## THE KREFFT TOOTH-IS IT A HUMAN MOLAR?

## By T. D. CAMPBELL, Adelaide.

## (Plate xiv and one Figure.)

This tooth fragment has had a long and somewhat varied career in Australian palaeontology in relation to the problem of man's existence on this continent. Its importance has been one of wax and wane—for there seems always to have been some doubt as to its authenticity as a human fossil fragment.

Through the courtesy of the Director of the Australian Museum, Sydney, the present writer has had the opportunity of making a close study of the specimen.

The question of the geological age of this tooth fragment involves the general material from the site of its discovery—Wellington Caves in New South Wales—and is outside the scope of the present study, which is solely a matter of dental anatomy. As the specimen never seems to have had the critical attention of anyone specially interested in human dental anatomy, the present account is an attempt seriously to review the question of its human origin or not.

The following references and brief extracts do not entail a complete bibliography of the Krefft tooth, but will be sufficient to give an outline of the history of this interesting specimen.

In 1867, in a list of fossil and recent Australian vertebrata, Krefft records: "Homo. Melanian variety. Bones of the extremities found in a cave at Wellington Valley left and right femur, left and right tibia, left and right humerus, portion of fibula."

In 1870, in a museum guide to fossil remains exhibited, Krefft mentioned portion of a molar tooth he had found among fossil material from the Wellington Caves, associated with such remains as Diprotodon and Thylacoleo.

In 1871, in a later edition of the 1867 list of vertebrata, he wrote: "Of man, we have but scanty evidence regarding the length of his existence here; in not one instance were weapons or implements obtained with the remains of fossil animals." No reference was made to the tooth fragment.

In 1874, in an article discussing the finding of fossil remains of a large extinct wingless bird in Australia, Krefft made the following statement: "I have found the fractured crown of a human molar in the same matrix as Diprotodon and Thylacoleo at Wellington in this Colony. Man may therefore have been the contemporary of these animals and also of Dromornis."

In 1882, in connection with the Wellington Caves material, Krefft compiled a "List of photographs of Australian fossils", for transmission to Professor Owen. The description (p. 5) of the figures and the illustrations at the end of the volume (including two of the supposed human molar) do not appear to correspond. And incidentally, the list of descriptions for Plate II contains the statement: ". . . also the 5th metatarsal bone of a man (recent)." This may have been included among the bones referred to in the 1867 extract. The 1882 reference includes this metatarsal bone among fossils; and if it is to be considered as such, it seems to have been overlooked in subsequent discussions on Australian human fossil remains. Of its significance the present writer can make no suggestion. Also on page 7 of this 1882 publication is a reply from Owen to Krefft, which includes the statement: ". . . the only disappointment