

# Thermal ecology of small animals

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One of the most representative cases in which the relation individual-environment is evident is the heat exchange between animals and their physical environment. Based on the physical laws regulating heat exchange and on the geometrical relationships between areas and volumes, I show in this articles some strategies for avoiding heat loss used by small animals. The article is organized in four sections. The introduction deals with the laws of radiation, conduction, convection and evaporation, and how they constraint the strategies for avoiding heat loss. Next, how these strategies are related to the larger area of small animals (with regard to their volume). The remaining sections refer to some aspects of the thermal ecology of both exothermic and endothermic animals, based on Chilean examples. Emphasis is place on the responses to heat exhibited by bugs (exothermic animals), which may select substrate temperatures and use the thermal key for host attraction, and on the huddling behavi