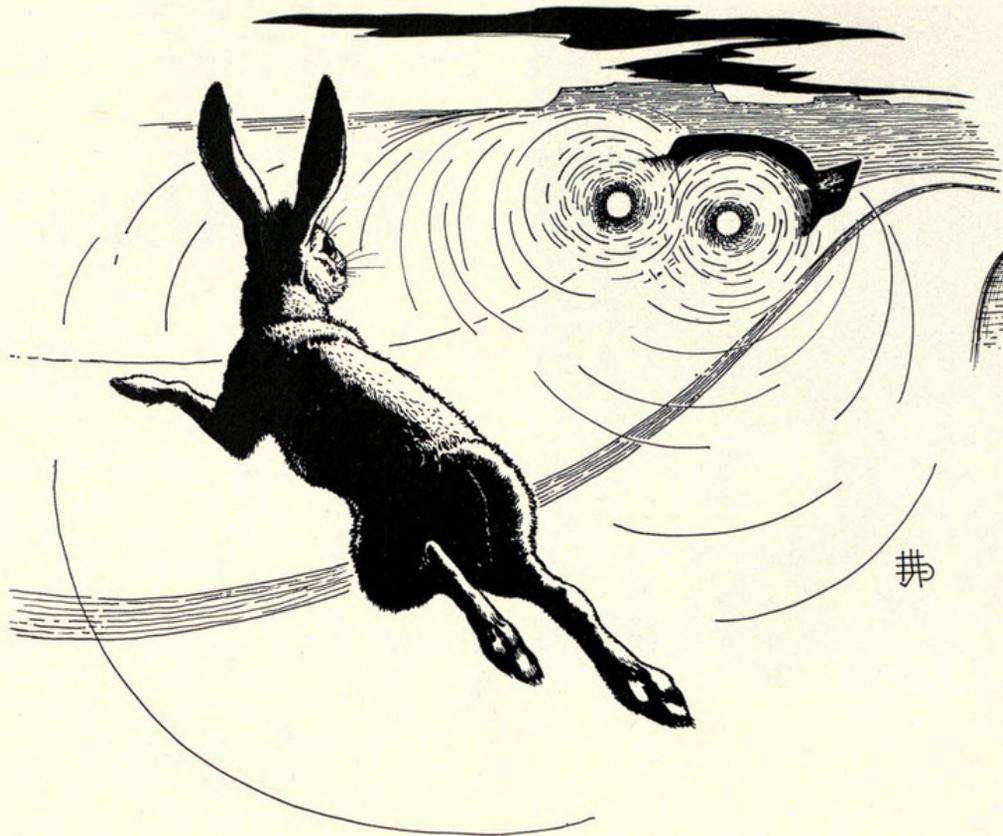


DEAD ON ROAD



by **ROBERT F. INGER**
CURATOR, AMPHIBIANS AND REPTILES
ILLUSTRATED BY JOHN PFIFFNER

AS A BOY I remember whiling away the miles on long auto trips by counting white horses. Today, white horses are scarcer along the roads than they were in the early thirties. But my interests still focus on animals (I grew into a zoologist) and on auto trips now, I look for DOR's—animals Dead On Road.

One summer my wife and I drove from our home, in a suburb of Chicago, to the Colorado Rockies and eastern Wyoming. We kept a record of all the mammals we saw dead on the road. Because we couldn't stop to inspect each DOR on a busy highway, we slowed down when we saw one ahead and made an identification at reduced speed. If the DOR was just a bloody mass with fur, we recorded our entry as "unidentified." On the whole, I think our identifications were reasonably accurate. We didn't bother with anything smaller than a rabbit. But whenever we spotted an especially interesting DOR, or whenever there was little danger to ourselves from the kind of predator we rode in, we stopped for a good look.

Few predators are equally adept at

catching prey in all kinds of country. Some are better adapted to mountains than to plains; others do better in forest than in grassland. In this respect, the automobile is like any other predator. It racks up more animal kills in flat, sparsely inhabited country on paved, relatively straight roads, where its speed finds few restrictions.

Wyoming was a good example. We spotted 166 DOR's in 425 miles of Wyoming highway, or one for every two and one-half miles of travel, while in Illinois only eight DOR's were seen in 370 miles of highway. The difference is undoubtedly accounted for by the greater distance between towns in Wyoming, which provides the predator with the opportunity for the kind of speed build-up that exacts a greater toll from the natural population.

Again, for the mountains of Colorado, our records show an average of only one DOR every 19 miles; while in the relatively flat country east of Denver on US 34, and north of Rifle on state route 13, we noticed one DOR at least every six and one-half miles.

An important factor in the life of any predator is the distribution of prey animals. Obviously, a predator can feed only on those animals living within its geographic range. If the predator has

an extensive range (as does the automobile), its diet may vary from one area to another. For example, the automobile cannot possibly kill a yellow-bellied marmot in Illinois, Iowa, or Nebraska, but it can and does kill this woodchuck-like creature in central Colorado, its eastern limit. For the same reason, the automobile can get the porcupine in Colorado but not in Iowa or Illinois. Or take the case of the opossum, which occurs from Nebraska eastwards. We saw one DOR in Nebraska and one in Iowa, but none in Colorado or Wyoming.

Generally, the diet of a non-specialized carnivore, that is, one that feeds on a variety of animals, will reflect the relative abundance of the various kinds of prey found in the environment. If rabbits are the most numerous of the potential prey in a given area, then more rabbits will be eaten by coyotes, say, than any other food animal. The kill of the automobile follows the same principle. The most abundant mammals on the plains are the rabbits—jack rabbits and cottontails. Of the 64 DOR's whose remains we were able to identify in Wyoming, 58 were rabbits. And of the 102 DOR's recorded as "unidentified," we estimated that 75 per cent were probably rabbits.

The statement that rabbits are the

most abundant mammals in the plains needs qualification. We were concerned only with those animals that could actually be considered as potential prey. The species that a given predator will attack fall within certain size limits. A lion, for example, does not bother with mice, which are too small to warrant the effort; nor will a lion attack an adult elephant. Similarly, when we arbitrarily decided not to try to identify mammals smaller than rabbits, we were placing a lower limit on the size of the automobile's prey. As for the upper limits, although cattle are occasionally

run down, they are large enough to damage seriously any passenger car that tangles with them. Consequently, drivers make strenuous efforts to avoid this kind of prey. We saw no dead steers on the road.

A fundamental principle of biology is that a system of checks operates to control the population size of any animal. If a species becomes too numerous, it may be reduced by a lack of food or breeding sites. Also, as its numbers increase, the species is attacked more often by predators. This principle was expressed very neatly by the elderly gen-

tleman who acted as caretaker of Ayer's Natural Bridge State Park east of Casper. We had been astonished at the number of rabbits dead on the road in Wyoming and mentioned this mortality to the caretaker. "Well," he said, "some of the sheep ranchers around here lost a lamb or two to coyotes. So they got after the government and the game men poisoned and trapped out the coyotes. Then we had a plague of rabbits. Finally the state put in the hard top and the cars started getting the rabbits. You know, Nature has a way of taking care of these things."

MUSEUM NEWS

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Field Research

Mr. Harry Changnon, Curator of Exhibits, conducted a field trip on May 21st for the Chicago Academy of Sciences to Thornton, Illinois, for the purpose of studying the limestone bedrock of the Chicago region. . . . *Dr. Fritz Haas*, Curator Emeritus of Lower Invertebrates, left on June 6 for a three weeks' field trip to Arizona to study the snails of the Chiricahua Mountains.

Resignation

Effective with the close of business, June 17, *Mr. Robert Reich* resigned as Custodian of the Herbarium, in order to further his education.

Meetings Attended

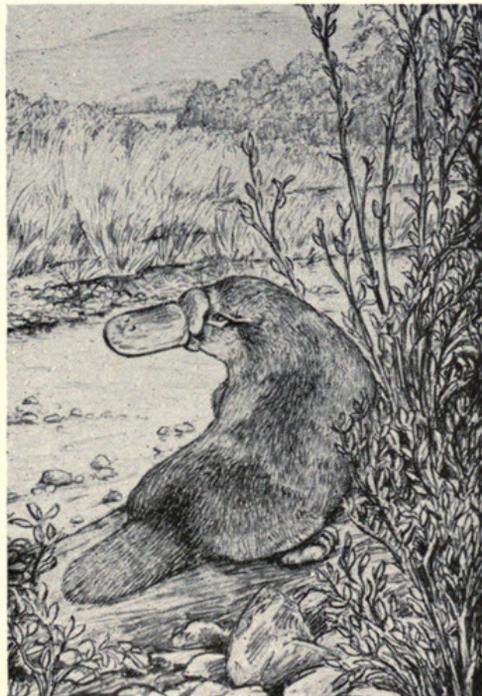
Mr. John R. Millar attended meetings of the newly formed Association of Science Museum Directors (as representative of Dr. C. C. Gregg) and attended the annual meeting of the American Association of Museums, both in Boston, Massachusetts, May 24-27. . . . *Mr. Philip Hershkovitz*, Curator of Mammals, *Dr. Karl Koopman*, Assistant Curator of Mammals, and *Miss Sophie Andris*, Osteologist, attended the 40th annual meeting of the Society of Mammalogy at Tacoma, Washington, June 20-22. . . . *Mrs. M. Eileen Rocourt*, Associate Librarian, attended the Convention of Special Libraries Association in Cleveland, Ohio, June 5-8. *Mrs. Rocourt*

has served as Chairman of the Museum Division of the Association during the past year, and in this capacity presided at the Division's annual business meeting, which included a round-table discussion on "Rare Books and other Special Materials in Museum Libraries."

From the Bookstore

The Story of the Platypus

By Alfred G. Milotte. A Borzoi Nature Study Book published by Alfred A. Knopf Inc., New York. 114 pages, 23 illustrations (by Helen Damrosch Tee-Van). Clothbound \$2.75.



From "The Story of the Platypus"

New Exhibit

The historic panorama of "Eleven Centuries of Icelandic Culture" is portrayed in a new photographic exhibit in Hall 2 opening July 1 in the Museum and continuing through August. The photographs, assembled by Cyrus T. Brady, Jr., depict "The Land and the People," "Iceland's Cultural Development," its "Architecture and Industry," and its "Contemporary Art and Life." The exhibit comprises 50 large photographic prints of unusual interest, many drawn from rare sources.

Longer Museum Hours

During the months of July and August, and through September 4, the Museum will remain open from 9 a.m. to 8 p.m. on Wed., Fri., Sat., and Sun., and from 9 a.m. to 6 p.m. on Mon., Tues., and Thurs. The 9 to 8 p.m. hours occur on the evenings of the free Grant Park concerts, thus providing Chicagoans with a cultural twin-bill for the summer. The Museum's cafeteria will be open from 5 p.m. to 7:30 p.m. for those who would like to dine conveniently.

Press Covers Museum

Members of the press photographed "prospectors" swarming through the Museum's department of geology last June 21, armed not with picks and shovels, but with a beryllometer. They were

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Inger, Robert F. 1960. "Dead on Road." *Bulletin* 31(7), 4-5.

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