NetWatch

edited by Mitch Leslie

EDUCATION

Dive Into the Undersea World

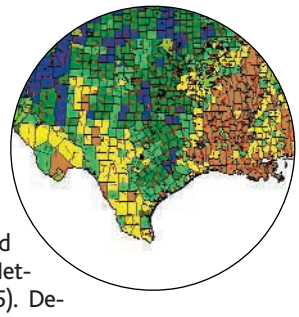
If you've ever wondered what it's like to nose up to the strange creatures that thrive around deep-sea vents, check out Ocean Explorer. The educational site from the National Oceanic and Atmospheric Administration (NOAA) brims with videos, animations, maps, and photos describing the world's largely unexplored seas.

Students and other visitors can follow current or recent NOAA expeditions to destinations such as the seamounts of the Gulf of Alaska, where in August scientists documented a dazzling assortment of colorful corals. Or visit the Magic Mountain site more than 1700 meters below the surface near Vancouver Island, Canada. Discovered in the early 1980s, chimneys there spew searing, sulfur-rich water that nurtures bacteria, tubeworms, crabs, and pallid octopods. Users can also peruse a gallery of undersea life (above, a sea anemone), tune in to sounds such as the throbbing song of a blue whale, or read up on ocean-probing technologies like submersibles.

oceanexplorer.noaa.gov

TOOLS

Follow the Birds



This mapmaker* from the U.S. Geological Survey integrates land-use data with results from the annual North American Breeding Bird Survey, which for nearly 30 years has tallied avian numbers across the country (Netwatch, 28 September 2001, p. 2355). Designed to help conservation planners, the site lets users chart developed and agricultural acreage, vegetation types, wetlands, and other geographical information, along with more than 1000 bird survey routes. On this map (above) of Texas and adjacent states, for example, blue and green denote areas with the highest amounts of grassland. You can click on bird survey paths to summon census data, or search for all the routes near a particular location. The tool also lets you glean historical trends for a route or region.

Hunting for more bird population databases and atlases? This site† connects to a dozen others covering everything from waterfowl to the sage grouse.

* umesc-ims01.er.usgs.gov

† birdcon.nbii.gov/monitoring_links.html

RESOURCES

Science in the Election

Voters interested in the positions of the 2004 U.S. presidential candidates on science and technology policy have a new online reference* from the Massachusetts Institute of Technology chapter of Student Pugwash USA, a nonprofit group that promotes social responsibility in science. The site details the stances of U.S. President George W. Bush and Democratic challenger John F. Kerry on topics such as bioterrorism, stem cell research, climate change, and renewable energy. The nonpartisan policy briefs are stocked with links to references. Project leader Daniel Collins, a graduate student in environmental engineering, expects to add more reports before the November election. "Hopefully, it will encourage people to think about these issues," he says.

For another source of information, see the candidates' responses to questions from *Science*.†

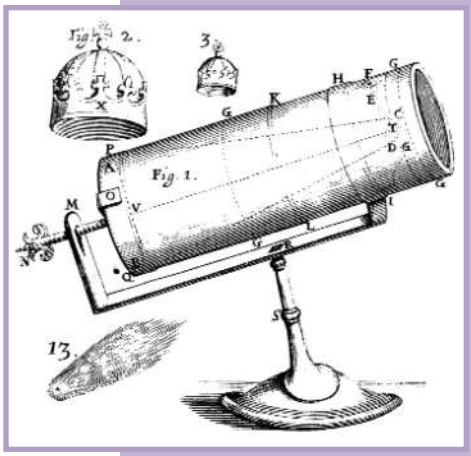
* web.mit.edu/pugwash/electionguide2004

† www.sciencemag.org/cgi/rapidpdf/1104420.pdf

EXHIBITS

New Light on Newton

We usually think of Isaac Newton (1642–1727) as a supreme mathematician and scientist who co-invented calculus, dissected a light beam, and quantified gravity. But he was also a "radical Protestant" who saw himself as having been "chosen to interpret prophecy," says science historian Robert Iliffe of Imperial College in London. Both sides shine through at The Newton Project, an online storehouse of documents that range from his early notebooks to never-before-published commentary on the Book of Revelation.



To plumb Newton's more familiar persona, browse 30 scientific works, including his first published essay on optics and a 1672 design for a new reflecting telescope (left). But Newton wrote more pages about the Bible than about light and gravity. His "Treatise on Revelation" includes rules for deciphering scripture: "to chose those interpretations which are most according to the litterall meaning of the scriptures unles where the tenour & circumstances of the place plainly require an Allegory." Iliffe says that many scientists know that Newton "was up to something funny"—delving into religion and alchemy. By juxtaposing his scientific and theological writings, the project team hopes to help scholars understand how these strands of thought reflect Newton's worldview.

www.newtonproject.ic.ac.uk

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

CREDITS (TOP TO BOTTOM): USGS; NOAA; THE NEWTON PROJECT

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