
Chemical Mixtures (Phase I): Consequences of WNV Eradication on the Amphipod *Hyaella azteca*.

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Outbreaks of West Nile Virus (WNV) throughout the United States, and particularly in the Mississippi Valley States, have spurred plans to control the mosquito vector *Culex* spp. Chemical agents commonly used to control mosquito vectors are non-species specific pesticides that may potentially interact with non-target aquatic organisms. These compounds enter the aquatic environment via direct or indirect routes eventually becoming part of water and sediment matrices. Individually or as mixtures with other co-occurring persistent or transient anthropogenic compounds, such as agricultural pesticides, these mosquitocides can potentially degrade the water quality and aquatic habitat of non-target aquatic organisms.

Our group will present preliminary findings (Phase I) which are part of a multi-year study evaluating the co-occurrence and ecotoxicity of vector eradication compounds individually and in mixtures with agricultural pesticides. Currently, our work has focused on methoprene, the active ingredient of Altosid™, a commonly used mosquito larvicide and its ecotoxicological effects on *Hyaella azteca*, a common freshwater amphipod and an important trophic link in aquatic ecosystems. This preliminary work, and information from the literature, was necessary to establish NOEC values for mixture studies which are under development.