

Biology Seminar

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Why are painted turtles painted? Insights into longevity and antioxidants from a common species

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Understanding diversity in nature requires not only elucidating the mechanisms that underlie it, but also understanding the fitness consequences of variation. Reptiles and amphibians have unique life histories, but their patterns of aging are under-studied despite the potential to answer unique questions about the evolution of senescence. We take advantage of long-term mark-recapture datasets to untangle the drivers of longevity and rates of aging in these groups. Then, we use painted turtles (*Chrysemys picta*) to better understand intraspecific variation in longevity and rates of aging, and explore some of the potential functions of coloration in that species. The widely varying red, yellow, and orange colors of painted turtles have no known function, despite their likely relevance to physiology, natural history, conservation, and, potentially, longevity. We use a variety of methods including experiments, field studies, and modeling to address hypotheses of coloration in painted turtles and to try to unlock the mystery of why painted turtles are painted.

Seminar Speaker Host: Yasmine Erritouni

