

lished Fundación Capacitar in Ecuador will establish a fund to enable Ecuadorian students to study at Harvard and to allow Harvard scholars to study and do research in Ecuador.

Here's how the plan works. According to Harvard lawyer Frank Connors, the university will pay a group of U.S. banks \$750,000 to become proud owners of about \$5 million in outstanding Ecuadorian bonds. Because these banks don't believe they'll ever be repaid, they're happy to sell the bonds at 15% of their face value. And Harvard is happy to make the three quarter of a million dollar investment because of the outcome of the next intricate swap: the university will return those bonds to the Ecuadorian government through the Fundación Capacitar, relieving the nation of its outstanding debt. In exchange, the government will give the foundation entirely new "stabilization bonds" with a face value of \$2.5 million.

Eighty-five percent of that money will be converted back into dollars to finance Ecuadorians' Harvard study. The remainder will be used to support 70 Harvardians in Ecuador over the next decade. It's a deal worthy of Catch-22's Yossarian that could become a model for more science-for-debt swaps with other needy nations.

## Lizzie, Queen of Scots

Just in the nick of time, Lizzie, the oldest fossil reptile in the world, seems to have been rescued from sale into foreign hands. If so, she will rest in peace in her native country at the National Museums of Scotland in Edinburgh. But the price of her ransom was a high one. Belying their reputation for penuriousness, the Scots have had to stump up £195,000 (\$350,000) to hold on to the 340-million-year-old lump of rock bearing Lizzie's remains.

The fossil was found in 1988 among stones in a farm wall near Edinburgh—its discoverer, professional fossil hunter Stan Wood (see *Science*, 12 January, p. 160), had agreed to sell it to the Natural History Museum in Stuttgart for about £205,000, but the subsequent public outcry resulted in an appeal to raise the bawbees to keep Lizzie at home.

The Curry Fund of Britain's Geologists' Association donated £10,500, a figure Wood matched by dropping his asking price. Further donations from other funds and the public were substantial but not quite enough until the West Lothian District Council, the local government, found £20,000 just in time to

meet the 31 July deadline.

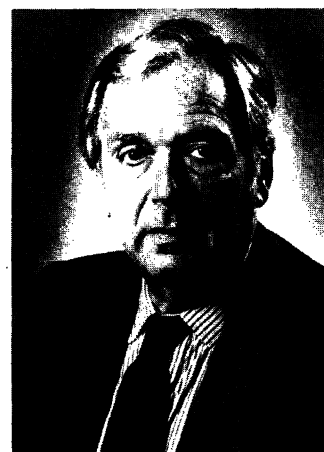
With Lizzie's home assured, the task of giving her a scientific name can begin. Front-runner is *Westlothiana curryi*, which will commemorate both her birthplace and her benefactors.

## Economist to Head IIASA

Economist Peter E. de Janosi has become the first social scientist to be appointed director of the International Institute for Applied Systems Analysis (IIASA), succeeding physicist Robert H. Pry. De Janosi, 62, has been vice president of the Russell Sage Foundation in New York since 1980. He led IIASA's System and Decision Sciences Program for 2 years in the '70s.

The institute, which has gotten about half its \$11 million budget from the United States and the Soviet Union, suffered a blow in 1982 when the Reagan Administration stopped government contributions. Now, says de Janosi, the institute has gotten "two shots in the arm." One is from the Bush Administration, which reinstated U.S. funding last fall (\$2 million for 1991). The other is the new interest in environmental, policy, and economic

questions on the part of the Soviet Union and Eastern Europe. The Soviets are now hungry for policy analysis, says de Janosi, and late last year they asked IIASA to hold a series of workshops on their economic reform plans. These will bring



Peter de Janosi

together Soviet and western economists under the direction of Gorbachev's economic adviser Stanislav Shatalin and M.J. Peck of Yale University.

De Janosi says, "The institute and its members want IIASA to become more policy-oriented." That will include more attention to economic and human considerations in the "flagship" environmental program.

De Janosi starts work this month at IIASA, which is located in Laxenburg, Austria.

## Ocean Video

Unlike MTV (music television), F-TV (fish television) won't be there for your kids. But it will be there for your favorite oceanographer—thanks to Jules Jaffe.

An oceanographer at the University of California at San Diego, Jaffe has gotten \$483,000 from the National Science Foundation to create a computer that will map the movement of fish and other sealife—anything larger than half an inch—into a three-dimensional, moving image of the marine community. It will consist of 16 high-frequency sonar units. Their signals, once processed, should produce a computer image that can be electronically rotated to create a three-dimensional display of fish going about their busi-

**Mapping the depths.**  
Jaffe with sonar array; artist's conception of the F-TV display.



ness—kind of like an underwater C-SPAN.

Until now, biologists have lacked sophisticated instruments for mapping ocean fish populations. They have had to rely on "towing nets around," says Jaffe, a technique that only reveals the amount of biomass in a given volume of ocean water. In contrast,

F-TV will allow marine biologists for the first time to view the ocean "as scientists view land with a pair of binoculars."

Eventually, Jaffe hopes F-TV will help marine researchers understand how pollution and natural environmental changes alter the dynamics of marine populations. He's developed a prototype system in a 5000-gallon fish tank at UCSD and hopes within 2 years to deploy and test the system at sea.