SCIENCESCOPE

edited by CONSTANCE HOLDEN

Red Alert

Chinese authorities are scrambling to deal with an exotic threat in their waters: a "red tide" of microscopic algae that last week caused massive fish kills off the Hong Kong and South China coasts.

"This is a new problem for them," says Don Anderson of Woods Hole Oceanographic Institution in Massachusetts. Although the region experiences periodic algal visitations, this was the first from a major fish killer, the neurotoxic *Gymnodinium*. Officials say the noxious bloom originated north of Hong Kong and drifted southwestward, leaving an estimated 1500 tons of dead and rotting fish in its wake. Zhang Qi, a fish farmer in South China's Guangdong Province, told *Science* he lost 300,000 of his 1 million charges in a 6-hour period on 17 April.

HE LONGSHENG/*CHINA FEATURES FOR SCIENCE*

"Death tide." Victims pile up at Guishan Island, Guangdong.

While local officials blamed the event on a combination of El Niño–driven warm ocean temperatures and excess nutrients from fertilizer and sewage in the water, the causes of such a toxic eruption are very hard to determine, says Anderson. "Why it blooms in a given place and time is a result of a complex series of events" relating to temperatures, winds, and nutrients, he says.

The red tide receded after a heavy rain last weekend. But scientists and officials in Hong Kong and inland China are bracing for the next one. According to an official from the Chinese Agriculture and Fisheries Department, experts met last weekend to start mapping out a strategy for establishing a red tide "early warning system." That would include beefing up satellite surveillance: the Hong Kong Observatory is looking into how to do better tracking of such events by combining data on sea surface colors and temperatures from low-flying satellites.

Researchers Weigh New Cloning Controls

Biomedical researchers may be more receptive to anticloning regulation this summer after helping crush a Senate move in February to outlaw human cloning.

Last winter, researchers argued that a Senate bill would have forbidden useful research involving the cloning of human somatic cells, and the proposal was shelved (*Science*, 20 February, p. 1123). But now, members of the Federation of American Societies for Experimental Biology (FASEB) are considering a new scheme—along the lines of the Recombinant DNA Advisory Committee that monitors gene therapy—that would impose administrative controls, but not criminal sanctions, on some research. "The [anticloning] regulatory train is coming down the rails," says FASEB member Roger Pedersen, a radiobiologist at the University of California, San Francisco. "The president wants regulation, the Congress wants regulation"—and so do a lot of voters.

Members plan to ask FASEB to sponsor a debate on cloning in hopes of coming up with something short of a ban that both Congress and researchers can support. The FASEB council is to review this proposal on 5 May.

NAS Separates Itself From Kyoto Petition

The governing council of the National Academy of Sciences (NAS) this week took the unusual step of disassociating itself from a recent mass mailing urging scientists to lobby against the Kyoto treaty to reduce carbon dioxide emissions.

The mailing, which had a cover letter from former NAS President Frederick Seitz, included an eight-page attack on climate change research offered in a format that many scientists have mistaken for a reprint from the academy's journal, the *Proceedings of the National Academy of Sciences* (*Science*, 10 April, p. 195). NAS President Bruce Alberts says that congressional panels involved in R&D issues also have asked if the academy is involved in the petition drive, which has collected more than 15,000 signatures.

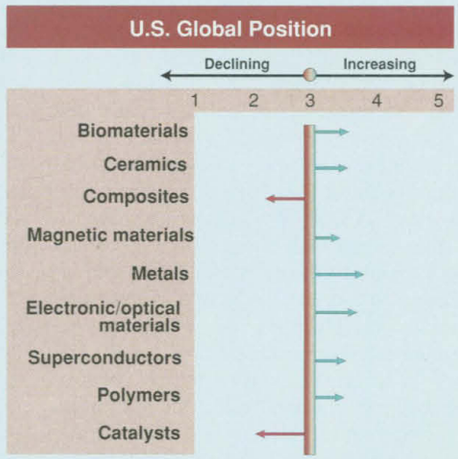
"It's important that Congress and the Administration not be confused about where we stand," says Alberts. "We're not taking a stand on the treaty, but we want everybody to know that we're not connected to the petition, that it would not have passed our peer-review system, and that in fact it takes a position that is the reverse of what the academy has said on the topic."

As an example of such efforts, the council's statement cites a 1992 academy report that concluded "greenhouse warming poses a potential threat sufficient to merit prompt responses." The date of that reference led one council member, mathematician Edward David, to abstain from voting on the resolution. "A lot has changed in 6 years, and I think our position should be based on the latest data," he says. A new academy report on the status of global climate change research is due out later this spring.

Material Wellbeing

U.S. researchers are either at the forefront or among the world leaders in virtually all aspects of materials science and engineering research, according to a new report released this week. And they are expected to remain on the cutting edge at least for the foreseeable future, with the exception of two subfields—composite materials and catalysts (see chart)—that are accorded very high priority by the competition in Europe and Asia.

Of "special concern," according to the report, produced by a joint committee of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine, is the need for a new neutron beam facility in the United States. Such facilities are used for everything from gauging the structure of polymers to tracking the behavior of electrons in superconductors. That deficiency should be remedied, however, if Congress follows through on its commitment to start building by 2000 a $1.3 billion Spallation Neutron Source at Oak Ridge National Laboratory in Tennessee.



"INTERNATIONAL BENCHMARKING OF U.S. MATERIALS SCIENCE AND ENGINEERING RESEARCH"