HEALTH & SCIENCE

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## AIDS research not conducted at A&N SMU 8 Shut u

#### **By Elizabeth Preston** THE BATTALION

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Texas A&M is not participating in any commucurrently being nity or federally funded AIDS research projects in conducted with Texas, though many other schools in Texas are, acseveral particicording to the national Centers for Disease Control and Prevention's AIDS Clearinghouse. pants from the Bryan-College Station area.

The University of Texas System is participating in several of the 50 projects being conducted in Texas. Texas Tech and Baylor also are participating in one or more of these studies.

John Scroggs, a counselor at AIDS Services of Brazos Valley, said one reason is the size of Bryan-College Station.

"The population of identified HIV positives in our area is not big enough to support large scale HIV studies," he said.

The center works in conjunction with researchers in Houston.

A study on infected pregnant women is

One certain

researcher at A&M is study-

ing the sociolog-ical impact of

this fatal disease, AIDS.

"The population of identified HIV positives in our area is not big enough to support large scale HIV studies."

— John Scroggs, AIDS Services of Brazos Valley

#### grant from A&M.

She has nearly completed one study on educators' perceptions of children with HIV.

"I'm interested in finding out how school system

teachers handle the changes in the classroom from 10 years ago to today," Morales said. She said she wants to encourage the beginning

of a course to teach instructors how to handle dren who are HIV positive.

Morales is also working on a study to deter whether HIV causes the eventual deteriora the white matter of the brain, which is then

tissue around the brain and spinal cord. She has applied for funding from A&M study dealing with doctors' perceptions of pat with HIV.

Morales will study how doctors treat HIV tients compared to cancer patients and how tors feel about an HIV patient's right to die. study will be done by a random survey of dot in applicable fields in Texas.

Despite the lack of research at A&M, a sub-committee of the A&M Faculty Senate is ommending a proposal that will implement a curriculum requirement designed to educate dergraduate students about AIDS and ot health related issues.



Telephone calls are transmitted over land, under sea and across the skies. An overseas call is likely to be handled by an undersea fiber-optic cable made up of tiny, hair-thin glass fibers. This modern fiber, also used for regular overland service, has revolutionized the telephone system because it has allowed cables to carry more calls.



Victor Kotowitz / Los Angeles Times

Map shows AT&T's existing and proposed fiber-optic undersea cable routes. Satellites are used to link sparsely populated areas and to transmit video broadcasts and data services. Competing companies also have cable lines.

#### How calls are handled

- International long-distance phone call originates 5 t a traditional telephone.
- Digital signal is transmitted via telephone lines. some along overhead cable, some underground. Cellular phone path would skip this step and go directly to computerized switching station.
- At switching station, electronic "decisions" are made. These switching stations decide which is the most convenient and efficient route available

If the undersea cable route is selected, signal travels along one of several fiber-optic cable 4 routes, depending on the destination

If satellite is used, the signal is then transmitted from a satellite dish on the ground up 22,000

miles to an orbiting satellite Satellite traveling in a geosynchronous orbit acts as a repeater and reroutes signal back down to its destination on the other side of the world.

### **Undersea cable:** Through the years

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These cables, peeled open to reveal their inner components, have increased dramatically in call-carrying capacity while their size has shrunk. Modern fiber-optic cable is at right.



#### 1950s: Carried 36 calls simultaneously





### Preparing a message for transmission

Words begin as sound waves, called analog signals beca the wave shapes are analogous to the rising and falling tones of a voice. But now, voices, as well as data and images, are transmitted as digital signals, coded in binary 1s and 0s. To travel in digital form through fiber-optic cable, an analog voice signal is converted to energy pulses. A pulse stands for a

**UNDERSEA** CABLE

studies, at least one of which is funded by a mini-

Dr. Pam Morales, a researcher in the Depart-

Morales is in various stages of five separate

ment of Educational Psychology at A&M, is focus-

ing her work almost entirely on AIDS research.

# Dante II

## NASA robot begins drop into volcano

MOUNT SPURR, Alaska (AP) — NASA's Dante II robot began descending into a volcano's steamy crater on Friday when the 1,700-pound machine whined, lifted its Erector-set-like front legs and walked.

Dante's steps were guided by operators 80 miles east in Anchorage, where the robot's moves appeared on computer sc

NASA hopes the test could lead to robotic explorations on other planets.

The robot stepped off the crater rim on Mount Spurr and into snowpack estimated more than 10 feet deep, the first time the 1,700 pound, eight-legged robot had walked on snow.

Rubber snowshoes were made specially for the occasion.

Scott Boehmke, a Carnegie Mellon research engineer, said the machine will walk 12 hours a day on power from a diesel generator parked up-slope from the robot.

The test may run three to six days.

# Environment threatens Texas lagoon

# **Destruction of Laguna** Madre endangers wildlife, economy

ARROYO CITY, Texas (AP) — It's a little past

sunrise. The shimmering waters of Laguna Madre extend for mile after mile of golden ripples. Laguna Madre. The Mother Lagon. The saltwater bay, stretching 130 miles down the Gulf Coast, is a vast cradle of wildlife between the South Texas mainland and the barrier sands of Padre Island.

It's a rare environment only a few feet deep, where hundreds of marine and bird species breed, feed and thrive. It's also worth hundreds of millions of dollars to the area economy.

But, increasingly, scientists say the Laguna Madre is under threat

•Underwater meadows of sea grasses — the core habitat in the food chain — are disappearing at alarming rates.

•The brown tide, a mysterious algal bloom, is spreading persistently, clouding bay waters and perhaps threatening fisheries.

The Arroyo Colorado, the largest source of freshwater into the Lower Laguna Madre, is loaded with pollution that may be feeding the brown tide.

•Large tracts of wetlands and tidal flats, which provide fishing areas for migratory water birds and shorebirds, have been lost to what is called "spoil," a dark silt dredged from the bay bottom.

The Army Corps of Engineers dredges in the Laguna Madre to keep the Gulf Intracoastal Waterway open for barge traffic between Corpus Christi and Brownsville

The Laguna Madre system has a series of insults coming into it, and to me it's at the crossroads right now," says Steve Thompson, manager of Laguna Atascosa National Wildlife Refuge, which shares 12 miles of the Lower Laguna Madre's eastern shore.

"Are we going to continue the insults or slow them down?

The Laguna Madre is one of only three bays in the world that are hypersaline - meaning saltier than sea water — but still support abundant wildlife.

The other two productive hypersaline bays are the Mexican Laguna Madre, just across the Rio Grande from Texas, and the Sivash, adjacent to the Sea of Azov on the Crimean Peninsula.

Even though the shallows of the Laguna Madre comprise only one-fifth of the Texas coastal bay area, the lagoon accounts for more than half the state's catch of commercial fin fish each year.

The warm waters are rich in sport fishermen favorites such as redfish, black drum and spotted sea trout

Robert Ditton at Texas A&M's Department of Wildlife and Fisheries estimates that fishing and other tourism activities that depend on a healthy Laguna Madre generate at least \$400 million a year

the regional economy. Protected from overdevelopment by Padre Isla National Seashore, the Laguna Atascosa refuge the sprawling King and Kenedy ranches, the Lagu Madre is the cleanest bay in Texas, and the only a that retains extensive seagrasses

In spite of all the abuse inflicted on the Lagu Madre, it retains an amazing regenerative capacity says Tony Reisinger, marine extension agent for Cameron County.

Biologists say the seagrasses provide oxygen and foundation for the food chain, from microorganism to the largest fish and birds of prey. Laguna Madre contains the world's largest co

centration of reddish egrets. It provides habitat for endangered piping plovers, peregrine falcons, Kemp ridley sea turtles and an amazing array of shorebirds and neotropical migratory birds.

Most of the North American population of redhead ducks winter in the Laguna, feeding almost exclu-

sively on shoal grass, a species of seagrass. The underwater meadows aren't only important <sup>10</sup> ducks. Seagrasses in Laguna Madre estuaries of Texas and Mexico provide crucial nursing habitat for Gulf of Mexico shrimp, a \$600 million annual crop in Texas alone.

"Our policy is to protect every blade of seagrass we can," says Deyaun Boudreaux, coastal environmenta director for the Texas Shrimp Association. "We are sitting here guarding the last system that has seagrass beds.