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

Kenneth G. Sossa

Notre Dame of Maryland University, Biology Department, 4701 North Charles St, Baltimore MD 21210 USA (ksossa@ndm.edu)

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.

Link to Original Poster: http://www.ableweb.org/volumes/vol-33/poster?art=55

Mission, Review Process & Disclaimer

The Association for Biology Laboratory Education (ABLE) was founded in 1979 to promote information exchange among university and college educators actively concerned with biology learning and teaching in a laboratory setting. The focus of ABLE is to improve the undergraduate biology laboratory experience by promoting the development and dissemination of interesting, innovative, and reliable laboratory exercises. For more information about ABLE, please visit http://www.ableweb.org/

Papers published in Tested Studies for Laboratory Teaching: Proceedings of the Conference of the Association for Biology Laboratory Education are evaluated and selected by a committee prior to presentation at the conference, peer-reviewed by participants at the conference, and edited by members of the ABLE Editorial Board.

Citing This Article

Sossa, K.G. 2012. To Romp through the Kingdoms, or Not to Romp through the Kingdoms: That is the Question! Tested Studies for Laboratory Teaching, Volume 33 (K. McMahon, Editor). Proceedings of the 33rd Conference of the Association for Biology Laboratory Education (ABLE), 390 pages. http://www.ableweb.org/volumes/vol-33/?art=55

Compilation © 2012 by the Association for Biology Laboratory Education, ISBN 1-890444-15-4. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner.

ABLE strongly encourages individuals to use the exercises in this proceedings volume in their teaching program. If this exercise is used solely at one’s own institution with no intent for profit, it is excluded from the preceding copyright restriction, unless otherwise noted on the copyright notice of the individual chapter in this volume. Proper credit to this publication must be included in your laboratory outline for each use; a sample citation is given above.