

1014-K1-1069      **Glenn Ledder\*** (gledder@math.unl.edu), Department of Mathematics, 203 Avery Hall,  
University of Nebraska-Lincoln, Lincoln, NE 68588-0130. *Structured interdisciplinary research  
experiences in mathematics and biology*. Preliminary report.

The Department of Mathematics, the School of Biological Sciences, and the College of Agriculture and Natural Resources at the University of Nebraska-Lincoln have created the **RUTE** (Research for Undergraduates in Theoretical Ecology) program to provide structured research experiences for undergraduate students at two different levels. The upper level consists of teams of two mathematics students, two biology students, and at least one professor from each discipline. The teams will engage in a 4-phase research experience: (1) a readings course to provide instruction on the theoretical issues and field methods for the selected research area, (2) a 10-week biological field research experience, (3) an independent study course in which the students will create and study mathematical models related to their biological work, and (4) an independent study course in which the students will prepare a paper, a talk, and a poster using their research results. The lower level is a 5-week summer course called *Research Skills in Theoretical Ecology* that will encompass scaled-back versions of the four phases by combining traditional lecture with a laboratory, both focused on a single classic open-ended investigation. (Received September 27, 2005)