

The year 1934, however, had a larger total for the season—242,925 cases for the first 11 weeks of the year. This is the eleventh week of the current year and the total number of measles cases was 330,178.

The number of measles cases reported in Chicago so far this year tops all previous yearly records, the Chicago Board of Health announced. On March 17 the year's total had reached 24,363 cases. Previous record was 24,199 cases during the year 1935. An all-time daily record was set on March 10 with 743 new cases reported in that one day.

Science News Letter, April 2, 1938

NATURAL HISTORY

Tree Grove is Leading Character in New Book

A PRAIRIE grove is the principal character in a new book by Donald Culross Peattie. Books without end have been written that purport to report the world as seen through the eyes of animals. Here is one that uses a natural group of trees as its vantage-point.

Not that the trees are personalized; Peattie is far too clever a writer for that. The grove, one of those "islands" in the primeval prairie's sea of grass that for ages afforded harborage to men and beasts, is simply shown for what it was, a focus for the biota (including the human) of the region round about.

Here came the French: the typical team of the adventurous *sieur* following a dream of empire and the equally vision-inspired priest seeking an empire of souls. Here they wrought among the Indians, until death ended ambition and rewarded zeal. Here the Indians came and went, as the movements of their migratory larder, the bison herds, gave leave and command.

For many years, the long, unrecorded interregnum between French and American pioneers, the grove knew only these bison-following Indians. Even the first white migrants into the region missed it, because they shunned the prairies and would farm only after clearing the timbered bottomlands.

Then at last, on creaking inexorable wheels, the descendants of New Englanders moved in, to found the biotic complex that now dominates the upland prairies. Indian, prairie grass, and bison have gone; American, corn, and cattle have taken the land. The prairie grove, the island of trees, has stood and witnessed it all.

Science News Letter, April 2, 1938

MEDICINE

Yellow Fever Weapon Developed Just in Time

SUCCESSFUL vaccination against jungle yellow fever on a large scale has been achieved by means of a new vaccine developed in the laboratories of the Rockefeller foundation. More than 38,000 persons in Brazil and some 2,000 in Colombia have already been vaccinated, Dr. Raymond Fosdick, president of the Rockefeller Foundation, announced.

Success of the new vaccine is particularly significant because of three recent and upsetting developments: 1. Yellow fever is prevalent in vast areas of the hinterland of both South America and Africa. 2. It can be carried by insects other than the ordinary yellow fever mosquito, but the other carriers have not yet been discovered. 3. Expansion of rapid air travel has brought the yellow fever areas close to regions that considered themselves safe from this disease.

All this means that ordinary methods of fighting yellow fever, which succeeded in wiping out the disease in the United States and many other places, cannot be successfully applied in the case of jungle yellow fever. The only hope of preventing the spread of jungle yellow fever to cities and countries now free of it lies, for the present, in the vaccination of exposed populations and of air crews and passengers.

This now appears possible by means of the new vaccine. This vaccine is made from yellow fever virus developed by tissue culture methods. Reaction to it is mild, consisting chiefly of a slight headache 6 or 7 days after vaccination. Results on 700 persons previously inoculated with living yellow fever virus gave full or partial immunity or protection in over 99 per cent. of the cases.

Science News Letter, April 2, 1938

BIOCHEMISTRY

Viruses, Declared Non-Living, Show Some Signs of Life

SUBMICROSCOPIC particles of proteins that cause the virus diseases of plants and animals are again the subject of discussion: are they alive or not?

For a long time they were considered to be "living molecules." Then they were assigned to the non-living realm, especially as the result of researches in the last couple of years at the Rockefeller Institute laboratories at Princeton, N. J.

Now, Drs. T. E. Rawlins and William N. Takahashi of the University of California indicate several points in which these elusive filter-passing substances persist in acting as though they were alive. (*Science*, March 18)

One suggestion that they may be living is found in the way they refract or bend light. A similar refraction is produced by living substance in the heads of sperms or male sex cells—which are undoubtedly living objects.

Another point is raised over the chemical nature of the viruses. They are now

commonly considered to be enzymes, yet they consist of nucleoproteins. Nucleoproteins are proteins found characteristically in the nuclei of living cells, and not in ordinary enzymes.

Drs. Rawlins and Takahashi also call attention to the enormous molecular weights of the virus proteins. These are figured in the millions, very much higher than the molecular weights of known enzymes. They suggest therefore that instead of being single molecules the virus particles may be aggregates of molecules—another hint that they may be alive after all.

Drs. Rawlins and Takahashi avoid categorical declarations. They state:

"It is obvious that much of the above speculation is based on meager evidence; it is presented with the hope that it may stimulate further research in this field rather than that it may enable the reader to reach a conclusion regarding the nature of viruses."

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