

RESOURCES

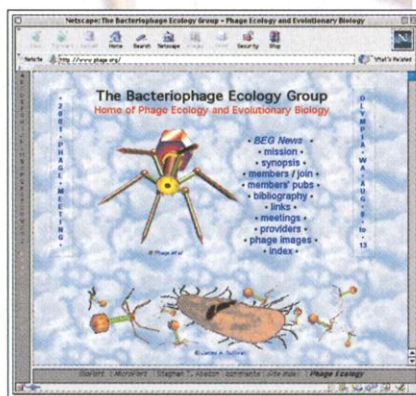
Going Through Phages

Next time you're laid low by strep throat or a sinus infection, take comfort in knowing that those misery-inducing bacteria may themselves fall victim to disease. In fact, bacteria-slaying viruses known as bacteriophages—and kindred viruses that attack amoebas, algae, and other single-celled microbes—may be the most diverse and numerous organisms on the planet.

That's according to The Bacteriophage Ecology Group, a site started 4 years ago by microbiologist Stephen Abedon of Ohio State University, Mansfield. Born of his frustration at the lack of cohesion among the biologists who study bacteriophage ecology and evolution, the site will encourage collaboration and help define this emerging—and sprawling—field, Abedon hopes. It spans everything from studying the role of phages in antibiotic resistance to trying to enlist them in combating human staph infections.

One major site offering is a periodic newsletter that covers topics such as the use of phages as models for human viruses. You can also track down kindred researchers from around the world or troll a 3500-paper bibliography and list of recent publications. Other features include a passel of phage-themed links and a gallery of micrographs and cartoons. Sit back and enjoy the animation showing a lunar lander-like phage injecting its DNA into a cell.

www.phage.org

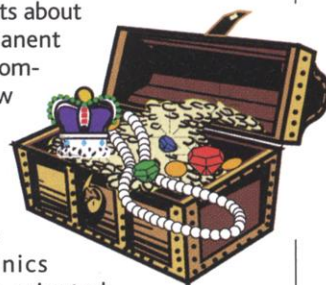


mentioned in NetWatch in 1998. And Weisstein, an astronomer who began compiling facts about a decade ago, last year found a permanent host for the free site at math software company Wolfram Research, where he's now resident encyclopedist.

Entries vary in length, from a few words for chemistry terms to several pages for the Navier-Stokes equations, a set of fundamental fluid mechanics formulas. Others are more lay oriented:

For "season," Weisstein laments erroneous explanations and includes a movie showing how Earth's tilt changes over the course of the year. The site's centerpiece (part of which has been published as a book) is MathWorld, which offers definitions, diagrams, and references for nearly 10,000 terms—from the A-Cordial graph to the Zsigmondy theorem. Especially popular among students are the brief biographies of more than 1000 scientists. Frustrated by a missing entry? Take up Weisstein's invitation to contribute.

www.treasure-troves.com



REVIEWS

Neandertal Nook

A flurry of recent evidence fueling a debate over whether Neandertals were related to modern humans inspired Neandertals and Modern Humans: A Regional Guide. The site is run by Scott J. Brown, "an independent anthropological researcher and writer" who believes the stocky, low-browed hominids who died out about 30,000 years ago "were far more intelligent and capable than many anthropologists have suspected." Despite his own views, Brown has attempted to evenhandedly summarize evidence from Europe and Asia—such as genetic analysis of bones, and a Neandertal child's skull that's said to have modern traits. The well-referenced site also includes links to relevant books, journals, museums, societies, and research institutions.

www.neanderthal-modern.com

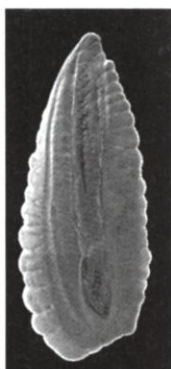


TUTORIALS

Fish Stories

To learn the life histories of their slippery subjects, fisheries scientists pull out the animals' otoliths—small ear bones with microscopic growth rings. The otoliths' shape and elemental content reveal everything from a fish's species and age to its migratory wanderings. This site offers a thorough introduction to otoliths, from how the growth rings form to various analytical techniques (such as radiochemical dating and laser assays). A section for students includes directions for a high school-level otolith class project.

www.mar.dfo-mpo.gc.ca/science/mfd/otolith/english/daily.htm



ENCYCLOPEDIAS

Growing a Book of Science

To look up, say, "brown dwarf," "pendulum," or "Navier-Stokes equations," you could consult any number of free Web dictionaries. But these corporate sites often lack the breadth, detail, and occasional quirkiness of those built by lone fact aficionados. Those seeking such an experience may want to check out Eric Weisstein's Treasure Troves of Science. This storehouse of definitions for math, astronomy, physics, and other topics has grown considerably since it was

CATALOGS

Meteorite Stash

About 60 meteorites have been found in Canada, including Tagish Lake; fragments from a fireball over the Yukon last January may be the most primitive meteorite ever identified (see Report on p. 320). The Provincial Museum of Alberta hosts a site describing where and how each of the country's meteorites was discovered.

www.geo.ucalgary.ca/cdnmeteorites

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