Survey and Shedding Characteristics of Trematodes in Catfish Ponds

Wise, Allison

Purpose The purpose of this project is to survey trematodes species present in catfish production ponds, and to determine the effects of temperature on cercariae shedding rates, and to determine how temperature affects the survival of cercariae. Procedure Collected a minimum of 100 rams- horn, physa, and Biomphalaria havanensis snails from each of 11 ponds when possible. Tubed each snail in 5mL of pond water. After 24 hours at room temperature the tubed water was evaluated for the presence of cercaria. Cercaria were speciated based on morphological characteristics. The number of snails examined, the number of snails shedding each species of cercaria were recorded. Trematode positive snails were further evaluated for the effects of temperature on survival and shedding rates Results The temperature was shown to affect shedding rates of both species of snails infected with a different trematode species. Physa snails never shed cercaria meaning they were never infected by trematodes. Rams-horn and flat snails both showed to shed the same species of trematode. Conclusion In conclusion, trematodes are host specific to Rams-horn snails and Biomphalaria havanensis snails. There are multiple different species of trematodes that infect snails. The temperature affected shedding rates of both species of snails infected with a different trematode species.

Awards Won: