

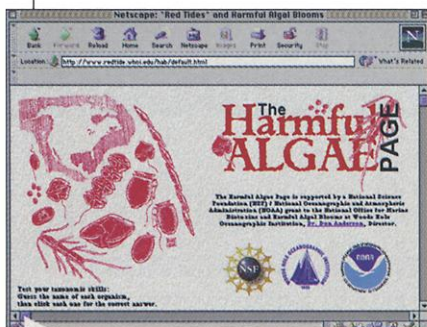


IMAGES

Homewrecker

To medieval Europeans, the consequences of provoking God's wrath are highlighted by this 1493 German woodcut of a biblical earthquake. For more allegorical quake art, as well as drawings and photos of fissures, collapsed buildings, and buckled roads, check out the National Information Service for Earthquake Engineering.* Its database of over 10,000 images includes a historical collection depicting earthquakes from Quito to Japan, where mid-1800s artists blamed a giant flopping catfish beneath the earth for quakes. Another set of images focuses on structural design—trusses, domes, suspension bridges, and the like. Hundreds of photos of quake damage include the recent temblors in Turkey and Taiwan.

*www.eerc.berkeley.edu/visual_resources



www.redtide.whoi.edu/hab/default.html

SITE VISIT

Algae That Kill

What may look like a blazing oil slick can turn out to be a kilometers-long carpet of marine algae, their luminous bodies setting the ocean aglow. These outbursts of algal exuberance sometimes have a dark side: Algal toxins have been blamed for everything from fish kills in North Carolina to a manatee massacre in Florida to the 1987

deaths of four Canadians who consumed tainted mussels.

Anyone intrigued by toxic algal blooms—more commonly called red tides, although they're neither tide-driven nor always red—can turn to the eclectic Harmful Algae Page, started 4 years ago by marine ecologist Donald Anderson of the Woods Hole Oceanographic Institution. To get a feel for what scientists are up against, start with the photos, a gallery of rogues that poison their enemies—such as the dinoflagellate *Alexandrium tamarense*—or stab them to death—including a *Chaetoceros* species that plunges its serrated spines into the gills of fish.

A section on human illnesses describes the five main kinds of algal seafood poisoning, which causes symptoms such as diarrhea and numbness. Illuminating the scope of the problem, a set of maps shows past algal blooms in U.S. coastal waters, and a short essay delves into why the number of blooms seems to be rising—better surveillance and nutrient-laden pollution are suspected. Researchers can search a directory of algal specialists, browse documents that spell out state, federal, and international research and control efforts, and access references and outside links.

NETWATCH

edited by JOCELYN KAISER

NET NEWS

Hawaii Telescopes Get Fast Link

For astronomers who travel to Hawaii to use the telescopes atop Mauna Kea, the trip is no junket: It takes a day or more of flying and a 2-hour ride up treacherous roads to reach the chilly 4200-meter summit. Even then some researchers face bouts of altitude sickness. However, this hardship assignment may soon be much less common. A new high-speed data link to the U.S. mainland will pave the way for operating the world-class Gemini and Keck telescopes without setting foot on Hawaii's Big Island.

Actually, the old way of doing astronomy was already on the way out. Since 1997 most scientists have operated Mauna Kea's two 10-meter Keck telescopes from a nearby town, using videoconferencing and computer control panels identical to those at the top; the year-old 8-meter Gemini North telescope has a similar setup. And astronomers will soon be able to run the Kecks from the continental United States. Announced last week, the high-speed connection, which uses a Defense Department undersea cable from Oahu to California, provides a 45-million-bit-per-second link to the still-faster Internet2 backbone connecting U.S. research universities.

Distant astronomers won't be able to operate a Keck from any old computer; you'd have to rely on the slowpoke regular Internet for the last kilometer or so, and there are security concerns. ("We don't want hackers moving a 600-ton telescope," explains Gemini's Jim Kennedy.) Instead, astronomers will work from a special room linked to Internet2, such as one at the University of California (UC), Santa Cruz, that should be operating by July, serving the 40 or so Keck users there, says Lick Observatory's Robert Kibrick. Several other UC campuses hope to jack in by year's end.

For Gemini North, whose twin telescope is approaching completion in Chile, the near-term goal is remote control from either Chile or Hawaii by way of an Internet2 link between the United States and Chile planned for next year.

HOT PICKS

Cyber-anchor. A British news agency last week trotted out the world's first virtual newscaster, a computer-generated Posh Spice look-alike who reads breaking news 24 hours a day. Face animation researchers told NetWatch that Ananova, as she's called, shows how far the field has to go to make a realistic talking head: Deaf people can't easily read her lips, for example. Still, the text-to-speech software behind her attractive face is state of the art. www.ananova.com

Sprouting genome. Over 14,600 expressed sequence tags, fragments of genes used as probes, have just been released for *Medicago truncatula*, an alfalfalike plant used as a model for studies of legumes. www.ncgr.org/research/mgi

Lingua paleo. Visit the Polyglot Paleontologist to download English translations of papers, originally published in French, Chinese, and other languages, on everything from insects to dinosaurs. So far the site features 120-odd papers from 1873 to the 1990s and welcomes suggestions of promising ones to be translated. www.uhmc.sunysb.edu/anatomicalsci/paleo

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

