

**SPATIO-TEMPORAL ANALYSIS OF ANIMAL RABIES CASES
IN NEGROS OCCIDENTAL FROM 2012 TO 2018**

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ABSTRACT

Rabies is particularly dangerous and deadly disease that infects domestic and wild animals and is transmissible to humans. The province of Negros Occidental has been experiencing an uneasy situation on both human and animal rabies in recent years. It posted a rising trend on the number of human deaths due to rabies infection from 2012 to 2018, and has ranked number one among the provinces in Western Visayas with the highest number of positive animal rabies cases in 2017 to 2018. Animal rabies, particularly of canine and feline type, is considered to be a serious threat to public health thus all prevention and control efforts in order to reduce the cases of human rabies are stemming from the identification of high-risk barangays based on the occurrence of canine or feline rabies cases. In this research, a spatio-temporal analysis was performed to determine the high-risk municipalities and temporal pattern of animal rabies cases in Negros Occidental from 2012 to 2018. Spatial analysis identified the major cities such as Bacolod City and Bago City and their surrounding municipalities to be of high risk to animal rabies. The epicenter of cases is slowly shifting towards the central part of the province in subsequent years. Twenty-six (26) space-time clusters of animal rabies cases in Negros Occidental were found to have “intensifying”, “consecutive”, “oscillating”, and “sporadic” time trends. Two clusters classified as “new” hotspots were identified in the central part of the province.