

SKULL AND TOOTH VARIATION IN THE GENUS *PERAMELES*

Part 3: Metrical Features of *P. gunnii* and *P. bougainville*

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Plates 32-34.

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This paper is concerned with the intraspecific variation of the metrical features of the skull and teeth in the long-nosed bandicoot species *Perameles gunnii* and *Perameles bougainville*. Part 1 of the study (Freedman, 1967) listed the numbers of specimens and the source and localities of the material used and reviewed the taxonomy of the genus. A description of the anatomy of the skull and teeth of *P. nasuta* was also given and some of the anatomical differences found in *P. gunnii* and *P. bougainville* were discussed. Part 2 (Freedman and Joffe, 1967) described the system of measurements and ageing and sexing criteria used in the study and analysed the sex and locality variations in the metrical features of the skull and teeth of *Perameles nasuta*.

MATERIALS AND METHODS

Of the species *P. gunnii*, 51 specimens were available for study: 14 males and 9 females from south-western Victoria (possibly overlapping into south-eastern South Australia) and 12 males and 16 females from various parts of Tasmania. The *P. bougainville* material (43 specimens) consisted of: (i) *P. bougainville notina*—13 specimens from south-western South Australia and 4 from the adjacent south-eastern Western Australia, (ii) *P. bougainville bougainville*—5 specimens from Dorre and Bernier Islands in Shark Bay off the central part of the west coast of Western Australia, and (iii) 5 specimens widely scattered through the central western part of the continent, some or all of which come from an area in which *Perameles eremiana* is said to occur. In addition there was a group of 16 specimens (4 adult and 12 immature or juvenile) for which no localities were available, but which metrically and anatomically seemed clearly to belong in the *P. bougainville notina* group. The above material was all described more fully in Part 1 and the localities of the various specimens were plotted on a map. The definitions of the measurements taken, criteria for sex and age and other aspects of methods and technique were discussed in detail in Part 2.

ANALYSIS

1. *P. gunnii* (plate 32).

(a) Metrical characteristics and sexual dimorphism.

In Tables 1 and 2 the numbers of specimens used and the mean values and standard deviations of the 77 skull and tooth measurements of the males and females of the pooled *P. gunnii* specimens from Victoria and Tasmania are tabulated. In addition, the results of F tests, for comparison of the variances of the 2 sexes, and Aspin-Welch tests (Pearson and Hartley, 1954), for comparing the male and female mean values, are listed.