

"minimal monitoring" of the free preprint repository. In the peer-reviewed area, the company aims to include several new journals it is launching "later this year and early next year," says Miranda Robertson, managing director of New Science Press Ltd., a member of CSC. Focusing on breast cancer, arthritis, and genome biology, these journals will publish accepted scientific reports on the Web at no cost to readers. But visitors will have to pay fees to access news reports, reviews, and commentaries. CSC and NIH are only the first to throw their hats in the ring: Elsevier Science in the Netherlands and the *British Medical Journal* in London are said to be planning their own preprint repositories.

It is "inevitable," Robertson believes, that scientific data will be shared freely on the Web. The publisher's main function has shifted from managing distribution of new results to "making it easier for people to keep on top of what's going on" by providing news and analysis, she says.

Lights in the Sky

SITE VISIT

People once thought that the northern lights were the reflection of fires at the edge of the world or beacons showing the way to the afterlife. We now have a less romantic explanation for the aurora borealis: The light is given off when charged particles from the solar wind, guided by Earth's magnetic field, smash into oxygen and nitrogen in the atmosphere. Want to know more? The Aurora Web site of the University of Alaska, Fairbanks' Geophysical Institute offers an illuminating collection of aurora facts and resources.

Aurora forecasts are the site's most popular feature, says the institute's Donald Rice. Based on solar activity, the Web team estimates how riotous a show might be 3 days in advance and posts charts indicating where best to view it. Another section explains the physics of the northern lights, offers photography tips, and answers frequently asked questions. (Does the aurora make sounds? Scientists don't think so, but research continues.) The Japanese beer company Asahi sponsors a tutorial on the aurora that includes striking images, and the K-12 section explains auroras for various age groups.

One part of the site aimed at researchers describes the Poker Flat Research Range, a rocket launch pad and science station for ionospheric experiments. Scientists can also download space physics data sets. And don't miss the film clips from the Aurora Color Television Project, an experimental video camera that captures auroral activity with a sensitivity 20,000 times that of typical film cameras.

Science ONLINE

For scientists with a pedagogical bent, *Science's* Next Wave starting today explores careers in teaching at high schools and universities. Next Wave essayists discuss how they made the transition from lab to classroom. www.nextwave.org

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

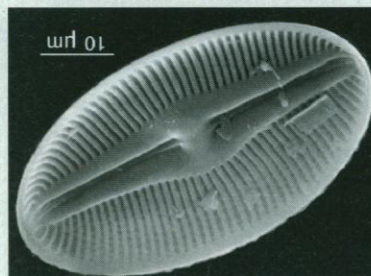
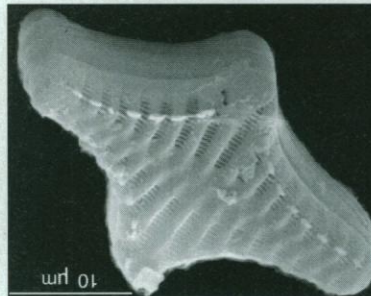


www.pfrr.alaska.edu/~pfrr/aurora

COOL IMAGES

Plants in Glass Houses

If they were 10,000 times bigger, there's no telling how one might make use of diatoms, the shapes of which bring to mind everything from hubcaps to baskets and combs. Their diversity belies a common theme: The tens of thousands of species of these unicellular algae all have a two-piece silica cell wall, like a pillbox with a cover. Diatoms are more than a curiosity. Scientists use them as indicators of water quality, for instance, and study their buried remains for clues to past climate. These scanning electron micrographs of freshwater diatoms (above) come from a Web gallery that links to taxonomic databases, diatom catalogs, and many other algae sites. At another diatom site[†] in Holland, stunning optical microscopy photos elevate diatoms from tiny translucent plants to art form.



Protein shake. Animated proteins flick back and forth between conformations at the Database of Macromolecular Movements. The site classifies hundreds of proteins and other biomolecules how they move in living cells (such as sliding or swiveling like a hinge) and can generate movies on the fly from your own data. bioinfo.mbb.yale.edu/MolMovDB

Grad school rap session. Feel free to vent about, or praise, your doctoral program by filling out a new Web survey that will rate departments on things like quality of teaching, mentoring, and time to degree. www.phds.org

NET NEWS

Commercial Web Archive for Biomed Preprints?

Riding a wave of excitement over a U.S. National Institutes of Health (NIH) proposal to launch a biomedical publishing site on the Web, Current Science Group (CSG) of London, a commercial publisher, announced on 26 April that it, too, intends to distribute peer-reviewed biomedical papers on the Internet for no charge. The company will also set up a free "preprint repository" like the scheme unveiled last week by NIH director Harold Varmus (*Science*, 30 April, p. 718). CSG chair Vitek Tracz's plan is an archive of unrevised, unedited papers. A CSG notice promises