

analysis of such possible environmental influences seems altogether too difficult technically unless and until the existence of a possible environmental factor is established as a fact.

Unfortunately this experiment can not be done on men, and spontaneous diabetes is rare in dogs. Since the chance is remote that the required animal material will be obtained in any given laboratory, it seemed wise to "breakfast" this suggestion so that the hypothesis may be tested if and when suitable dog material becomes available somewhere in the world. Owing to the great importance of such knowledge to man in general, it is suggested that all workers be prepared to avail themselves of or to turn over to colleagues any animal that would be suited for these experiments.

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TWO ADDITIONS TO THE HERPETOLOGICAL FAUNA OF RILEY COUNTY, KANSAS

SINCE two recent papers by Charles E. Bert¹ have listed the reptiles and amphibians of Riley County, Kansas, it seems worth while to call attention to two species hitherto unrecorded from this locality.

In the early fall of 1928 a specimen of the western hog-nosed snake, *Heterodon sasicus* Baird and Girard, was taken near Manhattan by a student and brought to the museum of the Kansas State Agricultural College. The specimen can not now be found, but since I examined it personally I am sure of the identification. This appears to be the easternmost Kansas record for this species.

The other new record is that of a western toad, *Bufo cognatus cognatus* (Say), which was collected July 12, 1928, five miles northeast of Manhattan not far from the Blue River. One individual, a large female, was picked up while crossing a small lane about 10:00 P. M. This locality appears to be on the eastern edge of the range of this species. Specimens of this form from Geary County, which adjoins Riley on the south, are preserved in the museum of the University of Kansas. No other records from the eastern third of the state are known to me at the present time.

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¹ "An Annotated List of the Amphibians and Reptiles of Riley County, Kansas," *OSAGE PAPERS MAR. Zool.*, Univ. Michigan, No. 180, 1927, pp. 3-9; and "A New Amphibian Record from Kansas, *Bufo phaeoerythrus* (Ope)," *SCIENCE*, 1928, 67: 659-661.

SCIENTIFIC BOOKS

Études d'histoire des Sciences Naturelles. I. De Linné à Jussieu. Méthodes de la classification et idée de série en botanique et en zoologie (1740-1790). Par HENRI DUBOIS (Paris, Librairie Felix Alcan), ii+204 pp. Price 20 fr. II. *Curier et Lamarck. Les Classes Zoologiques et l'idée de série animale (1790-1839).* Par HENRI DUBOIS (Paris, Librairie Felix Alcan). Vol. I, xiv+460 pp.; vol. 2, 328 pp. 1926. Price 60 fr.

THE period of the initial systematic organization and classification of the plant and animal world is the last half of the eighteenth century. In this brief time of a half century the plant kingdom, bearing the Protophyta, was fairly well classified along modern lines. The animal kingdom did not fare so well, largely because the anatomy of the invertebrates was so inadequately known. In this period two points of view were in more or less conflict: the one developed the "methodical" system, largely Aristotelian in origin, and the other the idea of seriation, which progressed from the scale idea of Bonnet to the dendritic concept of Desati. As investigation progressed the constant discovery of intermediate genera and species and the emergence of multiple liaisons for one group after another caused a marked tendency for a continuous weakening of the "methodical" concept, and it became less and less tenable as the concept of ramifying, or rather branching, series developed. The scale of being was, however, traced downward perhaps more often than upward, as in Buffon's peinaes.

A meticulous analysis of the work of the major contributors to systematics of this period fails to reveal any evidence, in either philosophical interpretation or in objective handling of the data of classification, that any one of them ever conceived the series as anything more than those of structural resemblances, valuable as guides to a natural system of classification. No statement of a genetic seriation or of genetic relationship emerges in this period. The data guiding their efforts to create a natural system and the very nature of their perplexities were, however, of basic value in the later content between Curier and Lamarck, but transformation was not yet born.

The second work is a serious and scholarly treatise which seeks to evaluate the work of the two divergent French schools of biological interpretation represented by Curier and Lamarck, and thus to portray correctly the background of the transformist theory which historically preceded the Darwinian epoch in the development of evolutionary thought. Whatever was new in the theory of natural selection can be fairly assessed only when the content of French trans-