

To Romp through the Kingdoms, or Not to Romp Through The Kingdoms: That is the Question!

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Traditionally, college curricula include a general biology II course that entails a procession through the kingdoms of life. These courses focus on animal and plant taxonomy, and may cover some biological processes, i.e. respiration, reproduction, etc. Here, we present an alternative to teaching this type of course. We base this method on work by biologist John Tyler Bonner (*Why Size Matters: From Bacteria to Blue Whales*, 2006) and others who illustrate the limitations and advantages of size on life processes within organisms. Through lecture and laboratory exercises, we develop specific size rules, e.g. the metabolic rate of an organism is directly proportional to its size. Students discover how size governs generation time, digestion, etc. through observations, measurements, and data analysis. We employ several organismal examples per size rule to illustrate the unity and diversity of life. Centered on the theme of size, this course has brought to the forefront the kingdoms of life as well as key biological mechanisms.

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