

RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Bird Smuggler Sentenced

The kingpin of a wildlife smuggling ring that trafficked in protected tropical birds from Brazil, Paraguay, and Bolivia was sentenced last month in Chicago to nearly 7 years in prison—the longest sentence ever imposed in a U.S. bird smuggling case, according to the prosecutor.

Up until 2 years ago, Tony Silva was well known as an outspoken protector of endangered tropical birds. A former president of the American Parrot Association and author of numerous articles and books, including a 1989 work entitled "A Monograph of Endangered Parrots," Silva was world renowned as a self-educated tropical bird expert.

But on 18 November—after 2 years of legal proceedings—he was convicted of smuggling 450 protected birds and seven monkeys into the United States. He picked up about \$1.3 million selling them to high-paying collectors.

Investigators related that Silva hid his endangered birds in shipments of legal birds and would sneak them out when the shipments arrived at a quarantine station in Chicago.

One of Silva's favorite money-makers was the hyacinth macaw, found along Brazilian riverbanks. With deep blue plumage, yellow eye-rings, and a friendly



Too friendly for their own good.
Hyacinth macaws from Brazil.

disposition, the bird, nearly 100 centimeters long, can fetch up to \$7000 on the pet market. University of Wisconsin zoologist Rob Bleiweiss says that in the macaws' case Silva may have single-handedly lowered the birds' chances of long-term survival. Scientists estimate that there are only between 2000 and 5000 left.

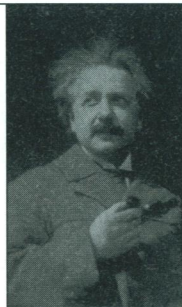
Einstein's Epistles

A collection of Albert Einstein's letters, including some eyebrow-raising missives to his first wife, as well as a 1913 manuscript on relativity theory, were auctioned at Christie's in New York City last week for about \$1.3 million.

Fetching the highest price at \$398,500 was the paper, "On the motion of the perihelion of Mercury," written by Einstein and Michele Besso, bought by San Francisco book dealer Jeremy Norman. Christie's noted in a statement that this was "the third-highest price paid at auction for an Einstein manuscript." The most highly valued,

says Christie's manuscript expert Chris Coover, is an essay on relativity theory which sold for \$1,050,000 in 1987, and for two or three times that amount this year.

Creating the biggest preauction stir were 53 love letters Einstein wrote to his first wife, Mileva Maric. The two met at the Zurich Polytechnic Institute in 1896 when Einstein was 17. They had a daughter in 1902 who was apparently put up for adoption. In 1903, he married Maric, sometimes described as "the wo-



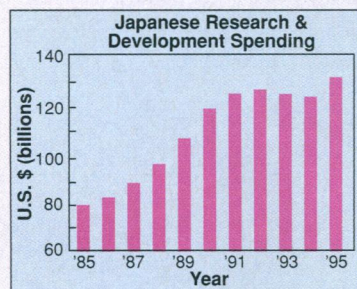
Einstein

man who did Einstein's math," and they had two sons together.

During the early years of their relationship, his letters were filled with endearments—in one he wrote "I'm so lucky to have found you, a creature who is my equal, and who is as strong and independent as I am!" But by 1914, the marriage had become a shell. According to a Reuters dispatch, in his letters Einstein instructed Maric to keep his clothes and rooms in order, serve him three meals a day, and "renounce all personal relations with [him], except when they are required to keep up social appearances." Einstein divorced Maric in 1919, promising her the Nobel Prize proceeds were he to win, which he did in 1922.

The 53 early letters sold for \$442,500, less than the auction house expected; a 1945 letter to his son Hans Albert was the highest seller at \$32,200. The love letters—and the existence of the out-of-wedlock daughter—were unknown until 1986 when they were "rediscovered" in a family bank vault in California.

On the rebound. R&D spending in Japan, after several years in decline, jumped 6% in fiscal 1995 to a record high of \$131 billion, according to a new report from Japan's Management and Coordination Agency. In comparison, R&D spending in the United States for



fiscal 1995 was \$178 billion. Japanese government research spending rose by 12.8% to \$30 billion last year. But the biggest reason for the surge was that industrial spending pulled out of a 3-year dive, rising by 4.1% to \$101 billion. The Japanese fiscal 1995 started in April 1995 and ended March 1996.

SOURCE: JAPAN MANAGEMENT & COORDINATION AGENCY

Milking Bunnies

A Dutch biotech firm plans to invest \$17 million in a facility for milking rabbits. No, it's not hoping to cash in on a bizarre health fad. The company, called Pharming, has created a line of transgenic rabbits that secrete into their milk a potential drug for a rare human genetic disorder called Pompe's disease.

Pompe's sufferers have a dysfunctional form of the enzyme α -glucosidase. The condition prevents them from converting glycogen in their muscles to glucose, and leads to muscle damage, breathing problems, and even death. Some researchers have suggested that injecting patients with a functional version of the enzyme could prevent muscle deterioration. But because of limited α -glucosidase supplies, the theory has so far only been tested in cell cultures.

That's where the rabbits come in: Pharming has spliced the gene for α -glucosidase into the rabbit genome, creating females that produce about 1 gram of the enzyme per liter of milk. Pharming's milking facility in Belgium, which should be ready in 2 years, will keep about 200 rabbits—enough, the company says, to meet worldwide demand for the enzyme. Because bunnies mature fast and produce milk quickly, they make perfect little biofactories for churning out small, regular doses of enzymes, explains a company scientist.

"This is encouraging," says molecular biologist John Clark of the Roslin Institute in Edinburgh, U.K., who pioneered therapeutic enzyme production in sheep milk. Clark says the next step will be for Pharming to show that it can extract the enzyme from the milk while retaining its activity.

Because Pompe's disease is so rare, the U.S. Food and Drug Administration in September granted "orphan drug" status to α -glucosidase. That means only Pharming is allowed to sell the stuff in the United States for 7 years after it hits the market.

GERARD LAZAR/ANIMALS

HULTON DEUTSCH