

The interplay between ambient temperature and salt intake affects oxidative status and immune responses in a ubiquitous Neotropical passerine, the rufous-collared sparrow

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© 2019 Elsevier Inc. Physiological traits associated with maintenance, growth, and reproduction demand a large amount of energy and thus directly influence an animal's energy budget, which is also regulated by environmental conditions. In this study, we evaluated the interplay between ambient temperature and salinity of drinking water on energy budgets and physiological responses in adult Rufous-collared sparrow (*Zonotrichia capensis*), an omnivorous passerine that is ubiquitous in Chile and inhabits a wide range of environments. We acclimated birds to 30 days at two ambient temperatures (27 °C and 17 °C) and drinking water salinity (200 mM NaCl and fresh water) conditions. We evaluated: 1) the aerobic scope and the activities of mitochondrial metabolic enzymes, 2) osmoregulatory parameters, 3) the skin-swelling immune response to an antigen, 4) oxidative status, and 5) the length of telomeres of red blood cells. Our results confirm that *Z. capensis* tolerates the chronic consumption of m