

# Structural Composition and Dental Variations in the Murids of the Broom Cave Fauna, late Pleistocene, Wombeyan Caves Area, N.S.W., Australia

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Plates 1-3. Figures 1-5.

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## INTRODUCTION

Robert Broom (1895 a & b, 1896) described several marsupials from a Late Pleistocene bone breccia of the Wombeyan Caves area near Taralga, New South Wales, Australia. W. D. L. Ride (1956 a & b, 1960) treated Broom's fauna more completely. He described a new species of the murid genus *Mastacomys*, recorded two other rodents, and analysed the faunal constitution of the breccia based on a sample of "nine large pieces" of this formation from the Broom collection in the Anatomical Museum at Edinburgh. He designated the fossils from this locality the Broom Cave Fauna.

In 1964, one of us (W.D.T.) arranged with H. O. Fletcher (Deputy Director, Australian Museum) for the loan of an unprepared collection of 189 pieces of this Wombeyan Cave bone breccia. This collection was made by Mr Fletcher several years ago and he kindly offered to share any specimens obtained from these blocks with the Field Museum, if we, in turn, would prepare and study the material. For the past 2 years we have done this. We wish to thank Mr Fletcher and the Australian Museum for generously making these materials available.

Acid treatment of the first 44 of these blocks has produced sufficient material for an analysis of the murid element of this fauna. Nearly 300 specimens of maxillae, rami, and individual cheek teeth were obtained, containing a total of 372 teeth.

There are four rodent taxa in the sample: *Pseudomys oralis*, *Gyomys glaucus*, *Mastacomys wombeyensis*, all recorded by Ride, and *Rattus* sp., a new record. Age distributions and estimations of numbers of individuals present in the sample along with variations in dental characters are noted.

This report is the first of a planned series that will be presented as the preparation and study of the Fletcher collection continues. Only the murid species are considered in this paper.