

Borneo Jungle Vanishing

Two new analyses of satellite images of Borneo have shown that deforestation in Kalimantan, the Indonesian two-thirds of the island, is progressing at a staggering rate, higher even than a pessimistic projec-



Boundaries mean little to loggers.

tion made by the World Bank 2 years ago.

On page 1000 of this issue, forest biologist Lisa Curran of Yale University in New Haven, Connecticut, and co-authors use Geographic Information Systems and remote-sensing images to map the protected areas of lowland tropical rainforests. "It's much, much worse" than had been thought, says Curran. Between 1985 and 1999, the images show, most

of the 10-kilometer-wide buffer zone around the 2700-square-kilometer Gunung Palung National Park fell prey to logging. Since then, forest within the park itself has been disappearing at a rate of almost 10% per year despite its protected status.

The same hollowing out of supposedly protected areas takes place throughout Kalimantan, as shown by a team led by geographer Douglas Fuller of the University of Miami, Florida. Reporting in this month's *Conservation Biology*, Fuller documents the disappearance of 3 million hectares of forest across Kalimantan between 1997 and 2002, mostly in "protected areas" such as parks and forest reserves.

Thwarting conservation efforts, say the authors of both papers, is a decision 3 years ago to give local authorities the right to issue logging leases as part of a broader government decentralization. With central control gone, timber cartels have pretty much free rein. "It has exacerbated the situation," Curran says.

Siberian Tongue Documented

Scholars have discovered a previously unrecorded language spoken by Siberians living along the Chulyum River near Western Mongolia. Known locally as Ös, it has been provisionally termed Middle Chulyum

RANDOM SAMPLES

edited by Constance Holden

by linguist and phonologist K. David Harrison of Swarthmore College in Pennsylvania. He says it is rooted in Siberian Turkic, which is very different from Slavic languages such as Russian. "We weren't sure we'd find anyone in the area," says Harrison,



Harrison with A. Baydashev and his wife, two of the last Ös speakers.

son, who presents his findings at the AAAS meeting in Seattle this week.

Soviet linguists first probed the region's linguistic patterns during a 1972 expedition, but their records contain no mention of Ös, Harrison says. But he and his colleagues, following allusions to the language contained in Soviet and Russian reports dating as far back as the 1880s, located 426 people who still speak Middle Chulyum. All are members of a hunter-gatherer group that settled in six villages along the river.

University of Connecticut linguist Jonathan David Bobaljik, who studies native languages in Siberia's Kamchatka region, says the findings suggest that Soviet researchers "lumped native languages together" as part of assimilation efforts that erased and endangered many languages across Siberia. Since the 1950s, census takers have lumped the Middle Chulyum speakers together with the Xakas, a far larger linguistic group.

Harrison now plans to study the language with the aid of a Chulyum native who has figured out how to transliterate it, using the Cyrillic alphabet.

Thoughtful Monkey Sex

Male marmosets don't act like animals when it comes to sex. When sniffing out a potential mate, their whole brains, including regions used in decision-making, zing with activity—just as happens with humans, new research shows.

Some scientists believe a full-brain response to sexual stimulation occurs only in humans. But an international team led by Charles Snowdon of the University of Wisconsin, Madison, has now shown that may not be true.

Using New World marmosets—which employ smell much more than sight—the researchers put male monkeys into a magnetic resonance imaging machine and gave them wooden discs to smell that had been impregnated with the scent of either ovulating females or females whose ovaries had been removed. Multiple regions of the monkey brains ramped up activity in response to the ovulation scents, the researchers report in the February issue of the *Journal of Magnetic Resonance Imaging*.

The males appear to be making cognitive decisions about what they are smelling, says Snowdon, suggesting that they are fussy about whom they breed with. Primatologist Fred Bercovitch of the Center for Reproduction of Endangered Species in San Diego says the study suggests that humantype—that is, discerning—sexual behavior is rooted farther back in evolution than some think.



Male marmosets analyze female scents.



PIONEERS

A sea change. Growing up in Cape Cod, Massachusetts, Kenneth Spring dreamed of becoming a fisherman. But the monotony and danger of working on a scallop boat pushed him into science. Some 35 years later, however, after retiring from the National Heart, Lung, and Blood Institute in Bethesda, Maryland, Spring has returned to his first love.

As part-owner and founder of Small Open Boats in Solomons, Maryland, Spring builds boats and provides tools, materials, and expertise for others to do the same. "My business plan shows we cannot make a profit," says the former microscopist, "but the work is its own reward." An account of his career change is also "my most widely circulated publication,"

Spring notes with amusement: It appeared in the August 2003 issue of Southwest Airlines' in-flight magazine as the winning entry in a company-sponsored essay contest.

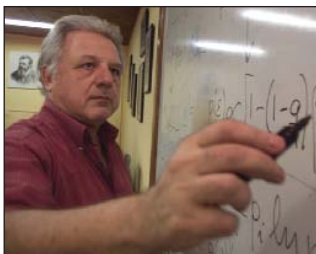
AWARDS

Wolf Prizes. An inorganic chemist, a pair of biomedical researchers, and two plant biologists have joined physicists Robert Brout, François Englert, and Peter Higgs in winning this year's Wolf Prizes (*Science*, 30 January, p. 623).

Caltech's Harry Gray wins the chemistry award for uncovering principles of structure and electron transfer in proteins. Yuan Longping, a geneticist at the China National Hybrid Rice Research and Development Center in Mapoling, and Cornell's Steven Tanksley share the agriculture prize for contributions to the development of high-yielding rice strains. Cancer biologist Robert Weinberg of the Whitehead Institute for Biomedical Research in Cambridge, Massachusetts, and pharmacologist Roger Tsien of the University of California, San Diego, receive the medicine prize for investigating the genetics of cancer cells and analyzing cell signal transduction. Each award is worth \$100,000.

Power of thought. Brazilian theoretical physicist Constantino Tsallis believes that imagination can make up for a lack of resources. And the Mexican government apparently agrees.

Tsallis, a researcher at the Brazilian Center for Research in Physics in Rio de Janeiro, has been named the 2003 winner of the \$40,000 Mexico Award for Science and Technology. Scientists from Central and South America, the Caribbean, Spain, and Portugal are eligible



for the annual prize, awarded by the Mexican government since 1990.

The Greek-born Tsallis has generalized the standard theory of statistical mechanics, which grew out of work done by Ludwig Boltzmann and Josiah Willard Gibbs in the 19th century. Although considered controversial by some physicists, his ideas have enabled researchers to apply statistical mechanics to topics that previously lay beyond its scope, including economic and linguistic

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PEOPLE

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phenomena (*Science*, 23 August 2002, p. 1268).

Tsallis, who came to South America at the age of 3 and calls himself "deeply Latin American," says he's optimistic about the region's scientific future. "As long as researchers dare to dream," he says, "shortage of resources is a minor obstacle."

JOBS

A quieter life. A big drug industry job came open last week: After 11 years as its president, Carl Feldbaum is retiring from the Biotechnology Industry Organization (BIO) in Washington, D.C., at the end of 2004 and heading for Idaho.

Feldbaum came to a fledgling BIO in 1993 with little technical training—an undergraduate degree in biology—and no industry experience. But his legal credentials were blue ribbon: He had been a Watergate crimes prosecutor and chief of staff for Senator Arlen Specter (R-PA), a booster of biomedical research.

Since then, BIO has grown muscles. It now represents more than 1000 groups in 34 countries and all 50 states of the U.S., and last year it snagged President George W. Bush as a keynote speaker at its convention. Feldbaum says it was a challenge to convince young biotech firms that they should follow national politics. But after the controversies over cloning, gene therapy, and stem cells, they quickly "realized that political and regulatory issues mattered a whole lot."

Image not available for online use.

DATA POINTS

Freewheeling. Staff scientists and postdocs are more inclined to form research ties across scientific disciplines than their tenure-track and tenured colleagues, according to a new survey.

"It may be that cross-disciplinary interests die out in the face of pressures associated with the tenure process," says sociologist Diana Rhoten of the Social Science Research Council in New York City, who surveyed 183 researchers at four U.S. centers dedicated to interdisciplinary research. Rhoten presented her findings last month at a convocation hosted by the National Academies in Washington, D.C.

"Putting scientists from different fields into one building is a good first step toward promoting cross-disciplinary work, but it's not enough," says Caroline Haythornthwaite, an information sciences expert at the University of Illinois, Urbana-Champaign. "What's needed is a system in which interdisciplinary efforts count toward promotions and tenure."

