Energy metabolism and thermoregulation in Chinchilla brevicaudata

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Chinchilla brevicaudata lives at 3500-5000 m, with high ambient temperatures during the day but cold at night. In this Andean habitat there is also low availability of food and water resources. Physiological attributes that may minimize their energetic cost as well as the water requirements are: (1) Low values of basal metabolic rate (67.2%) and thermal conductance (51.0%) compared to predicted values. (2) The aerobic metabolic expansivity was 5.1, while the calculated theoretical critical lethal temperature was extremely low (-67.8°C). (3) The energetic cost for maintenance of water balance was 85. 3% of the predicted value for xeric rodents of similar size. © 2003 Elsevier Ltd. All rights reserved.