

Endangered species, archaeology, and stable isotopes: Huemul (*Hippocamelus bisulcus*) isotopic ecology in central-western Patagonia (South America)

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The management and conservation of animal species should be based upon a long-term analysis that considers its geographical distribution and feeding patterns. The study of carbon and nitrogen stable isotopes on skeletal remains provides a quantitative approach to the paleodietary reconstructions and constitutes a potent tool for comparing behavioral aspects of the fauna. In this paper we present the first set of isotopic values for modern and archaeological samples of Huemul (*Hippocamelus bisulcus*) from the forests of Central-western Patagonia, Chile. Contrary to initial expectations, our analysis indicates that there is no evidence of an important incidence of the canopy effect on the $\delta^{13}\text{C}_{\text{collagen}}$ values, which we suggest is due to an ecological selection that drives the huemul to focus its predation on open sectors within the forest. On the other hand, a wide range of $\delta^{15}\text{N}_{\text{collagen}}$ values for huemul was verified. This could reflect the N impoverishment of the forest soils and provide