## Department of Mathematics Department of Wildlife

## Fall 2015 Colloquium Series



## "'Pattern-oriented modeling' for design and validation of individual-based wildlife models: the Jamaica coffee farm example"

Dr. Steve Railsback,
Adjunct Professor of Mathematics
Humboldt State University
Thursday, October 8, 2015
Wildlife & Fisheries Building Room 258, 4 p.m.

Individual-based models (IBMs) are simulation models that allow us to address more complex and realistic wild-life management problems than traditional mathematical models do. But how do we design IBMs so they are capable of solving real management problems but not so complex that we cannot understand or validate them? How do we model individual behavior in a useful way, when the classic models of behavioral ecology often fail in realistic situations? "Pattern-oriented modeling" is a strategy for addressing these model design issues

Dr. Steve Railsback is an environmental engineer and ecologist specializing in modeling ecological systems, individual-based ecological modeling, and assessment of instream flow needs for river fish and ecosystems. He is an adjunct professor in the <u>Mathematics Department</u> and Environmental Systems Graduate program at Humboldt State University and previously was on the research staff at Oak Ridge National Laboratory.

For a complete abstract, go to http://www.humboldt.edu/math/news-and-events/math-colloquium

We invite you to the Pre-colloquium Tea on the third floor of the BSS building at 3:30 on Thursday.