The study of mosquitoes is important because of their roles as members of food chains, carriers for human diseases, and as a sentinel taxon for climate change (Hoekman et al. 2016). The National Ecological Observatory Network (NEON) will be collecting mosquito occurrence, identification, and pathogen data at 47 terrestrial sites over the next 30 years. The aim of this research project is to develop and provide future data users with methods and examples of working with NEON mosquito data to facilitate data analysis and visualization using the R programming language. We present a general workflow for downloading, merging, and processing data from NEON’s mosquito data product to explore and visualize species richness across all NEON sites. The tutorial includes examples of how to combine field observations with meteorological data to explore the relationship between mosquito species richness and temperature thresholds. The broad spatial distribution of NEON sites may enable early detection of mosquito species range expansion. We show how these data can be used to analyze the presence or absence of a single species, *Culex tarsalis,* across NEON sites.