

Letters to the Editor

Magic in Mushrooms

I believe your editorial "There is Magic in Mushrooms" (*ABT* 44(1):13) is a disservice to biologic education and an affront to all biologists who contribute to our knowledge of life science by working in the laboratory.

In contrast to your editorial, I suggest there is equal magic in biology to be discovered in the field *and* in the laboratory. This notion was supported in your earlier editorial ("Animal Studies: The Real Thing is Worth a Thousand Pictures," (*ABT* 43(8):419) when you explained that you became "hooked" on biology because of your experiences in a college-level general biology laboratory.

Any reasonably competent biologist recognizes the importance of field studies and certainly believes that students should do field work. The same is true of laboratory work. Contrary to your concluding statement in the recent editorial, *both* activities can be the real thing. And, just like field biologists, "indoor" biologists can, and do, sense the totality of life science.

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McCormack Responds

Editorials, by definition, tradition, and common practice, are matters of expressed personal opinion. No one ever claimed that any editorial represents "truth" or mandates which opinions are "right" or "wrong." Thus, your use of the terms "affront" and "disservice" seems a bit harsh.

If editorials have any main purpose, my guess is that this purpose is to provoke thinking of journal readers about contemporary issues,

opinions, and controversies. The strong words and tone of your letter would indicate that January's Overture achieved its purpose very well indeed!

Which is as it should be. Letters to the Editor, by their nature, are matters of personal opinion—something we all cherish the right to hold and express.

Use of Crayfishes

Gary Phillips' recent article "Crayfishes in the Classroom: A New Look at Some Old Friends" (*ABT* 44(2):121) is most welcome. He describes well the classroom maintenance of crayfish and suggests a range of humane projects that can be undertaken with these fascinating creatures. Crayfishes are among the many desirable living organisms which can be used to stimulate student interest in biological processes.

All the projects described in the article are in accordance with the guidelines for the use of animals in schools of the National Association of Biology Teachers and the similar Code of Practice for Animals in Schools of the National Science Teachers Association. Indeed, it would have been inappropriate for *The American Biology Teacher* to have published this article had there been any statement that was *not* in compliance with the humane codes. I am sorry that Mr. Phillips did not mention either of these codes since it is imperative for students and teachers to know that guidelines *do* exist and that compliance with their provisions is important. Readers are encouraged to obtain copies of these guidelines either from the appropriate

organization or from the Scientists Center for Animal Welfare (P.O. Box 3755, Washington, DC 20007).

An additional helpful suggestion for crayfish care is that hiding places for the animals should be provided. In my experience, these are invaluable adjuncts to proper care (Orlans 1977). A child's plastic wading pool is ideal for keeping four or five crayfish. Inverted flower pots should be used to provide sanctuary for the animals. Small doorways in the pots can be chipped out with pliers or wire cutters. If you wish to observe the crayfish, saw off the bottom of each pot and replace it with a removable lid of aluminum foil. Provide one pot for each crayfish.

An important point omitted from the article was how to dispose of the crayfish at the completion of the classroom study. Crayfish can be released in their natural habitat on the banks of streams or rivers. Alternatively, they can be painlessly killed by placing them in a heatproof vessel and *slowly* raising the temperature to about 40°C (104°F). To prevent animals at the bottom of the pot from feeling the heat, use a small wire or metal lattice to keep them from direct contact with the vessel.

I hope that a number of teachers and students will be encouraged to study crayfish as a result of Mr. Phillips' useful article.

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Reference

ORLANS, F.B. 1977. *Animal care from protozoa to small mammals*. Menlo Park, Calif.: Addison-Wesley Publishing Company.