



**Eco-capitalism.** Bioprospecting deal at preserve near Cornell could someday funnel drug profits into setting aside forests.

## Two Pitches for Saving Biodiversity

The nation needs a heftier investment in biodiversity research and education, according to a White House panel that hopes its recommendations will show up in the president's 2000 budget request. But the private sector isn't waiting around until the next century: Drug giant Schering-Plough and Cornell University have just joined forces on a novel approach to saving species.

The White House report, to be released next month, comes from a 20-scientist panel convened by the President's Committee of Advisors on Science and Technology (PCAST). The report concludes that the key to saving biodiversity is to increase knowledge about it. To do that, the panel recommends a 43% boost over 3 years in federal spending on biodiversity—from the current \$460 million a year to \$660 million—in areas such as information science, surveying species, and assessing the economic value of ecosystems.

The panel doesn't advocate sweeping changes such as creating a National Institute for the Environment. Instead, says panel chair Peter Raven, director of the Missouri Botanical Garden, "we favor bolstering existing programs." Since last fall's PCAST report on energy research helped spur a boost in the Administration's 1999 budget request, says White House environmental official Rosina Bierbaum, "there is

real reason to be optimistic" that the biodiversity report might do the same next year.

Meanwhile, a new private sector initiative suggests that throwing money at the problem isn't the only way to save species. Cornell and Schering-Plough have inked what they claim is the first deal selling bioprospecting rights in a temperate forest, a 116-hectare preserve near Ithaca, New York, owned by the Finger Lakes Land Trust. The company will pay modest sums to the trust and to Cornell, whose scientists will send it compounds from fungi to be screened for possible drugs. Potential royalties, however, could allow the trust's holdings to expand far beyond the initial \$250,000 piece of land.

## Gaia Hypothesis to Get Some Respect?

This week a group of distinguished scientists in London launched a new society promoting "Gaia science," defined as research on Earth as a self-regulating system. Although the Gaia hypothesis—which views the planet as a giant organism and has been widely adopted as a New Age tenet—is controversial, the society's mission appears more down to earth: to break down

decades-old academic boundaries and promote more interdisciplinary work in earth science.

Among the group's founders is independent British chemist James Lovelock, who first championed the Gaia concept over 30 years ago. Lovelock was struck by the role of living organisms in influencing global physical processes and suggested that the planet functions as a single superorganism. But Gaia has been dismissed by many mainstream researchers, who scoff at the notion that Earth as a whole is alive (*Science*, 19 April 1991, p. 380). "I knew Gaia would never be taken seriously until some leading scientists believed there might be something in it," says Lovelock.

Now apparently some do—at least as a theory for guiding interdisciplinary research. One is founding society member Peter Liss, an environmental researcher at the University of East Anglia. "Although living organisms have enormous impact on the atmosphere, you'd be hard pressed to find a biologist in a modern meteorology department. We want to change that," Liss says.

The society, to be based at the University of East London, also includes Chris Rapley, director of the British Antarctic Survey, and Harvard sociobiologist E. O. Wilson. Lovelock acknowledges that the society's success will depend ultimately on the rigor of its members' research.

## AXAF Set for December Launch

NASA should be able to overcome technical troubles in completing work on the \$2 billion Advanced X-ray Astrophysics Facility (AXAF) in time to avoid seriously upsetting the space shuttle schedule and endangering the Hubble Space Telescope, agency officials said this week. Nevertheless, they say, the problems will delay AXAF's launch by more than 3 months and raise the mission's price tag by as much as \$40 million.

AXAF is designed to capture x-rays sent out by distant sources in the universe. It was slated for an August launch, but problems in part with the observatory's electrical systems have slowed construction by contractor TRW Inc., of Redondo Beach, California (*Science*, 16 January, p. 318). The agency is now planning a 3 December launch, says Bill Huddleston, AXAF's headquarters manager. That will minimize the ripple effect the delay would have on the space station and other missions—particularly one devoted to servicing the Hubble, which needs a boost in 2000 to keep it in orbit.

TRW officials say they are "solidly on track" for a late summer delivery. NASA officials, meanwhile, add that at least part of the cost overrun will come out of the company's fees for building the spacecraft.

## Bishop to Head UC San Francisco

The University of California, San Francisco (UCSF), has a new chancellor: Nobel Prize-winning oncogene researcher J. Michael Bishop. The appointment last week of Bishop, a physician by training and a UCSF professor, will mark the first time the biomedical research powerhouse has been headed by a researcher, not a clinician. But Bishop will not have to oversee hospitals directly, thanks to the recent merger of the Stanford and UCSF hospitals, which are now governed by a joint management board.

That will leave Bishop with time to confront the biggest challenge facing UCSF: relocating part of the space-starved Parnassus Heights campus to a

site at Mission Bay, a 20-minute drive away. It will involve moving 200 biologists and their labs. UCSF faculty members have been jittery; they fear the split could rupture the cohesiveness of the research community. Bishop is ideal to execute the move, says associate dean of research Zach Hall, because of his years of enthusiastically fostering collaboration at UCSF. He is "enormously respected" as "a remarkably effective and selfless leader," says Hall. "It will be a joy to work with him."

Bishop plans to use the space vacated at Parnassus Heights to expand and strengthen clinical research. "This is a national need," he says, and one UCSF is "well positioned" to address.

