

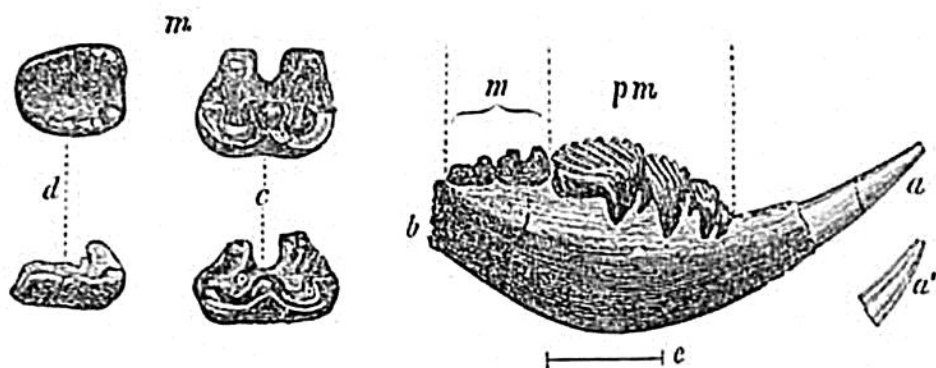
which to the living kangaroo-rat were immediately recognized by Dr. Falconer on its first arrival in London.*

No less than 10 species of the living genus *Hypsiprymnus*, commonly called the kangaroo-rat, and referred by Waterhouse to the *Macropodidae*, or kangaroo family, inhabit the prairies and scrub-jungle of Australia, feeding on plants and gnawing scratched-up roots. A striking peculiarity of their dentition, one in which they differ from all other quadrupeds, consists in their having a single large pre-molar, the enamel of which is furrowed with 7 vertical grooves (see *l*, fig. 1, where the pre-molar of the recent *Hypsiprymnus Gaimardi* is represented).

The largest pre-molar in the fossil genus exhibits in like manner seven parallel grooves, producing by their termination a similar serrated edge in the crown; but their direction is diagonal, a distinction, says Dr. Falconer, which is "trivial, not typical."

As these *oblique furrows* form so marked a character of the majority of the teeth, Dr. Falconer has proposed for the fossil the generic name of *Plagiaulax*. The shape and relative size of the incisor *a*, figs. 1 and 2, exhibit a no less striking similarity to *Hypsiprymnus*. Never-

Fig. 2.



Plagiaulax minor, Falc.
(Magnified 4 diameters.)

All the teeth in this specimen are in place and well preserved. The hinder part of the jaw-bone, with the ascending ramus and posterior angle, are broken away.

a, b. Right ramus of lower jaw, with all the teeth magnified 4 diameters.

a. Incisor with point broken off. *a'*, impression of same, showing that the inner side, near the apex was hollowed out in a longitudinal direction.

b. Offset of coronoid, the rest of which is wanting.

m. The two true molars.

p, m. The four pre-molars.

c. The first molar, magnified 8 diameters.

Upper figure, the crown.

Lower figure, side view.

d Second molar, crown and side view.

e. Straight line indicating the length of the jaw, natural size.

theless, the more sudden upward curve of this incisor, especially in the larger species, as well as the number and characters of the other teeth, and the shortening compression and depth of the jaw, taken together with the backward projection of the condyle (*d*, fig. 1), indicate a great deviation in the form of *Plagiaulax* from that of the living kangaroo-rats.

○ All the information concerning the natural history, osteology, and affinities of *Plagiaulax* given in the following pages, is extracted from a more detailed paper by Dr. Falconer, shortly to be published by the Geological Society, the MS. copy of which has been liberally placed at the author's disposal.