

Defending the teaching of evolution and climate science

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A Message to the Texas State Board of Education:

The textbooks adopted for use in Texas schools have a profound influence on science education in Texas and across the United States. As societies of educators and scientists, we are concerned by reports that textbook reviewers unqualified in the relevant science are seeking to undermine the teaching of evolution and climate change, and that good textbooks may be revised or rejected based on these reviewers' comments. The undersigned scientific and educational societies call on the Texas State Board of Education to adopt textbooks based on the guidance of Texas's many excellent scholars and master teachers, not based on ideology, ensuring that Texas students learn the best science, especially evolution and the scientific basis of climate change.

Evolution is the foundation of modern biology, an explanation for the diversity of life on earth which has opened up tremendous scientific and technological opportunities. It is central to fields as diverse as agriculture, computer science, engineering, geology, and medicine. The teaching of evolution and—for similar reasons—climate change should not be undermined in textbooks, whether by minimizing, misrepresenting, or misleadingly singling them out as controversial or in need of greater scrutiny than other topics are given.

Some textbook reviewers openly called for creationism to be included in textbooks, which would be scientifically and legally improper. But we are equally concerned by some reviewers insisting that evolutionary mechanisms cannot produce biological novelties, or explain the fossil record. These claims are false and misleading, and would undermine student understanding of both the natural world and what constitutes the formation of adequate, evidence-based explanations. If textbooks incorporate those criticisms, students will be denied a full understanding of the tremendous explanatory power that evolution has offered to scientists for over a century, and which doctors, oilfield geologists, farmers, ranchers, and NASA engineers all rely upon for their vital work.

By adopting textbooks recommended by the top scientists and teachers in Texas, you will give students and teachers the foundation for an exemplary science education, the sort of education that they will need to succeed in the 21st century.

Signed:

Botanical Society of America American Anthropological Association American Association of Physical Anthropologists Climate Central American Association of Anatomists Council on Undergraduate Research American Association for the Advancement of **Ecological Society of America** Science Charles D. Ferguson, President American Association of Physics Teachers Federation of American Scientists American Astronomical Society Geological Society of America Association of College & University Biology The Herpetologists' League Educators Human Anatomy and Physiology Society Association of Environmental and Engineering National Academy of Sciences Geologists National Association of Biology Teachers American Genetics Association National Association for Geoscience Teachers American Geophysical Union National Science Teachers Association American Institute for Biological Sciences National Wildlife Federation American Phytopathological Society Elizabeth Losos, President American Psychological Association Organization for Tropical Studies American Society for Cell Biology The Paleontological Society American Society for Human Genetics Phycological Society of America American Society for Investigative Pathology Society for American Archaeology American Society of Ichthyologists and Society for Developmental Biology Herpetologists Society of Economic Geologists American Society of Mammalogy Society for Integrative and Comparative Biology American Society for Microbiology Society for Organic Petrology American Society for Naturalists SEPM Society for Sedimentary Geology American Society for Pharmacology and Society for the Study of Amphibians & Reptiles **Experimental Therapeutics** Society for the Study of Evolution Association of Southeastern Biologists Society for Systematic Biology Biological Sciences Curriculum Study Society for Vertebrate Paleontology The Biophysical Society Southwestern Association of Naturalists