

OCEANOGRAPHY

Expedition Probes Pacific

Marine biologists have set out on an expedition to explore a mysterious strip in the Pacific Ocean where fish grow to unusually large sizes.

➤ AN EXPEDITION of marine biologists has set out to explore a scientifically mysterious strip in the Pacific Ocean stretching from Panama to Baja California, Mexico. In this area, fish grow to tremendous sizes and disease is virtually unheard of.

All this leads experts to speculate that something may be in the waters there, perhaps brought in by the meeting of swirling northern and southern ocean currents, which could benefit man if the secrets of this ocean area can be unlocked.

It is known fishermen can catch marlin weighing 200 to 250 pounds off San Diego, Calif., waters. But marlin have weighed up to 2,500 pounds when caught in the waters being explored off Central America. Similar size-weight comparisons can be made for other fish. Yellowtails off San Diego weigh about 20 pounds, but off Central America they weigh about 100 pounds.

Equally intriguing to the experts is the apparent good health of these fish. Microscopic examination of the stomachs of fishes caught in this area show no trace of toxic bacteria that normally are found in fish stomachs.

This has led scientists to wonder if the water and its plant life contain some medical ingredient that keeps the fish healthy, extends their life, and perhaps could be found, extracted and used to benefit man.

The expedition is an activity of the Beaudette Foundation for Biological Research, Solvang, Calif. The research ship *Stella Polaris* will carry cooperating scientists of the Kaiser Foundation, the University of California, and the University of Southern California.

A primary purpose of the expedition, reports the Beaudette Foundation, is to search the ocean floor to find and assay the abundance of marine plants and animals which could be harvested by natives of the Central American Pacific Coast.

Kelp, a source of vitamins, minerals, caloric and other nutrient elements, might prove to be a profitable crop. Like fish, this seaweed grows dramatically in this area, acquiring bases three or four feet in diameter and lengths of 100 feet or more.

Kaiser Foundation scientists are interested in probing the medical mysteries of the ocean in hopes of finding significant contributions to biochemicals and antibiotics.

They will sample the ocean water with filter paper to catch microorganisms fine enough to slip through a 200-mesh net. These microorganisms will be flown in special aerated containers to the Kaiser's Richmond laboratories. There they will be observed for antibiotic qualities. Informally, the scientists are predicting "significant findings" within a year's time.

The University of Southern California will meanwhile be conducting a program aimed at finding natural processes involved in the creation of crude petroleum and natural gas. These raw products are created by nature out of animal, mineral and vegetable material, and apparently with help of bacteria that can activate themselves under ocean-floor pressures.

The University scientists hope to be able to simulate these natural conditions in the laboratory in such a way as to compress the time scale from 100,000 years into months, perhaps even weeks.

Even if they do not succeed in "making" crude oil and natural gas, they do foresee a possibility of soon producing some of the by-products, such as propane, now obtained from these materials.

This expedition is the first step in a long-range program of the Beaudette Foundation to study 15,000 miles of coastal waters from Peru to Mexico. The Foundation indicated identifications of new sea plants and organisms found in this first study will be made available to more than 350 scientific institutions throughout the world.

Science News Letter, May 2, 1959

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Research Vessel Begins Four-Month Ocean Study

See Front Cover

➤ THE "CHAIN," one of five research vessels of the Woods Hole Oceanographic Institution, has left for a four month's cruise to study the waters and the bottom of the Atlantic and the Mediterranean Sea.

In the photograph on the cover of this week's SCIENCE NEWS LETTER, the new type of underwater camera that was taken on board the R. V. "Chain" can be seen. Dr. R. H. Backus shows the underwater sound apparatus that will bounce an echo from a passing sea animal. At that instant an electronic flash unit will go off and the film in the camera will be exposed.

Science News Letter, May 2, 1959

MINERALOGY

Russian Gift Identifies Unknown Mineral

➤ A GIFT from Russia has resulted in the identification of an unknown mineral recently discovered along the Green River in Wyoming.

The mineral is labuntsovite, a complex sodium-potassium-barium-niobium-titanium silicate, first recognized by Russian mineralogists in 1955. A year later material like it was found in Wyoming by geologists of the Geological Survey.

A Moscow professor brought a sample of the mineral here for comparison with the Green River find, and the two minerals were found to be the same.

Labuntsovite is of special interest to earth scientists because it is one of several rare species found in the Green River sedimentary (water deposited) rocks that, elsewhere in the world, are found only in igneous (molten) rocks.

Science News Letter, May 2, 1959



PLASTIC LIFEBOAT—A submarine-like hull constructed of glass fiber reinforced polyester sandwiched around foamed polyvinyl chloride makes up the new German lifeboat shown in the photograph. Diesel powered, the boat seats 40 persons and can hold more. It is completely enclosed for maximum protection of the occupants, and it is said, will right itself automatically from any position. Bubble observation domes permit constant lookout for help.