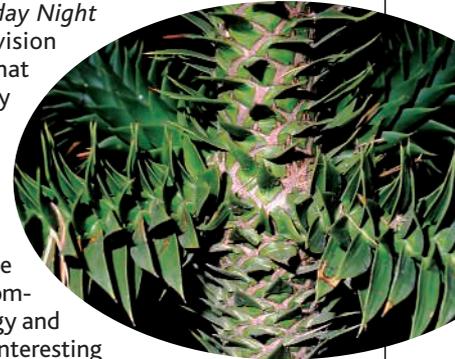


[ctd.mdibl.org](http://ctd.mdibl.org)

## WEB TEXT

### A Natural History Sampler

Wayne's Word isn't a *Saturday Night Live* sketch; it's a lower-division textbook on natural history that began 10 years ago as a cheeky newsletter about topics such as avoiding mountain lion attacks. Author Wayne Armstrong, a professor at Palomar College in San Marcos, California, eventually expanded the work into an online text to accompany his courses on basic biology and botany but continued adding interesting



anecdotes about natural history subjects. For instance, Armstrong discusses speculation that Vincent Van Gogh's paintings owe something to the plant compound digoxin, which he took to treat his epilepsy. Heavy users have reported seeing rings around stars like those in Van Gogh's painting *Starry Night*. The site's roughly 2300 illustrations include many of Armstrong's photos, such as this shot of the formidable leaves of the monkey puzzle tree (above).

[waynesword.palomar.edu/wayne.htm](http://waynesword.palomar.edu/wayne.htm)

## BLOGS

### A Year in a Physicist's Life

Einstein's unkempt appearance was likely essential to his adoption as a pop icon, argues David Waller of the Sudbury Neutrino Observatory in Canada, who suggests that physicists commemorate Einstein by growing big hair. Directing a beam of protons to a detector 1000 meters away reminds Debbie Harris of Fermilab in Illinois of giving birth, because both processes have to occur in stages. These are highlights from Quantum Diaries, a new project sponsored by a coalition of particle physics labs to commemorate 2005's World Year of Physics. More than 20 physicists from around the world will chronicle their opinions, interests, successes, and failures over the next 12 months with regular dispatches, video

clips, and photos. So far, participants have weighed in on everything from how they got started in the field to the connection between physics and jazz.

[interactions.org/quantumdiaries](http://interactions.org/quantumdiaries)

Send site suggestions to [netwatch@aaas.org](mailto:netwatch@aaas.org). Archive: [www.sciencemag.org/netwatch](http://www.sciencemag.org/netwatch)