Broom Cave *Cercartetus:* With Observations on Pygmy Possum Dental Morphology, Variation, and Taxonomy*

By William D. Turnbull

Associate Curator, Fossil Mammals, Field Museum of Natural History, Chicago

and

Frederick R. Schram

Assistant Professor, Zoology Department, Eastern Illinois University, Charleston

Plates 25-31. Figures 1-7.

Manuscript received 17th April, 1972.

INTRODUCTION

The murids of the Broom Cave Fauna were dealt with in the first of a series of reports planned to cover the mammals of this Late Pleistocene deposit in the Wombeyan Caves area of New South Wales (Schram & Turnbull, 1970). The fauna is contained in a breccia derived in large part from an accumulation of regurgitated owl pellets. Continuing this series, we now consider the two pygmy possums in the Broom fauna: Cercartetus nanus and Cercartetus lepidus. Study of these species has involved us with the definition of the genus Cercartetus as advanced by Wakefield (1963). Consequently we put forth some observations relating to this delineation along with an analysis of certain dental patterns of the members of this group.

METHODS AND PROCEDURES

Most of the preparation and study techniques we employed are discussed in detail in Schram & Turnbull (1970). We have now completed the preparation of the Fletcher material and therefore this and subsequent studies are based on the complete collection.

Rec. Aust. Mus., 28, page 437

^{*} This study is based on materials procured by William D. Turnbull and E. L. Lundelius Jr (University of Texas) and prepared by the authors with National Science Foundation assistance (Grants GB₉₇₅ and GB₃₇₂₉).