altogether likely that at least some of the undetermined individuals, upon closer examination, could have been assigned to certain of the forms definitely enumerated.

Several points of special interest are associated with these findings:

(1) The consistency of the destruction by motor traffic on our highways of two species of mammals, the cottontail rabbit (*Sylvilagus floridanus*) and the common skunk (*Mephitis mephitis*) is at once apparent. Both species are more or less nocturnal in habits and evidently many individuals meet death while feeding or seeking food. During the entire trip we saw neither a live cottontail nor a skunk.

(2) So far as could be judged from highway mortality, the mammal population of Ontario is considerably less than that of any state through which we passed. However, it should be noted in this connection that at this season of the year, automobile traffic in the province is scarcely as heavy as that in any of the states under consideration.

(3) The average per mile mortality rate of mammals in the States varied from .054 individuals in Michigan to .091 in Indiana. A total of 11 examples recorded on the 255 miles traveled in the Province of Ontario gives an average of only .043 individuals per mile.

(4) While the domestic cat ranked highest in point of number of individuals recorded, with the cottontail and the skunk second and third, respectively, more dead skunks were noted on the 305 miles of New York road traveled than on the 758 in the other four states and the Province of Ontario combined. The carcasses of the 9 New York skunks discovered give the comparatively high average of .029 individuals of this species per mile or 1 dead skunk for each 34 miles traveled in the Empire State. Remains of at least one skunk were recorded for Ontario and for each of the states except Michigan. The mortality figures suggest that this mammal is considerably more abundant in New York State than in any other here considered.

(5) Further interest attaches to the present enumeration of mammalian motor car casualties on the highways when it is compared with the records obtained by the writer on two other extended automobile journeys. The first (SCIENCE, 61, No. 1568, 56–57, 1925) concerned a round trip from Iowa City, Iowa, to Lake Okoboji, Iowa, a distance of 632 miles, made in June and July, 1924. On the highway, about 400 miles of which were graveled, while the remainder was simply graded earth, a total of 42 dead mammals, representing 9 species, was recorded. In this lot the thirteen-lined spermophile headed the list with 18 casualties, while the cottontail ranked second with 12. Only 1 skunk was noted.

The second (SCIENCE, 69, No. 1800, 670–671, 1929) concerned a trip from Iowa City, Iowa, to Sanford, Florida, a distance of 1,400 miles, made from October 1 to 11, 1928. The route "led through southeastern Iowa, central Illinois, southwestern Indiana, western Kentucky and Tennessee, central Georgia and north central Florida." On the highway, approximately 1,000 miles of which at that time were paved, we recorded 45 examples of dead mammals represented by 10 species. The cottontail led the casualty list with 7 individuals. Second in point of numbers was the domestic cat, with 6 individuals, while but a single dead skunk was observed.

Of course so many variables are involved in a consideration of data of this sort that far-reaching conclusions are scarcely warranted on the basis of the bare facts as here outlined. Nevertheless, the observations seem worthy of comment and provide food for reflection and speculation for the student of distribution and ecology as well as for the conservationist.

DAYTON STONER

NEW YORK STATE MUSEUM

THE PAINT CREEK METEORITE

THE department of geology of the College of Wooster recently received from Dr. J. H. Todd, a physician of Wooster, Ohio, a splendid specimen of an iron-nickel meteorite. The donor, now ninety-eight years of age, is the oldest practicing physician in Ohio, if not in the United States, and is the oldest member of the Ohio Academy of Science. As a young man he became interested in geology and archeology and has, during his long life, given much attention to the collection of geological and archeological specimens, having donated no less than 35,000 Indian relics to the Ohio State Archeological Museum, 5,000 to the City Museum of Wooster, Ohio, and a large number of geological specimens to the College of Wooster.

According to Dr. Todd the meteorite fell, in 1868, in the vicinity of Paint Creek, on the property of William Johnson, located about three miles from Hopewell Church in Holmes County, Ohio. Johnson, who lived on a terrace, a short distance back from Paint Creek, heard the noise of the approaching meteorite and ran to his porch. Upon looking up, he saw the flaming body approaching with a trail of fire behind it. As he watched it, it exploded almost directly over him, breaking into what appeared to him to be thousands of fragments. The larger portion then started almost straight down, striking a fence about a quarter of a mile down stream, toward the mill. It seared the fence for some distance and then buried itself in the ground. Johnson dug the meteorite from a depth of about 4 feet, where it was resting on bed rock. He told of the incident to Dr. Todd at the time he gave the latter the meteorite

and his story was verified by two millers, Adam Hoffstadt and John Mooch, who operated a flour mill on Paint Creek not far from the scene and were present when the meteorite was extracted from the ground.

The meteorite weighs 20½ pounds and is about 8 inches long and 7 inches wide. The forward part is smooth and striated, coming to a broad, blunt point; the leeward portion is broad and rough and without grooves or striations. It is pitted in places. No sections of it have been made, but it is believed, from its external appearance, to have the same structure common to the iron-nickel variety of meteorite. There is no record of this meteorite in scientific literature and the unusual conditions associated with its fall make it of interest to science. Few meteorites have been seen to fall at a definite location and then dug from the ground. The depth to which it penetrated, through the mantle rock to the bed rock, 4 feet from the surface, indicates the force with which it struck the ground.

KARL VER STEEG

COLLEGE OF WOOSTER

REPORTS

MILTON RESEARCH AWARDS AT HARVARD UNIVERSITY

THE grant of fifty-six awards amounting to $61,815 to members of the faculty of Harvard University for use in research work during the academic year 1935–36, under the provision of funds established by the late William F. Milton, '58, and Joseph H. Clark, '57, has been announced. Awards in the sciences are as follows:

KENNETH T. BAINBRIDGE, assistant professor of physics, to purchase apparatus for concentrating isotopes.

THOMAS BARBOUR, professor of zoology and director of the University Museum, and ALFRED S. ROMER, professor of zoology, to collect fossil reptiles in Southern Brazil.

PAUL D. BARTLETT, instructor in chemistry, to study quantitatively the so-called "Positive Halogen" in organic compounds.

HENRY E. BENT, assistant professor of chemistry, to study the absorption spectra of organic free radicals at low temperatures.

HENRY B. BIGELOW, professor of zoology, for a continuation of the investigation of siphonophores collected by Dr. Johannes Schmidt on the last *Dana* Expedition, 1928–30.

MARLAND P. BILLINGS, assistant professor of geology, to complete the geology of the New Hampshire portion of the Mt. Cube Quadrangle and the Chocorua Quadrangle.

NICHOLAI A. BORODIN, curator of fishes, to study the anabiosis of fishes.

FRANK M. CARPENTER, assistant curator of invertebrate paleontology, to study fossil insects from Creede shales, Colorado.

HUBERT L. CLARK, associate professor of zoology, to illustrate report on Australian Echinoderms.

FRANZO H. CRAWFORD, assistant professor of physics, to continue the study of Schumann absorption of polyatomic molecules.

WALTER F. DEARBORN, professor of education, to organize records obtained over a twelve-year period of the mental and physical growth of American public school children.

OLIVER L. FASSIG, research associate, Blue Hill Observatory, to continue work on report on the climate of Puerto Rico.

MERRITT L. FERNALD, professor of natural history, to produce engravings of technical details of critical or newly studied plants and to map their geographic affinities.

LOUIS F. FIESER, associate professor of chemistry, to continue an investigation of organic cancer-producing compounds.

PAUL R. GAST, assistant professor of forestry, to extend present program to a study of the effect of varied nutrition and radiation on the growth of seedling pines.

JAMES C. GREENWAY, JR., assistant curator of birds, to publish a report on a collection of birds from the Coastal Range between the Markham and Waria Rivers, northeastern New Guinea.

EARNEST A. HOOTON, professor of anthropology, to continue the study of human eye pigmentation by means of color photography.

CORNELIUS S. HURLBUT, JR., instructor in mineralogy, to study corundum deposits of western United States.

BERNARD M. JACOBSON, research fellow in medicine, to purify, to identify chemically and to study the biological activities of the materials in liver which are effective in pernicious anemia.

GEORGE B. KISTIAKOWSKY, associate professor of chemistry, to study the heat capacities of polyatomic gases by the adiabatic expansion method.

ESPER S. LARSEN, JR., professor of petrography, to continue the study of minerals by x-ray analysis.

L. DON LEET, instructor in geology, to compile a book detailing the principles of seismological investigations and reporting results of current research at Harvard.

THEODORE LYMAN, director of Jefferson Physical Laboratory, to continue x-ray studies.

LIONEL S. MARKS, professor of mechanical engineering, to investigate the flow of air through centrifugal fans with the hope of putting the design on a rational basis.

HARRY R. MIMNO, assistant professor of physics, to con-