

# Greenhouse Bandwagon Rolls On

How much must you know about Earth to predict how mankind's depredations will change it in the next millennium? Should you understand in a general way how the ocean sucks carbon dioxide, a greenhouse gas, out of the atmosphere? Sure. Do you need a research project to learn all the details of how the ocean carries that carbon into the deep sea? Wallace Broecker thinks that's irrelevant to global change, and he is taking the unusual step of telling his colleagues so in the next issue of *Global Biogeochemical Cycles*.

It's not that the science in that project—the Joint Global Ocean Flux Study (JGOFS)—and others like it isn't worthwhile, Broecker says; it's the trendy, grant-enticing packaging that gets his goat. Too many scientists with too little to contribute to predicting the fate of the planet have discovered the funding benefits of jumping on the global change bandwagon, says the prominent and sometimes cantankerous marine geochemist at Lamont-Doherty Geological Observatory. He sees “a growing tendency for environmental science programs to hitch their wagons to the greenhouse star.” He adds: “Let's keep global change honest!”

Broecker's concern is that mislabeling will leave policy-makers, rather than scientists, to sort out “where science ends and entrepreneurship begins.” And some earth scientists agree. Paleoclimatologist Thomas Crowley of ARC Technologies in College Station, Texas, says, “It's a real concern; I'm glad Broecker has raised it. Everyone under the sun seems to be lining up under global change. It all may be good science, but some of them are doing it because they think it will help with funding.”

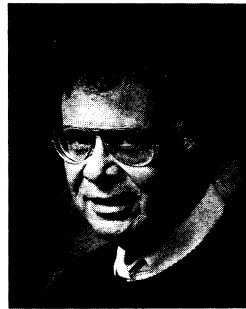
But not all researchers accept Broecker's prime indictment: what he sees as a gap between presentation and substance in JGOFS. A stated priority of the study, Broecker says, is to determine the ocean's uptake of carbon dioxide. But the study will actually concentrate on measuring flows of carbon within the ocean, mostly in the form of the organic debris produced by plants and animals. Broecker argues that these processes act largely to transfer carbon from shallow waters to the abyss but do little to draw carbon dioxide out of the atmosphere. “I would maintain that JGOFS has little or nothing to do with global change,” he says.

Not so, says James McCarthy of Harvard University's Museum of Comparative Zoology, a JGOFS participant. “Wally raises an interesting question, but I don't think anyone has oversold the role of biology. We don't understand the ocean system well

enough to base JGOFS on a single scenario such as Wally's.”

Broecker is ready to respond to such arguments with what he considers an even more egregious case, the World Ocean Circulation Experiment (WOCE). A 40-nation effort to understand ocean circulation, WOCE was conceived before global change became popular, says climate modeler Robert E. Dickinson of the University of Arizona. But, he notes, it is “now selling itself in terms of global change, though sometimes it's a little hard to see the connection.” Broecker is harsher: “I would give [even] JGOFS a better ranking than WOCE.”

But then again, Dickinson isn't convinced that the selling of WOCE is such a bad thing. Who's to say, he asks, that a detailed understanding of ocean currents won't prove vital in an effort to understand the climatic effects of carbon dioxide? “If global change were too focused, we would probably miss things,” he says. Modeler Gerald North of Texas A&M also tends to be tolerant of less-than-precise labeling of projects.



Wallace Broecker

Joe Pinheiro/Columbia U.

Giving a fundamental science project a fashionable rubric is sometimes the best way to keep essential money flowing, he says.

In any case, Dickinson says, the trend

Broecker deplores is already on the wane. A few years ago, he notes, some researchers hoped public interest in global change would provide an opportunity to stage studies on the grand scale of the International Geophysical Year of 1957-58. Global change, they thought, justified studying everything from Earth's core to its magnetosphere to the surface of the sun.

Much of that indiscriminating holistic approach is already gone, Dickinson says, and the weeding continues.

In the most recent budget cycle, for example, the National Science Foundation withdrew its mid-ocean ridge study from the federal global change package and reclassified it as basic science. RIDGE (Ridge Interdisciplinary Global Experiment) will indeed study a source of climate change: variations in the output of carbon dioxide-laden fluids from hot springs on the ocean floor. The only catch is that the resulting climate changes take millions of years. Not quite what's needed to predict the globe's temperature in 2025.

■ RICHARD A. KERR

## Boston Loses 1992 AIDS Meeting

The 1992 International Conference on AIDS will be moved from its planned site in Boston to a location outside the United States, meeting organizers announced last week. With just 8 months to go before the 1992 meeting, says Alan Fein, executive director of the Harvard AIDS Institute, “We couldn't wait any longer if we wanted to have the conference anywhere else.” An official announcement of the new location will not be made for another month, but possible sites include Montreal, London, and Madrid.

The change had been forecast. At this year's conference, held in Florence, Italy, in June, Max Essex, chairman of the Harvard AIDS Institute, which was supposed to sponsor the Boston meeting, promised it would be called off unless the U.S. government reversed its policy banning the immigration of persons infected by HIV, the AIDS virus. When the government failed to do that, the meeting's venue was changed, Essex said, because it became impossible to guarantee access to the conference for “individuals with HIV, health professionals, and other essential participants.” There were concerns that several groups, including the International Red

Cross, would boycott the 1992 meeting, as they had the last AIDS conference held in the United States, in San Francisco in 1990.

A statement issued by the U.S. Department of Health and Human Services (HHS) maintains, however, that moving the meeting “was not necessary.” The statement cites continuing efforts by HHS to get the Department of Justice to alter the policies, which in any event provide for “simple and confidential entry of persons with HIV to the United States for scientific conferences.”

But AIDS activists dispute that. Everyone agrees that current U.S. policy allows HIV-positive foreign nationals to be admitted for 30 days for business purposes, to visit relatives, and to attend professional conferences, but Peter Staley of ACT-UP (AIDS Coalition to Unleash Power) calls this tantamount to “tattooing an individual as HIV-positive.” He is referring to the requirement that infected individuals receive a stamp in their passports temporarily waiving the health restrictions barring their entry. While AIDS is not specifically stated on the stamp, Staley notes, “Every country knows what the exception is.” ■ MICHELLE HOFFMAN