

# from abroad

## PERU

### Steps to protect anchovies, birds

A study by the Peruvian Sea Institute reveals an alarming situation caused by uncontrolled fishing of small herring (anchovies) off the nation's coasts. The fishing operations are not only causing a sharp reduction in the fish themselves, but also a major diminishment in production of guano.

"Guano production has dropped to new lows because the former bird population of 36 million, producers of manure on islands near our coasts, has been reduced to only 3 million," the institute reports.

Millions of birds have been dying because of a lack of food, and now the institute has fixed 8 million metric tons as the maximum amount of anchovies which can be taken during the fishing season. A ban prohibits fishing for the small herring on Saturdays and Sundays, and between the period from Feb. 17 to March 17 in each year.

The Sea Institute will be responsible for formulating realistic figures for maximum tonnage of the herring catch each year, not only to safeguard fish resources, but also to attempt to build up the seabird population.

## MEXICO

### Mexicans 24,000 years ago

A recent find by archaeologist Lorena Mirambell of the Department of Prehistory of the National Institute of Anthropology shows the presence of man in the Mexican Basin 24,000 years ago.

Various stone instruments were found associated with bone remains of extinct animals, ceramic shards and a tree trunk whose age was calculated at 23,150 years by the Dendrochronology Laboratory of the University of Arizona.

The discoveries were made on Tlapacoya Hill in the state of Mexico, where excavations were first made in 1965-66; there was a second digging from January to May in 1967 and a third in December when Miss Mirambell made her find.

"We found an obsidian knife under the tree trunk," says Miss Mirambell, "and it is entirely possible that this may have lain there before the fall of the tree in a lapse of time not very large, say around 500 years.

"All of the items we unearthed were found far below the ashes of an eruption of Popocatepétl, with ages varying from 14,770 to 23,150 years."

To date, no human remains have been found; new digging will be undertaken soon.

"While the artifacts are not abundant at the site," Miss Mirambell says, "they are sufficient to demonstrate the presence of man in this period."

In one of the trenches explorers turned up mastodon bone fragments as well as remains of turtles, and birds whose habitat is aquatic, such as pelicans.

Investigators hope to obtain a history of climatic fluctuations in the Mexican Basin from 30,000 years ago towards more recent times.

### Fisheries evaluated

In a drive to evaluate marine resources in the Gulf of California and Gulf of Tehuantepec, and shrimp resources over the entire Mexican littoral, Mexico has initiated a marine biological research project with the cooperation of France and the United Nations Food and Agriculture Organization.

Marine biology stations will be established or expanded in Ensenada, La Paz, Guayama, Mazatlan and Salina Cruz.

Two French research ships will join the project. They will also show Mexican fishermen deep-sea trawling techniques not currently used in Mexico.

Mexico has recently decreed that its territorial waters extend for nine miles from the ebb tide line. Where the coastline is jagged, the territorial limit extends from straight lines linking peninsulas.

Mexican experts will form part of crews of the French research ships. If these prove useful for trawling operations in Mexican waters, the Government plans to purchase several, and also seek license agreements to construct additional craft in Mexico.

*Emil Zubryn*

## JAPAN

### Harder than hard

Pale blue grains of a mineral reportedly harder than diamond have been produced by Prof. Naoto Kawai of Osaka University, using pressures of 150,000 atmospheres, or more than 1,100 tons per square inch.

Prof. Kawai's research team has also created a tiny diamond grain, using about half that pressure, along with temperatures of about 2,900 degrees F., but the scientist says he has no interest in manufacturing diamonds. Instead, his

objective is to go beyond what he calls "the present spinel" to make metallic diamonds capable of conducting electricity. To do this he intends to improve his equipment until it can exert a pressure of one million atmospheres, which he says is equal to that some 1,250 miles below earth's crust, near the outer core.

At present, Prof. Kawai produces a super-diamond in a spherical chamber formed by the coming-together of eight conical pistons, whose points are blunted only enough to leave room for the material under compression. The eight-piston sphere has reached a maximum pressure of about 200,000 atmospheres. To produce one million atmospheres, the researcher feels that he will probably need at least 20 cones of very fine grain tungsten carbide.

*Stuart Griffin*

## AUSTRALIA

### No hazard in French A-tests

Fallout from French nuclear weapon tests in the Pacific last year is not being considered a significant health hazard to Australia. The National Radiation Advisory Committee reached this conclusion after considering the data on radiation doses to the whole body and to the thyroid.

Three French tests were held in the Tuamotu island group, 4,000 miles east of Queensland, last June and July. The committee said fallout occurred between 12 to 15 days after each explosion and in most cases was associated with rainfall.

The highest contamination of radioactive iodine in cows' milk was 120 millirads at Malanda on the Atherton Tableland, Queensland, where rain fell on each of the few days during which radioactive debris passed over the area.

The dose which would reach the thyroid glands of children drinking the milk would be less than 15 percent of the danger level which the committee has adopted.

*W. A. Scholes*

## ISRAEL

### Searching for Philistines

An undersea expedition off Ashdod, Israel, is searching for a sunken Philistine ship which might bear clues to the mystery of Philistine origin. These people appeared about 1200 B.C. and had merged into the population of Israel by about 400 A.D. Submerged parts of ancient Azotus Paralus (Ashdod) have been found.

*Macabee Dean*