

## Ant Sounds Audible

► FOR THE FIRST time, ant sounds have been heard and recorded.

Ants communicate in sounds, audible to humans, made by snapping leg joints, scraping feet and rapping mandibles, as well as by the stridulatory organs, the same type of organ which allows the grasshopper to fiddle.

What is more, the sounds can be heard without amplification at very close range by a person with good hearing.

Miss Helen Forrest, Rutgers University zoologist, reported her findings in what is believed to be the first scientific discussion of ant communication by sound to the American Society of Zoologists in Corvallis, Ore.

The sound-producing organs are very similar in all species of ants studied, she said, but the "songs" produced by each are quite different.

Both male and female ants have louder "voices" than sexless worker ants and are especially sensitive to vibrations, she found. Miss Forrest also said that she has located possible receptors of the sounds.

• Science News Letter, 82:156 September 8, 1962

## Cold Storage Embryos

► EIGHT or ten high-grade cows instead of only one is the future promise of a new technique of transferring embryos stored in freezers.

Scientists now know how to take an embryo from one rabbit, store it and later give it to a different mother to bear, Dr. E. S. S. Hafez of the department of animal science, Washington State University, told a meeting of the American Institute of Biological Sciences in Corvallis, Ore.

This method is being applied to cows. The best cows now are limited in number and usually have only one calf a year. Through transfer of embryos, the best stock could produce eight or ten embryos a year, which could be born by ordinary cows.

Reporting on experiments to find out how much antibiotic should be used to help preserve embryos, Dr. Hafez said he had discovered that the addition of gelatin to the storage liquid improved the protection against germs.

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## Test for Vision Theory

► A MATHEMATICAL translation for a physiological theory designed to explain a unique function of the human eye was reported at a meeting of the Western North American Region of the Biometric Society in Corvallis, Ore., by Dr. Donald L. Bentley, assistant professor of mathematics at Colorado State University, Fort Collins, Colo.

He presented a mathematical technique for use in testing a "compartment theory" developed by Dr. George Wald, a Harvard ophthalmologist.

Dr. Wald's theory suggests that rod vision in the human eye, which is concerned only with black-and-white sight, is directed by

tiny "compartments" within the eye. These "compartments" act independently of each other in reacting to light and producing what we know as sight. In other words, one such "compartment" within the rod may react to light while one or even all others will not.

Dr. Bentley, in translating the complex theory into mathematical terms, applied stochastic, or random, mathematical processes to rod vision.

He said that the "compartment theory" fits various statistical models, and that these statistical models can be utilized in proving or disproving Dr. Wald's theory.

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## Fungi Invasion Feared

► DEADLY foreign fungus organisms are constantly feared by U.S. scientists for the destruction they could cause to susceptible plants in this country.

Only the sharp eyes and constant research of the Federal plant quarantine inspectors have kept U.S. crops and forests free from the disease organisms such as the fungus that early in the century wiped out every chestnut tree in the country in a few years.

The sweet orange fungus that wreaks havoc among citrus fruits, for example, has been successfully kept from this country, although it is often found on planes or ships coming from South America, Mrs. Alice J. Watson, a mycologist at the U.S. Department of Agriculture Plant Industry Station, Beltsville, Md., told the Mycological Society of America meeting in Corvallis, Ore.

Another was the rust disease reported in a serious 1959 outbreak in lentil fields of Chile, she said.

A quarantine action against the South American seeds protected crops in Oregon and Washington.

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## PALEONTOLOGY

### Life Exists Outside Earth, Nobelist Believes

► LIFE EXISTS outside earth, fossils found in meteorites suggest to Nobelist Dr. Harold C. Urey of the University of California, San Diego.

The evidence is not yet conclusive and all scientists who can contribute to solving the problem of whether the fossils are actually from out of this world or merely contaminations should do so, Dr. Urey urges.

However, the discovery of possible fossils in meteorites makes the evidence for extraterrestrial life better now than it was before.

He summarizes the evidence for and against extraterrestrial origin of the fossils in Science, 137:623, 1962. Most of the evidence on both sides was originally presented at a meeting of the New York Academy of Sciences last spring, of which Dr. Urey was chairman.

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## Do You Know?

*Scandium*, a scarce, light metal with a high melting point, is frequently present in waste liquors, in minute quantities, from mills processing uranium or rare-earth ores.

Early cutting of *alfalfa* provides the highest quality hay.

About 20 colleges and universities in the U.S. now offer undergraduate *degrees* with soil and water conservation majors.

Rare earth *metals* are neither rare nor unavailable, they are present in trace amounts in much of the earth's crust and in both plant and animal life.

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