ABSTRACT

Livestock depredation is a major conservation challenge globally, causing significant economic losses to pastoralists and threatening large carnivore species outside protected areas. Our study investigated the temporal and spatial distribution of livestock depredation incidences, carnivore species associated with livestock depredation, and assessed mitigation measures in Maasai Mara Conservancies in Southern Kenya. Using daily monitoring of livestock depredation cases, we made comparisons between livestock attacks occurring in predator-proof bomas and those with traditional kraals. A total of 305 livestock depredation incidents were recorded between January and December 2021, translating to a total tally of 1411 livestock maimed or killed. Most livestock depredation incidents occurred during the day (59%) as opposed to night (41%), but this difference was not significant. Livestock depredation incidents in the nighttime occurred mostly inside traditional kraals (34%) and occurred the least in predator-proof kraals (2%). Lions were responsible for more livestock attacks in the grazing fields compared with leopards, hyenas, and wild dogs. Hyenas were more daring and attacked livestock inside traditional bomas relative to lions and leopards. Our study concludes that predator-proof bomas are more effective in minimizing livestock depredation and can be embraced as a sound intervention for human–carnivore co-existence in communities' wildlife conservation areas.