USU Uintah Basin Professor Charles Hanifin explores the toxic relationship between newts and snakes.

The associate biology professor recently returned from Japan with 700 micrograms of 6-epitetrodotoxin, the highest quantity of purified toxin ever collected that is only found in select newts.

“We hope to identify why the toxicity levels of newts vary compared to other marine animals,” Hanifin explained. “And if environmental factors and natural selection make an impact, or if the newts are evolving to adapt to increased evolutionary resistance to the toxicity of their predator, the snake.”

Twenty years ago as a graduate student in USU’s biology department, Hanifin became interested in the coevolutionary relationship between toxic newts and the snakes that could eat them. However, since the resources and expertise weren’t available at the time in USU’s lab, questions lingered for Hanifin. See the entire story.