

ZOOLOGY—PHYSICS

Man Indicted as Killer On Seventy-Two Counts

In 400 Years A Total of 24 Forms Have Been Wiped Out in North America; Islands Suffer Most

MAN as murderer of his fellow-mammals was indicted on 72 counts before the meeting of the American Philosophical Society, by Dr. Francis Harper of the American Committee for Wildlife Protection.

Since the beginning of the Christian era, Dr. Harper declared, some 72 species and subspecies of mammals all over the world have become extinct, primarily through human agency. The North American record is especially bad: in slightly over 400 years 24 forms, exactly a third of Dr. Harper's list, have been wiped out. Contrast with the relatively sparsely settled continent of South America is marked: the extinction record there stands at zero.

Island faunas suffer especially, the speaker pointed out. The animals on their limited areas, with nowhere to escape to, are particularly vulnerable to attack or competition by man and by

certain mammal pests introduced by man. Thus it has come to pass that such small island groups as the Galapagos and the Falklands have lost a species or two apiece, while the West Indies have seen 13 species disappear.

More Idea Than Particle

THE heavy electron—for which the name mesotron has now been suggested—is as yet more of a concept of the mind than it is a definite atomic particle, it was indicated by Dr. Karl K. Darrow of the Bell Telephone Laboratories.

Electrons, protons and alpha-particles have had their electrical charges and their change of mass ratios determined directly, but the electrical charge and the mass of heavy electrons cannot yet be measured, Dr. Darrow emphasized.

Thus the definition of what is a meso-

tron, is based on secondary qualities. When a physicist speaks about a heavy electron he is not referring to a particle whose charge and mass have been measured. Rather he is talking about a particle which has the ability to penetrate a great thickness of heavy metal much more easily than current theories of the electron predict.

Or he may be speaking of a particle which gives an ionizing power that differs not only in theory, but also from previous observations of the ionizing power of ordinary electrons.

In effect, said Dr. Darrow, the physicists have been encountering a series of baffling phenomena which could be explained if there existed a particle having the charge of an electron but having a mass several hundred times greater, and yet less than the mass of the proton. If it should finally turn out that the concept of the heavy electron would serve for all of these bafflements, then the new particle will be established as a feature of modern physics.

Fish Influenced by CO₂

FISH are influenced in their choice of places to live by the relative amounts of carbon dioxide dissolved in the water, it was stated by Dr. Laurence Irving of Swarthmore College. This gas, waste product of the respiration of animals and plants, renders fish much more sensitive to lack of oxygen when too much of it is present. Some fish are much more sensitive to it than others: black bass, for example, are more highly CO₂ "conscious" than catfish. The latter therefore can live in water that bass cannot tolerate.

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AGRICULTURE

Government Experts Breed Apartment Size Turkeys

See Front Cover

FOR the small family that does not find it practical to stow the giant turkey of Thanksgiving fame into the oven of a kitchenette, experts of the U. S. Department of Agriculture have produced the small size turkey shown on this page and on the front cover of this week's SCIENCE NEWS LETTER.

If you had a turkey that weighed only about seven or eight pounds for your holiday dinner, you had one of these.

The photographs are by Fremont Davis, Science Service staff photographer.

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HOLIDAY PARADE

If you have a small family you may welcome these small turkeys bred especially for your own table.