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Betty Mayfield* (mayfield@hood.edu), Dept. of Mathematics and Computer Science, Hood College, 401 Rosemont Ave., Frederick, MD 21701. *EcoMath: A Computer-Based Teaching Initiative in Integrated Ecology and Mathematics.*

EcoMath is an interdisciplinary project of the mathematics and biology departments at Hood College. Students in ecology and calculus courses work together to solve real-world problems in which students design experiments, collect data, and analyze it, using computer technology at all stages of the project. Students in ecology labs collect field data - on clearcutting and the chestnut blight, or farming in the greenhouse, for example - and record it on small, hand-held personal computers in the field. Data from several groups of students can then be easily combined and sent to the mathematics students electronically. Using appropriate software, the calculus students build a mathematical model which seeks to explain the data, and to make predictions about the ecological system. Students in both classes can communicate back and forth until a working model is agreed upon. (Received August 23, 2000)