
EXAMINING ANTIBODY TO SIN NOMBRE VIRUS IN RODENTS ASSOCIATED WITH PERIDOMESTIC HABITATS IN NORTH EAST MONTANA.

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Hantaviruses are rodent-borne pathogens that produce chronic persistent infections in their reservoir hosts. Sin Nombre virus (SNV) is a type of hantavirus carried by deer mice (*Peromyscus maniculatus*). Infected deer mice shed virus in urine, saliva, or feces, and human contact with the virus can lead to a serious illness called hantavirus cardiopulmonary syndrome. Most studies examining SNV in the rodent host have been conducted in natural settings where human contact with the virus is unlikely. This study, performed in a peridomestic setting (in and around buildings), where contact with the virus is more likely, adds data to a previous study in west central Montana. Mice were live trapped for 3 consecutive nights every two weeks from May to August 2014, at 2 sites in NE Montana. Captured individuals were ear tagged, and species, body mass, sex, reproductive condition, presence of scars or wounds, and location of capture were recorded into a field journal. Blood samples were collected from the retro-orbital sinus of each captured animal. These blood samples were frozen until they could be analyzed. Blood samples were analyzed for antibodies (IgM) to SNV. Deer mice were the most common species captured at both study sites and antibody positive deer mice were detected at both study sites. Antibody prevalence was found to be variable both spatially and temporally with highest prevalence in the middle of the summer.