

ENTOMOLOGY

Cicada Not Harbinger

Insect visitor at Science Service identified as species common to Pennsylvania, after staff writers debate whether appearance foretells locusts due in 1953.

See Front Cover

➤ WHEN IS a cicada a harbinger of great events in the future and when is it just another cicada?

SCIENCE SERVICE has found out.

Preceding all the staff writers to work one morning recently was a cicada—sitting lazily on a third story window ledge, looking as though it were about to jump on the nearest typewriter and bang out a story.

Instantly the science writers thwarted that move by incarcerating the cicada in an old mayonnaise jar.

"This," said a nature expert, "is an important event. Next year many sections of the United States will be visited by millions of cicadas—so-called 17-year locusts. And this fellow is a harbinger of that great event."

"Your cicada is not either a harbinger of next year's great swarm," said another nature expert. "It is just an ordinary kind of cicada which does not stay in the ground any 17 years. It comes out every year."

Both experts being adamant in their opinions, the cicada was photographed, the result being the cover picture of this week's SCIENCE NEWS LETTER, then sent off to the Department of Agriculture in a taxi. Well, it was just a cicada. No harbinger.

Agriculture said SCIENCE SERVICE had been visited by a cicada called *Tibicen canicularis Harris*, a common species in Pennsylvania and north of there, but rarely found as far south as Washington. It also occurs westward across the northern states to Colorado. Apparently little is known about its habits or biology.

But, if it had been a harbinger, it would have been a harbinger of the great swarm of cicadas that will crawl out of the ground next May in the area from southern New York down to North Carolina and out to Illinois.

Brood X, one of the largest and most widespread of the cicada broods, which reappear every 17 years, was last seen in 1936. Millions of them will come out of the ground, mate and lay eggs between May and July next year.

These are not related to the swarms of locusts which are menacing the Middle East. Our cicadas are relatively harmless. During their time out of the ground they live mostly on fat accumulated in their long sleep. They lay eggs in the tender green branches of trees, mostly oak, but this does not affect the basic health of the tree.

The Middle East locusts are not really locusts either. They are grasshoppers in locust's clothing. In other words, they are

grasshoppers that, between plagues, live obscure, solitary lives over wide areas of Africa and the Middle East. At rare intervals, for reasons not yet fully understood, the grasshoppers change their form, color and habits and become locusts. They develop gregarious and migratory habits.

In the U. S., there are 13-year as well as 17-year cicadas. They are all divided into broods, designated as to the years in which they come out. Most broods have definite geographical limitations. Of the 17 possible 17-year broods, 13 occupy definite areas, large or small. There are only scattered records of the remaining four broods. There are only two large and important 13-year broods.

A few scattered forerunners of the broods sometimes appear during the 16th year. However, this year, the Department of Agriculture has no record of any forerunners of Brood X, due next year.

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MEDICINE

Rules for Chloromycetin

➤ YOUR DOCTOR will still be able to prescribe Chloromycetin for hard-to-treat diseases, such as typhoid, typhus, undulant fever and whooping cough, even though out of 8,000,000 patients treated, 177 definite cases of serious blood disorders have been discovered.

Following advice from a National Research Council committee, the Food and Drug Administration is revising the required label and advertising on this drug to caution physicians against indiscriminate use or for minor infections.

Chloromycetin, called chloramphenicol also, is one of the five antibiotic drugs certified by FDA, the others being penicillin, aureomycin, bacitracin and streptomycin.

The government's experts weighed the value of the drug against its capabilities for causing harm and decided that it should continue to be available for careful use by the medical profession in those serious and sometimes fatal diseases in which its use is necessary. This is the same kind of a decision that a doctor makes every day.

The National Research Council committee headed by Dr. John Holmes Dingle of Western Reserve University, Cleveland, urged continued study of the effect of the drug and advised doctors to make blood studies when it is administered to detect any loss of ability by the bone marrow to manu-

• RADIO

Saturday, August 30, 1952, 3:15-3:30 p.m., EDT "Adventures in Science," with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Dr. Charles Wharton, zoologist of Atlanta, Ga., and Cornell University, Ithaca, N. Y., and Dr. Harold J. Coolidge, associate in mammalogy at the Harvard Museum of Comparative Zoology and director of the Pacific Science Board of the National Research Council, discuss "The Wild Ox of Indo-China—The Kouprey."

AGRICULTURE

Tractors Not Solution for Under-developed Farms

➤ ALTHOUGH TRACTORS are of immense help to farmers clearing and leveling vast land areas for cultivation, they are not often the solution to farming problems in under-developed parts of the world.

Sometimes improved animal-drawn equipment and better hand tools must come first. Then the tractors can follow later as mechanical cultivators, the Food and Agriculture Organization of the United Nations has determined in experiments in the Indian state of Uttar Pradesh.

Another problem is one of keeping the tractors working. If no repair shops exist to fix broken machines, the tractors cannot be operated successfully over a long period of time.

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facture red and white blood cells, as happens in aplastic anemia or related conditions.

These uncommon complications in the groups studied had 50% mortality, both when Chloromycetin was the only drug administered and when other drugs were also given. About as many cases of the serious blood disorders were found in which Chloromycetin had not been administered.

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Two new clingstone *peaches* with reduced fuzz have been developed; they are adapted to winters of little cold, ripen early and have good quality.

NEW METHOD HISTOLOGY SLIDES

Our Laboratory has recently prepared new stock of histology slides, vertebrate and invertebrates, and of the brain and cord of the cat: Cerebrum, cerebellum, optic entrance, brain-stem, and of all of the cord. Several serial sections of the cord and up to three of the brain on each slide. Surely serial sections are of great practical value in teaching. Because a single section often does not show what it is supposed to!

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Questions

ASTRONOMY—How efficient would telescopes on the moon be? p. 119.

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BIOLOGY—Where are hairs found on whales? p. 114.

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GENETICS—What plant is suggested as the immediate ancestor of corn? p. 118.
In how many ways can cells be transformed into cancer cells? p. 121.

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GERONTOLOGY—What can be done to help keep elderly people healthy? p. 116.

• • •

MEDICINE—What is "brain fever?" p. 120.
Has the drought aided hay fever sufferers? p. 121.

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PHYSIOLOGY—What color is best for air-sea rescue gear? p. 121.

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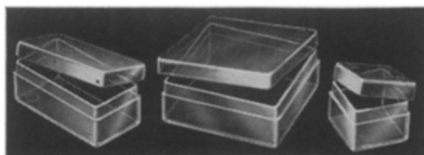
MEDICINE

Vitamin B Offered To Treat Skin Ills

► NOW A vitamin B is being offered as relief for skin itching, pain and a healing agent for skin lesions ranging from ulcers to sunburn.

After clinical tests at Bellevue Hospital and New York Medical College, a cream containing 2% pantothenol, the alcohol analog of pantothenic acid, one of the vitamin B factors, has been made available by the U. S. Vitamin Corporation.

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PHOTOGRAPHY

Photos Catch Rockets

► WITH THE aid of photography, new and better rockets are penetrating farther into space, or are being developed to carry havoc to the enemy in case of World War III.

R. W. Herman of the U. S. Naval Ordnance Test Station at China Lake, Calif., told the Photographic Society of America meeting in New York that special movie cameras have been built to watch rockets that fly so fast the eye cannot be relied upon for scientific observations.

The cameras cover the take-off, flying and terminal parts of the rocket path. They yield a continuous record of what went on while the missile was in the air.

Using a strip of film that moves continuously, one camera, developed by Dr. Ira S. Bowen, director of the Mount Palomar Observatory, shoots pictures on frames of film five inches long and one inch wide.

Some of the cameras are stationary and are arranged so that the films taken by a battery of them go together to form a con-

tinuous picture of the rocket's flight. In addition to a picture of the flying missile, some of the cameras, such as the Bowen Acceleration camera, have special built-in equipment to provide a record of elapsing time. From these data, more information about the rocket can be figured mathematically.

Some of photography's applications to rocket research were outlined by Mr. Herman. Among them were these:

Photographic records can show how a rocket reacts to "shifting" weight as heavy fuel is burned. They can reveal qualities of new designs difficult or impossible to obtain in the laboratory. They provide valuable clues to what is happening in the rocket motors during take-offs.

Mr. Herman predicted rockets some day will "open vast new frontiers of the universe to man's exploration," and that photography will continue to help produce those better ships.

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GEOGRAPHY

Go North, Young Man

► THE PIONEERS are moving northward in Canada. Geographers from all over the world were given a picture of the northward advance of civilization in Canada by J. Lewis Robinson of the University of British Columbia.

The reason for the new advance, which started in 1945, Mr. Robinson said, is improved mechanized bush-clearing equipment. This has resulted in the pioneer fringe of agriculture moving northward, Mr. Robinson told the International Geographical Union meeting in Washington.

Also, the increased number of trucks is permitting settlement to spread out from the north-south rail lines along new roads. Allied developments, such as mining and transportation routes, have aided the northward march of farming.

However, Mr. Robinson said, there are some deterring factors. He pointed to what he called a lack of "pioneer spirit" among some Canadians who do not like the lower standard of living in the northern area. In addition, there are high costs of transportation to southern markets and early fall frosts; poor soils and poor water facilities discourage some.

Conditions are not the same throughout the pioneer zone, Mr. Robinson said. The fringe extends to the northwest from west-central Manitoba, passing north of Prince Albert, Saskatchewan, and terminating in the Peace River region of Alberta and British Columbia. There are some settlements north of this, for example in the Yukon and Mackenzie river valleys, but much of the

farming there should properly be classed as gardening, he said.

Changes in the type of cash crops, better clearing methods and better organized government assistance all augur well for pioneer farming, Mr. Robinson concluded, despite the difficulties.

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METEOROLOGY

Most of Nation Will Get Subnormal Rainfall

► RAINFALL OVER most of the nation will be "subnormal" prior to Sept. 15, but "we are not forecasting a return to drought conditions," experts at the U. S. Weather Bureau's Extended Forecast Section predict.

The term "subnormal" is in relationship to the average amount of rainfall for the particular 30-day period over past years. Averages are relatively high over the drought area between Aug. 15 and Sept. 15, William Klein, extended forecaster, told SCIENCE SERVICE.

Subnormal for Tennessee and Kentucky, for instance, means two inches or less; for the Carolinas, three and one-half inches or less; for New England, two and one-half inches or less.

Nevertheless, Mr. Klein said, the trend that appeared Aug. 1, when the long-range forecasters predicted normal amounts of rain for August and a break in the drought, has been reversed. The reversal, however, probably will not be as extreme as the conditions before Aug. 1.

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