

PALAEONTOLOGY

A CRETACEOUS DINOSAUR FROM THE  
SYRIAN ARAB REPUBLIC

BY

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A few years ago, while doing field work in the Damascus basin, my attention was drawn to a whitish, thoroughly fossilized bone fragment that had been found isolated on Qalamoun hill near Damascus by Mr. W. VAN LIERE some time before. There can be no doubt that it originates from either the Cenomanian or the uppermost Cretaceous (Turonian/Senonian) deposits exposed in the area where the bone had been picked up. It has not been possible to find additional material on the spot, and it has now been decided to place the specimen on record, no dinosaurs having previously been reported from Syrian soil but their tracks having come to light in Israel (AVNIMELECH, 1962a, b).

A cast of the bone was sent to Dr. EDWIN H. COLBERT of The American Museum of Natural History, New York, who most kindly commented that the specimen appeared to him to represent the distal end of a right tibia of a carnosaurian dinosaur. I am much indebted to Dr. COLBERT for this advice, which was but confirmed by further comparisons and the study of relevant literature.

The bone is preserved for a length of 13 cm, and does represent a distal tibial fragment, right side, with the epiphysial surface rather well retained. Its distal diameters are 11 by 5½ cm, the surface being transversely expanded. The diameters at the broken end, evidently near the narrowest shaft portion, are 6 by 4 cm. The anterior surface is slightly concave transversely where it articulates with the ascending portion of the astragalus, and the outer edge of the bone is narrow while the inner edge is broadly rounded. The bone is apparently unrolled, but cleared of matrix. There is no doubt as to its belonging to a carnivorous theropod. No generic, let alone specific determination is possible on the base of such a fragment, although its most probable allocation is the genus *Carcharodontosaurus* from the ?Lower and the Upper Cretaceous of North Africa or the questionable genus *Erectopus* from the Lower Cretaceous of Europe, both megalosaurids (Order Saurischia; Suborder Theropoda; Infraorder Carnosauria; Family Megalosauridae).

In table 1 I have brought together some data from the literature from which it is evident that the Qalamoun bone is nearest in dimensions, for

TABLE 1

Measurements of tibia in various dinosaurs (cm)

	Length	Distal end		Shaft	
		breadth	ant. post.	breadth	ant. post.
<i>Allosaurus fragilis</i> Marsh <sup>1)</sup>	69	18½	—	—	—
<i>Ceratosaurus nasicornis</i> Marsh <sup>1)</sup>	56	14	—	—	—
<i>Elaphrosaurus gautieri</i> De Lapparent <sup>2)</sup>	ca. 64	8½	5½	—	—
" <i>Spinosaurus B</i> " Stromer <sup>3)</sup>	60	13	6	—	—
Aff. <i>Erectopus sauvagei</i> Von Huene <sup>4)</sup>	—	9½	4	5	3½
<i>Erectopus sauvagei</i> Von Huene <sup>5)</sup>	—	11	4+	6	4½

1) GILMORE, 1920, in STROMER, 1934, p. 16. Colorado Jurassics.

2) DE LAPPARENT, 1960, p. 31/32. Lower Cenomanian, Central Sahara.

3) STROMER, 1934, p. 16, pl. I fig. 14. Cenomanian, Baharija, Egypt.

4) STROMER, 1934, p. 41, pl. III fig. 4. Cenomanian, Baharija, Egypt.

5) EX SAUVAGE, 1882, pl. IV fig. 1, as *Megalosaurus superbus* Sauvage. Gault (Lower Cretaceous), Paris Basin.

whatever that is worth, to the tibia of *Erectopus sauvagei* Von Huene from the Lower Cretaceous of the Paris Basin; it is to this species that STROMER (1934, p. 41/42) tentatively refers a bone from Baharija in Egypt, however remarking that the genus is not well-defined. At any rate, the Qalamoun bone belongs to a bipedal, carnivorous reptile, three-toed, using the front limbs mainly for grasping, and its height, in normal posture, would have been approximately two meters. The dinosaurs tracks found in the vicinity of Jerusalem (AVNIMELECH, 1962a, b), in Lower Cenomanian continental deposits, perhaps fortuitously point to an animal of the same build and size. These were, then, the first traces of dinosaurs found between the Nile (Baharija is West of the Nile in Egypt) and India, and the Qalamoun dinosaur here recorded further helps to fill the gap that exists in the known geographic distribution of these Cretaceous "terrible lizards" (vide DE LAPPARENT, 1957, and the literature cited therein).

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