WebWatch

A Ray of Science

Thousands of birds fell dead from the sky. A short distance away, 100,000 dead fish washed up on the shores of the Arkansas River. Over the New Year holiday, these sensational stories made headlines in every major newspaper across the country. Is the sky falling? Is the world coming apart at the seams? Fortunately, answers to these questions come not from the mainstream press, but from scientific investigators. Thankfully, there is a healthy, active science press on the job to give us the details. Front and center in any science reporting is ScienceRay, an online news site focused on chemistry, biology, environmental science, and physics, whose well-written articles are a voice of reason amidst the noise of a sensationalistic world. From a long set of essays on Galileo to the epidemic of bird, bat, and bee deaths, ScienceRay has it covered. [<http://scienceray.com>]

Pro-Literacy

It's hard not to admire the efforts of ActionBioscience, a noncommercial enterprise whose goals are to promote bioscience literacy and education. The group's central aims include linking research developments to everyday life, encouraging students to pursue careers in the biosciences, and promoting global awareness. The opening page of the web site introduces visitors to biodiversity, the environment, genomics, biotechnology, evolution, and new frontiers in this discipline such as bioscience literacy and science/technology in the 21st century. Under each subheading, users will find hyperlinked articles clearly and carefully written by experts. Some stories are provocative ("For Sale: Iceland's Genetic History"), while others just make for great reading ("Mitochondria and Aging"). Whatever your level of interest in the biosciences, you'll find something to catch your attention at the ActionBioscience site. [www.actionbioscience.org]

Environmethodology

Environmental science may encompass large physical spaces, but it also depends on analyses that extend down to the molecular level. Serving the needs of the discipline is the National Environmental Methods Index (NEMI), a web-based resource of microbiological, chemical, and biological methods for assaying relevant microbes, chemicals, and other vectors within the environment.

Show and Tell

In all of nature, there might not be a group of living organisms that elicits a stronger emotional response than the reptiles. From fright to delight, students will "eww" or "aww" whenever they see a snake, for example, onscreen. While for many, pictures are as close as they want to get to these organisms, for others, the images serve as introductions to creatures that can affect their career decisions or their choice of exotic pet. Mike Pingleton, who manages the Amphibian and Reptile Image site, clearly understands the impact reptiles can have; for the curious, his web site overflows with quality photographs of his subjects. [www.herp-pix.org]

Eastern hognose snake (*Heterodon platirhinos*), North Carolina. © 2008 by Mike Pingleton.

Relevant techniques related to regulatory affairs, physical approaches (pH, conductivity, etc.), and toxicity are also there for the asking. Sponsored by the US Geological Survey and the EPA Office of Water, NEMI brims with downloadable, publicly available protocols that can be retrieved via a search function or by browsing. For analytical methods not in the public domain, NEMI returns relevant links, allowing users to quickly obtain needed information. [www.nemi.gov]

SciZine

When communication is your oyster, you have a built-in advantage for self-promotion. Students at New York University's Science, Health, and Environmental Reporting program clearly know their way around the pressroom. Their online effort—called Scienceline ("the shortest distance between you and science")—is a well researched, feature news site that looks more like the output of *Wired* or *Discover* magazine than of students in training. Written in comprehensible language, Scienceline superbly spotlights the student writers and editors. At press time, readers could choose between a wide-ranging collection of articles, including a controversial road through the Serengeti, curious monkeys, and the relationship between language and thinking. [www.scienceline.org]

Open Pathways

Currently in beta-stage testing, WikiPathways' "Pathways for the People" has a title that says it all. Pathways are the heart and soul of biochemistry and WikiPathways focuses on curating them for the scientific community in an open, public format. Unlike the pathways in your parents' biochemistry textbooks, WikiPathways intermingles traditional metabolic pathways with the vast number of cellular signaling pathways that have been elucidated. The site's design is outstanding, making information retrieval easy and straightforward. If you're wondering how many pathways involve the *fos* gene, analysis by the search engine gives the answer (120), which is organized by species. Pathway collections for entire species can be downloaded, and registration buys you the ability to upload new or edit existing pathways. [www.wikipathways.org]

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