Editorial

Do You Teach "Biology"?

As a college biology teacher, I deal with many students who received their first biology instruction from someone else. The majority of those students seem to have had high school biology courses that were heavily biased toward vertebrate zoology. Consequently, their background in microbiology, protozoology, phycology, mycology and botany is weak or entirely absent. Since I was once part of the cause of this problem, I am familiar with some of its causes.

Many high school teachers are narrowly trained in biology. When I taught high school science in the late 1960s, my background for biology teaching was a B.A. degree in zoology. The textbook, one of the earliest BSCS green versions, was well balanced, but my background was not. I have since added a botany degree to my zoology degree, but I still do not feel especially knowledgeable about many topics in biology. Of course no one is expert in all areas of biology, but it is important at the secondary level to have a broad understanding of the field. If your training and interests are zoological, that is no excuse for short-changing your students.

Biology textbooks at both the secondary and college levels compound the problem by having the same zoological bias that many teachers have. The books sell well because the teachers are comfortable with the content, and thus teachers, authors and publishers all reinforce each other's view of what constitutes proper content for introductory biology.

Students are additional reinforcers of an unbalanced biology curriculum. They find animals, especially vertebrates, inherently interesting, while plants are somehow "uncool." And students are at a self-oriented developmental stage that makes them much more attentive when the subject is human biology. As teachers, we subconsciously respond to this student enthusiasm and it is easy for our courses to evolve from "general biology" to "vertebrate/human zoology."

We all must constantly work to balance our biology courses. This will require us to learn more about nonvertebrate organisms and stress their diversity and importance. We will then be able to teach interesting and relevant lessons about all organisms, and truly be able to call our courses "Biology."

Dan Wivagg
Associate Editor