

**Public Testimony in Favor of the
Approval of High School Biology Textbooks**

Meeting of the
Student/School Performance and Support Committee
Louisiana Board of Elementary and Secondary Education

Baton Rouge, LA

December 7, 2010



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Introduction

This document is a written compilation of the testimony of nine of the sixteen citizens who testified on December 7, 2010, in favor of adopting new high school biology textbooks for Louisiana public schools.¹ Although the books had already been approved by the Textbook Adoption Committee in October 2010 and by the Textbook/Media/Library Advisory Council on November 12, 2010, the Louisiana Family Forum (LFF), an affiliate of Focus on the Family, a national Religious Right organization, attempted to stop the adoption of the textbooks because of the content about evolution.

In 2008, the LFF and the Discovery Institute, a creationist think tank in Seattle, Washington, had successfully promoted creationist legislation that Governor Bobby Jindal signed into law as the Louisiana Science Education Act (LSEA) on June 25, 2008. (See Louisiana Coalition for Science, “Analysis of SB 733: ‘Louisiana Science Education Act,’” May 22, 2008, at http://lasciencecoalition.org/2008/05/22/sb_733_analysis/.) The LSEA permits public school science teachers to use creationist “supplementary materials” in addition to state-approved textbooks and other materials that reflect the mandatory Louisiana Science Framework and the accompanying Grade Level Expectations (GLEs). In January and September 2009, the LFF also succeeded in gaining control over Board of Elementary and Secondary Education (BESE) policies governing (1) the implementation of the LSEA in parish school districts and (2) the handling of citizen complaints about creationist supplementary materials. (See Louisiana Coalition for Science, “Louisiana Open for Business — Creationists Welcome,” January 25, 2009, at <http://lasciencecoalition.org/2009/01/25/louisiana-open-for-business/>, and “For Immediate Release: Creationists Continue to Dictate BESE Science Education Policy,” September 30, 2009, at <http://lasciencecoalition.org/2009/09/30/creationists-dictate-bese-policy/>.)

Fortunately, the Louisiana Coalition for Science, with help from concerned citizens around the state and from the National Center for Science Education (<http://ncse.com>), mounted a successful effort to secure BESE’s approval of the textbooks. The Student/School Performance and Support Committee approved the books in a 6-1 vote on December 7, and BESE affirmed the committee’s decision at its general meeting on December 9, 2010, by a vote of 8-2.

The testimony presented here is a testament to the quality and dedication of the students, teachers, scientists, and concerned citizens who made their voices heard in this effort. However, although we succeeded on December 7, several decades of history have taught us that creationists never take no for an answer. They never give up their efforts to force their particular religious agenda into the classrooms — and into the minds — of our young people. In order to make sure that Louisiana students get the education they deserve and that the religious freedom of every student is respected, the people of Louisiana — parents, teachers and professors, scientists, the business community, clergy, and concerned citizens — who want children properly educated must make their voices heard and must back up their words with actions. The Louisiana Coalition for Science invites them to join us in this effort.

¹ The testimony of each presenter is included as each wrote it, with no editing of the content. The testimonies are arranged alphabetically by the presenters’ last names.

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**Ian C. Binns, Testimony to the Student/School Performance and Support Committee,
12/7/10**

I would like to thank the members of the committee for allowing me to speak today. My name is Ian Binns and I am an assistant professor of science education at LSU. I am here as a private and concerned citizen.

Let me start by making sure we all have a clear understanding of science. Science is based on evidence, pure and simple. Science is not a belief. Additionally, science can ONLY deal with natural phenomena. Science can NOT address supernatural phenomena. Religion can answer questions that include the supernatural. That being said, I want to emphasize that science is one way of looking at the world and religion is another. It is dangerous when organizations either imply or directly state that science and religion are in conflict. We are doing students a disservice by teaching them that science and religion are in conflict. I tell my future teachers that there is no conflict and I, for one, do not want my children growing up thinking there is a conflict. You may ask what our discussion today has to do with religion. I hope that you have noticed that the Louisiana Family Forum, whose mission is “to persuasively present biblical principles in the centers of influence on issues affecting the family through research, communication and networking,” is the main opponent of these textbooks.

A few other things that I want to address are the handouts that I presented to you. These handouts directly address information presented at earlier meetings. There was a handout titled “Louisiana Science Framework” presented at the textbook/media/library advisory council. While most of the information comes directly from the actual science framework, certain points are misquoted and seriously misrepresent science. For example, on page 4, you will see a quote in the section titled “instructional issues.” The quote on the “Louisiana Science Framework” handout, highlighted in yellow, says that “science should be ‘presented as a...continuing process for extending understanding of the ultimate, unalterable truth.’” However, this quote leaves out some key words (highlighted in green), one of which changes the entire meaning. The actual quote is “science is presented as **a human enterprise and** a continuing process for extending understanding, **instead** of the ultimate, unalterable truth.” There is a clear difference between these two quotes.

Another concern with how our state standards are mistreated is that on several occasions, most recently in the op-ed pieces from Darrell White, the benchmark “recognizing and analyzing alternative explanations and models” has been used as a reason to have balance and critical thinking when it comes to teaching evolution. While I can’t think of any teacher who doesn’t want to encourage critical thinking, this does not mean analyzing alternative explanations that are NON-SCIENTIFIC. If there are alternative explanations that are scientifically-based and scientifically accurate, then we should definitely include them in science classrooms. Again, as long as they are SCIENTIFIC, i.e. includes explanations that only address natural phenomena and are based on evidence.

Another talking point that was brought up in the textbook/media/library advisory meeting as well as by the Louisiana Family Forum in the latest “end of week...with Gene Mills” on December 3rd is the cost of the textbooks. It has been suggested that these biology textbooks could cost the Louisiana taxpayers “\$50 million plus.” However, as you can see by the highlighted rows from the chart that I gave you, the biology textbooks over the past seven years actually cost the Louisiana taxpayers a little over \$5 million. I want to remind the board that if the books are

approved today, they are locked into the current price for the next seven years. If you vote to postpone the adoption for a year or two, the price will most likely increase, thus costing even more. Another part of this argument is the discussion of the new science standards that should emerge over the next two to three years. Some have argued that we should wait until the new standards are out to purchase textbooks. As of right now, the Common Core Science Standards have not been released. However, the framework, developed by a National Research Council panel, a part of the National Academy of Sciences, has been released and will guide the development of the new Common Core Standards. I can tell you from reading them and from talking with a member of that panel, that the content in the standards is not different and will NOT challenge the validity of the science textbooks that have been recommended for adoption.

Finally, I want to make sure you understand how the rest of the country perceives us when either the textbook situation that we are in now or the Louisiana Science Education Act is addressed. They laugh at us. When I go to my professional science education conferences, I am asked by my colleagues what we are doing in Louisiana and why decisions are being made that will set us back decades. Please do not allow this social issue to destroy our science classrooms. You are in the position to make sure that the state of Louisiana keeps appropriate science in the science classroom. Please do the right thing today and approve the biology textbooks recommended by the state textbook adoption committee and the textbook/media/library advisory council. Thank you for your time.

Gary Byerly — Testimony, Student/School Performance and Support Committee, BESE, December 7, 2010

Good morning, ladies and gentlemen. Thank you for allowing me to speak as a concerned parent, educator, and scientist. My name is Gary Byerly and I am the father of two children who went through public schools in Louisiana, received a great education, and are now pursuing PhDs, one in geology and one in astrophysics. During their K-12 years, Louisiana followed national standards for science education. As a result both thrived — as National Merit Scholars and critical thinkers. Our children deserve an excellent science education, and I urge you to adopt the biology textbooks that have been approved by the Textbook Adoption Committee and the Textbook Advisory Council.

I have taught geology at LSU for 33 years, chairing the department for five, and now serve as a dean of science responsible for recruiting, admitting, and financial aid for science and math students. I am also responsible for our programs in secondary math and science education at both the BS and MS levels, and for our programs that prepare students for science careers, graduate school, and medical school. I regularly interact with students and parents considering LSU as a choice among many fine schools around the country. I also interact with major corporations that come to LSU to recruit our graduates, and with medical school deans that are interviewing our students for the limited number of positions in their classes. In all these aspects I have found that critical and logical thinking are essential in the competition our children face today in science, medicine, and commerce. Critical thinking is learned through the study of real science that is free from creationist influence of the kind exemplified by the Louisiana Family Forum.

I received my PhD from Michigan State University and worked for three years at the U.S. National Museum of Natural History in Washington prior to LSU. I am a member of the UCLA Astrobiology Team and an adjunct member of the faculty at Stanford University where I do U-Pb isotopic dating of geological samples. My work is largely focused on the early history and evolution of Earth. I am widely published in international journals, have authored two books, and mentored a dozen research students in this area.

Geology is integral to the understanding of evolution because it provides the important context of time for natural processes. My work has confirmed that life existed on Earth 3.5 billion years ago. Colleagues have also recognized that life became complex, using multiple types of metabolism, by 3.0 billion years ago, and this led to Earth's oxygenated atmosphere by 2.5 billion years ago. At 1.5 billion years ago life was multi-cellular, and at 800 million years ago larger animals are found in the fossil record. Biological evolution has clearly been important for most of Earth's 4.6 billion years, with a remarkably continuous development of more complex forms, though at rates that have varied by as much as a factor of ten. Rapid evolution has typically taken place after major physical or chemical changes on Earth. Thus, during the late Pre-Cambrian and Cambrian, over a period of about 80 million years, already existing complex animals developed shells and hard structures for the first time. A similar episode of more rapid evolution has taken place over the past 65 million years, giving rise to the diversity of mammals that we see today. The known fossil record is steadily expanding and continues to provide strong evidence of evolution on Earth.

Darwin's remarkable powers of observation and critical thinking, in both geology and biology, have given rise to many important areas of modern science, engineering, agriculture,

and perhaps most critically, medicine. Louisiana deserves to have these taught without distorted arguments that have no scientific standing — untestable ideas that are ultimately harmful to our children’s careers and futures. Please approve the biology textbooks to ensure that science is properly taught.

**Bryan Carstens, Testimony, Student/School Performance and Support Committee
Louisiana Board of Elementary and Secondary Education, December 7, 2010**

My name is Bryan Carstens, and I am here today as a concerned citizen and as the father of two young children who will soon enter the East Baton Rouge Parish School system. My testimony has two objectives. First, let me encourage you to adopt the textbooks recommended by the Science Textbook Advisory Council. Second, I am here to provide expert testimony with regards to the theory of evolution, a subject that I am extremely well qualified to address. I am an Assistant Professor in the Department of Biology at Louisiana State University, where I teach undergraduate courses in evolutionary biology and genetics. My research program investigates the process of speciation; it seeks to identify the forces that lead to the formation of new species from a common ancestor. Evidence of my expertise is provided by the fact that I have received multiple grants from the National Science Foundation, published over 30 papers in peer-reviewed journals, and that these papers have been cited nearly 700 times by my peers.

While the theory of evolution may be controversial among the Louisiana public, it is remarkably uncontroversial among those who are best qualified to evaluate it – namely professional biologists. In fact, the theory of evolution is one of the most well supported and thoroughly documented scientific theories ever constructed. For over 100 years, professional biologists have accepted the fact that evolution has occurred in the past and is occurring now, in much the same way that professional physicists have accepted the fact of gravity. Both are referred to as theories because, in science, a theory is defined as a well-founded explanation of an enormous body of data that has survived rigorous scientific testing. It is not an educated guess or a poorly supported hunch; it is not something that requires debate at the high school level.

Nevertheless, you will hear testimony today that contradicts this statement. Those offering this testimony will argue that the textbooks approved by the Science Textbook Advisory Council are inadequate because they present only evolutionary explanations for the diversity of life on the Earth and do not, in the words of a letter to the Hammond [Daily] Star authored by a Mr. Darrell White, “[allow] the weaknesses of evolutionism to be presented alongside its so-called ‘strengths’”. This statement is ridiculous, as biologists have devoted the last 150 years to testing and refining the original theory proposed by Charles Darwin. Biologists test the theory of evolution by gathering data and publishing their results in the peer-reviewed literature. They do not produce slick DVDs or distribute propaganda.

In his letter, Mr. White directed readers to a web site (www.textaddons.com) where material written by Charles H. Voss, Jr. that seeks to undermine the material contained within the state-approved textbooks are presented. These documents are emblematic of the strategy employed by those opposed to the teaching of evolution; their purpose is to create the illusion that the theory of evolution is inadequate to explain the diversity of life on the Earth. *These documents are entirely without scientific merit.* Mr. Voss presents inaccurate information as fact. He misconstrues the Darwinian explanation by implying that there is a single linear path from *Amoeba* to humans; he ignores decades of research and practices selective quotation and obfuscation. He also claims that microevolution, the small changes that occur within a species, cannot lead to the formation of new species. On these points Voss diverges sharply from the accepted facts of evolutionary theory. After reviewing the addenda authored by Charles Voss, it is my professional evaluation that the author must either be *substantially ignorant with regards to evolutionary theory* or *blatantly dishonest with regards to his motivation*. In either case,

materials such as the Voss Addenda are a clear violation of the responsibility that comes with academic freedom.

In closing, please recognize that the testimony of those who are opposed to the adoption of the biology textbooks that were recommended by the Science Textbook Advisory Council is motivated not by good science pedagogy, but by a desire to undermine the accepted facts of evolutionary theory. Please adopt these textbooks, for the sake of my children and others who deserve the best science education that their parents and teachers can provide.

Barbara Forrest — Testimony, Student/School Performance and Support Committee, BESE, December 7, 2010

Good morning, ladies and gentlemen of the board. Thank you for the opportunity to speak. My name is Barbara Forrest. I speak as a private citizen on behalf of proper science education. I have been an educator for thirty years. I serve on the board of directors of the National Center for Science Education. I have published nationally and internationally about the creationism issue. I was an expert witness in a landmark legal case in Pennsylvania involving intelligent design creationism, *Kitzmiller v. Dover*, known as the “Dover trial.” Louisiana science education is at a crossroad. I would like to explain how we got where we are today in order to help you decide which way it will go.

In 1996, the Discovery Institute, a Seattle think tank, began promoting intelligent design creationism, known as “ID.” They are the subject of my book, *Creationism’s Trojan Horse*, published by Oxford University Press. Discovery Institute’s promotion of ID prompted a 2004 case in Dover, Pennsylvania, when the school board tried to insert ID into science instruction. In 2005, Judge John E. Jones III ruled that teaching intelligent design is unconstitutional. Discovery Institute’s witnesses were totally discredited in federal court. They had no scientific evidence to support their claims that ID is science and no credible criticisms of evolution. My testimony established that ID is merely creationism by another name.

Nonetheless, in 2008 and 2009, Discovery Institute promoted its “model academic freedom” legislation, written in creationist code language such as “critical thinking.” The Louisiana Family Forum, a religious group whose self-described mission is to “present biblical principles in centers of influence,” has promoted creationism since its establishment and worked with Discovery Institute to promote this legislation in our state. The bill passed as the Louisiana Science Education Act. No one except the Family Forum asked for this law, and Louisiana is the one and only state that adopted it. As a result, Louisiana lost a major science convention when the Society for Integrative and Comparative Biology decided not to hold its 2011 meeting in New Orleans. The current effort to block approval of biology textbooks is an integral part of the Family Forum’s creationist agenda, which brings us here today.

The Louisiana Family Forum portrays the Louisiana Science Education Act as a defense of academic freedom, another well-known creationist code term. The issue is not academic freedom. It is academic responsibility and honesty, which require acknowledging that evolution is an observable natural process and that Earth’s age is billions of years, not thousands. It is about teaching children true science rather than the religious beliefs of creationists masquerading as science. Every claim you hear today from the Louisiana Family Forum and its allies — without a single exception — has been refuted over and over again, in state after state, and in federal court, over almost fifty years. Not a single creationist claim has ever held up under either scientific scrutiny or legal analysis.

The Louisiana Family Forum’s effort to block approval of the biology textbooks is part of its religious agenda to attack the teaching of science. Citizens who understand the value of teaching children real science are asking the Board of Elementary and Secondary Education to honor the work of the state’s science teachers, the decisions of the Textbook Adoption Committee and the Textbook Advisory Council, and the needs of Louisiana students by approving the textbooks without alteration, without disclaimers of their content, and without supplementation by creationist materials. I hope that you will have lots of questions, and I will be happy to answer them. Thank you.

Issue: Approval of biology textbooks for use in public schools — Student/School Performance and Support Committee, Louisiana Board of Elementary and Secondary Education

Jeffrey M. Gimble MD PhD, Public Statement to BESE, December 7, 2010

I'm Dr. Jeff Gimble and I would like to thank the Board of Elementary and Secondary Education for the opportunity to speak today on the topic of life science textbooks. I am here as the parent of a 7th grade student in the East Baton Rouge Public School system and as a private citizen. I am also a professor in the Stem Cell Biology Lab at the Pennington Biomedical Research Center, a branch of the LSU System where I practice the art and science of medicine in clinical studies of medications for the treatment of diabetes and osteoporosis. Finally, my younger brother teaches biology in a high school outside of Boston.

In the special textbook committee meeting last month, I was extremely impressed by the professional process that BESE has developed and used to reach a fair and unbiased decision on which biology and life science textbooks and publishers to recommend to the State's school systems. It is outstanding to see that our government has taken full advantage of the dedication, expertise, and specialized knowledge and training that these professional educators and state employees bring to this process. I applaud BESE for using its limited resources so well in serving our State.

Because biological science is what I do for a living, I have a special stake in the outcome of this dialogue. I am the product of the Washington DC public school system. Looking back, I can see that my 9th and 12th grade biology classes really set me on the path to my current job here in Louisiana. I was fortunate to have access to up to date, well written biology textbooks that met national standards. In 12th grade, I can't say that I had a great biology teacher. Our Advanced Placement class started with over 20 kids and ended the year with only 4; however, we all got the highest scores possible on the AP test at the end of the year, giving our teacher bragging rights around the teacher's lounge. That happened because our text books gave us the guidelines that we needed for the national, standardized placement exam. This had an impact at many levels, both educationally and economically, on my career and that of my classmates. It allowed us to jump start our college education. It prepared us for careers in medicine and science. And our textbook did this by giving us an unbiased, and nationally and internationally accepted foundation in the language and practice of biological science.

My job puts me in contact with people all over the world. I receive email from scientists throughout the US, Canada, South America, Europe, and Asia. I work with students at the LSU campus who come from all over the state and around the world. This even includes stem cell biologists in and from Iran. The language of biology cuts across geographic, political, religious, and perceived cultural barriers. I currently have a graduate student from Portugal. Pedro tells me that even though Portugal is a country where 95% of the population is Catholic, there is no public controversy whatsoever about the teaching of Darwinian evolution. Evolution is routinely taught in the scientific curriculum to all students without any concern about so called "alternative theories".

The boys and girls in Louisiana need to be taught the fundamentals and foundation of biology no differently than we currently require them to learn English. As educators and citizens, we have not held any special committee meetings to question the merits and value of classroom materials focusing on the English language, despite the public controversy on this subject. Even though words like "ain't" are used in conversation, any English teacher takes points off if my son uses it in his essays. And I doubt that BESE would be interested in holding public meetings like this to change such decisions.

Darwin's book has been scrutinized and tested in countless scientific experiments. It provides the foundation for our understanding and development of genetic theory, the genetic code, and our understanding of proteins and their function. As a result, the world's scientists and health care professionals have improved living conditions for everyone. Darwin's book has had its impact, not just for what it said, but for how its concepts have held up in critical empiric experiments over and over again. You cannot divorce the Theory of Evolution from any of the important and widely accepted advances we have witnessed in biology and medicine over the past century. Any rules that it has changed in science have come about through a continuous process of questioning over the past 150 years of human development. The teaching of evolution is fundamental to biology today. Our students will be required to answer nationalized test questions on this topic. As we know, the next generation faces many challenges as the US deals with a globalized economy. Let's not booby trap our children's education by making decisions that will restrict them to inferior textbooks containing misinformation about the language of biology and life science. The BESE process is to be applauded for its unbiased and professional endorsement of textbooks that meet nationally accepted and scientifically endorsed standards. Let's give our children access to these important and critical resources as they continue their education.

Issue: Approval of biology textbooks for use in public schools — Student/School Performance and Support Committee, Louisiana Board of Elementary and Secondary Education

BESE Meeting December 7 2010
Zack Kopplin www.repealcreationism.com

Good Morning,

My name is Zack Kopplin and I am a senior at Baton Rouge Magnet High School.

At this point, I'd like to ask all current public school students or parents who are here today to stand up. Board members, we are the public school families who you will affect decision. It is our future jobs that are at stake. Please don't make your decision based on the wishes of people who aren't even in public schools.

I am here to urge that BESE adopt life science textbooks that are backed by scientific evidence. That means textbooks that teach the theory of evolution. We need new textbooks now, and we need them without any disclaimers, revisions, or supplemental materials designed to undermine evolution.

To be successful in the global economy and get good science and technology based jobs, Louisiana students must be taught correct science and be taught the theory of evolution.

Today, you will hear from creationists who oppose these textbooks. They will try to block the adoption of these books, or say we need disclaimers or supplementary materials, points I addressed in my testimony to the Textbook/Media/Library Advisory Council on November 12th which is attached for your review.

The creationists have brought up new arguments that I will address today. They are now arguing that the textbooks need to "teach more Darwin," specifically those chapters of *The Origin of Species* where Darwin identified criticisms of his theory at the time he originally proposed it way back in the 1850's.

That's absurd. We're talking about modern biology textbooks that need to teach us current scientific evidence. We're not talking about a textbook for a History of Science class. When creationists say they want educators to teach more Darwin, it is probably because they want us to believe that the scientific understanding of evolution has not advanced since Darwin did his original research 150 years ago.

Of course, our understanding of evolution along with all of modern science has advanced immeasurably since Darwin's time. Evolution has withstood 150 years of constant attack, and because of that attack, has been refined into one of the strongest and best supported scientific theories we have.

The Origin of Species is a historical document, just like Newton's *Principia* or Copernicus' *De Revolutionibus*. Science textbooks should not teach, for example, that Newton's theories about the occult and Copernicus' misconceptions that the planets had circular orbits are still valid today.

So please don't take advice on textbooks from folks who don't understand the difference between science curriculum and history curriculum.

Asking to teach "more Darwin" is a straw man designed to undermine the teaching of evolution.

This straw man distracts us from the real agenda behind this attack on textbooks. This attack boils down to a harmful attempt to undermine the theory of evolution and stealthily insert the

unconstitutional and unscientific teaching of creationism and its offshoot intelligent design into the classroom.

Intelligent design creationism is not correct science, and is not backed up by the evidence. Evolution is. Evolution is what will prepare us for success in the global economy, creationism will not.

To illustrate this point, when you search “evolution” jobs on Monster.com, there are 520 jobs you can choose from. When you search “biologist,” there are over a thousand jobs.

When you search “creationism,” “creation science,” or “creationist” on Monster Jobs, you get a message saying “Sorry, there are 0 creationist jobs.”

That’s right. There are zero creationist jobs available for Louisiana students to pursue. Not one.

So we need to be taught correct science so we can get the jobs that are being created in the life sciences that require an understanding of evolutionary biology.

Undermining the teaching of evolution in science class in an attempt to insert the unconstitutional and unscientific teaching of creationism harms the students of Louisiana and will not prepare us for success in the global economy. It is BESE’s job to provide the students of Louisiana with textbooks that will allow us to be successful in the global economy.

It has been 8 years since we have had new science textbooks. We need them now.

I ask BESE to do the right thing and adopt textbooks that teach correct science that is supported by evidence, which means the theory of evolution.

If you are worried that school districts don’t have enough money to buy textbooks this year, remember you are not requiring them to buy textbooks. You are only authorizing updated textbooks. And if every school district bought new biology textbooks next year, the cost is \$3 million, not \$50 million.

Thank you for your time today. I am attaching a number of supplementary materials in support of my position, including a book from the National Academy of Science called *Science, Evolution and Creationism*.

Thank you again.

Patsye Peebles, December 7, 2010

Biology teacher, teacher mentor, National Association of Biology Teachers board member, Louisiana Association of Biology Educators liason, LA Outstanding Biology Teacher Award, Tandy Technology Award, Access Excellence Award

As a biology teacher, one of my main goals has been to help my students achieve scientific literacy. In today's world, it is imperative for students to be able to understand science and to be able to sift through the information and mis-information that bombards them in our communication overloaded society and distinguish the correct and pertinent facts. They need this skill to make good decisions about their own lives and well-being and also to be good citizens in making decisions about the world around them. The foundation of that scientific literacy is to understand the nature of science. Science is based on testing and research, on building the body of knowledge through continued experimentation, and on verification of the research of others.

The opponents to these biology books have an unfortunate misunderstanding what is and isn't in the realm of science. By opening the door for their "both sides" of any issue, you allow non-science and pseudo-science into the science classroom, at the very strong risk of confusing students about the real nature of science. Their objections to Darwin and to evolution have absolutely no scientific validity. They throw in red herrings about "problems with the theory" but the scientific evidence does not support them. In the one hundred years since Darwin promulgated that theory in his books, the "gaps in the fossil record" have almost all been filled in just as predicted, and other "evidence against evolution" has also been answered by actual scientific investigation, particularly in the field of genetics which was unknown in Darwin's time. The dichotomy that the opponents mention between microevolution and macroevolution does not exist - the only difference is one of elapsed time, and both are proven, accepted elements of evolution.

The objections that the proposed textbooks are no better than the old ones and therefore we should just keep using the old ones is particularly offensive when you consider all the discoveries of the last 8 years in biology and other sciences. Our students DESERVE up-to-date textbooks, and no amount of supplementation can bring the old books up to the level of these new books. The reason Ms Ditoro's and Dr. Voss's list of "errors and misleading statements" in the old and new books was not disputed and addressed by the publishers is because that list was unfounded and without scientific merit, so there was no reason to address it. Contrary to Ms Ditoro's assertions before the Textbook Council, "21st century scientific scrutiny" has confirmed the "19th century assumptions" that Darwin put forth in his writings. Fortunately for the students of Louisiana, the politicians have not dictated a complete rewrite of science through the Science Education Act. The Act does allow approved supplements to the textbooks, but doesn't presume to dictate the contents of those textbooks, despite what some have claimed.

The current conflict about the teaching of evolution has been called a culture war. Part of the reason is a basic misunderstanding of the science involved, and part is the mistaken idea that evolution and religion cannot coexist. The opponents of these books will try to tell you that their opposition is not based on religion, but that is not true. The opponents are all associated with a religion based group, whose publicly stated “mission is to persuasively present biblical principles in the centers of influence”. Here is a statement from “God and Evolution” by Peter M.J. Hess that is important to keep in mind. “Evolution makes no claims about God’s existence or non-existence, any more than do other scientific theories such as gravitation, atomic structure, or plate tectonics. Just like gravity, the theory of evolution is compatible with theism, atheism, and agnosticism. Can I accept evolution as the most compelling explanation for biological diversity, and yet also accept the idea that God works through evolution? Certainly.” I have taught students from many different religions and belief systems. I have also taught Sunday School to ages from 2 year olds to adults, including a number of years teaching our confirmation classes, and THAT is where I discuss faith. I have always taught science, and only science, in science class. We need good, scientifically accurate biology textbooks to do that, and that is what both the committees have recommended to you for adoption.

According to the National Academy of Science, “Evolutionary biology has been and continues to be a cornerstone of modern science. . . The rapid advances now being made in the life sciences and in medicine rest on principles derived from an understanding of evolution.” Surely the body established to oversee the education of students in Louisiana would not want to put any stumbling blocks in the paths of our students and disadvantage them in being scientifically literate adults and in pursuing careers in science and research by failing to adopt new, well studied and recommended textbooks. I hereby implore the Board to accept the recommendation of BOTH the textbook adoption committee and the Textbook Advisory Council and accept the recommended textbooks. Thank you.

John Runnels, December 7, 2010 BESE Testimony

My name is John Runnels. I am a patent attorney, and have been practicing in Baton Rouge for over 20 years. I grew up in Baton Rouge. I have degrees in Chemistry both from LSU and from Caltech. I graduated from LSU Law School. I am speaking today as a concerned citizen.

Recent decades have seen several attempts by creationists to introduce their views into the public school science classroom. In every litigated case the federal courts have, without exception, struck down the teaching of creationism and similar efforts as being unconstitutional. Some examples:

In 1968, the U.S. Supreme Court struck down an Arkansas law that had prohibited the teaching of evolution. *Epperson v. Arkansas*, 393 U.S. 97 (1968).

In 1987 the U.S. Supreme Court invalidated a Louisiana law calling for the “balanced treatment” of creationism and evolution in the science classroom. *Edwards v. Aguillard*, 482 U.S. 578 (1987).

In 1999 the U.S. Fifth Circuit Court of Appeals held unconstitutional a Tangipahoa Parish School Board requirement that a disclaimer be read whenever evolution was taught. *Freiler v. Tangipahoa Parish Bd. of Educ.*, 185 F. 3d 337 (5th Cir. 1999).

In 2005 a Pennsylvania federal court found unconstitutional a school board policy requiring teachers to read to biology students a statement that presented intelligent design as an alternative to evolution. *Kitzmiller v. Dover Area School District*, 400 F. Supp. 2d 707 (M. D. Pa. 2005). Judge John E. Jones' scholarly opinion is widely respected. Towards the end of the opinion, Judge Jones famously remarked: “Those who disagree with our holding will likely mark it as the product of an activist judge. If so, they will have erred as this is manifestly not an activist Court. Rather, this case came to us as the result of the activism of an ill-informed faction on a school board, aided by a national public interest law firm eager to find a constitutional test case on ID [intelligent design], who in combination drove the Board to adopt an imprudent and ultimately unconstitutional policy. The breathtaking inanity of the Board's decision is evident when considered against the factual backdrop which has now been fully revealed through this trial. The students, parents, and teachers of the Dover Area School District deserved better than to be dragged into this legal maelstrom, with its resulting utter waste of monetary and personal resources.” By the way, Judge Jones is a conservative Republican, who was appointed to the federal bench by President George W. Bush.

I respectfully submit that Louisiana's students, parents, teachers, and taxpayers deserve better than to be dragged into another such legal maelstrom, with its resulting utter waste of monetary and personal resources.

One of the opponents of the science textbooks has referred at times to the legal Rules of Evidence. I do not see how rules that were designed for the administration of justice, to determine what may be considered by a jury in litigation, have much to do with the proper teaching of science. For what it is worth, I note that the gentleman does not seem to have mentioned the U.S. Supreme Court's 1983 decision in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993), which held that under the Federal Rules of Evidence a trial judge must act as a gatekeeper to assure that scientific expert testimony is based upon proper scientific knowledge and methodology, i.e., to exclude pseudoscience or junk science. That's just what intelligent design creationism is: junk science. (Louisiana state courts generally follow the *Daubert* holding. See, e.g., *State v. Foret*, 628 So.2d 1116 (La. 1993).)

Thank you for your consideration. John Runnels.

Bradley Wood, BESE Testimony, December 7, 2010

My name is Bradley Wood, and I am a student studying biology and philosophy at Louisiana State University. It has been suggested through past radio and newspaper interviews, as well as by word of mouth, that the adoption of these life science textbooks may undermine the moral fabric of our society. It has been speculated that our morals and values could be degraded by the teaching of evolution, which these books present to varying degrees as required by the GLEs. I am here to tell you that in my experience as an undergraduate researcher in evolution, one who works closely with evolutionary biologists on a day to day basis, and as one with an adequate background in philosophy, the teaching of evolution poses no risk to the morals and values of the citizens of this state and their children.

One of the most famous, and unfortunate, quotes associated with evolution is, "Survival of the fittest." It has gained its fame because to a layman it appears to be the total summation of what evolutionary biology embodies, and it's also easy to understand. However, it is unfortunate that such a phrase has been tagged to evolutionary theory. It's unfortunate for two reasons: 1) the phrase originated from the philosopher Herbert Spencer, a man who greatly admired biologists, but was not scientifically trained. And 2) the phrase is completely incorrect.

Survival of the fittest implies that those who have the largest muscles with which to bully the weaklings or those in a position of power or influence are destined to succeed and their actions are justified by the laws of nature. However, those that use their muscles for bullying are making no more of themselves than perhaps being certified bullies. They are bullies and exploit the disadvantages of others without cause, justification, or integrity. Should we blame evolution for the fights that occur in schools, the shootings on college campuses, or the military suppression of unarmed civilians by dictators in countries around the world? No. Evolution does not tell one how they should live their life or what choices they should make in social situations.

There is a phrase we have in philosophy, one that can go a great length in understanding why scientific discoveries should have no effect on our moral systems: it is simply, "The way things are, are not the way they ought to be." Understanding that our behaviors and biological construction is a product of the same process, namely evolution, which gave rise to the behaviors and anatomy of chimpanzees, lions, snakes, and slugs does not mean nor imply that we should act like those animals. Scientific discoveries tell us something new about the world we live in, not how we should live in the world.

Humans have labored for thousands of years trying to devise a systematic system of morals and ethics, and it is these same ethical systems that evolutionists along with everyone else around the world adopt and look to for guidance when raising their families or to spread good will to their neighbors and beyond. There is no denying that people have twisted ideas, be they concerned with evolution or religion, to justify some of the most grisly acts known to humanity. However, there is also no denying that those people had no more than a cursory knowledge of the ideas they were exploiting, and could care less whether their understanding was accurate. Insanity should not be looked to as a judge of the scientific worth of an idea or a scientific theory.

That is what evolution is: a scientific theory. It is simply a reporting of the observations made by scientists who come from all moral backgrounds. Scientists have discovered that the world is round. That it orbits the sun, and that if we leave milk out too long it will spoil thanks to the microbes in our kitchens. But this information is completely irrelevant to what actions we perform in our daily lives. My actions are my responsibility, and the actions of others are their responsibilities, not the responsibilities of science and scientists. To be frank, I do not look [to] my research I perform in my lab to find out how best to treat my girlfriend. In conclusion, science is completely separate from the moral judgments we make. Facts and scientific theories enhance our understanding about the world, but it is up to us and our moral leaders to guide us on how to deal with that understanding. Thank you for your time.

LOUISIANA BOARD OF ELEMENTARY AND SECONDARY EDUCATION

STUDENT/SCHOOL PERFORMANCE AND SUPPORT COMMITTEE



**Claiborne Building
Room 1-100, The Louisiana Purchase Room
1201 N. Third Street, Baton Rouge, LA 70802
Tuesday, December 7, 2010
10:00 a.m.**

(Notice: This meeting may be convened up to 30 minutes prior to the posted schedule to facilitate the orderly conduct of business)

Committee Members

Chair, Mr. Dale Bayard
Vice-Chair, Mr. John Bennett
Member, Mr. Chas Roemer

LDE Liaisons

Ms. Donna Nola-Ganey
Dr. Scott Norton

BESE Staff

Ms. Kimberly Tripeaux
Ms. Nina Ford
Ms. Robyn Jenkins

AGENDA

NOTICE: The Louisiana State Board of Elementary and Secondary Education or its committees reserve the right to enter into Executive Session, if needed, in accordance with R.S. 42:6.1.

In accordance with the Americans with Disabilities Act, if you need special assistance at a public meeting of the Board of Elementary and Secondary Education, please contact the Executive Director of BESE at 225-342-5840, or by email at sbese@la.gov, describing the assistance that is necessary.

- I. Call to Order
- II. Roll Call
- III. CONSENT AGENDA (including other items indicated by * on the agenda)
 - A. Informational Reports
 1. Consideration of a report on elementary and/or secondary elective courses, including nonpublic electives. (Reports on public school electives are presented in January and September. Reports on nonpublic electives are presented in October.)
 2. Consideration of an update report on LEAP, GEE, and iLEAP testing. (reports due in March, May, and October)
 3. Consideration of a report regarding School Choice Implementation. (reports due in January, May, and September)
 - B. Administrative Actions
 1. Consideration of requests from local education agencies for waivers of policy contained in Bulletins, submitted by the State Superintendent of Education. (monthly)

- a. Consideration of requests from local education agencies for waivers of policy contained in Bulletin 741.
 - b. Consideration of requests from local education agencies for waivers of policy contained in Bulletin 1706.
2. Consideration of approval of nonpublic school academic classifications. (reports due as needed)

IV. STANDING ITEMS

A. Issues regarding content standards, including Grade Level Expectations, Textbooks, and Curriculum

1. ~~Consideration of the Common Core Standards Initiative~~ (monthly)
2. Consideration of a report from the Textbook/Media/Library Advisory Council and approval of the textbooks for high school life science.

B. Accountability issues

1. Consideration of the policy regarding the graduation index being weighted by the graduation rate.
2. Consideration of a report regarding the effectiveness of the new compulsory attendance policy requiring students to have a 94% attendance rate in order to obtain Carnegie credit for courses taken.
3. Consideration of the implementation of Act 718 of the 2010 Legislative Session related to letter grades for schools in the school and district accountability system.

C. Bulletin(s)

1. Consideration of revisions to Bulletin 119, *Louisiana School Transportation Specifications and Procedures*
2. Consideration of revisions to Bulletin 1706, Subpart A., the Regulations for the Implementation of the Children with Exceptionalities Act.
3. Consideration of revisions to Bulletin 741, *Louisiana Handbook for School Administrators* relative to Chapter 3. Personnel §337. Written Policies and Procedures and Chapter 13. Discipline §1302 Classroom Management Training for School Staff.
4. Consideration of revisions to Bulletin 741, *Louisiana Handbook for School Administrators*, related to seat time requirements.

AGENDA

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5. Consideration of revisions to Bulletin 741, *Louisiana Handbook for School Administrators*, §701, related to retention of records.

V. REFERRALS

A. Unfinished Business

1. Consideration of policy recommendations regarding criminal records/background checks for center staff of any after-school program in response to issues raised in the letter from Colleen L. Kirchem, New Orleans Outreach Operations Manager, to James D. Caldwell, Attorney General, dated January 13, 2010.