NetWatch

edited by Mitch Leslie

IMAGES

Island Hopping

Mangrove forests reinforce tropical coastlines, filter runoff, and house throngs of terrestrial and aquatic organisms such as this multicolored crab (right; *Goniopsis cruentata*). Discover more about the intricate ecology of these forests at this snappy virtual tour from the Smithsonian Institution. The excursion circles Mangal Cay in Belize, an island that features a peat bog, mats of cyanobacteria, and tree-climbing shellfish. Twenty-four stops delve into topics such as mangroves' aerial roots, called pneumatophores. These structures pipe oxygen into the soil, promoting the oxidation of toxic compounds. Visitors can also dive into the waters surrounding Mangal Cay, home to everything from delicate anemones to crocodiles, and learn about threats to mangrove forests such as coastal development and shrimp farming.

www.mangroves.si.edu/Trail/VirtualTour.html

TOOLS

A Bigger BLAST

The new site SEQUEROME* supplies a suite of tools for analyzing the results from BLAST searches of DNA and protein sequences. At your fingertips are buttons that allow you to identify where particular DNA-chopping enzymes will cut the sequence or determine what amino acid string it codes for. InstaSeq,† another offering from the same group at Georgetown University in Washington, D.C., scans the Web as well as gene databases for particular DNA, RNA, or protein sequences. The tool can rummage through Microsoft Word files, PDFs, and Web pages.

* sequerome.georgetown.edu/blast/index.jsp

† bioinformatics.georgetown.edu/InstaSeq.htm

EXHIBITS

Secrets of the Phage

After scraping through his chemistry and biology classes, Salvador Luria (1912–1991) only entered medical school in his native Italy because of parental pressure and "my own lack of alternative inclinations." Luria caught the science bug, though, and some 40 years later shared the 1969 Nobel Prize in physiology or medicine for pioneering work on viral genetics. The latest installment in the U.S. National Library of Medicine's Profiles in Science series looks back at his life and career. He was one of the first researchers to harness bacteriophages—viruses that attack bacteria—to probe the mechanics of inheritance. At the site, you can browse photos, letters, selections from Luria's laboratory notebooks, and other documents. For example, you'll find his breakthrough 1943 paper with biophysicist Max Delbrück that solidified the then-controversial idea that bacteria have genes.

profiles.nlm.nih.gov/QL

RESOURCES

Ecology's Early Years

Just about any ecology text will highlight the work of British researcher David Lack (1910–1973), who argued that moderate-sized clutches of bird eggs yield the most surviving offspring. But most books don't supply much information about Lack himself. For brief biographies of Lack and more than 100 other early ecologists, evolutionists, and biogeographers, flip through this reference from Charles Smith, a science librarian at Western Kentucky University in Bowling Green, and colleagues. The site spans the 17th century to 1950 and describes each researcher's significance, provides a chronology, and includes links to any online books or papers. You can dig up details about figures such as the Scottish-born Alexander Wilson (1766–1813), who compiled the first catalog of American birds in between writing poetry.

www.wku.edu/~smithch/chronob/homelist.htm

FUN

Playing Patterns

For an amusing connection between math and music, tune in the new site Wolfram-Tones. Orchestrated by the company Wolfram Research of Champaign, Illinois, the site plays compositions based on cellular automata: complex geometrical patterns that arise from simple rules relating the color of a particular square to the colors of its neighbors. A section from one of these diagrams can serve as a musical score (above), in which the height of each square indicates the pitch of the note. The site lets you cue up songs in genres from hip-hop to country to Latin, or assign different instruments. You can also play around with the underlying math by altering the rule that generated the pattern.

tones.wolfram.com

Send site suggestions to netwatch@aaas.org.
Archive: www.sciencemag.org/netwatch

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