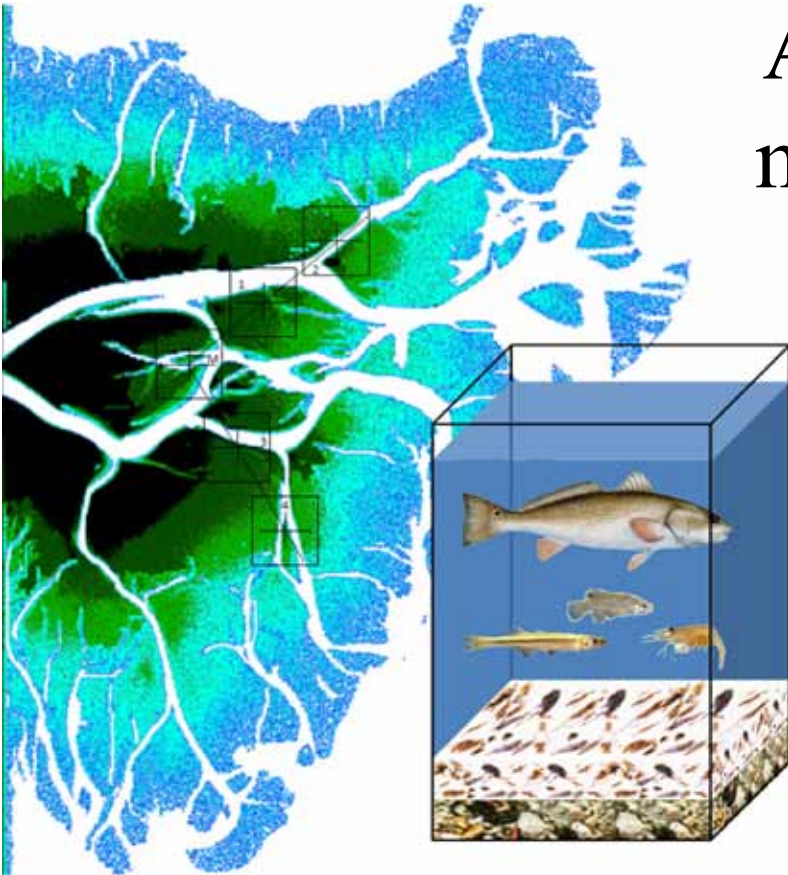


SAFL SEMINAR SERIES

WEDNESDAY, OCTOBER 19, 2011, 3:30PM
ST. ANTHONY FALLS LABORATORY ~ AUDITORIUM



An individual-based
model for predicting
fish responses to
delta formation

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Abstract:

Land building is an important component of coastal restoration. Predicting how fish respond to land building is critical to evaluating various restoration scenarios. Here, I describe an individual-based food web model that simulates 50 years of fish population and community dynamics on an evolving delta. Individual fish in the model move, consume prey and grow, experience mortality, and reproduce. My collaborators and I are using this model to i) predict how fish productivity is distributed in both space and time, ii) develop indices of habitat suitability that predict species presence or abundance, and iii) identify restoration scenarios (e.g., sediment mixture, discharge pattern) that optimize fish productivity.