Timothy M Hendrix\* (HendrixT@meredith.edu), Meredith College, 3800 Hillsborough Street, Raleigh, NC 27607. Live Science-based Data Collection in Introductory Statistics.

A common dilemma in teaching introductory statistics is the generation and collection of data that are science-based in nature. Because of time, equipment, and lab limitations, example data sets are most often provided from outside sources and tend to focus on contexts of popular culture and social science disciplines rather than the natural and physical sciences. Advances in dynamic statistical software packages (Fathom, in particular) have opened the door for live data collection using probes by all students in introductory statistics classes. Students are able to conduct labs quickly and easily, generate interesting and useful data sets, and analyze those data using dynamic software tools. Developing ideas of linear and non-relationships, the presence of limiting factors or carrying capacity, and the practical need for data transformations are important conceptually for all statistics students, and especially those in science. This presentation will provide sample labs/activities, and demonstrate the use of the tools to focus students on conceptual understanding. (Received September 18, 2007)