

Journal of Emerging Investigators

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FOR IMMEDIATE RELEASE

Nebraska high school student publishes research in scientific journal on deadly parasite found in raccoons

Sydney Reeves, a student at Central City High School in Central City, Nebraska, recently published a scientific manuscript titled, "The Prevalence of Brain-Eating Roundworm *Baylisascaris procyonis* in Merrick County, Nebraska" in the *Journal of Emerging Investigators*.

Reeves's article, published on September 20, 2018, studies a deadly parasite that is common in raccoons, and how its frequency varies in regard to human populations. Although this study concerns the infection of raccoons, Reeves notes that it can easily be transmitted to household pets, small wildlife such as rabbits or woodchucks, and even humans. Reeves performed autopsies on raccoon carcasses that had been killed by permit-bearing trappers, vehicles, or rural land owners in Merrick County, NE. Through these autopsies, Reeves was able to examine fecal matter for presence and abundance of the parasite in each raccoon. After collecting samples and using the fecal flotation method to determine the abundance of parasite, Reeves sent the samples to the College of Veterinary Medicine at Kansas-State University, which confirmed her findings.

Reeves's concluded that 60% of raccoon carcasses were positive for the parasite in Merrick County. However, Reeves also looked at the prevalence of infection in raccoons based on their distance from human populations. Reeves found that there were 46% more positive samples from areas that had a close proximity to human dwellings, which she found to be statistically significant through careful data analysis. Because this parasite is lethal and harmful to multiple species (including our own), research like Reeves's is crucial in preventing the spread of preventable illness, and understanding how our actions contribute to the environment and well-being of all species.

The *Journal of Emerging Investigators (JEI)* is a non-profit scientific journal operated by graduate students at Harvard University. JEI is dedicated to mentoring young scientists in middle and high school and publishing their research through the online journal. Articles submitted to JEI pass through a rigorous editorial and scientific review process by several PhD-level scientists before they are accepted and published.

Link to Reeves's article: <https://emerginginvestigators.org/articles/the-prevalence-of-brain-eating-roundworm-i-baylisascaris-procyonis-i-in-merrick-county-nebraska>

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