RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Father of Gordon Conferences to Retire

The Gordon Research Conferences, the renowned meetings that draw 14,000 scientists annually and have inspired similar conferences around the world, are losing the man who guided their growth over the past 24 years. Alexander Cruickshank, director of the Kingston, Rhode Island-based conferences since 1968, plans to retire as soon as a successor can be trained.

Gordon trustees admit that it will be difficult to replace the 73-year-old Cruickshank, who formerly taught chemistry at the University of Rhode Island. Trustees credit his shrewd management for building the financial reserves of the conferences, which have no endowment and depend entirely on donations and fees, while also keeping conference fees low. Cruickshank also wins high praise for expanding the conferences from 50 or so U.S. sessions a year to 150 around the world.

The trustees' version of the ideal new director—a scientist with management experience—sounds very much like Cruickshank himself. Admits Lawrence DeVries, chairman of the Gordon trustees, "We'd just like to clone him."

Low-Lipid Blues

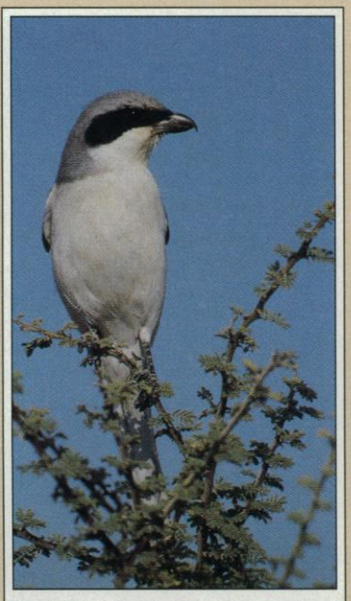
If you've been studiously reducing your intake of fatty foods to avoid heart disease, some new results from the University of California (UC), San Diego, will make disturbing reading: Low serum cholesterol may cause depression in old age.

Despite the proven link between cholesterol and heart disease, some studies have suggested that the lower mortality from heart attacks among people with low serum cholesterol is balanced out by unusually high rates of suicide. Epidemiologist Elizabeth Barrett-Connor and her colleagues at UC San Diego therefore decided to take a look at the relationship of cholesterol levels to depression. In a study of more than 1000 men over 50, they found no relationship for the younger members of the group. But for men over 70, depression was three times as common among those with low serum cholesterol than in those with normal or high cholesterol levels.

After investigating potentially confounding variables such as exercise, medication, and alcohol consumption, the team concluded, in a report published in the 9 January issue of the *Lancet*, that the depression-low cholesterol link is real. The mechanism? The greatest interest is focused on the neurotransmitter serotonin—low levels of which are associated with depression—since animal studies suggest that low plasma cholesterol may contribute to low serotonin levels.

Team member Larry Palinkas says that if further research confirms the depression-low cholesterol link for older people, it may be that the message to cut down on cholesterol should be focused on those at high risk for heart disease. As a next step, the San Diego researchers intend to look separately at the links between depression and the so-called good and bad forms of the molecule, HDL and LDL. Their hope: that it will be possible to avoid both heart disease and depression by following a diet that cuts down on LDL, but boosts HDL.

Shrike Shortage



REUVEN YOSEF

Rare bird. Northern shrike perched on acacia bush in Hatzeva, Israel.

It's been nearly 3 years since scientists sounded an alarm over the worldwide decline of amphibians—a notable example being the disappearing golden toads of Costa Rica (*Science*, 2 March 1990, p. 1033). Not only are scientists still mystified about the cause of the mass amphibian exit, now they have a new concern: the vanishing shrike.

Of about 30 species of this predatory bird, most are said to be on the decline. Which is why the Archbold Biological Station in Lake Placid, Florida, invited about 100 scientists, from 26 countries, to the first International Shrike Symposium, held on 11-15 January. At this point, no single phenomenon, such as habitat loss, has been identified as the problem, says Archbold ornithologist John Fitzpatrick. Archbold postdoc Reuven Yosef, one of the symposium arrangers, notes that shrikes are an excellent indicator species because they're "top predators" of the grassland food chain, devouring small mammals, birds, reptiles, and large insects. Now, despite their varied and resourceful dietary habits—shrikes impale their prey on sharp things and come back later to dine—reports of dwindling shrike populations have come in from the Russian steppes, African savannahs, Swedish tundra, Canadian grasslands, U.S. prairies, the Israeli desert, and the English heaths.

Yosef says the problem in some cases is linked to changing use of agricultural land. In England, for example, monocultures and mechanized farming are limiting insect diversity, destroying habitats of shrikes' prey, and wiping out nesting sites. In Poland, Sweden, and Israel, says Yosef, wetter springs have translated into a cooler environment that is less conducive to reptile and insect activity, and that reduces food for nestlings or discourages female shrikes from breeding altogether.

Much research remains to be done to put together the puzzle of the disappearing shrike. But the evidence, says Fitzpatrick, "makes you wonder if there's something going on globally that we should know about."

Canada: Who Needs a Scientist as Chief?

Last month Canada's first full-fledged minister of science, William Winegard, 68 and an engineer by training, announced his retirement after 4 years on the job. For his successor, the Canadian government has broadened the traditional requirements for such a job: It has picked Tom Hockin, a political scientist.

Hockin, who holds a Ph.D. in government from Harvard, currently serves as junior minister for small business and tourism. Hockin told *Science* that linking science and technology to job creation is his first priority and that the scientific community needs to do a better job at demonstrating the value of science to economic development. In case researchers miss his message, he added that scientists won't get far by approaching funding matters with a "psychology of entitlement."

Canada's minister of science post was created in 1990 with the formation—thanks in part to Winegard's (then junior minister for science and technology) efforts—of a superministry called Industry, Science, and Technology Canada. Winegard, who fought hard for increases in research funding, suffered a big disappointment last month when the federal finance department reversed a budgetary pledge to increase funding substantially for

university research, instead freezing it at this year's level. But at least the government offered scientists one bone: It announced last month that the federal Network of Centres of Excellence, an experimental new program, will be extended.

Biotech Groups Merge

Just in time to present a united front to the incoming Clinton Administration, the two organizations representing the biotech industry have formally announced their plans to merge. The Industrial Biotechnology Association (IBA), which represents 150 large, well-established companies, and the Association of Biotechnology Companies (ABC), composed of 340 smaller firms, are combining to form the Biotechnology Industry Organization (BIO), subject to members' ratification this spring.

Even before the consummation of their marriage, the two organizations have formulated a joint policy paper for Clinton's delectation. Not surprisingly, a corporate R&D tax break is recommended, and the Food and Drug Administration is praised for its decision to collect user fees to speed drug approval. Not mentioned is a proposed change limiting company profits under the Orphan Drug Act, an issue that has divided ABC and IBA in the past. The parties hope to hammer out a unified position on the matter when BIO's new committees meet.

NSF Joins Station Wagon Set

Congress has been playing hardball again with the National Science Foundation (NSF), and, as a result, the agency is about to clear out of its District of Columbia headquarters. On orders from Congress, crews showed up at NSF's doors on 8 January to haul away a few symbolic bookshelves. They're headed for NSF's new, congressionally mandated location a half-hour from the White House in a suburban office complex in Virginia. So ends a long-running dispute over where the agency should hang its hat.

NSF's leaders decided some time ago that the agency needed to vacate its overcrowded and decrepit main office. But while they wanted to move, they didn't want to leave Washington, where they can walk two blocks to meet with presidential aides. Politicians from the adjoining states of Maryland and Virginia, however, were thinking about their constituents, and when the dust settled, Virginia had won a competition for the new building site. Unable to resist a putative $81 million, 20-year savings, Congress duly instructed the General Services Administration (GSA) to build a home for NSF in the suburbs.

That didn't close the matter. NSF continued to resist leaving town, pointing out that Congress had not appropriated the $16 million needed in moving expenses. And James Duderstadt, chairman of the National Science Board, personally told the White House that moving NSF to the suburbs would "significantly diminish both the board's and the foundation's role in federal science and technology policy" by reducing NSF's "physical proximity" to other decision makers. But Senator Charles Robb (D–VA) and others kept the pressure on until last week when the incoming Clinton Administration agreed to a deal: NSF moves to Virginia, and GSA pays this year's bill (NSF will repay GSA in 1994). The relocation should be complete by spring.

Japanese Scientists Predict the Future

Date	Breakthrough
1998:	Substitutes for ozone-damaging CFCs
1999:	Large-volume, coherent optical communication systems
2000:	Silicon memory with 1-nanosecond access time
2001:	Economical way to remove usable products from urban waste
2002:	1-gigabit memory chips
2003:	Technology to prevent NOx emissions
	Widespread use of biodegradable packaging materials
2004:	Ultrahigh-speed computers
2006:	Cure for AIDS (a vaccine is predicted by 2003)
	Prediction of volcanic eruptions 2-3 days in advance
2007:	Method to prevent cancer metastasis.
2008:	Methods to limit CO_2 emissions
2009:	Elucidation of cancer-related genes and carcinogenesis
2010:	Understanding mechanisms for almost all types of cancer
	Ability to predict earthquakes of 7 or higher several days in advance
	Nursing robots
2013:	Drugs to prevent cancer
2015:	Cure for Alzheimer's disease
2017:	Fast-breeder reactors
After 2020:	Fusion reactors

Every 5 years since 1971, the Japanese Science and Technology Agency (STA) has conducted a survey asking scientists what they believe will be the most important breakthroughs within the next generation, and when they will occur. This year STA's National Institute of Science and Technology Policy sent 3334 questionnaires to scientists at universities, private companies, and national institutes, asking them to choose from 1149 topics in 16 fields. (Scientists ranked only items that fell within their areas of expertise.) The 2385 responses are now organized into an 800-page report. A 200-page version in English will be available in February from The Institute for Future Technology, General Affairs Division, Tomiokabashi Bld., 2-6-11 Fukagawa, Koto-ku; Tokyo 135, Japan.

Japan Prizes Announced

Two world-renowned U.S. scientists have been named the winners of this year's Japan Prize, the Japanese version of the Nobels. Geophysicist Frank Press, the outgoing president of the National Academy of Sciences (NAS) and formerly science adviser to President Jimmy Carter, is being honored for two separate contributions: those to modern seismology made during his research career at Caltech and MIT, and those he made as NAS president in disaster mitigation, especially conceiving, in the early '80s, the International Decade for Natural Disaster Reduction.

Mullis

Press

The other recipient is molecular biologist Kary B. Mullis, developer of the polymerase chain reaction (PCR), the biochemical tool that has revolutionized DNA analysis. Mullis, now a La Jolla-based consultant, developed PCR while at Cetus Corp. in the early 1980s.

Each prize, administered by the Science and Technology Foundation of Japan, is accompanied by ¥50 million—which this year translates to about $400,000. Awards will be made at an April ceremony in Tokyo.