

logue with their physicians," says Harmon J. Eyre, chief medical officer of the American Cancer Society in Atlanta.

The not-for-profit Web site will initially focus on cancer, diabetes, and heart disease and eventually expand to other disorders. Summaries will describe new research and put it in context, the site's developers say. These reports will also provide no-cost links to full-text research papers and related information.

Ignorance about health "has been called a 'silent epidemic,'" says Richard Kahn of the American Diabetes Association in Alexandria, Va. The new program is designed to overcome the embarrassment or intimidation many patients feel when faced with complicated information or jargon, says Kahn. —J.R.

## EARTH SCIENCE

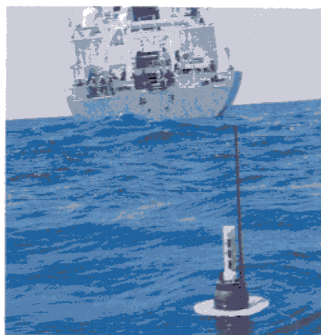
### Ocean-sensor project reaches milestone

Scientists seeking to deploy an armada of 3,000 robotic probes to take the pulse of Earth's oceans are halfway to their goal.

As of Nov. 30, 2004 oceanographers had launched 1,516 of the sensor-laden Argo floats, says project director John Gould of the Scripps Institution of Oceanography in La Jolla, Calif. Those probes, each costing about \$15,000, measure temperature, salinity, and other water characteristics in the uppermost layers of the ocean (*SN*: 2/1/03, p. 75). Each device is programmed to sink to a depth of 2,000 meters, drift with ocean currents for 10 days, and then collect data as it bobs back to the surface. In general, a float's data are available on the Internet within 24 hours of the time of transmission.

Collectively, the probes gather about 50,000 ocean-column profiles each year, says Gould. Recent deployments of Argo floats in the South Pacific have plugged data gaps from that area. The full array of 3,000 Argo probes should be in place by 2007.

Eighteen nations—including the United States, Japan, France, Australia, and the United Kingdom—have purchased floats



**SENSORS AWAY** Instrument-laden Argo probes drift with ocean currents and transmit data to researchers every 10 days.

for the network. Scientists at 12 ocean- and climate-research centers around the world currently use Argo data in their analyses and forecasts. —S.P.

## ASTRONOMY

### A dwarf with a disk

The Hubble Space Telescope has examined in unprecedented detail a ring of debris around a star that could be the nearest and youngest known home for planets outside the solar system. Researchers described the findings during a NASA briefing last month.

The disk surrounding the young star, called AU Microscopii, is the product of collisions between unseen planets and the debris left over from their formation, researchers say. A central hole in the disk, found by Hubble and other telescopes, may have been cleared by a massive planet.

Residing just 32 light-years from Earth, AU Microscopii is the first red dwarf star found to have a debris disk. "Understanding the evolution of [red dwarf] disks may tell us about how the majority of planetary systems evolve," comments Paul Kalas of the University of California, Berkeley. Red dwarfs are among the most common stars in the Milky Way. Kalas' team reported the disk's discovery early last year.

Using Hubble's Advanced Camera for Surveys, a team led by John Krist of NASA's Jet Propulsion Laboratory in Pasadena, Calif., found a warp in the disk at a distance from the star of about 50 times the Earth-sun distance. The warp could be from the tug of an outlying planet.

The warp and other traits of AU Microscopii's disk resemble those of the disk surrounding Beta Pictoris, first observed 20 years ago, isn't a freak of nature but is typical of young debris disks, says Michael Liu of the University of Hawaii in Honolulu. —R.C.

## BIOLOGY

### Plants: Importance of being economic

The pulse of the real estate market in a given area turns out to be a powerful indicator of how many exotic plant species have invaded

the neighborhood, say two researchers. The hotter the market, the greater the risk to native species from invaders, according to their computer models.

Adding economic factors to a simpler model of alien-plant invasion enhanced the model's predictive power, report Brad W. Taylor of University of Wyoming in Laramie and Rebecca Irwin of Dartmouth College in Hanover, N.H., in the Dec. 21, 2004 *Proceedings of the National Academy of Sciences*.

The researchers created two models for predicting the number of non-native plant species in a given U.S. state. The simpler model used just U.S. census data plus several ecological factors, such as latitude and the number of native plant species.

The second model incorporated that information plus a measure of economic intensity known as real estate gross state product. It combines such indicators as the amount of new construction and land clearing and numbers of developers, land buyers, and sellers.

The economics-enhanced model predicted 75 percent of the state-by-state variation in plant invasions. The plain population-ecological model predicted only 68 percent, the researchers report. Such models, the researchers say, could be useful for understanding the risk factors for species invasions. —S.M.

## ASTRONOMY

### Ring robber

The Cassini spacecraft has caught a thief on camera. Images show Saturn's moon Prometheus stealing particles from the planet's F ring. This multistranded, kinked ring is flanked by 102-kilometer-wide Prometheus and another moon, Pandora.

The thievery and the detailed view of kinks in the F ring were recorded by Cassini on Oct. 29, 2004, when it was 782,000 km from the moon. NASA released the images on Dec. 3.

The nearly 2-hour sequence of 44 pictures shows Prometheus pulling particles from the F ring while appearing connected to the ring by a faint streak of material. The moon's elongated orbit intersects the F ring, and scientists have long suspected that it picked up ring particles with each transit, notes Cassini researcher Carolyn Porco of the Space Science Institute in Boulder, Colo. Computer models and observations suggest that the moon's gravity—as well as Pandora's—deflects particles from their normal orbits and can generate large waves or knots within the ring.

The interaction between Prometheus and the F ring may provide a better understanding of the interplay between other Saturnian moons and rings. —R.C.