EARMARKING

NSF Shivers at Senate Arctic Research Plan

When Congress earmarks federal funds for a specific institution or project, the process usually begins with the intended beneficiary bending the ear of a sympathetic legislator. But the 2000 budget for the National Science Foundation (NSF) that the Senate passed last week adds a new wrinkle to this already controversial practice: It allocates $25 million for arctic research logistics to an entity that did not request the money, doesn't want it, and says it isn't capable of administering it. NSF officials were also caught off guard by the earmark, which represents a direct assault on the agency's own activities.

The earmark comes courtesy of Senator Ted Stevens (R–AK), chair of the Senate Appropriations Committee and a longtime critic of NSF's commitment to research in the region, which includes his home state. Stevens believes that the Arctic takes a back seat to NSF's larger and more eye-catching Antarctic program within the agency's Office of Polar Programs, so last year he added $13 million to NSF's $9.5 million request for the transportation and equipment expenses needed to do science in the Arctic. This year he went a step further, proposing that the entire program, pumped up to $25 million, be turned over to the Arctic Research Commission (ARC). Never mind that ARC is a seven-member, part-time body that gets $700,000 a year to advise the government and runs on a staff of three, only one of whom works full-time. "We felt that ARC has a better handle on what is going on in the area than does NSF," says a Senate aide who follows the issue, "although we would expect them to cooperate fully with NSF in drawing up their plans."

Commission chair George Newton, a nuclear engineer with Fairfax, Virginia, consulting firm Management Support Technology, says the Senate report language was a huge surprise: "We certainly didn't ask for it." The commission runs no grants programs and has no mechanism to do so, he adds. It also has no intention of proceeding without NSF's support and guidance. "Whatever happens, we intend to stay linked to NSF," he says. "There isn't any other way to get things done in these remote regions."

Ironically, this week NSF awarded $2 million to four university-based researchers in the first installment of a 5-year, $17 million program to build environmental observatories in the Arctic. The initiative, which was heavily oversubscribed, is funded by the logistics program and could be jeopardized by a shift to the ARC.

NSF hopes to modify the Senate language when the spending bill comes up in conference with the House, whose bill contains no such provision. And there are signs that, having sent NSF a message, Stevens may be open to compromise. The ARC language is not meant to hamper the conduct of science, notes the Senate aide: "There's a lot of good work to be done there. We just want to make sure it gets the support it needs."

–JEFFREY MERVIS

Digging in. NSF-funded scientists take soil samples and other measurements at a site in Council, Alaska.

RICE GENOME

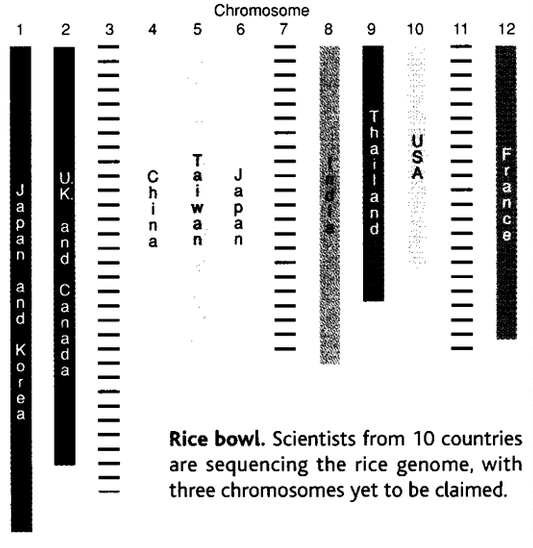
U.S. Adds $12 Million to Global Sequencing Push

PHUKET, THAILAND—Three U.S. agencies are preparing to announce grants totaling $12.3 million to help speed an international effort to sequence the rice genome. The new support, outlined last week by U.S. officials at a meeting here of collaborators from 10 countries and regions, will supplement a proposed big jump in spending by Japan, which is putting up the largest share of the overall funding for the project. But organizers acknowledge that some rough spots remain, and that the additional resources do not guarantee that the work will be finished by the target date of 2004.

The U.S. funds will be divided between The Institute for Genomic Research in Rockville, Maryland, which will receive $7.1 million; and a consortium including Clemson University in South Carolina, Cold Spring Harbor Laboratory in New York, and Washington University in St. Louis, Missouri, which will share $5.2 million. The Department of Agriculture and the National Science Foundation will each contribute $6 million, and the Department of Energy will kick in $300,000. "It's very nice news," says Takuji Sasaki, director of Japan's Rice Genome Research Program.

Last month Japan's Ministry of Agriculture, Forestry, and Fisheries requested $28 million for rice sequencing in next year's budget, double its current spending. "This [proposal] came not from the researchers but from the prime minister's office," says Sasaki, who sees it as part of a dramatic boost in all biotechnology-related spending (*Science*, 9 July, p. 183). The ramp-up is also a response to an announcement this past spring by Celera Genomics of Rockville that it could sequence the 430-megabase rice genome in 6 weeks if it received outside financing. Celera intends to use a yet-to-be-proven technique of breaking up the entire genome into small pieces, sequencing the pieces, and then using computers to sort it all out, while the consortium will proceed individually through all 12 chromosomes, a more painstaking but tested approach.

In addition to its scientific value, the project has enormous symbolic value for countries where rice is the most important cereal crop and an essential element of the region's culture. Being a participant is a point of national pride for these countries, as well as a chance to further their scientific capabilities. "In addition to funding rice sequencing, the government is about to launch an effort that will move on to functional genomics," says Apichart Vanavichit, a molecular biologist at Thailand's National Center for Genetic Engineering and Biotechnology in Nakorn Pathom, which is helping to sequence chromosome 9 (see graphic). "At the end of 5 years, Thailand will have a new [tool] for its rice-breeding programs."



Rice bowl. Scientists from 10 countries are sequencing the rice genome, with three chromosomes yet to be claimed.

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