

Hominin Niche in the Times of Climate Change

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Abstract : Ecological niche modeling is widely used in conservation studies, but application to the extinct hominin species is a relatively new approach. Being able to understand what ecological niches were occupied by respective hominin species provides a new perspective into influences on evolutionary processes. Niche separation or overlap can tell us more about specific requirements of the species within the given timeframe. Many of the ancestral species lived through enormous climate changes: glacial and interglacial periods, changes in rainfall, leading to desertification or flooding of regions and displayed impressive levels of adaptation necessary for their survival. This paper reviews niche modeling methodologies and their application to hominin studies. Traditional conservation methods might not be directly applicable to extinct species and are not comparable to hominins. Hominin niche also includes aspects of technologies, use of fire and extended communication, which are not traditionally used in building conservation models. Future perspectives on how to improve niche modeling for extinct hominin species will be discussed.

Keywords : hominin niche, climate change, evolution, adaptation, ecological niche modelling

Conference Title : ICEAHE 2022 : International Conference on Ecological Anthropology and Human Ecosystems

Conference Location : Oslo, Norway

Conference Dates : June 23-24, 2022