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**Diana S Cheng\*** (dcheng@towson.edu), 8000 York Road, Towson, MD 21286, and **David Thompson**. *An Animal Population Simulation and Mathematical Modeling Activity for Secondary Mathematics Majors*.

We demonstrate how a biology-based, mathematical modeling experiment can be conducted in undergraduate mathematics courses for secondary education majors (pre-service teachers). The experiment is based on animal species population data gathered from the World Wildlife Foundation and the International Union for Conservation of Nature. It helps students learn about the threatened level classifications of species based on percentages of population reduction, and involves students' collecting data and analyzing linear, quadratic and exponential regressions. The Common Core State Standards for Mathematics – both the Standards for Mathematical Practice and Content Standards – which this experiment can address will be described. (Received July 07, 2014)