

Making It Fit: Using Excel to Analyze Biological Systems

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In this case, students read about a biologist who needs to determine how to analyze age-at-length data, a common situation in fisheries biology. The fictional Dr. Latimer is tasked with fitting non-linear models to the data, and the case develops as he draws parallels between linear and non-linear models. After learning the terminology and concepts through a series of exercises, students use Excel's built-in Solver algorithm to fit models to the data. Intended for use in a fisheries biology, ecology, or management class, the case is targeted to junior and senior level undergraduate students who have some experience using spreadsheets on microcomputers and some knowledge of ichthyology.