

BIG SNAIL—Showing a layer of manganese accumulated on the shell.

bacteria per cubic centimeter near the surface and practically the same concentration 10 to 20 feet below the surface.

There is little if anything that the bacteria can nourish themselves on in the seabottom muds. So the bacteria may have lain there in a state of practically suspended animation.

When the scientists brought them to the surface in their coring apparatus and put them into a culture medium, they started to grow and multiply! These same bacteria were alive long before the first man walked the earth. After several million years in the mud of the sea floor, they still

With a new instrument developed by William Van Arx of the Woods Hole Oceanographic Institution, called the "joglog," measurements were made every two hours of the ocean currents. Information about the currents near the equator was surprising.

The new instrument works on the principle that the motion of sea water through the earth's magnetic field sets up an electrical current. This current can be measured

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Mineral Research ECKERT Naturegraph Co. Dept. SNL

110 E. Main St. Florence, Colorado by trailing two electrodes astern of the ship.

The northern equatorial current, between 10° and 15° north of the equator, does not flow directly from east to west, it was found. Instead it flows toward the southwest. And the equatorial counter-current, which has been supposed to flow directly west to east, actually flows about 40° south of east. Farther south, within 6° of the equator, the direction of the current again swings around to the southwest.

Prof. Revelle gives two possible explanations for these new findings, both representing new ideas in oceanography.

Either the currents are sinuous, he deduces, and meander across the ocean like a tortuous river. Or else there is a series of giant eddies in the equatorial region, with diameters of a thousand miles or more.

Another means of bringing knowledge from the deep was an instrument in the form of a two-pronged spear. With this a series of temperature measurements was made. These twin measurements made it possible to calculate how rapidly the earth is cooling off, that is, how fast the heat is flowing from the earth's interior through the rocky crust.

Science News Letter, March 3, 1951

ORNITHOLOGY

Bird Believed Extinct Discovered in Bermuda

See Front Cover

➤ THE DISCOVERY of the Bermudian cahow-a bird widely believed extinct since 1625, was reported by The American Museum of Natural History.

Proof of the existence of this mysterious oceanic bird, a petrel, was uncovered during a recent search in Bermuda conducted by Dr. Robert Cushman Murphy, Chairman of the Department of Birds at the museum, Louis L. Mowbray, Curator of the Bermuda Aquarium, David B. Wingate, and Mrs. Murphy.

The group has captured five live cahows and counted at least 17 burrows in rocky crevices where the cahow nests, thus indicating that more still survive, Dr. Murphy reported. Other examples of unknown number were heard and seen at night over the nesting islets.

The cahow is a rather docile bird, about the size of a pigeon but possessing longer wings. It is grayish-brown on top and has a white underbelly. He also said that its curved beak is black and its eyes are ringed by black feathers.

It has been a prevalent belief, according to Dr. Murphy, that the cahow became extinct largely because of a shortage of food in Bermuda between 1609 and 1621. He stated that history records that groups

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of settlers were sent to Cooper's Island at the western end of Bermuda in these years and the settlers gorged themselves to such an extent on the then plentiful birds that some colonists died from the effects of over-eating. It is quite remarkable, in fact, he pointed out that any cahows have survived after the terrible, famine-induced slaughter they suffered during that early period.

During this period, not only the birds were killed for food, but also their eggs were eagerly sought out, according to Dr. Murphy, who added that the eggs, judging by the flavor of those of related petrels, might be considered rather good eating.

The first cahow was sighted by the group in the cliffs of the Bermudian islets off Castle Harbor. Having discovered twigs in the entrance to one of the cliff burrows, the group had climbed into the limestone crevice and then Mr. Mowbray, using a bamboo pole equipped with a noose, succeeded in fishing out the first cahow. At this point, also, the cahow was photographed for the first time in history.

While the party was spending a night on the islet, another cahow fluttered down from above to relieve its mate on the egg. This bird was picked up and passed from hand to hand for some time for close inspection. Dr. Murphy described the bird as taking this inspection in a most docile manner, apparently quite unafraid of the presence of human beings. When freed, it unhurriedly crawled into its burrow.

These birds and other cahows found later were released again after they had been banded with U. S. Fish and Wildlife Service rings.

Dr. Murphy pointed out that one of the most distinctive traits known about the cahow is its homing instinct, which apparently leads it back to its nest in tiny crevices at night after flying perhaps 125 miles or more out to sea after food.

"The fact that the cahow can find Ber-

muda again and return to its burrow after these long flights is even more remarkable than the migratory flight of the golden plover, which flies from the shores of the Arctic to the Plains of Patagonia," Dr. Murphy said. The plover flies the length of two continents, through different climatic zones. The cahow returns across waters which are uniform and relatively featureless for hundreds of miles around Bermuda, itself only one-quarter the size of Staten Island.

Dr. Murphy added that it is believed that the cahow stays out in the open ocean for a period of about seven to eight months during the year and then returns to dry land for its forty-day hatching period. After being hatched the young are probably fed for about three months, and are then left alone to starve until they leave land, which is in June.

It is also believed, he added, that the main food of the cahow is squid which is obtained far out at sea.

Despite its survival of the centuries-old threat to its existence from the famine-driven early colonists, however, the cahow still faces another more modern peril in the presence, within its Bermuda strong-hold, of the introduced brown rat, according to Dr. Murphy.

Science News Letter, March 3, 1951

PSYCHOLOGY

Menticide Called Crime

Psychologist urges that intervention in the human mind be declared an international offense against rights of man. Freedom of speech implies freedom not to listen.

THE United Nations is urged to add the crime of "Menticide" to that of genocide as international offenses against the fundamental rights of man.

The proposal comes from a New York psychologist of Dutch origin who spent two terrible years ministering to mental and physical ills under the oppression of the Nazi tyrant.

"Menticide" is the name given by Dr. Joost A. M. Meerloo to the political intervention in the individual human mind. In menticide, a powerful tyrant synthetically injects his own thoughts and words into the minds and mouths of the victims he plans to destroy.

Menticide, declares Dr. Meerloo, is a far worse threat to mankind than is genocide. Genocide is the direct physical destruction of another racial or national group. Menticide is an attack on man's mind, his sovereign will and conviction.

Menticide is now the stock-in-trade of all police states. Use is made of the most modern psychiatric techniques to impose the will of the dictator on his victims. Against the individual, use is made of drugs, narcohypnosis, brain surgery and the abuse of psychiatric procedures to extort confessions and "convert" the victim to the dictator's ideology.

Advantage is taken of any neurotic traits of the individual and his hidden feelings of guilt.

Against the public as a group, weapons are mass intoxication through terror and panic and mass hypnosis.

Measures of immunization and protection against menticide are suggested by Dr. Meerloo in a report to the current issue of the American Journal of Psychiatry (Feb.)

Best protection for the individual, he says, would be training in autohypnosis. The hypnotic state, he explains, can offer immunity not only to physical pain and hunger, but to psychological intrusion. During the war, underground workers were given training in autohypnosis to protect them in case they fell into enemy hands.

But as a practical measure, this would be almost impossible, Dr. Meerloo realizes.

"We cannot all become Yogi!" he says.

Another defense would be for us all to be psychoanalyzed and made aware of hidden guilt and defense mechanisms. But this, too, is impractical.

And so the only safeguard man can actually rely on in the face of this new spiritual threat is social protection.

Articles 18 and 19 of the United Nations' Universal Declaration of Human Rights deal with the right to freedom of thought, of opinion, and of expression.

What is now needed is a parallel provision declaring man's right not to be compelled to listen.

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