Sin Nombre Virus Prevalence in *Peromyscus Maniculatus* Captured in Ranch Buildings in Southeastern Montana

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Sin Nombre Virus (SNV) is a type of Hantavirus that is carried by deer mice (*Peromyscus maniculatus*). When SNV is transmitted to humans it causes a serious, sometimes fatal, illness known as Hantavirus Pulmonary Syndrome (HPS). Most HPS cases are linked to SNV exposure in peridomestic environments, particularly human dwellings and out-buildings such as garages, sheds, or barns. While many studies have examined SNV prevalence and transmission in natural environments, little work has been done in peridomestic environments. The objectives of my study were to determine the prevalence of SNV in deer mice found in the outbuildings of my family's ranch south of Hardin, MT. I used Sherman live traps to capture mice in around ranch buildings for 3 nights each month beginning in August 2018 and continuing until February 2019. Captured mice were ear tagged with sequentially numbered metal fingerling tags and a blood samples were collected. Blood samples were tested for antibodies reactive with SNV recombinant nucleocapsid protein by an enzyme-linked immunosorbent assay (ELISA). During the course of my study I collected 31 blood samples from 25 different mice captured in ranch buildings. The majority of mice I captured were females (64%) and capture were highest in December. None of the mice I captured tested positive for SNV antibodies.