



**THE HUMANE SOCIETY**  
OF THE UNITED STATES

# To Harm or Not to Harm: Animals and Your Higher Education

**E**very year in the U.S. and Canada, millions of animals are harmed or killed in college and university courses such as general biology, anatomy, physiology, and psychology. Cats, dogfish sharks, dogs, fetal pigs, frogs, mice, pigeons, rats, and turtles are among the most commonly used animals. Most are killed and *dissected* (cut apart). Others are *vivisected* (subjected to invasive procedures while alive) in demonstrations such as those that show muscle function in physiology laboratories. Still others are used in experiments in which they are deprived of food or water, injected with substances that alter their behavior, or killed to obtain cells.

Today, students are protesting—and educators are questioning—the way we use animals in the name of education. The objections include unnecessary suffering and death for the animals, environmental disruption during their collection, risks to human health from the preservatives used on the specimens, and a deterioration of social values caused by teaching students to accept the destruction of other creatures.

If you're planning to take college or university life science courses, you'll probably be expected to use animals. But effective nonanimal and noninvasive alternatives are readily available. The choice is yours—you're entitled to an education compatible with your moral values.

# **What's Wrong with Harming Animals for Education?**

## **Animal Suffering**

Like humans, all nonhuman vertebrates have complex nervous systems and can suffer pain and distress. (At least some invertebrates also appear to have similar capacities.) For the dog who experiences fear when being prepared for a demonstration of surgical procedures, the frog who feels the sudden assault of the pithing probe or scissors used to induce brain death, and the pigeon who endures hunger or thirst in the Skinner box, the suffering is all too real.

The use of animals in education may entail considerable suffering even when students don't witness or participate in the animal's death. Animals routinely suffer during capture and killing for supply to the dissection trade. For example, dogfish sharks suffocate in the nets that trap them or after being dragged from the water. Investigations in Mexico revealed that suppliers to the U.S. dissection trade were killing thousands of cats by drowning them 10 at a time or slitting their throats.

## **Environmental Costs**

Many animals harmed or killed for classroom use are caught in the wild. Populations of wild frogs have declined dramatically in recent years. The further effects on these populations from capture for use in education are unknown, though certainly negative: In just one week, a single supplier may collect 3,000 or more frogs. Devastation of any free-living population can have far-reaching consequences for the surrounding ecosystem.

A subtler form of environmental harm arises from the message that traditional specimen-collection practices convey to students. An education system that condones removing wild animals from their habitats, killing them, infusing them with chemicals, and throwing their mangled bodies into the garbage is unlikely to cultivate environmental sensitivity.

## **Social Costs**

One of education's most important goals is to instill a sense of compassion and respect for others. Dissection and other harmful uses of animals undermine this goal because they involve treating animals as expendable commodities.

Some procedures performed on animals in education are openly violent, particularly those that entail killing. *Pithing*—a common method of rendering

frogs and turtles brain-dead—involves inserting a sharp object into the animal’s braincase and moving it around vigorously to scramble the brain. Exercises that treat sentient animals as mere tools devalue life and may alienate sensitive students from the life sciences or further harden those who are less sensitive.

### **Availability of Humane Alternatives**

Quite apart from the cost in animal suffering, environmental damage, and undermining of social values, the destruction of animals for education is simply unnecessary. Abundant humane and nonlethal alternatives are available for learning anatomy, physiology, toxicology, and other biological disciplines. Studies have found that students who use humane alternatives learn as well as or better than students who use animals. Furthermore, alternative materials—unlike most dissection specimens—are durable and reusable; a school can save thousands of dollars each year by using alternatives.

Of course, humane alternatives do not necessarily exclude live animals. The best place to appreciate animals, and their evolutionary histories, is in their natural habitats. Many informative and fascinating field studies have been designed for biology students, and the possibilities for novel studies are unlimited. Domesticated animals can also be studied in appropriate situations. Numerous noninvasive experiments can be performed with living animals or with students themselves to illustrate a variety of physiological and other phenomena.

### **Finding a Better Way**

The alternative techniques listed below have proven effective in teaching subjects that have traditionally involved harming or killing animals. Used in combination, they may also complement one another. These methods avoid causing any direct animal suffering, environmental degradation, health risks, or potential for ethical desensitization.

### **Field Observations**

Observation is the scientist’s most basic and important skill. Studying animals in the field provides challenging opportunities to develop skills and learn scientific methods. Well-designed observation projects can teach how to design a study; formulate hypotheses; collect, analyze, and present data; and draw sound conclusions.

## **Computer Programs**

Computer simulations allow you to learn interactively while controlling the lesson's focus, direction, and pace. Like most dissection alternatives—but not dissection itself—they permit unlimited repetition of the learning exercise. Many also incorporate questions and problems, allowing you to monitor your mastery of the information. Available software programs include simulations of the anatomy and physiology of cats, crayfish, dogs, fetal pigs, frogs, humans, rats, sharks, and other animals.

## **Physiological Self-Study**

In this approach, you study your own body's life processes, such as heart function, sensory perception, respiration, and muscle physiology. The presentation and analysis of real data allow you to compare and appreciate variation among students in your class.

## **Models**

Usually made of plastic, models typically have removable, labeled parts that provide high detail and realism. Whereas preserved specimens are usually faded and are used only once, models are colored to reflect the appearance of a living organism and can be used year after year. Available models include those of the human body, rat, shark, fetal pig, frog, and invertebrates.

## **Videos**

Videos can provide much of the same visual information as a specimen. Moreover, the camera can provide perspectives and the narration explain details that dissecting tools cannot. Available videos cover the physiology and anatomy of a range of organisms, including cats, clams, crayfish, dogs, earthworms, fetal pigs, frogs, humans, perch, pigeons, rats, sharks, and starfish. While some videos depict actual dissections, their use as an alternative saves the lives of countless animals who will not be dissected.

## **Books and Manuals**

Modern biology textbooks are filled with up-to-date information, as well as illustrations that provide detail, realism, and a more comprehensive view of an organism's anatomy than a dissected specimen. These resources are an indispensable supplement to any study of anatomy.

## What You Can Do

Surveys indicate that most students have reservations about the harmful use of animals in education. Unfortunately, few express their objections to their teachers; most probably believe they shouldn't question what they're told to do in class. However, by seeking more humane, and often more effective, ways to learn, you're showing that you take your education very seriously. To complete your education without harming or killing animals, take these steps:

- 1. Find out** as soon as possible, preferably before the term starts, if any of the courses you're taking involve animal use. If so, what animals will be used, how will they be used, and for what educational purpose? Also ask whether your college has a policy exempting students from harming or killing animals. If so, obtain a copy of the policy statement. If not, contact The Humane Society of the United States (HSUS) for help drafting one.
- 2. Consider the reasons** you don't wish to harm animals in your education. It will probably help to write down your thoughts. Also compile information on humane alternatives for the course you're taking.
- 3. Talk to other students** in your course to see if they share your concerns. Most likely, some also have reservations about the harming and killing of animals in education. Ask them if they would prefer a humane alternative, too.
- 4. Suggest an alternative:** Politely but firmly tell your professor that you don't wish to participate in harmful animal use. Explain your willingness to learn the material using nonanimal alternatives. Be prepared to express your objections to the way animals are to be used in the course, and be sure to mention objections from other students you've talked to. If your professor is unaware of alternatives, offer some suggestions, bearing in mind the course's learning objectives.

5. **Go higher up:** Ideally, you and your professor will agree on a mutually satisfactory solution. If, however, your professor is unwilling to accommodate you, take your request to the appropriate department head or dean.
6. **Contact The HSUS for help.** We can provide guidance on alternatives and, if necessary, on seeking legal counsel. Remember: The earlier you contact us, the more we can help. Keep a record of all correspondence and meetings and any other contacts you make.

## **Alternatives on Loan**

Don't let a lack of resources stand between you and your ethical beliefs. The HSUS has established the Humane Education Loan Program (HELP) to provide students and educators (elementary through college) with up-to-date alternatives to classroom dissection and live animal experimentation. We have a variety of computer simulation software programs, models, videos, and charts. The only cost to you is the return postage.

**FOR MORE INFORMATION**  
**about using nonanimal and noninvasive**  
**alternatives in your education,**

write to Animal Research Issues,  
The HSUS, 2100 L Street, NW, Washington, DC 20037;  
call 301-721-6439; fax 301-258-7760;  
or e-mail [ari@humanesociety.org](mailto:ari@humanesociety.org)



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2100 L Street, NW Washington, DC 20037  
[humanesociety.org/animals\\_in\\_education](http://humanesociety.org/animals_in_education)  
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