

OCEANOGRAPHY

Do Sea Serpents Exist?

► THOSE STORIES about giant sea serpents may not be so far-fetched after all.

More than one knowledgeable scientist believes in the possibility of their existence, and Dr. Robert J. Menzies, University of Southern California marine biologist renowned for his part in discovering *Neopilina*, a tiny sea animal believed to have been extinct for 300,000,000 years, admits that he has gone fishing for a sea monster.

"I literally 'fished' for him with a giant hook nearly two feet long which was baited with a squid that would have been a mouthful even for a monster. I got the hook back, badly bent, large and strong as it was."

The flurry of interest in sea monsters gained new impetus in September, 1959, when Dr. Anton Brunn of Denmark described captured larval eels six feet long.

"Thus far, no adult of this particular eel species has ever been found," Dr. Menzies said.

But the unusually large size of the larvae suggested that the parents must be of huge size. The adult eels, perhaps 30 to 50 feet in length, hooping their way across the ocean waves, might account for some of the sea serpent legends.

"I know that some of the stories told about sea monsters and sea serpents sound weird," Dr. Menzies said. "But it would be even more ridiculous to pooh-pooh them completely and not even look for the monsters. I have searched for them as a

part of other oceanographic studies. I am not prepared to say that there are such things; neither would I deny they exist."

Dr. Menzies said the finding of *Neopilina* suggests that even more important discoveries are awaiting science in the vast marine abyss. If a sea monster is found, he believes, the discovery will be made in the great ocean trench south of the Isthmus of Panama and along the Chilean coast.

The National Wildlife Federation in Washington, D. C., has just reported another find of a three-foot larval eel taken by Prof. L. R. Richardson of Victoria University in New Zealand. Possibly the baby of a 30-foot adult, this immature larval eel has a reptilian head, large sharp teeth and well developed eyes. It is thought to be a different species from those taken by Dr. Brunn.

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PHYSIOLOGY

Rabbits With Plastic Hats Are Wired for Smell

► RABBITS with plastic hats wired for smell are being used in experiments aimed at using animals to "smell trouble" in unfamiliar environments, perhaps even on strange planets.

Dr. David G. Moulton, physiology research associate at Florida State University at Tallahassee, said the plastic hats, comfortably held in place with dentist's cement,

contain 13 thread-sized electrodes that "tap in" on the animals' brain responses to various odors.

To find out how the brain sorts out various smells, analyzes them from a mixture and then alerts the animal by sending messages to the olfactory centers in the brain, Dr. Moulton places the rabbits in a "constant environment chamber." The chamber is soundproof and has a one-way glass that allows the observer to look in, but the rabbits cannot see out and are not disturbed by the sight of humans.

Bottled odors such as wolf gland, skunk oil, deer musk, carrot oil, fox gland and various chemical compounds are piped into the chamber. The rabbit sniffs the odor to be tested through a face mask, and an amplifier magnifies the tiny currents emitted from the olfactory bulbs in the brain.

An audio-system allows the researchers to listen to the sound of the nerve impulses in the brain which are also photographed and recorded from the oscilloscope. Another instrument adds up the impulses per-unit time on ticker tape.

The scientist's eventual goal is to work out a tele-transmission device such as that used in space satellites, with which he can record the impulses to and from the brain over long distances while the animal roams its natural environment.

An animal's responses to smell could give a researcher valuable information about the environment.

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GEOPHYSICS

AGU Creates Committee On Planetary Science

► THE PLANETS of the solar system appear to be slipping from the grip of astronomers into the waiting hands of geophysicists. The American Geophysical Union, usually concerned with the physics of this old world, is prepared to take over the planets as their own.

The president of the AGU has created a planning committee on planetary science. And just a month before deadline for its 1960 meeting the AGU made an unprecedented call for planetary reports and organized eight new sessions.

Dr. Homer E. Newell of the National Aeronautics and Space Administration is chairman of the new committee. He writes in *Transactions, American Geophysical Union*, 41:407, 1960, that the techniques needed for manned and unmanned exploration of the solar system are not astronomical, but geophysical.

"The great body of individuals with competence in the use of these tools and techniques is to be found in the AGU," Dr. Newell says.

"Likewise, in the international field; whereas the International Astronomical Union, the International Scientific Radio Union and the International Astronautical Federation, all have interest of one sort or another in the study of the planets, nevertheless the most natural home would seem to be the International Union of Geodesy and Geophysics."

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UNNATURAL MOTHER—The female *Megapode* shown by S. Dillon Ripley, director of Yale's Peabody Museum, abandons her eggs and leaves them to the male bird. George A. Clark, Yale ornithologist, holds a *Megapode* egg, which is part of the mystery of this Australian bird species. Under a National Science Foundation grant, Mr. Clark will embark on a four-month expedition this year to study the puzzling behavior of *Megapodes*.