USGS

IMAGES

Eye on the Planet

The fate of a swath of Brazilian rainforest is ominously depicted in these images showing the spread of roads and adjacent logging between 1975 and 1992 in Rondônia. This and other environmental stories are told in Earthshots, a U.S. Geological Survey (USGS) site featuring articles based on images from the Landsat satellites first launched in 1972 (www.usgs.gov/Earthshots). Landsat has documented, for example, the abandonment of farmland near Chernobyl, Antarctica's Filchner Ice Shelf calving off three huge icebergs, the eruption of Mount St. Helens, and Cambodia's attempts to stem monsoon floods with canals. Earthshots' goal, says USGS's Bruce Quirk, is to demonstrate "what's happening on the face of the Earth over time and how important it is to monitor our environment."

HOT PICKS

Above the fold. Probing the shapes of proteins can shed light on their roles in living systems. Biologists can get a fresh perspective with a new database, described in the September issue of *Protein Engineering*, that uses "combinatorial extension" to compare some 8000 proteins. cl.sdsc.edu/ce.html

Particle particulars. Whether you need to know how a lepton decays or want to explain the top quark to your kids, this particle physics Web directory has it all: databases, experiments, e-print archives, educational sites, and more. www.slac.stanford.edu/library/pdg

Personality plus. "What makes us who we are?" asks this new online exhibit on personality, where you can explore topics like human nature, behavior, and genes and society—or take a test to find out how people perceive your persona. www.learner.org/exhibits/personality

NET NEWS

Hepatitis Project Sows Seeds for Watching Bioweapons

A Department of Energy researcher has quietly launched a system for monitoring potential biological weapons testing—while building a unique public health Web site. U.S. and Russian doctors are using the site* to track hepatitis, but Alan Zelicoff hopes a similar project could someday help detect outbreaks from clandestine use of bioweapons.

A physician and weapons control expert at Sandia National Labs in New Mexico, Zelicoff says he wanted to get rival nations to cooperate on monitoring compliance with the Biological and Toxin Weapons Convention that took effect in 1975. One way to do this, Zelicoff figured, would be to get U.S. and Russian experts working together on a noncontroversial epidemiologic project via the Internet. The survey methodology could later be used to watch for hints of biological weapons, such as a spate of plague cases that might have resulted from a leak at a bioweapons factory. Zelicoff chose to begin by monitoring hepatitis C, an often symptomless disease that causes liver failure. Three hospitals in New Mexico signed up, along with a Russian hospital in Snezhinsk, near the military center of Chelyabinsk.

Since June, medical staffers at all four locations have been conducting random surveys of patients—700 so far—as they enter the hospital, looking for risk factors associated with hepatitis C. Survey responses and diagnostic test results with personal info removed are posted on the Web as they're entered into a database.

The team hopes to publish a paper next year. In the meantime, Zelicoff says, he hopes to sign up another research site—a former biological weapons institute, called VEKTOR, in Siberia.

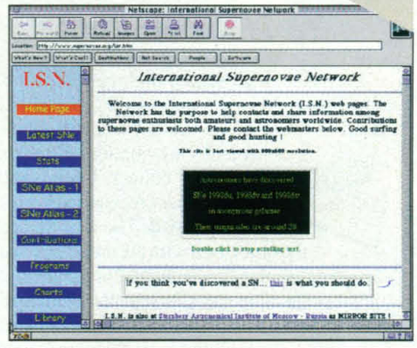
* www.cmc.sandia.gov/HEP_C

SITE VISIT

Headquarters for Stars That Go Boom

Amateur astronomers help their professional colleagues by watching out for comets and eclipses. A small but dedicated band also aids in the search for supernovae, the explosive deaths of giant stars. Their work appears at the International Supernovae Network (ISN) Web site—organized by a factory accountant, an insurance agent, and a truck driver who moonlight as supernova sleuths.

www.supernovae.org/isn.htm



With snapshots of new flares of light in distant galaxies and frequently updated tables, the site chronicles the locations, brightnesses, and other details for the 106 supernova discoveries logged so far by amateurs, as well as the dozens per year spotted by professionals. Also featured are blurbs about top amateur hunters—such as record-holder Robert Evans, an Australian minister who with his 16-inch backyard telescope and photographic memory of galaxies has found 36 supernovae to date. Supernova searching, says co-Webmaster Steve Lucas, has "in the past had moments of bittersweet disappointment, when the information of a suspect star could not be confirmed and was lost to the astronomical community." Thanks to the ISN site, where hints of new objects are shared, many stars no longer blaze out without an obit.

SCIENCE ONLINE

Reader experiences have always been an integral part of *Science*'s Next Wave. After several months' hiatus, forums are now back—and unmoderated, a first for *Science*. Log on to share your views about affirmative action in science training or to get expert advice on the next step to take in your career. www.nextwave.org/discussions

Send Internet news and great Web site suggestions to netwatch@aaas.org