

bled on this simple method of controlling mosquitoes while trying to speed up the development of subarctic mosquito larvae for experiments. All the mosquitoes emerging from the heated water appeared to be females, but the proboscis or snout could not "drill," he reported at the American Institute of Biological Sciences meeting in Corvallis, Ore.

Maleness, including the sex organs and the appearance of males, can be precisely controlled for at least nine species of subarctic or snowpool mosquitoes by varying the temperature of the water in which their larvae develop, he said. The temperature supposedly affects the chromosomes of the males.

Hundreds of different kinds of mosquitoes are found in the world; the majority are tropical or subtropical. Temperature may have some effect on their development too.

The discovery will open new doors for the study of the development of arthropods, including insects, millipedes and centipedes, crustaceans, scorpions and spiders, Mr. Anderson told scientists.

• Science News Letter, 82:171 September 15, 1962

Check Drug Tragedies

➤ SUPERSENSITIVE laboratory animals could guard against thalidomide-type drug tragedies by being used for testing experimental drugs and chemicals, a geneticist claimed in Corvallis, Ore.

Selective breeding of lab animals to give exaggerated response to specific substances or treatments could lead to safer and more thorough testing of harmful or unknown substances before administration to humans, Dr. W. A. Becker of Washington State University, Pullman, told the scientists.

Dr. Becker tested his theory on 600 different family groups of White Leghorn chicks by measuring their weight differences on two separate diets. Chicks from some families gained weight faster on a diet of pellets than their brothers and sisters on

a non-pelleted diet, he said. The differences due mainly to heredity could be increased or decreased as needed.

The same technique could be used to select and breed strains of laboratory animals with sensitivity to the desired chemical or environment, he said. It could be used with mice, guinea pigs, rabbits or rats.

He reported his findings at the American Institute of Biological Sciences meeting at Oregon State University.

• Science News Letter, 82:172 September 15, 1962

Bacteria Inhibitor Found

➤ THE DISCOVERY of a bacteria-inhibiting substance in cauliflower seed, which could open the way to a new means of controlling plant or human diseases, was reported by a Louisiana State University plant pathologist at the national joint meetings of biological societies in Corvallis, Ore.

The report was made by Dr. James B. Sinclair, assistant professor of plant pathology. The discoverers of the inhibitor are Dr. T. P. Pirone, assistant professor of plant pathology, and Dr. F. Malekzadeh, recent LSU graduate from Teheran, Iran.

Drs. Pirone and Malekzadeh made the discovery when testing bactericides as seed treatments for black rot of mustard plants. When cauliflower seeds, which are about an eighth of an inch in length, were placed in agar plate cultures of bacteria the growth of the bacteria was found to be strongly inhibited.

It was found that the inhibition of bacterial growth was greater in cauliflower seed that had lost its power to germinate. The researchers believe that the light yellow substance responsible is manufactured as the seed loses its viability.

Further tests showed that the substance was active against a number of bacteria causing plant diseases, as well as some causing human diseases.

• Science News Letter, 82:172 September 15, 1962

Do You Know?

Most shark attacks on humans are attributed in individual "killers" which develop by accident or environment, an apparent liking for human flesh.

In certain forms of schizophrenic illness, some degree of schizophrenic thought disorder is evident in one or both parents of the patient.

Smokers who move from one community to another frequently are more likely to develop lung cancer than their less mobile brothers.

In the U.S., one baby in 20 is born with a defective heart.

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BIOLOGY

Algae Circulatory System

➤ A MICROBIOLOGIST has proved for the first time that microscopic plants such as algae have a circulatory system.

The proof was found in photographs that showed how liquid passes through the tiny plants. The film was made by very fine microscopy, enlarging the plants more than 1,000 times.

Dr. Roman Vishniac, professor of biological education, Yeshiva University, New York, told SCIENCE SERVICE it is possible that the plants' circulation is related to the way they produce food by photosynthesis.

For the past hundred years or so, since the invention of the microscope, most scientists believed these plants did not have a circulatory system because it could not be seen with the microscope. Ironically, before the advent of the microscope, scientists generally believed such a circulatory system

existed, although they had no proof of it, Dr. Vishniac said.

He added that one-celled creatures are not the simple structures depicted in today's textbooks. They are often more complicated than many much larger creatures.

The film, shown by Dr. Vishniac at a photography-in-science conference in San Francisco, revealed both the structure and behavior of small organisms. Dr. Vishniac said man can also learn about his own behavior from studying that of microorganisms.

He believes the world of tiny creatures (microcosm) is as "big" as the space of the universe (macrocosm) on its own scale, and that it contains secrets to be discovered by scientists for the next hundred years.

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