Abstract

Increasing drought frequency and intensity across East Africa are altering ecological conditions and intensifying interactions between pastoral communities and large carnivores, posing significant challenges for biodiversity conservation and pastoral livelihoods. Although drought is widely recognised as a major ecological driver of human-carnivore conflict (HCC), limited empirical evidence exists on how pastoral communities perceive drought-induced conflicts and whether increasing climatic stress influences attitudes toward large carnivore conservation. This study examined pastoralists' perceptions of drought-induced HCC in Olkiramatian and Shompole community conservancies in Kenya's South Rift. A cross-sectional household survey was conducted among 146 respondents selected through stratified random sampling. Data were analysed using descriptive statistics, Pearson correlation analysis, and Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine relationships among drought perceptions, attitudes toward large carnivores, perceived safety, and perceptions of HCC mitigation strategies. The findings revealed that 74.7% of respondents experienced intense drought conditions, while 35.6% perceived recent droughts as moderately severe. Despite these climatic challenges, attitudes toward large carnivores remained generally positive, with 41.1% of respondents reporting somewhat positive attitudes and 31.5% indicating that they felt very safe living alongside carnivores. Structural model results showed that drought perceptions had weak and statistically non-significant effects on attitudes toward HCC ($\beta = 0.137$, $p = 0.439$) and perceptions of mitigation strategies ($\beta = 0.173$, $p = 0.448$). The findings suggest that increasing drought alone does not determine community attitudes toward large carnivores; rather, coexistence is influenced by broader social and institutional factors that sustain tolerance despite increasing climatic stress. The study highlights the importance of integrating climate adaptation, community participation, and inclusive conservation governance to strengthen biodiversity conservation, ecosystem resilience, and long-term human-carnivore coexistence in drought-prone pastoral landscapes.