



Note on a Second Occurrence of the Mosasaurian Reptile, Globidens

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etiology of the disease to *B. alvei*, which is almost invariably found in large numbers in infected larvae, much work has been done to corroborate their results. In no case, however, has an isolated culture of *B. alvei* been known to produce the disease. On the other hand, G. F. White and others have refuted the claim of Cheshire and Cheyne and ascribed infection in this disease to *B. pluton*. Owing to their inability to cultivate and isolate the organism, however, their claim has remained hypothetical; for it could not be determined whether this organism was itself merely a secondary invader—as they said was *B. alvei*—or whether the infection was mixed, or whether, indeed, these organisms played any pathological rôle in the disease.

It has been the writer's fortune, however, to develop a medium admirably suitable for the growth of *B. pluton* (White). An 0.15 per cent. concentration of agar, together with certain nutrients, is employed as an enrichment medium; and a concentration of 1.5 per cent. agar for the isolation of the organism at 37° C. By this method pure cultures of *B. pluton* can be readily obtained, provided the larvae used contain a preponderance of this organism.

The writer has obtained infection in a healthy colony of black bees in four days, using as inoculum cultures of the organism derived from isolated colonies. The symptoms of the diseased larvae accorded with those observed in naturally infected larvae, and the microscopical picture was typical—*B. alvei* forms being also present, though only in small numbers. The organism has been reisolated successfully.

Morphological studies thus far suggest the identity of the two organisms. While the results in this are not yet complete, cultures of *B. pluton* have been observed to change to *B. alvei* form, resembling biologically the *B. alvei* isolated from infected larvae. This further corresponds very closely with the changes observed in brood naturally infected, where the ratio of *B. alvei* to *B. pluton* generally increases as the putrefaction of the larvae progresses, so that *B. pluton* is almost eliminated. The more conclusive substantiation of this is anticipated, and its accomplishment should lead to the demonstration of important relations between the pathogenicity of microorganisms and their life stages.

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NOTE ON A SECOND OCCURRENCE OF THE MOSASAURIAN REPTILE, GLOBIDENS

IN 1912 (Proc. U. S. Nat. Mus., vol. 41, p. 479) the new genus and species, *Globidens alabamaensis* Gilmore, was established on a rather meager specimen from the Upper Cretaceous of Alabama. The unusual

globular form of the teeth as contrasted with the pointed, sharp-cutting teeth of other Mosasaurians made this an outstanding genus on which Dollo has subsequently founded a distinct family, the Globiden-sidae.

Recently I have received for examination the crowns of two teeth collected from the Selma Chalk, in the vicinity of Safford, Lee County, Mississippi, by a student of Prof. J. M. Sullivan, of Millsaps College, Jackson, Mississippi.

The crowns of these teeth show no evidence of wear and this fact, in conjunction with their relatively small size, would indicate that they were probably germ teeth which had not yet come into use. The globular form of their crowns, with wrinkled enameled surfaces, however, are in perfect accord with the teeth of the type specimen.

The fragmentary character of the specimen contributes nothing new to our knowledge of this little known Mosasaurian, but it is of interest as recording a new occurrence, and especially in definitely locating its geological occurrence as being in the Selma Chalk.

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MORE AND BETTER ETHICS FOR SCIENTIFIC MEN

THAT the code of ethics¹ adopted at the Santa Fé meeting of the Southwestern Division, American Association for the Advancement of Science, has been found by Dr. Kempton² a subject for genial mirth, seems to call for comment from some other quarter than that immediately involved, the members of the Southwestern Division having, one might say, cramped their style in controversy by the adoption of Rule 4. Thus, as so often, a new law works hardship first upon the law-abiding.

Dr. Kempton, as a resident of the Atlantic coastal plain, can hardly be expected to understand the distressing conditions prevailing in scientific and educational circles in outlying provinces west of the Appalachian Highland. It is a source of deep gratification to us in the West to learn that the conditions deprecated in the resolutions mentioned are non-existent in the East, which we have so long been taught to look to as the home of culture, truth and grace. The writer is glad to be corrected in his evidently erroneous assumption that Rule 10, for example, might, in the awkward gambols of its play-

¹ "A Code of Ethics for Scientific Men," SCIENCE, Vol. LXVI, No. 1700, pp. 103-104, July 29, 1927.

² Kempton, J. H., "Scientists appear in the Southwest." *Ibid.*, Vol. LXVI, No. 1711, pp. 354-355, Oct. 14, 1927.