

## Redwood Creek Chinook Salmon Monitoring and Life Cycle Model



Emily Chen graduated magna cum laude from UCLA in March 2017 with a B.S. in Biology. Her undergraduate work ranged from studying reproductive trade-offs in whip spiders, biodiversity and conservation in the Congo Basin, and taxonomy in eastern Pacific rays. As an undergraduate, she was awarded the Whitcome Fellowship and UCLA's Ecology and Evolutionary Biology Undergraduate Researcher of the Year. Aside from sitting at a desk, Emily has worked in lake management at Lake Mission Viejo, where she sampled and tested water quality, surveyed wildlife, and conducted general lake maintenance.

Although she has dabbled in many different topics, her passion has always been with the study of fishes and their value to both humans and the ecosystem.

Emily will be assisting the lifecycle monitoring in Redwood Creek and building a lifecycle model. As a master's student in Dr. Mark Henderson's lab, Emily plans to use ecological models as a tool to understand the population dynamics of salmonids. Lifecycle monitoring of Chinook Salmon in Redwood Creek consists of gathering data on adult escapement through spawning ground surveys and using a dual frequency identification sonar (DIDSON), and employing a rotary screw trap to collect data on outmigrating juveniles. The culmination of this project is a lifecycle model that will answer specific questions related to the movement, growth, and mortality of Chinook Salmon in Redwood Creek.

