tors that many of the toxic areas existing at present in the Rocky Mountains area in soils and shales of a definite geological character have been brought about by vegetative enrichment of selenium through cycles of growth and decay of highly seleniferous native plants, such as the Astragali represented by *A. bisulcatus, A. sabulosus, A. racemosus, A. pectinatus, A. flaviflorus, A. grayi,* etc.

O. A. BEATH
C. S. GILBERT

## MOUNTAIN ROAD CASUALTIES AMONG ANIMALS IN COLORADO

IN July, 1935, I noted the numbe[illegible]dead animals, mostly mammals, seen on mountain r[illegible]n a portion of Colorado. The results of thi[illegible]ere published in SCIENCE for January 3, 1[illegible]ualties among Animals on Mountain Roads."

I was in essentially the same region from the 7th to the 19th of August, 1936, accompanied by Robert Potts of Denver, who did the driving and noted more of the victims than I.

The itinerary was as follows: From Colorado Springs through Cañon City and Salida, across Monarch Pass to Gunnison; thence north to Crested Butte and the "ghost towns" of Gothic and Pittsburgh. Returning via Gunnison we went to Montrose over Blue Mesa, and returned the same way to Gunnison, Monarch Pass and Colorado Springs. The homeward trip from Cañon City to Colorado Springs was made via Florence and Pueblo, a roundabout route taken because of rainy and stormy weather.

The most notable differences between the 1936 list and that of 1935 are the greater number of Say's ground squirrels, 27 instead of 12, a less number of prairie dogs, 36 instead of 56, and five chipmunks, when none were recorded for 1935. The road from Cañon City to Colorado Springs via Pueblo is really a plains road, and I give the list for that separately.

The list follows: Mammals: cottontail rabbit, probably *Sylvilagus nuttalli pinetis,* 3; white-tailed jack rabbit, *Lepus townsendi townsendi,* 3; Wahsatch chipmunk, *Eutamias minimus consobrinus,* 5; Say's ground squirrel, *Callospermophilus lateralis lateralis,* 27; Gunnison's prairie dog, *Cynomys gunnisoni,* 36; mouse, sp. 2; muskrat, 1. Birds: sparrow, sp. 1; bird, sp. (?), 1; barn swallow (?), 1.

Between Cañon City and Colorado Springs via Pueblo were noted 5 pale striped ground squirrels, *Citellus tridecemlineatus pallidus;* 1 kangaroo rat, *Dipodomys ordi richardsoni;* 1 black-tailed jack rabbit, *Lepus californicus melanotis;* 1 plains cottontail, *Sylvilagus auduboni baileyi;* and a bull snake, *Pituophis,* sp.

EDWARD R. WARREN

COLORADO SPRINGS, COLO.

## PORRITCH FOR DR. MORRIS

IN SCIENCE for September 25 that versatile Nestor of science, Dr. Robert T. Morris, surgeon, geneticist, dendrologist, horticulturist, caryologist and ichthyologist, under the caption "Wanted: A New Word," appears in quest of an uncoined term, which he specifies "should be from the Greek," to indicate the mud-enveloped food of bullheads, flounders, wild ducks, etc.

The Greeks, as usual, "had a word for it"—at least they referred to mud-feeding critters as "borborophagous" (βορβοροφάγος). If umbrage be taken to that term as cacophonous and sesquipedalian, perhaps ilyophagous (ἰλύς, mud) might be preferred. Slime-feeders, therefore, could be called *ilyophagi,* and their habits *ilyophagous.* The words βρωμα (that which is eaten; food) or, I think more appropriately and euphoniously, τροφή (nourishment; food) could then be suffixed to the food-source itself. Thus, *ilyotrophe* (or *ilyobroma*) for the mud-food, and *ilyotrophism* (or *ilyotrophy*) for the food habit of these animals.

W. A. DAYTON

RANGE FORAGE INVESTIGATIONS,
U. S. FOREST SERVICE

# SCIENTIFIC BOOKS

## TIME AND SPACE

*Geometry of Time and Space.* By ALFRED A. ROBB. vii + 408 pp. Cambridge University Press, 1936.

THIS volume is essentially a second edition of Professor Robb's "A Theory of Time and Space" published in 1914. It contains, however, a much extended, illuminating introduction and new mathematical matter. Many of the proofs of theorems have been given simpler form.

There lies implicit in Einstein's special theory of relativity a four-dimensional space-time geometry in which "points" represent "events"; this geometry was first formulated by Minkowski. In space-time the fundamental geometric relation is that of the "interval" between two events.

Now there are two contrasting points of view which may be taken in the systematic logical development of the appropriate geometric ideas. The first proceeds from the qualitative to the quantitative, and is strictly analogous to the Euclidian postulational approach to ordinary geometry. It is this kind of approach which Robb has chosen to use in his book. The basic relationship from which he starts is that of one event, B, being *after* another, A: speaking physically, B is *after*