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## *Diplocynodon* Remains from the Bridger Beds of Wyoming<sup>1</sup>

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The genus *Diplocynodon* was established by Pomel (1843, p. 383) with *Crocodylus ratelii* as the type. The characters noted as particularly distinguishing the genus were the equal size and close approximation of the third and fourth mandibular teeth. After the examination of a large number of crocodilian jaws during the 40 years in which I have been studying this group, I can agree with Pomel that these are characters of generic value.

In the American Museum collections is a part of a left mandibular ramus which shows these characters in an emphasized manner. This clearly indicates the genus *Diplocynodon*, and to the best of my knowledge it is the only clean-cut example of this genus reported from American formations.

Cope, in 1873, founded the species *Diplocynodus polyodon* for what is now known as *Allognathosuchus polyodon* (1873, p. 614), but the characters of this species do not fall within Pomel's generic characters. In 1875 he referred the species *Crocodylus sphenops* to *Diplocynodus* (1875, p. 31), but the type material is very fragmentary, and the reference is uncertain.

The specimen herein described was collected by L. S. Quackenbush, of the American Museum Expedition of 1903, from Leavitt Creek, near Fort Bridger, Wyoming, from Bridger beds. The position of the specimen in the Bridger is not indicated in the records.

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<sup>1</sup> Contributions to the Osteology, Affinities, and Distribution of the Crocodilia, No. 45.

In view of the fact that this is the first reliable occurrence of the genus in America it is here put on record under the name of *Diplocynodon stuckeri*. The species is named in honor of Mr. Gilbert Stucker, of the Department of Geology and Paleontology of the American Museum, in recognition of his efficient assistance and cooperation in the study of fossil crocodilians.

***Diplocynodon stuckeri*, new species**

TYPE: Anterior portion of left ramus of lower jaw (A.M.N.H. No. 6050).

TYPE LOCALITY AND LEVEL: Leavitt Creek, near Fort Bridger, Wyoming; Bridger Beds, middle Eocene.

DIAGNOSTIC CHARACTERS: Extreme development of the generic character of *Diplocynodon* in the equally large size of the third and fourth mandibular teeth and in their close proximity to each other; the spacing of the mandibular teeth in general, the large size of the first mandibular teeth, and the position of the first and of the third and fourth alveoli on elevated pedestals; and the extension of the symphysis to the level of the fourth mandibular teeth.

ADDITIONAL DESCRIPTION OF MATERIAL: The large first mandibular alveolus is situated rather far from the small second alveolus. The second is situated far from the third, but not so far as it is from the first. The 10 alveoli present in the specimen posterior to the large fourth alveolus are all of moderate size and are moderately far from one another, not crowded together as in many forms of *Crocodylus* and especially of *Alligator*. The degree of vertical festooning of the jaw is small in spite of the large pedestals lodging the first, and the second and third alveoli, respectively. The elevation containing the ninth and tenth alveoli is not conspicuous. There is very little of the upward concavity of the jaw outline in the region of the fifth to the eighth alveoli, commonly seen in the alligators and their near relatives.

The relation of the symphyseal line to the long axis of the dentary indicates that the lower jaws, and consequently the skull, were relatively long and narrow for the genus *Diplocynodon*.

The measurements (in millimeters) of the type specimen (A.M.N.H. No. 6050) follow:

Length of portion of ramus preserved	178.5
Length from anterior end to posterior border of fourth alveolus	92.0
Length of first alveolus	9.5
Length of second alveolus	7.0
Length of third alveolus	9.0



FIG. 1. *Diplocynodon stuckeri*, new species, type, portion of left dentary (A.M.N.H. No. 6050). A. Lateral view, left side. B. Superior view. Natural size.

Length of fourth alveolus	8.5
Height of ramus at third and fourth alveoli	29.0
Height of ramus at seventh alveolus	15.0
Height of ramus at tenth alveolus	31.5
Length of symphysis	52.0
Estimated breadth across posterior end of symphysis	80.0
Length of space occupied by alveoli 5 to 14 inclusive	109.5

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