

Divided over united front

The muted response from the overall community to the travails of social scientists underscores the absence of a single politically oriented network or organization for science. Existing organizations, say policy-makers, face serious obstacles to playing such a role. The AAAS, for example, is a nonprofit organization that, under tax rules, can spend only a small percentage of its resources on direct lobbying. And the academy is chartered by Congress to provide impartial advice to the government. "We're not a lobbying organization," says Alberts, adding that "it would be totally impossible to defend against every cut." Indeed, last month Alberts urged Congress to spare competitive peer-reviewed research done at universities, but refrained from citing any broader concerns.

And then there is the touchy question of finances. "You don't bite the hand that feeds you," notes one science lobbyist, referring to the fact that 85% of the academy's budget comes from the government. For AAAS the figure is 12%.

But taking a cautious approach in this tumultuous new Congress will not work, others say. "The academy and other organizations feel they're above influencing Congress," says Representative George Brown (D-CA), the ranking minority member of the House Science Committee. That view, Brown believes, is naive. Wells laments what he sees as the prevailing attitude that "we're pure and working for the common good, so we shouldn't have to argue the case."

But there are moves afoot to change this. The Council of Scientific Society Presidents, for example, hopes to parlay its huge constituency—more than 100 organizations with 1.68 million members, including many science educators—into an effective fighting force. The council is "much more engaged in political dialogue" than at any time since its 1973 founding, says its executive director, Martin Apple. But that group's clout is diluted by the nature of its leading participants—part-time policy-makers with limited terms of office. "The presidents of science organizations are in many ways politically naive and conservative in areas outside their field," laments one association manager.

Wells's blueprint is more radical. He would like to see a permanent lobbying effort called the National Coalition for Science and Engineering begun by 1996. In the short term, he proposes more frequent meetings by lobbyists to share intelligence and ensure total coverage of Congress. Brown supports the idea. "You need to organize here and out in the boondocks," he says. "Fully one third of the members of Congress are on committees that play some role in science."

This kind of organization traditionally is anathema to disciplines, universities, and busi-

nesses. "We've been very poor about setting priorities between fields, unlike within fields," says Cornelius Pings, president of the Association of American Universities. "It shouldn't be a surprise we're not good at making the ties between astrophysics and cell biology." Some are skeptical that a fractious science

"None of us will get a full meal if we continue to fight each other for table scraps."

—Jack Gibbons

community can be brought together under one banner. Says Jack Crowley, lobbyist for the Massachusetts Institute of Technology: "We're a highly diverse and decentralized agglomeration of people and institutions. It's unlikely a single entity with a single voice could proclaim for all disciplines."

Making grassroots grow

Meanwhile, individual societies are trying to take the grim budget message to their constituents. Do-it-yourself lobbying kits are popping up around the country as a result of the budget threats, spread through the Internet or publications. The May/June issue of the American Society of Plant Physiologists' newsletter, for example, includes a sample letter to members of Congress. "Cuts in research funding can prove to be counterproductive in the effort to balance the budget," the draft states, because such research

helps create "thriving new markets for improved food and other plant products."

But congressional staff members warn that such letters have little effect on lawmakers if they appear to be forms filled out by dutiful members of an association. Much more effective, they say, are the tactics of the Christian Coalition, which within hours can activate members around the country through computer and phone networks, generating thousands of individual responses that capture the attention of lawmakers.

Brown believes scientists have an edge in such competition because of the respect society accords them. But setting in motion such a coordinated lobbying effort, he warns, "is going to take an act of real leadership coming from the responsible statesmen of science." Right now, Brown says wryly, "scientific lobbying is an oxymoron."

If it takes a genuine crisis to galvanize U.S. researchers, then lawmakers say this year's federal budget battles fill the bill. So far, however, the new reality has not sunk in. "The science community has been slower than other parts of the federal establishment to understand the reality of deficit control," says Representative Steve Schiff (R-NM), who chairs the House Science basic research subcommittee. "They have not grasped it."

Kevin Kelly, a staffer for Senator Barbara Mikulski (D-MD), predicts it will take the shock of cuts and urges prospective science lobbyists to keep their message as broad as possible. "They have to take the mantra of JFK: 'A rising tide lifts all boats.'" In the meantime, say Silver, Crowley, and others, the daunting challenge is to slow the outgoing tide.

—Andrew Lawler

FRANCE

Budget Ax to Spare Research?

PARIS—Ever since conservative politician Jacques Chirac was elected president of France in May, the nation's researchers have been bracing themselves for the worst. Chirac, who served as prime minister between 1986 and 1988, has never been known as a friend of French science, so there was widespread fear that the new government would take an ax to the research budget. And when, last week, the finance ministry announced that it planned to slash more than \$4 billion in public spending previously approved for the second half of 1995, there was little hope that research would emerge unscathed.

But now it appears that French science may get off easy. Although detailed figures had not been officially revealed as *Science* went to press, government sources say that the overall civilian research and development budget, which totals about \$10 billion,

is not likely to be cut. One reason is that the government feels bound by the many promises that the previous administration—also a conservative government—made to French scientists. For example, last year former Research Minister François Fillon succeeded in convincing the French Parliament to pass a law requiring France to catch up with other industrial countries such as Japan and the United States in research spending as a percentage of gross national product (*Science*, 24 June 1994, p. 1840).

And one important promise the government apparently intends to honor, at least in part, is to make up for a whopping deficit at the Centre National de la Recherche Scientifique. The budget of the CNRS, France's largest public research agency, has fallen at least \$200 million short over the past few years as a result of freezes on money originally approved for the

agency, and the shortfall has already led to spending cutbacks of up to 20% for some laboratories. France's secretary of state for research, Elisabeth Dufourcq, told a gathering of journalists last week that the government recognizes this gap as a debt that should be paid back to the CNRS.

The news comes as a surprise, especially as one of the first steps taken by the new administration was to absorb the research portfolio into a new "superministry," with Dufourcq's office replacing a separate research ministry. The superministry also includes secondary education, the universities, and "professional integration" of young people starting their first jobs. That move

was widely interpreted as signaling a lower priority for science (*Science*, 26 May, p. 1127.) Coming on top of a major spending freeze enacted by the previous government in late 1994, it convinced many French scientists that bad times were ahead for the nation's research effort.

But sources close to the budget process say that in its request to the French Parliament, the government will actually maintain research spending and, in addition, make a downpayment of \$60 million toward reducing the deficit at the CNRS. There is one important catch, however: The government is expected to cancel \$40 million of the promised payback entirely.

Says one research official, who asked not to be identified: "It could have been a lot better, but it could have been a lot worse." The revised budget is expected to be submitted to Parliament this week and should be voted on by mid-July. But many French scientists are keeping their fingers crossed that the legislature will follow the government's recommendations and leave the research budget alone. "This is a period of economic restriction, and it is possible that [research] will have to be included," says developmental biologist Anne-Marie Duprat of the Paul Sabatier University in Toulouse. "That is what is worrying."

—Michael Balter

ENDANGERED SPECIES ACT

Court Upholds Need to Protect Habitat

A canon of conservation biology—that protecting wildlife requires preserving habitat—last week survived its toughest legal challenge when the Supreme Court upheld federal rules limiting land use to protect endangered species. Writing for the majority in a 6–3 vote, Justice John Paul Stevens explained that the federal definition of harm "naturally encompasses habitat modification that results in actual injury or death to members of an endangered or threatened species." Opponents had argued that habitat protection was outside the scope of the federal law.

"I'm ecstatic," says Cornell University ecologist Thomas Eisner, one of 14 scientists who filed a brief in support of the regulations. "It's such a self-evident notion—without habitat a species can't survive," he says. Indeed, a recent National Academy of Sciences report endorses the importance of habitat protection under the Endangered Species Act (ESA) (*Science*, 26 May, p. 1124).

It may be obvious that organisms need habitat. But how much habitat should be set aside—and at what price—were the tough questions behind this litigation as well as a debate in Congress over revising the 22-year-old act, the basis for most federal efforts to protect wildlife. The Supreme Court's decision "is everything we could have asked for," says Robert Baum, a lawyer with the Interior Department, which enforces the act.

But that's not what they were hoping to hear in Sweet Home, a town in western Oregon near prime habitat of the threatened northern spotted owl. In 1992, after the federal government curtailed logging in the Pacific Northwest to protect the owl, timber



Home, sweet home. Ruling protects red-cockaded woodpecker's habitat.

interests in Sweet Home challenged a rule that defines "harm" to an endangered species as including "significant habitat modification or degradation where it actually kills or injures wildlife." Joining the suit were timber interests in Washington state and in Georgia, where similar land-use restrictions were put in place to protect habitat of the endangered red-cockaded woodpecker.

The Sweet Home coalition faced an uphill battle against existing court rulings that habitat destruction could constitute harm to an endangered species

under the ESA. In 1986, a district court ruled for environmentalists who had sued a Hawaii state agency that had allowed sheep to graze in habitat of the endangered palila bird. The sheep were eating seeds and shoots of

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—Sandra Day O'Connor

mamane trees, in which the palilas make their homes. An appeals court upheld that ruling 2 years later.

But the Sweet Home coalition argued that Congress had written the ESA to protect creatures against direct injury, from activities

such as hunting and trapping, rather than against indirect or potential injury, such as from logging. Both the U.S. District Court in Washington, D.C., and the appellate court upheld the government's definition of harm, although the appeals court reversed itself in 1994. It had agreed to rehear the case after being asked to focus on whether Congress intended harm to include habitat degradation. In that ruling, the appellate court concluded that the ESA implied a "direct application of force" to injure or kill wildlife.

Interior officials asked the Supreme Court to resolve the difference between the appeals court's decision in Sweet Home and the earlier Hawaiian ruling. In its petition, Interior argued that "the ordinary meaning of harm encompasses killing or injuring, whether by habitat modification or otherwise." The scientists' brief explained the rationale for habitat protection: "The rate of extinction is accelerating in direct response to the relentless destruction, degradation, and fragmentation of habitat," it stated.

The minority view, summarized by Justice Antonin Scalia, reflected the belief of opponents that regulations enforcing the act were too broad. Scalia argued that it was unnecessary to protect breeding sites, for example, because impaired breeding "does not injure living creatures." But Justice Sandra Day O'Connor disputed that view. "To raze the last remaining ground on which the piping plover currently breeds ... would obviously injure the population," she wrote in an opinion concurring with the majority.

The court's decision is unlikely to end debate over habitat protection. "This is a call to arms for Congress to scrap the current ESA and write a law that works," says Ike Sugg, a fellow at the Competitive Enterprise Institute. In the meantime, researchers believe that the ruling validates the scientific arguments linking habitat degradation and species loss. "I hope this is the beginning of a reasonable dialogue," Eisner says.

—Richard Stone