

Vol. 13 (1): 201-208 (2023)

SPATIOTEMPORAL PATTERN OF SCHISTOSOMIASIS AMONG FIELD RATS (*Rattus rattus norvegicus*) IN THE PROVINCE OF NORTHERN SAMAR, PHILIPPINES

Dionesio A. Estopa^{1*}, Elnora Marie O. Estopa², Ronaldo A. Amit², Susan G. Albario²

^{1*}University of Eastern Philippines, College of Veterinary Medicine, Veterinary Teaching Hospital, Catarman, Philippines;

²University of Eastern Philippines, College of Veterinary Medicine, Catarman, Philippines;

*Corresponding Author Dionesio A. Estopa, e-mail: apotse2004@yahoo.com;

Received November 2022; Accepted December 2022; Published January 2023;

DOI: <https://doi.org/10.31407/ijeess13.125>

ABSTRACT

A total of 6,873 field rats were collected and necropsied from different endemic municipalities and barangays of Northern Samar for a period of twelve months starting from June 2018 to May 2019. Based on the cohort study, out of 24 municipalities, 20 were endemic of Schistosomiasis as revealed by an average of 24.15% of rats samples infected with the said parasite through necropsy. The *Schistosoma japonicum* is widespread in the whole mainland of Northern Samar, with the highest prevalence rate of 57.80% recorded in Laoang, and the lowest in Allen with 2.54%. In terms of the temporal rate of infection, the month of April and March both having an average of 52.29% and 35.94% infection rate, respectively was considered the highest peak of infection followed by August (26.75%), May (25.34%), September (24.93%), June (23.97%), and July (20%). Whereas, the cooler and rainy months of October, November, December, January, and February were considered the least rate of infection. Regarding the weather condition, most of the infected samples were captured during summer and sunny weather. Still, it does not conclude that it only arises during this season because of the limited number of samples caught per month. But the overall 24.15% prevalence rate of *Schistosoma japonicum* infection in field rats was considered high, suggesting that these pests in the rice fields play a very vital role in the transmission and spread of human infection.

Keywords: A cohort study, field rats, schistosomiasis, spatiotemporal pattern.