California State University, Fresno, Department of Biology presents

"Navigation in naturalistic environments: perception, learning and memory"

Insects were considered primarily instinctual animals with very stereotypic, almost automaton-like behavior. Over recent decades, many behavioral and physiological studies have overturned this view, and now insects are widely used to answer questions about adaptive behaviors such as place learning and navigation. The ultimate goal of our research is to determine how animals move in dynamic environments to advance our understanding of the perceptual, control and memory mechanisms underlying navigation. This seminar will present data on simulation, modeling and lab experiments on the navigational behaviors of wood ants and carpenter ants, which is providing novel insights into the complex issue of animal-environment interactions. The long-term goal of this research and its outcomes aim to provide an understanding of dynamic control systems, reveal how the nervous system has evolved to handle unpredictability, and drive the development of novel navigational algorithms and biological sensors.

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Friday, February 2, 2018

3:00 – 4:00 PM

Science 2, room 109

For further information: fresnostate.edu/csm/biology