

SKULL AND TOOTH VARIATION IN THE GENUS *PERAMELES*

Part I: Anatomical Features

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Plates 16-23. Figs 1-7.

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This study of the anatomical and metrical features of the skull and teeth of bandicoots of the genus *Perameles* was undertaken in order to analyse age, sex, and locality variations and trends. It is hoped that the results of the study will assist in the assessment of intra- and inter-specific taxonomic, phylogenetic and ecological relationships, enable the various subgeneric taxa to be more clearly defined, and facilitate the identification of subfossil and fossil fragments and isolated teeth.

The present section of the study, Part I, outlines the taxonomy of the genus *Perameles* and describes generally the material used in the whole study. It also includes an illustrated, anatomical description of the skull and teeth of *Perameles nasuta* and a discussion of the anatomical variations of these features in other members of the genus *Perameles*.

TAXONOMY

With regard to the taxonomy of the long-nosed bandicoots, most of the early studies, such as that by Waterhouse (1846), included rather superficial accounts of a number of not very clearly defined species. However, in 1888 Thomas gave comprehensive descriptions and reliable keys to most of the species still currently recognised. In this study, Thomas recognised three genera (*Perameles*, *Peragale*, and *Chaeropus*) in the family Peramelidae. In the most recent studies, Simpson (1945) divides this family into five genera: *Perameles* (which includes *Peroryctes*), *Echymipera*, *Thylacomys* (syn. *Macrotis*, *Paragalia*), *Chaeropus*, and *Thylacis* (= *Isoödon*); whilst Tate (1948) describes eight genera of bandicoots: *Perameles*, *Isoödon*, *Macrotis*, *Echymipera*, *Peroryctes*, *Chaeropus*, *Rhynchomeles*, and *Microperoryctes*. The genus *Perameles* in the present study is taken to include the long-nosed bandicoots of Australia only, i.e., the genus as defined by Tate.

At the specific level, Iredale and Troughton (1934) classified the long-nosed bandicoots as follows:

Genus: **Perameles** Geoffroy, 1803

Long-nosed bandicoot

Perameles nasuta nasuta Geoffroy, 1804. N.S.W., Victoria, South Queensland.

Perameles nasuta pallescens Thomas, 1923. North Queensland.

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