

TITLE: Surveillance of Mosquito-borne diseases in Oregon

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STUDENT SUBMISSION: No

TOPIC/TARGET AUDIENCE: Environmental Health Specialists, health professionals connected to land management, vector control specialists, and communicable disease specialists. Members of the general public can also benefit from this presentation.

ABSTRACT: Several dangerous mosquito-borne diseases have spread to North America, most notably West-Nile Virus and Zika Virus. Though Oregon is currently less affected than most of the United States, it has historically proven potential to host another massive outbreak. Public opinion, funding, and mosquito populations vary wildly depending on locality. These factors can make the prevention of mosquito-borne disease outbreaks challenging for local health authorities. This project determines the most effective strategies for surveillance of mosquito-borne diseases, and outlines their appropriate use.

Data was assembled from mosquito surveillance results, interviews with various health authorities, and various published research. Background information including dispersal, symptoms, and history of mosquito-borne diseases are provided using maps. Methods for the surveillance and testing of disease vectors are discussed using detailed visuals. Strategies for prevention of mosquito-borne diseases and their results are compared regionally.

In general, it was found that a combination of vector sampling and public outreach is the most effective method for the identification of mosquito-borne illness. This method provides early-warning if mosquito-borne viruses will be a danger to the public, at which point large-scale vector-control methods can be justified.

OBJECTIVE(S): Describe one West-Nile and Zika surveillance method that could be used in your home county.

Identify three potential mosquito breeding sites in your home county.

Compare the incidence of mosquito-borne disease in Oregon to two other states in the Union.

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