

# **The influence of heat increment of feeding on basal metabolic rate in *Phyllotis darwini* (Muridae)**

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## **Abstract**

One of the most important prerequisites for obtaining a reliable measure of basal metabolic rate (BMR) in endotherms is that the animal must be in a post-absorptive condition. However, because of the diversity of nutrition and digestion modes in vertebrates, it is not simple to generalize a standard procedure for BMR measurement. Thus, information in this regard must be experimentally obtained by measuring the heat increment of feeding (HIF). We used a repeated-measures design to test for the effects of HIF on BMR in *Phyllotis darwini*, a granivorous rodent. Our results suggest that, in this species, feeding induces an elevation in O<sub>2</sub> consumption that can persist up to 4 h after the last meal. In addition, and irrespective of the fasting period, measures made with less than 2 h of fasting yield BMR values that are significantly higher than measurements after longer fasting periods (i.e. 3 and 4 h).