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EDITOR

Paul Oh

National Center for Science Education
230 Grand Avenue, Suite 101
Oakland, CA 94610
phone: (510) 601-7203
e-mail: editor@ncse.ngo

BOOK REVIEW EDITOR

Glenn Branch

PUBLISHER

Amanda L. Townley

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Dear NCSE Supporters,

As we approach the end of 2025, we at NCSE are reflecting on a very eventful year, marked by significant advancements in our work but also mounting and ongoing threats to science and science education. Around the nation, science educators are navigating very complex terrain, with misguided policies and eroding public trust landing hard on classrooms. As we look to the future, we can clearly see that attacks on science are not singular incidents but part of a larger movement in our nation to delegitimize scientific thinking and accurate science education. Based on what we know about the Scopes trial 100 years ago, we can view the current situation similarly: a battle that requires we collectively fight to ensure the future of scientific literacy, of accurate information, and of our society.

As we prepare for 2026, we ask the critical question: Where do climate and evolution stand, and where do they go from here? In this issue, our contributors address this question from a variety of vantage points. We reached out to a colleague from Florida, a state that has seen multiple efforts to allow ideology to influence science education, to get an on-the-ground report about evolution and climate education there. Our own Glenn Branch highlights both the urgency and nuance of the current landscape. He begins with an analysis of the recent situation in Iowa, where we have seen renewed challenges in a space where there had been consistent growing support for sound science and closes with a review of the pivotal court decision in *Mahmoud v. Taylor*, a case decided in 2025 that has implications far beyond an individual Maryland classroom. Each of these articles underscores the need for advocates of science education to stay vigilant and ever-ready to work in defense of accurate, evidence-based science teaching.

We are fortunate, despite the many challenges of 2025, to have had moments of positive movement away from conflict and toward new collaborations and connections. In particular, Wendy Johnson and Britt Miller, both Science Education Specialists in our Science Education and Outreach program, highlight NCSE's role in the National Academies' CASTL K-12 initiative, a collaborative effort among partner organizations to support professional learning, build resilience in teaching science in public education, and help teachers implement strong, evidence-based science standards. Their article offers a view of the conversations that are happen-ing to shape the future of science education as well as some big news about NCSE programming that is coming in 2026!

We also feature a Random Samples conversation from Kristen Ranges, Director of Education at Mote SEA, spotlighting NCSE's partnership with Mote Marine Laboratory in spring 2025 for the My COAST professional development in Summerland Key, Florida. We know that partnerships for place-based authentic learning for teachers are what bring science to life for them and their students; scientists like Ranges are using partnerships and passion to bring accurate science to educators in places where topics like climate science and evolution face strong opposition but also have a massive impact on the day-to-day lives of those who reside there.

Collectively, these stories remind us that the future of climate and evolution education will be written not only in policy documents or court rulings, but also in classrooms, partnerships, and communities that refuse to give up on the promise of scientific literacy. As always, none of this work would have been possible without your support, for which we at NCSE are incredibly grateful.


Amanda L. Townley

is the executive director of NCSE.
townley@ncse.ngo



The State of Science Education: FLORIDA

As part of an ongoing series, NCSE is reaching out to colleagues and collaborators to gauge the state of science education in states across the country by posing a similar set of questions to each. In this first installment, we hear from Sherry Southerland, who was the Anne and John Daves Endowed Professor of Science Education at Florida State University (a participating organization, along with NCSE, in the National Academies' Collaborative for Advancing Science Teaching and Learning in K–2).



In 2025, public education in Florida is struggling. Teacher shortages, always a long-term problem, have become acute. As described by Florida Education Press (FEA staff, 2025), 64% of teacher vacancies (roughly 3000 positions) remain months into the school year. At the same time, the number of out-of-field teachers has increased, with students being taught by long-term substitutes and interns. In some districts, this might include hundreds of long-term substitutes. Taken together, it is clear that thousands of Florida students are not being taught by a well-prepared teacher.

What accounts for this difficulty? There is a decline in the number of students completing teacher education programs. (For instance, in 2023, only six people in the entire state completed teacher education for Earth/Space Science.) This may be due to Florida's low pay, as the state ranks 50th in average teacher pay among the US (FEA staff, 2024a), resulting in one in five teachers working a second job (Learning Policy Institute, 2024). Too, the state has been the site of widely reported educational legislation that strips professional autonomy from teachers under the guise of parental rights, prohibiting instruction "embracing the concept that individuals share responsibility for others' past actions due to their race, sex, or national origin," and restricting teaching about sexual orientation and gender identity. (One of these laws prevents teachers from asking a student's pronoun or name, from providing their own pronouns or names if they do not correspond to the teacher's sex assigned at birth).

At the same time, in 2025–2026, many school districts experienced severe budget cuts, as the state's Florida Empowerment Scholarships and Florida Tax Credit Scholarships expanded, resulting in over 51% of students

leaving their neighborhood schools for charters, magnets, private, and home schools (Solochechek, 2025). This results in the loss of over \$4 billion to state school districts (Dollard and McKillip, 2025). This results in larger class sizes in public schools, the loss of critical programs, reduced teacher planning periods, and a lack of funds for needed teaching supplies. The combination of loss of autonomy, a constant flow of unprepared colleagues, and a continued negative shift in teaching conditions makes the work of Florida's teachers, including science teachers, particularly difficult. The results of these cuts are seen in student outcomes, as students' SAT scores have dropped in recent years, making Florida the 47th in SAT scores for the nation, with stark differences between student outcomes in urban and impoverished rural districts (FEA staff, 2024b).

How would you describe the current climate change and evolution education situation in your state?

In terms of the teaching of climate change and evolution, Florida's educational context is shaped by its standards, state law, and local influences. The standards have not been revised since 2008 (although that process is underway currently). In terms of climate change, the standards describe that high school students should be able to "Identify, analyze, and relate the internal (Earth system) and external (astronomical) conditions that contribute to global climate change," but it stops short of delving into the human-caused elements of climate change. (There are no standards for climate change for elementary and middle school students.) However, the governor recently signed a bill earlier this month, deleting the words "climate change" from state statutes and deprioritizing certain climate solutions in policy decision-making. Publishers, seeking to be



adopted by the state, have removed references to climate change and associated concepts at the same time that climate denial videos have been approved by the state for classroom use. In terms of evolution, Florida's standards are much more extensive, describing evolution as the organizing principle of life science supported by multiple forms of evidence, and touching upon evidence, mechanisms, origin of life, and even human evolution.

That said, recent "curriculum transparency" legislation requires school districts to make "instructional materials" (including library and classroom books and any instructional materials a teacher intends to use) available to parents for review. Any member of the public can file a complaint objecting to materials (although later legislation put a limit on the number of challenges nonparents can make). In terms of science, while this legislation has become newsworthy because of the empty library shelves it left in its immediate wake, it has become important because of its requirement of district review of all instructional materials. Districts have responded to this bill in a wide variety of ways, some requiring that all instructional materials teachers use to be reviewed by district personnel long before their usage — a process that pushes teachers to only use those materials already adopted by the district, again limiting teachers' autonomy and ability to make the curriculum relevant to the students they serve.

Note that much of what has been discussed above involves issues with broader impact than just science education in Florida. That said, these issues serve to draw

attention away from science education in general and more specifically away from evolution and climate change education.

What does this look like on the ground — in classrooms and at the district and state levels?

The evolution question has always been one of interest, particularly to those outside the state. Teachers report that they can easily address evolution in mechanistic terms (micro vantage points) that lead to changes in species (biological change over time). Likewise, they can approach climate change from the perspective of physical science, linking it to environmental changes over time, but without directly linking it to anthropogenic causes. While many secondary teachers continue to teach in ways that address central science concepts, elementary teachers seem to be more constrained. Many districts require reviews of all their curricular materials long before they are to be used — and this puts science teachers at a serious disadvantage in adapting formal curricular material in ways that are meaningful for students. The suite of recent legislation and the fear of legal action that they carry with them can influence local conditions (in the district and schools) and have serious consequences for the work of teachers. Thus, what is possible in some districts or schools is not possible for others.

What is the mood among your colleagues and science teachers you work with?

Outside pressure on the content of what science teachers will teach is not the central concern for most secondary teachers (as secondary teachers have always found ways to address what they deem to be important even in the face of lackluster state standards). Rather, it is the larger issues related to the work of teaching that make the work so difficult. These include disproportionate attention to political interpretation of care for individual students (e.g., pronouns, clubs attending to aspects of kids' identity), lack of resources/classroom space/desks/support for immigrant students, loss of planning time — even in the face of terrific emphasis on testing and the classroom time that it robs, the need to mask/hide/minimize the emotional component of teaching and learning, and the demands of supporting novice/ill-prepared colleagues. These are the contextual constraints that most vex the work of all teachers in Florida — and this is true for science teachers. All that said, most of the science teachers that we work with are dedicated professionals who remain devoted to the learning of their students.

What do you see as the most profound challenges — and opportunities — related to your work?

CHALLENGES:

- Finding the resources necessary for effective teaching (e.g., adequate planning/collaboration time, approved but effective curriculum, resources effective for emergent bilingual students, strategies and support for students with special needs, and approved assessments that foster meaningful learning).
- Navigating the micro-political climates in schools and districts so that teachers can effectively teach science in ways meaningful to students.
- Dealing with the increasing social/emotional issues of students in the classroom, some resulting from the social isolation of students during the pandemic as these students work their way through the system (those who first entered their academic years during the pandemic are now entering the fifth or sixth grade).
- Fostering environments to allow teaching novices to gain skill and comfort in their work, allowing for the creation of a community of science teachers in schools and districts.
- Figuring out how to address the newly arising issues of artificial intelligence in education, such that it is a tool for learning and not a crutch for students that destroys critical thinking.

OPPORTUNITIES:

- Building on what was learned about the education and socialization of students during the pandemic, we can improve the educational system and more effectively teach all students.
- Taking advantage of the promise of a new set of state standards we will see a window of receptivity to new educational resources. This may create an opportunity to share curriculum and pedagogy that have been found to be effective in supporting students' science learning.

For those of us who see an imperative in providing an accurate science education to our students, what do you see as the path forward?

A path forward would have multiple components, working with state policymakers, teachers, and STEM professionals. First, it is necessary to produce research that speaks to the need for resources that are essential to effective teaching, and share that research with state policy makers, science

specialists, and district leaders to develop norms that are supportive of high quality, effective teaching. In tandem, we need to provide teachers with high-quality professional development around curriculum and pedagogy that is grounded in research, and help build a community to offer support for their classroom efforts. Finally, we need to work with STEM professionals to determine essential proficiencies that graduates need would be useful in informing both curriculum and teacher professional development.

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Sherry Southerland was the Anne and John Daves Endowed Professor of Science Education at Florida State University. She received the 2024 Distinguished Contributions to Science Education through Research Award from the National Association for Research in Science Teaching. In 2007, she was made a Fellow of the American Association for the Advancement of Science. She is retired now but continues to work on science teaching and learning. sherry.southerland47@gmail.com



Disappointing, and Mysterious, Revisions to Iowa's State Science Standards

It was a mixed blessing when the Iowa state board of education voted to adopt a revised set of state science standards on May 8, 2025. Language about evolution and climate change had been censored — under circumstances that remain murky — from a previous draft of the standards. While a substantial amount of the censored passages were restored, the standards adopted by the board were still not as adequate on evolution and climate change as they could have been.

Iowa adopted the Next Generation Science Standards in 2015, having collaborated on their development as a Lead State Partner. The state board of education voted unanimously to adopt the NGSS, and the decision appears to have been generally uncontroversial. Although there was a string of bills from two state legislators, Sandy Salmon in the Senate and Skyler Wheeler in the House of Representatives, attempting to prevent or undo the adoption, none of these ever passed committee.

In 2024, the state department of education announced that the state science standards would undergo a scheduled review and revision. There were no signs of anything unusual in the process — until the department issued a draft revision of the standards. Birgitta Meade, a science educator and a long-time member of NCSE, promptly alerted the NCSE office, “Biological evolution is scrubbed from the standards as is climate change,” adding that she “could really use some help with ... this foolishness.”

Indeed, “evolution” was scrubbed, although not completely, from the standards: for example, “Biological Evolution” became “Biological Change Over Time,” “evolutionary relationships” became “relationships,” and “simultaneous coevolution” became “simultaneous change.” A reference to the 4.6-billion-year age of the earth was removed. Similarly, “climate change” became “climate trends,” while references to impacts of human activity on the environment became references to impacts on the environment.

I told KCRG News in Cedar Rapids that the adoption of the revised standards would not prevent teachers from discussing evolution and climate change, “[b]ut it would make it harder for teachers who don’t feel comfortable because they haven’t had sufficient preparation for doing so or because they fear community backlash.” I added, “These changes send a misleading signal, a downright false signal that there’s something wrong with talking about evolution and climate change in science classrooms.”



How could the review and revision committee, which consisted of 37 Iowa educators and scientists, have thought that it was a good idea to compromise the scientific integrity of the state science standards? It turns out that it didn’t. Referring to the committee charged with reviewing and revising the standards, KCRG News reported that it “obtained a copy of the documents that committee sent to the department of education, and it doesn’t match the documents released ... to the public.”

At subsequent public forums around the state, individual members of the review and revision committee explained that the problematic revisions were not present in the document prepared by the committee and that there was no indication that any substantive changes would be made. One member complained that she had been personally castigated for undermining the treatment of evolution and climate change. Meanwhile, the department refused to answer questions about the source of the revisions.

I watched two of the public forums in their entirety from afar; it was gratifying to see so many Iowans — including NCSE members Paul Bartelt and Birgitta Meade — express their concern about the quality of science education in the Hawkeye State and their anger about the tampering with the standards. Unexpected but welcome was the citation of NCSE’s news story (“Shenanigans in Iowa’s state science standards review”) by a woman who identified herself as a local school board member.

Subsequently, writing on Bleeding Heartland, I urged Iowa to retain “the scientifically accurate and pedagogically appropriate language about evolution and climate change” in its current state science standards (see “In revising Iowa’s science standards, listen to expertise and experience,” p. 7). Similarly, the *Des Moines Register* commended the Iowans who protested the problematic changes, commenting, “It’s alarming that somebody with influence thought that muddying these waters was worth considering.”

Particularly noteworthy was Waad Defalla’s column in *West Side Story*, the student newspaper at Iowa City West High School, which quoted a teacher as worrying, “I think a lot of science teachers are wondering, ‘Is this the first step towards a ban of topics within Iowa science classrooms?’” Defalla concluded her column by affirming, “Climate change and evolution are scientific concepts and should not be weaponized as political hotbutton issues.”

The proposed standards were revised again, by a brand-new committee, and when they received their first reading before the state board of education on April 17, 2025, language about evolution and climate change that was censored from a previous draft was partly — but not completely — restored. The Cedar Rapids *Gazette* reported, “Despite updated language in the second version of the revised standards, some concerns remained among members of the public.”

“Biological Evolution” and “simultaneous coevolution” were restored, but “evolutionary relationships” and the reference to the 4.6-billion-year age of the earth were not. The reference to “climate change” was revised to “climate changes and trends,” but “the rise in global temperatures over the past century” was still the vaguer “the change in global temperatures in time” and the phrase “due to human activity,” removed from a discussion of relationships among Earth systems, was still absent.

After the board’s vote to adopt standards, KCRG News sum-

marized, “Teachers across the state will soon have more vague teaching standards for topics like climate change and evolution.” I explained that the new standards obscure human responsibility for climate change, adding, “If Iowa students don’t come to understand this today, they won’t be in position to take suitable action tomorrow.” KCRG News also observed that the changes to the standards still have not been explained.

At the end of the day, then, the treatment of evolution and climate change in Iowa’s state science standards was unnecessarily damaged, and nobody is willing to claim responsibility or defend the revisions. “These changes detract from the scientific integrity of the standards,” NCSE Executive Director Amanda Townley commented. “Fortunately, Iowa’s science teachers still have the power to continue teaching about climate change and evolution forthrightly.”



Glenn Branch is deputy director of NCSE.
branch@ncse.ngo

IN REVISING IOWA’S SCIENCE STANDARDS, LISTEN TO EXPERTISE AND EXPERIENCE

As Iowa continues the process of reviewing and revising its state science standards — which establish the goals for what knowledge and skills students in the state’s public schools are expected to attain — a remark from a famous transient Iowan comes to mind. Offering advice for aspiring writers, Mark Twain emphasized that “the difference between the almost right word and the right word is really a large matter,” adding, “‘tis the difference between the lightning-bug and the lightning.”

As the Cedar Rapids *Gazette* previously reported, after the committee of 37 Iowa educators and scientists charged with revising the standards completed its work, the Iowa Department of Education took it upon itself to scrub phrases like “evolution” and “climate change” and a reference to the 4.6-billion-year age of the earth from the draft that was then presented to the public. There was no acknowledgement of the department’s intervention until members of the committee protested.

A spokesperson for the department defended its tampering by explaining that “changes between each review committee and the department recommendation are to be expected” and that the committee was told as much. But while nobody would object to department staff making trivial corrections of the sort of errors that creep into any large document generated

by a committee, that’s not what happened here. Instead, lightning bugs were substituted for lightning bolts.

Part of science education is learning the terminology scientists use. Scientists, including faculty at Iowa’s colleges and universities, don’t talk about “biological change over time” or “climate trends” when they talk about evolution or climate change. That’s why Iowa’s current state science standards — as well as the standards in the majority of states across the country — use the terms “evolution” and “climate change” straightforwardly and forthrightly.

The decision to use “evolution” and “climate change” in Iowa’s current state science standards was based on the research and development work of a consortium including the National Research Council, the American Association for the Advancement of Science, the National Science Teaching Association, and 26 states, including Iowa. After Iowa adopted the standards in 2015, there were no complaints from the state’s science teachers about the inclusion of those terms.

And the review committee’s decision to retain the scientifically accurate and pedagogically appropriate language about evolution and climate change in the current standards was informed by decades of expertise and experience in Iowa’s science

classrooms. In contrast, if the department’s decision to scrub “evolution” and “climate change” from the draft standards was based on any relevant scholarly expertise or classroom experience, surely Iowans would have been told by now.

It is difficult to avoid the conclusion that the state agency’s tampering is due to scientifically unwarranted doubts about evolution and climate change, whether on the part of department staff or among those whom department leaders regard as their political constituency. Whatever their origin and motivation, though, it is clear that the proposed changes would make Iowa’s state science standards inaccurate, imprecise, and misleading on the crucial topics of climate change and evolution.

Iowa’s science teachers need accurate science standards in order to enable their students to become scientifically literate and to equip them to succeed in STEM education and employment. And they deserve better than to be misled by the feeble glimmerings of the department’s proposed revisions. Learning about science in the way that scientists understand — and talk about — science is part of what’s needed to electrify Iowa’s students about science.

Originally [published](#) on *Bleeding Heartland* on February 14, 2025.

Glenn Branch is deputy director of NCSE.
branch@ncse.ngo

UPDATES

Are there threats to effective science education near you? Do you have a story of success or cause for celebration to share? E-mail any member of staff or info@ncse.org.

ILLINOIS

House Bill 4895, Illinois's first climate change education bill to pass the legislature, was signed into law by Governor J. B. Pritzker on August 9, 2024.

As passed, the bill provides that, "Beginning with the 2026–2027 school year, every public school shall provide instruction on climate change, which shall include, but not be limited to, identifying the environmental and ecological impacts of climate change on individuals and communities and evaluating solutions for addressing and mitigating the impact of climate change and shall be in alignment with State learning standards, as appropriate. The State Board of Education shall, subject to appropriation, prepare and make available multi-disciplinary instructional resources and professional learning opportunities for educators that may be used to meet the requirements of this subsection."

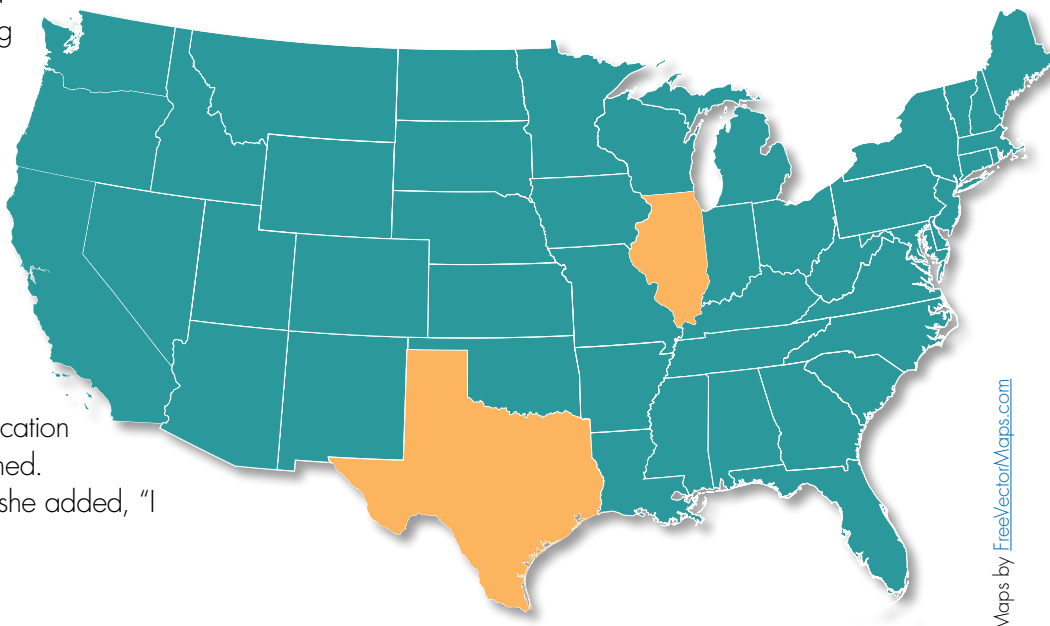
The provisions of the bill as passed are substantially less ambitious than the bill as introduced. As introduced, the bill would have required every public high school in Illinois to "include in its curriculum a unit of instruction addressing climate change in either a required science class or a required social studies class." It would also have required instruction on climate change to be included in all high school courses in science, agriculture, social science, and relevant career and technical education courses. The state superintendent of education would have been charged with preparing appropriate instructional materials and professional development training for educators.

Before the bill was signed, Northern Public Radio interviewed Grace Brady, a recent high school graduate from Naperville, Illinois, who "created and helped write" the bill. "I felt unsatisfied with the amount of education on climate change," Brady explained. In researching possible remedies, she added, "I

found that most people want climate change education, most students do. And I found that it was important that climate change education is integrated in different courses." Pursuing the project required "quite a bit of persistence, being flexible, and working with the different stakeholders." She advised her fellow students concerned about climate change education to "stay persistent, stay curious, ask questions, and just keep going on whatever you're passionate about."

After the bill was signed, NCSE Deputy Director Glenn Branch discussed it with the *Naperville Sun*. Branch put the law in national context, noting that although practically all states now include climate change in their state science standards, Illinois is now the third state, after Connecticut and California, to require climate change education as a matter of statute. Such laws are "really powerful symbolism," he suggested. The passage of the bill "shows that the legislature has recognized that there's a need for climate change education." He added, "I really hope the legislature follows up by making those appropriations ... to make these resources and training opportunities available to their teachers."

Two other climate change education bills, Senate Bill 3644 and House Bill 4319, died in committee when the legislature adjourned.



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TEXAS

The Texas state board of education voted 8–7 on November 22, 2024, to approve Bluebonnet Learning, “a controversial public school curriculum for K–5 students that largely centers around Christianity,” according to the *Houston Chronicle* (November 22, 2024). Endorsement of the creation and flood stories of Genesis is involved.

Controversy surrounded the proposed curriculum as soon as it was released in May 2024, not long after the Texas Republican party adopted a platform that called on the legislature and the state board of education to require instruction on the Bible in the state’s public schools. The 74 reported that conservative organizations, including the Texas Public Policy Foundation and Hillsdale College, were involved in the development of the curriculum.

Of particular concern was a kindergarten unit entitled “Exploring Art”, which devotes a lesson to the creation and flood stories from Genesis. Creation stories from the ancient Maya, Aztec, and Greek cultures are mentioned but not described in detail, while four pages, including artwork, are devoted to Genesis. Moreover, students are expected to answer questions about the details of the events recounted in Genesis.

The proposed curriculum was criticized as “designed to instill religion and promote Christianity and the Bible, in violation of the Constitution” by Americans United for Separation of Church and State, which described “Exploring Art” in particular as the “most egregious example,” explaining, “this lesson is purely devotional and has no secular purpose — it is no different from a Sunday School lesson.”

Similarly, in a report prepared for the Texas Freedom Network Education Fund, David R. Brockman, a religious studies scholar and Christian theologian, wrote, “It is difficult to avoid concluding that this ... unit is being used as an excuse to smuggle in what is effectively Bible study,” and noted that “kindergarteners are likely to come away ... believing that the biblical story is the creation account and that it alone is worth their attention” (emphasis in original).

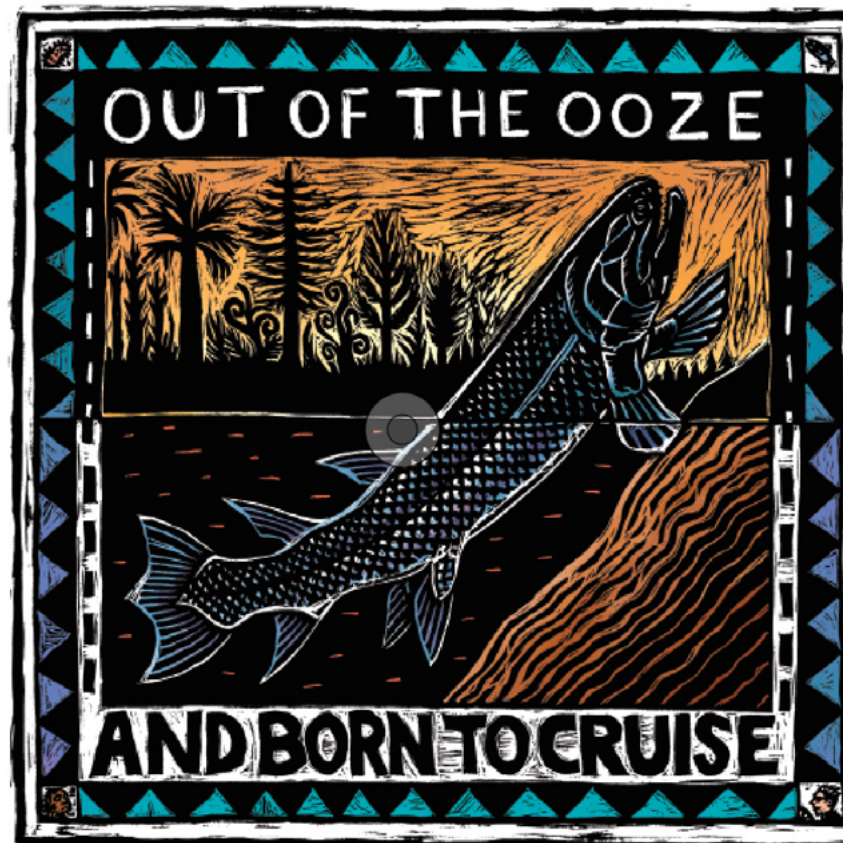
The curriculum, including “Exploring Art,” was subsequently revised in response to public comments, but the concerns of its critics were not allayed. At a board meeting on November 18, 2024, Mark Chancey, a professor of religious studies at Southern Methodist University, criticized the lessons dealing with religion as not only unduly

emphasizing Christianity but also riddled with inaccuracies, according to the *Houston Chronicle*.

After the vote, the Texas Freedom Network observed that the board voted to adopt the curriculum “despite national media attention, warnings from religious studies experts, and overwhelming negative feedback from constituents,” adding, “Once again, they chose politics over what’s best for students, promoting an evangelical Christian religious perspective and undermining the freedom of families to direct the religious education of their own children.”

Americans United for Separation of Church and State issued a statement urging all Texas school districts not to adopt the curriculum, adding, “If families learn their public schools are using this curriculum, or introducing any coercive religious lessons in their classrooms, we encourage them to contact us at au.org. Our attorneys are standing by and ready to defend their religious freedom.”

The Bluebonnet Learning curriculum for K–5 Reading Language Arts will be available for use in Texas’s classrooms starting in the 2025–2026 school year; although there is no requirement to use the materials, there are financial incentives for doing so.



Artwork by Ray Troll © 2017 www.trollart.com



Kristen Ranges is the Education Manager for the Mote Science Education Aquarium (SEA) in Sarasota, Florida. Holding a doctorate from the University of Miami Rosenstiel School of Marine, Atmospheric, and Earth Sciences and a J.D. from the University of Miami School of Law, Ranges works to create accessible, engaging, inclusive, and comprehensive science curricula for programs administered at Mote SEA's teaching laboratories. Earlier in 2025, NCSE collaborated with Mote to lead a successful professional learning experience for Florida science teachers called My COAST. NCSE Executive Director Amanda L. Townley spoke with Ranges about the work of Mote SEA and the impact of Mote's My COAST involvement.

“[My COAST] was just the perfect pairing of initiatives and missions between our organizations.”



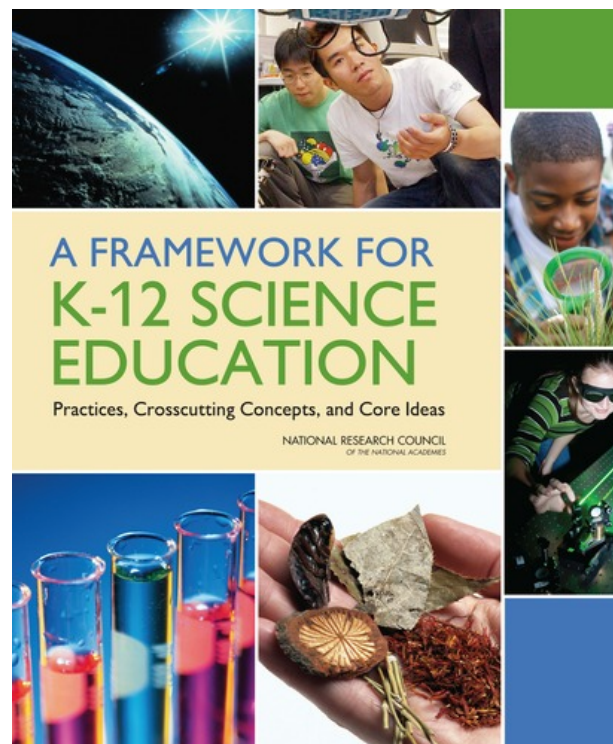
Watch the interview

“Mote is everywhere and ever-expanding.”

The goal of Mote SEA is to “bring our ongoing local science to the public ... to make positive environmental change.”

SUPPORTING TEACHERS, COUNTERING MISINFORMATION:

NCSE'S WORK WITH THE NATIONAL ACADEMIES



The NCSE Science Education and Outreach team is collaborating with the National Academies and science education organizations across the country to support best practices in K–12 classrooms. [The Collaborative for Advancing Science Teaching and Learning in K–12](#) (CASTL K–2) leverages the infrastructure of the National Academies of Science, Engineering, and Medicine to bring together a wide range of stakeholders to learn from each other and to develop coordinated action plans.

The goals of CASTL K–12 are to:

- Develop coherent strategies for supporting implementation of science standards across states and districts
- Launch and coordinate a networked community of practice for stakeholders at all levels
- Share and build on evidence-based policies, tools, and examples
- Advance a unified communication and engagement strategy for K–12 science and engineering education

The work of CASTL–K12 is organized into four working groups. NCSE is part of the Retaining and Sustaining High-Quality Science Educators group which is focused on developing high-quality science teachers who are equipped, motivated, and supported to inspire the next generation of learners. The working group allows us to collaborate with science leaders from organizations such as [OpenSciEd](#), the [Exploratorium](#), state departments of education, and university science teacher educators. Each member of the working group is developing an action plan within its sphere of influence aimed at sustaining and retaining high quality science teachers in K–12 classrooms. NCSE's own action plan leverages these partnerships to support teacher learning around misinformation using our [DataWISE](#) classroom resources.

"It is an honor for NCSE to have a role in the CASTL K–12 Action Collaborative and be recognized among national leaders who are working tirelessly to strengthen K–12 education," NCSE Executive Director Amanda L. Townley

said. "Our dedication to helping educators overcome and address misconceptions and disinformation about climate science, evolution, and science as a whole is strengthened through this collaboration with state leaders, education organizations, universities, and curriculum developers in ways that amplify our impact. Along with our partners, we have a unique opportunity to share our expertise while learning from others, collectively advancing evidence-based practices that will empower teachers and students in classrooms around the country."

A key topic at the summer 2025 CASTL K–12 meeting in California was the National Academies' report [Understanding and Addressing Misinformation about Science](#), a topic that is near and dear to NCSE's mission. The report underscores the urgent need to equip both the public and educators with effective tools for navigating and countering scientific misinformation. It examines the scope and impacts of misinformation, considers the broader social contexts that shape how people engage with information, and provides



NCSE is pleased to congratulate **Michael E. Mann**, a former member of NCSE's board of directors, as well as Ayana Elizabeth Johnson and Dawn Wright, recent recipients of NCSE's Friend of the Planet Award, on making the Independent Climate 100 List of "the world's foremost environmentalists" for 2024.



J. Marshall Shepherd of the University of Georgia, a member of NCSE's board of directors, received the Eric and Wendy Schmidt Award for Excellence in Science Communications (in the Research Scientist: Later Career category) for 2024 from the

National Academies of Science, Engineering, and Medicine in partnership with Schmidt Science. "J. Marshall Shepherd is a skilled communicator who eloquently explains complicated scientific concepts in meteorology and climate science. His engaging speaking style, use of relatable analogies, and ability to combine important scientific issues with personal reflection and humor make his work especially approachable and unique," according to a press release from the National Academies. "If experts are not engaged, others will fill voids with agendas and misinformation," Shepherd commented. "I view broader science engagement as fundamental to my scholarship. To be recognized with this honor is both humbling and rewarding at the same time. I do this because of my passion and the need, but it is nice to be recognized."



Elliott Sober's *The Philosophy of Evolutionary Theory: Concepts, Inferences, and Probabilities* (Cambridge University Press, 2024) was published. The publisher writes:

Natural selection, mutation, and adaptation are well-known and central topics in

Darwin's theory of evolution and in the 20th- and 21st-century theories which grew out of it, but many other important topics are used in evolutionary biology that raise interesting philosophical questions. In this book, Elliott Sober analyses a much larger range of topics, including fitness, altruism, common ancestry, chance, taxonomy, phylogenetic inference, operationalism, reductionism, conventionalism, null hypotheses and default reasoning, instrumentalism versus realism, hypothetico-deductivism, essentialism, falsifiability, the principle of parsimony, the principle of the common cause, causality, determinism versus indeterminism, sensitivity to initial conditions, and the knowability of the past. Sober's clear philosophical analyses of these key concepts, arguments, and methods of inference will be valuable for all readers who want to understand evolutionary biology in both its Darwinian and its contemporary forms.

Sober is Hans Reichenbach Professor Emeritus and William F. Vilas Research Professor Emeritus of Philosophy at the University of Wisconsin, Madison.

guidance on interventions, policies, and future research to mitigate its harms. The report highlights the need for proactive solutions to address misinformation around science in the K-12 space and beyond, a need that the NCSE DataWISE tool is uniquely positioned to address.

DataWISE was designed to help students critically evaluate data-based claims and integrate established media literacy strategies, with a special emphasis on how data can be misrepresented, with science practices. The tool guides students to ask whether a claim is *Worthy* of attention, to *Inspect* the data, to assess whether interpretations make *Sense*, and to reflect on the

Emotions elicited by the presentation of evidence. In light of the report and the goals of CASTL K-12, our own action plan is to further promote and refine DataWISE as a way to support teachers in confronting misinformation while equipping students with the skills to recognize it. We believe that with deliberate and repeated use, students can internalize the guiding questions of DataWISE and apply them broadly when evaluating information and misinformation.

Looking Ahead...

NCSE continues to collaborate with CASTL K-12 partners to refine and expand the use of DataWISE. Recently, we joined a symposium on *Under-*

standing and Addressing Misinformation about Science at the National Academies in Washington, DC, further strengthening these connections. Our ongoing engagement with the National Academies and other science leadership groups underscores how NCSE's mission aligns with broader national initiatives to strengthen science education, contributing to systemic conversations that are shaping the future of the field.

Britt Miller is a Science Education Specialist at NCSE.
miller@ncse.ngo



Wendy Johnson is a Science Education Specialist at NCSE.
johnson@ncse.ngo



Will a New Supreme Court Decision Encourage Opting Out of Evolution?

Photo by Stephen Makisethian on Flickr



In its decision in *Mahmoud v. Taylor* issued on June 27, 2025, the Supreme Court ruled 6–3 in favor of a group of parents with students in the Montgomery County, Maryland, Public Schools district who argued that they have a right under the Free Exercise Clause of the First Amendment to opt their children out of instruction they find religiously objectionable. Will the decision have implications for the teaching of evolution in the public schools?

At issue was the district's use of LGBTQ+-inclusive storybooks and the board's refusal to allow the parents to opt their children out of exposure. The parents asserted that their right to free exercise of religion was unconstitutionally burdened as a result and sought a preliminary injunction allowing their children to be excused from exposure while their lawsuit proceeded. Writing for the court, Justice Samuel Alito ruled that they are entitled to the preliminary injunction.

More broadly, the decision suggests that any educational policy that "substantially interferes with the

religious development" of students might be held to be unconstitutional by the same reasoning, although it

the Supreme Court ruled 6–3 in favor of a group of parents with students ...who argued that they have a right under the Free Exercise Clause of the First Amendment to opt their children out of instruction they find religiously objectionable.

acknowledged that the question "will depend on the specific religious beliefs and practices asserted, as well as the specific nature of the educational requirement or curricular feature at issue" and "the specific context in which the instruction or materials at issue are presented."

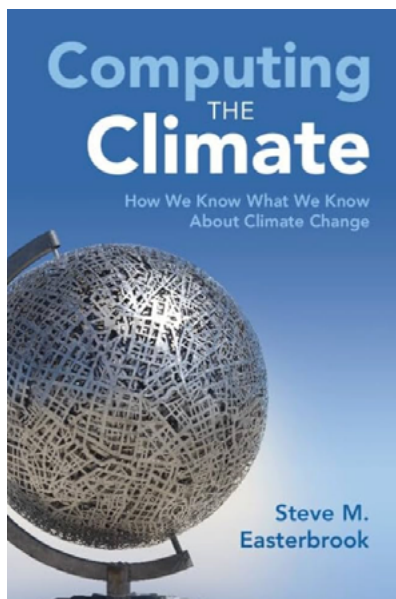
What about evolution? Echoing the arguments that Eugenie C. Scott and I presented in *Evolution: Education and*

Outreach in 2008, I told Chalkbeat in April 2025 that opt-out policies specifically involving evolution are unworkable. "Evolution comes up so many times in biology class — from learning about the structure of a cell to taxonomy to genetics — that teachers would need 'revolving doors' for kids to cycle in and out. That would be disruptive for their classmates, too."

During oral arguments on April 22, 2025, Justices Elena Kagan and Sonia Sotomayor expressed concern about the application of opt-out policies to evolution. Told by the attorney representing the parents that there are not a lot of objections to the teaching of evolution, Kagan asked the attorney representing the Montgomery County Public Schools, "[I]s that true? And should we count on it being true? And how can we tell if it's true?"

In a dissenting opinion in which Justices Kagan and Ketanji Brown Jackson concurred, Justice Sotomayor warned, "Establishing a new constitutional right to opt out of any instruction that involves themes contrary to

THE *RNCSE* REVIEW



Computing the Climate:

How We Know What We Know About Climate Change

author: Steve M. Easterbrook

publisher: Cambridge University Press

reviewed by: Curt Covey and Karl E. Taylor

Yet another popular book on climate modeling? Yes — but this one is unique because the author's background is unique. After receiving a Ph.D. in computing and working as a software engineer, Steve Easterbrook became interested in how climate models operate. For many years he (and his students) researched the subject, spending time at many of the world's top climate modeling institutions — a stunning amount of work. From it he argues that climate model quality compares well even with the big mission-critical software he used at NASA. One caveat: to a computer scientist, high-quality code efficiently does what

its creators want it to do. In the words of our colleague Michael Wehner, that could include “getting the wrong answers faster” due to uncertain assumptions about how the climate evolves. Fortunately, this book takes the uncertainties seriously. *Computing the Climate* describes how climate models have developed over time and how state-of-art models operate today, including their shortcomings.

After an introductory chapter, the book dives into the surprisingly deep history of climate modeling, starting with “the work of the nineteenth-century scientists who discovered the greenhouse effect and first attempted to measure it,” in particular “the work of Svante Arrhenius, who developed the first global climate model, before there were computers.” This is an unusually sagacious approach. Easterbrook makes the important point that climate models are constructed at all levels of complexity, addressing a common criticism that climate predictions come only from computer

models so complicated that no one really understands how they work. Detailed description of the Arrhenius model — as well as the first computer models of weather and climate — fascinated and enlightened us. We thought we knew most of that history, but we were wrong!

The middle chapters of the book give a detailed account of Easterbrook's grand tour of climate modeling at the UK Meteorological Office, the US National Center for Atmospheric Research, the Institut Pierre-Simon Laplace in Paris, and Germany's Max Planck Institute for Meteorology. Each location gets a chapter including many digressions into various aspects of climate modeling. These are all interesting but not all directly relevant, and some fit awkwardly into the narrative. Why, for example, entitle the chapter on MPI-M “Sound Science,” and why choose this chapter to describe intercomparison projects in which all the modeling institutions participate? Some readers may

anyone's religious beliefs will create a nightmare for school administrators” as well as teachers. She added, “The foreseeable result is that some school districts may strip their curricula of content that risks generating religious objections. ... Next to go could be teaching on evolution.”

Justice Sotomayor's concern was shared by Rachel Laser of Americans United for Separation of Church and State in a June 27, 2025 statement.

“Rather than implement an unworkable system of opt-outs to certain books or lessons, public schools are more likely to strike content from the curriculum that could be challenged — which is the ultimate goal of the Christian Nationalists backing this case. What's next? ... Demanding opt-outs from students learning about evolution?”

Even in the absence of demands for opt-outs, NCSE Executive Director Amanda L. Townley explained, the mere

possibility opened by the *Mahmoud v. Taylor* decision may further deter science teachers in communities where religious objections to evolution are prevalent from presenting evolution honestly, accurately, and completely. “As always,” she added, “NCSE will be monitoring the situation and continuing to provide support for K–12 teachers across the country.”

Glenn Branch is NCSE Deputy Director.
branch@ncse.ngo



want to skim or skip these chapters and proceed directly to the final chapter.

In any case, this book will not be a quick read. It demands — and rewards — serious concentration. There are no equations in the main text, but plenty of detailed graphs, charts, and footnotes for readers wanting even more (for them, the next step up could be *The Climate Modeling Primer* [4th edition, 2014] by Kendal McGuffie and Ann Henderson-Sellers).

A book so densely packed with information will inevitably contain minor errors and points of confusion. For example, Chapter 1 says the models featured in a key 1979 report “focused on the physical climate system, particularly the global circulation patterns of winds and ocean currents,” but actually these early models omitted ocean currents. Later it says, “If our use of fossil fuels keeps growing, we are on track to double the CO₂ in the atmosphere sometime in the 2030s or 2040s” (page 14). But pre-industrial CO₂ was about 280 parts per million, so doubling would give 560ppm, not a plausible extension of the data shown in the nearby Figure 1.4. The possibility of doubling by 2030 may have been entertained back in 1979, but not today.

In addition, a few figures originally in color are reproduced here in black-and-white, with possibly misleading results. For example, Figure 9.1, illustrating different “storylines” used to estimate future CO₂ emissions, shows one of them (A2) in a very faint shade of gray, suggesting it’s the least likely. But the text correctly points out that the report in question “takes no stance on which of these storylines is more likely, nor which is more desirable.”

The final chapter not only summarizes the previous ones but also ventures beyond climate modeling per se. Unsurprisingly, Easterbrook asserts that “consequences [of CO₂ emissions] are all around us, and the need for urgent action has become clear.” We agree, along with a clear majority of climate scientists (in our informal observation). But both statements come with important caveats. Deciding



Climate Denial in American Politics: #ClimateBrawl

author: Gerald Kutney

publisher: Routledge

reviewed by: Peter J. Jacques

Gerald Kutney is best known for his work as a commentator and activist on climate change issues, and especially for his “#climatebrawl” efforts to engage and defeat climate denial narratives on social media. He defines climate brawling as “not a cordial discussion” but an attempt to “discredit the hard-core climate deniers, their propaganda, and their sources.” These targets, of course,

how much responsibility CO₂ emissions bear for particular storms, heat waves, droughts, etc., is a tricky business. Computing the likelihood of especially severe events is still in its infancy: as Easterbrook says, “Climate models are excellent at giving the big picture, but still leave us in the dark about exactly how each of us will be affected” (page 280). And any conclusion about “the need for urgent action” necessarily entrains socioeconomic, political, and even moral questions that no mathematical model can address. Indeed, Easterbrook acknowledges this point: “[C]limate models . . . do not make value judgments. Nor can they make policy recommendations” (page 286).

Most of this final chapter revolves around a simple goal for the future: limiting global average warming since the Industrial Revolution to 2 degrees Celsius (3.6 degrees Fahrenheit). It nicely summarizes both the reasoning behind this goal and recent criticisms that it’s insufficient — and that a more appropriate limit would be 1.5 degrees C (which has already been reached!). Easterbrook’s conclusion is that “the world must not burn more than a trillion tonnes [i.e., metric tons] of carbon. Ever” (page 287). As noted above, such

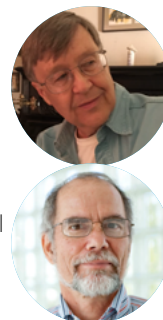
are part of a climate change counter-movement, mainly organized through conservative think tanks that provide false expertise and disseminate doubt about climate science. It is purely a political response to a threatening global environmental social movement.

Kutney’s book *Climate Denial in American Politics* is confrontational in two ways: first,

conclusions depend on one’s political leanings as much as the science. Those with less confidence in the effectiveness of government management and more confidence in human ingenuity and free markets could rationally disagree.

Easterbrook set himself the task of “tell[ing] the story of how these models of the physical climate system came to be, what scientists do with them, and how we know they can be trusted.” He tells the story well, but unqualified use of the word “trust” (repeated in an advance-praise quote on the back cover) is problematic and even sells this book short. It’s actually much more than a set of talking points for climate activists. It carefully explains what parts of model output are trustworthy and what parts aren’t. (An example of the latter: details of weather beyond short-term predictions.) Opponents as well as proponents of a Green New Deal would benefit from reading it.

Curt Covey (recently retired) and **Karl E. Taylor** are climate research scientists in the Program for Climate Model Diagnosis and Intercomparison at Lawrence Livermore National Laboratory.
curtcovey@yahoo.com,
taylor13@llnl.gov



in recommending the active confrontation of climate denial claims on Twitter/X (the “brawl”), and second, in exposing climate denial in the US government.

**Climate Denial in
American Politics is
confrontational in
recommending the active
confrontation of climate
denial claims on Twitter/X
... and in exposing
climate denial in the US
government.**

Confronting speech that is harmful — “counter-speech” — and is something that political scientists and philosophers are considering more deeply as social media provides an effective vector for harmful speech, such as posts fomenting violence. This is in line with but goes beyond Judge Louis Brandeis’s statement that “the remedy to be applied” to dangerous expression “is more speech, not enforced silence” (*Whitney v. California*, 274 U.S. 357 (1927), concurring). Clearly, this approach is not for everyone — I personally do not see such engagement as productive and it would be an unnecessary stress in my life I do not need — but Kutney thinks this kind of debate should be used in places like the halls of Congress.

And I might be in the wrong. I abstain from political speech online to avoid senseless hostility. However, political theorist Jeffrey Howard (in a 2021 paper entitled “Terror, Hate and the Demands of Counter-Speech”) argues that “the samaritan obligation, held by all moral agents, to rescue others from risks of harm” generates a duty to respond to harmful speech. Howard puts it this way:

Such duties require whatever is necessary and proportionate, provided it is not unreasonably burdensome, to rescue our fellow human beings — to swim, jump, punch or even kill. My novel proposal is that samaritan duties also sometimes enjoin us to *speak*. (emphasis in original)

However, the duty to speak only obtains if the counter-speech will matter, something unclear in the literature thus far.

I depart from Kutney because the idea of defeating denial speech through other speech assumes a rationality I do not think inhabits denial discourse. Climate denial is unfazed by rational speech acts because it is ideologically led. Ideology, discussed only at a superficial level in the book, is a sense of the good life along with a political program to achieve it. When ideologues cannot imagine why someone has a different sense of the good life, ideology dictates what is allowed to be true. The climate change countermovement is ideologically led, and the hard-core deniers inhabit a reality that does not need to be rational. Inasmuch as climate action threatens conservative ideologues, they are also reacting in fear of the loss of this reality, and fear is also not centered in reason. For this and related issues, *Climate Denial in American Politics* is not where you should turn for climate denial social science.

Still, the comprehensive historical part of the book is strong. I have studied the organized rejection of climate science for over 20 years, and nevertheless I learned a lot. As noted in the section on methodology, this part of Kutney’s book was built on searching www.govinfo.gov (which provides access to official publications from the U.S. federal government), with particular attention to congressional hearings about climate change. I think that this is why Kutney is able to present new information, because this has not really been done in the literature on climate denial before. The intent of the book is in part to “show how endemic and entrenched climate denialism continues to be in Washington and how to break through the policy malaise.” On this front, the book is successful, and I have to admit, I did not realize just how deep the everyday rejection of climate science in Washington went.

The book is also a memoir of Kutney’s efforts to challenge denial on Twitter/X and a tactical guide for those who would

join him. He provides examples and suggestions for responding to climate denial claims based on his experience of fielding so many. He relates that he originally adopted a “defensive” strategy, providing peer-reviewed evidence against climate denial claims, but then found that the debates degraded into a continuous loop of “nuh uhs” that fueled conspiracy and doubt. More effective, he suggests, is his “offensive” strategy:

DENIER: “The science is wrong.”

ME: “Share the peer-reviewed evidence that states this.”

DENIER: “Well, this meme shows that the science is wrong.”

ME: “Still waiting for your peer-reviewed evidence.”

DENIER: “Peer review is just pal review.”

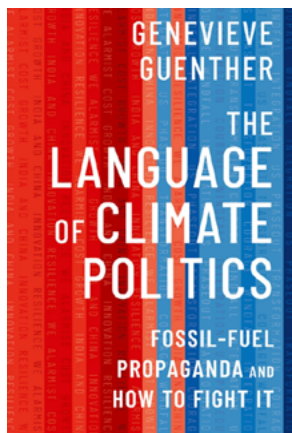
ME: “Your tweets betray your character and credentials; no need to engage further.” (page 29)

The above example is schematic, but Kutney provides specific suggested answers to denial claims, which for readers who want to engage in this sort of interaction is probably useful.

Kutney acknowledges the criticism that “feeding the trolls” provides an unnecessary stage for climate change denial; however, he believes the misinformation must be addressed and confronted. Thus, he created the #climatebrawl hashtag as a “Bat-Signal” to alert others that a denial debate is afoot and to attract help. At the same time, he admits that not everyone wants to sign up for such a “toxic engagement.” Thus, Kutney is more permissive than Howard’s universal samaritan demand would be, but he clearly wants to neutralize the imminent harm created by the climate change countermovement, which is commendable.

Peter J. Jacques holds the Rehnitz Family/UCI Endowed Chair in Marine and Environmental Law and Policy in the Department of Political Science and Sociology of Monmouth University. He is also Affiliated Faculty of the Urban Coast Institute. pjacques@monmouth.edu





The Language of Climate Politics

author: Genevieve Guenther

publisher: Oxford University Press

reviewed by: Gerald Kutney

I don't usually write book reviews, but I welcomed the opportunity to review *The Language of Climate Politics* by Genevieve Guenther. The subject is an important one, namely how we talk about the climate crisis, especially to those who do not accept the science of climate change. And the book's clear and fresh style made for easy reading.

The book deals with climate politics, fossil fuel propaganda, and climate denial — favorite topics of mine, and topics in which I believe many other readers will be interested too, as the climate crisis is a threat to us all. Fossil fuel propaganda has created climate denial, which has been a major force in stopping the adoption of effective climate policy. This political battle is fought with words and, so far, the propaganda has been winning.

At the beginning of her preface, Guenther identifies the culprits: those "who are happy to destroy a livable climate to gain more profit and power." She later states "there are millions of other people, some of them running the world, who seem willing to destroy civilization ... so that the fossil-fuel system can continue now." And in the introduction, she outlines how the propaganda of the fossil-fuel industry manipulates us and U.S. politicians, especially Republicans but also Democrats. The book describes how to recognize this manipulation and proposes using language to fight back.

The first chapter offers a discussion of how different groups see climate change, including alarmists, doomers, and climate

scientists. This section concludes with a proposal of how to properly discuss the problem of climate change with a view to ending the use of fossil fuels. The category of climate scientists in the middle of the chapter appeared out of place to me, as this is a profession, not an opinion, and the other groups covered are generally reacting to, not producing, the climate science.

The next five chapters focus on the major topics used to derail climate legislation, namely high costs, lower GDP growth, the growing emissions of China and India, the idea that innovation is the solution, and the false notion that resilience and adaptation will protect us from the perils of climate change. Guenther brings together, in a straightforward manner, how these complex issues are promoted and abused by the propaganda against effective climate policies.

I especially enjoyed the sections on cost and economics, some of it new to me. As a side note and pet peeve, however, I note that many of the economic studies on which Guenther relies seem to have been written without the aid of a climate scientist. I have always wondered how such studies can be written without a climate scientist being co-author, since climate scientists are the specialists who produce the projections on the impact of climate change. I was also skeptical of her doubts concerning carbon pricing. Living in Canada, I have seen what a political nightmare even a fee-and-dividend program like ours has been.

Nevertheless, [carbon pricing](#) is still a recommended climate policy.

Also, there is more to the phrase "common but differentiated responsibilities" in the United Nations Framework Convention on Climate Change than appears in Chapter 4 of the book. I discussed the debates about the phrase during the early COP meetings in my *Carbon Politics and the Failure of the Kyoto Protocol*. Despite years of these high-level meetings on the meaning of this phrase, no agreement has been reached on the exact definition. The statement, though, has less importance now, since nations have simply moved past the ambiguity of this phrase.

The last section, consisting of only a few pages, may be the most important. Here an easy-to-grasp summary of the language to use in a variety of circumstances is presented, along with a call-to-arms to go out and use the language. To deal with climate change, you cannot be passive, and you cannot be silent. Words are powerful in this debate. We need to talk about climate change and the issues raised by climate denial with our family, friends, and co-workers, and Guenther teaches us how to do this.

Will similar language work with politicians? Guenther believes that it will. A fear of mine, though, is that if language, no matter how well designed, gained political traction, a tsunami of propaganda from the fossil fuel industry and the climate denial movement would drown it out. That said, we must try.

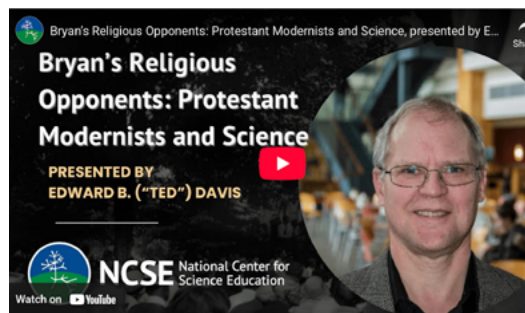
Overall, the message in *The Language of Climate Politics* needs to be heard. Choosing the right words and new phrases, and finding common ground, to discuss climate change are good steps to take.

Gerald Kutney is a commentator on the politics of the climate crisis. He is the author of two books, *Carbon Politics and the Failure of the Kyoto Protocol* (Routledge, 2014) and *Climate Denial in American Politics* (Routledge, 2024). gkutney@gmail.com





NCSE Webinar Recordings on the Scopes “Monkey” Trial Now Available



Top of page: Amanda Townley and Eugenie C. Scott in the Dayton courtroom where the Scopes trial took place.

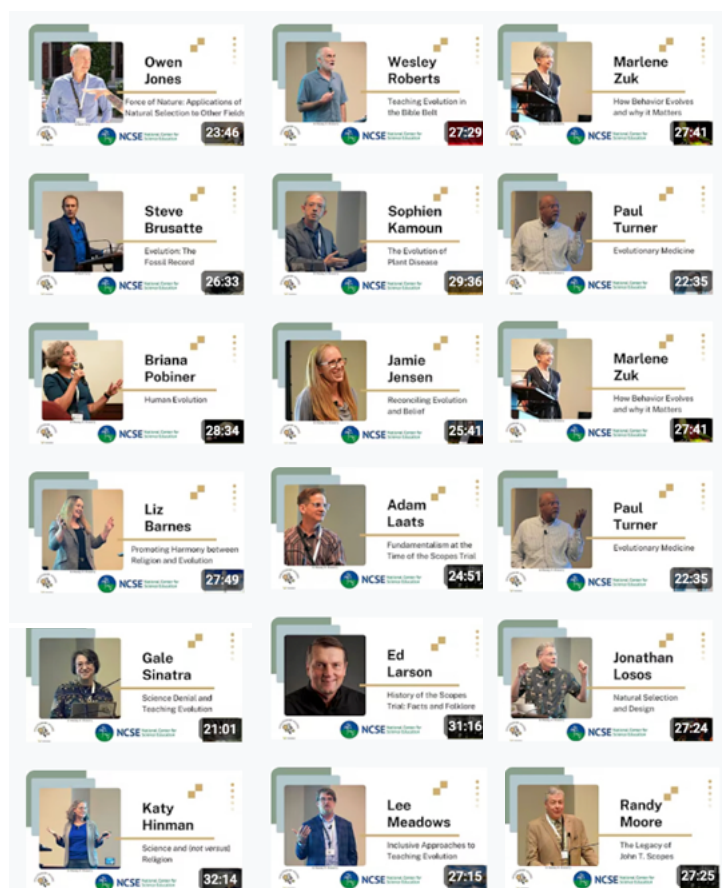
Below: Eugenie C. Scott and Glenn Branch attending a talk in the Dayton courtroom.

NCSE's recent webinar series, “The Scopes ‘Monkey’ Trial: Past, Present, and Future,” celebrating the centennial of the Scopes “monkey” trial is now available [online](#). Featured are Eugenie C. Scott, speaking on “The ‘Trial of the Century’: Scopes at 100”; Edward B. “Ted” Davis,

speaking on “Bryan’s Religious Opponents: Protestant Modernists and Science”; and Adam Laats, speaking on “The Scopes Trial: The Start of America’s Hundred-Year Culture Wars.”

Featured on the same webpage are recordings of 21 presentations from the Scopes “Monkey” Trial Centennial Symposium sponsored by NCSE and the Evolutionary Studies Institute at Vanderbilt University and additional Scopes-related content.

Photo by Wesley Elsberry



AND MANY MORE

RNCSE moving to Non-PDF Online Format

After this issue (vol. 45, no. 4), *Reports of the National Center for Science Education* will no longer publish in PDF format. However, RNCSE will continue as an [online](#) quarterly publication available at the NCSE website with many of the features you've come to enjoy, such as Random Samples, RNCSE reviews, and updates from NCSE's programs.



WHAT WE'RE UP AGAINST Climate Change Denial for Creationist Kids

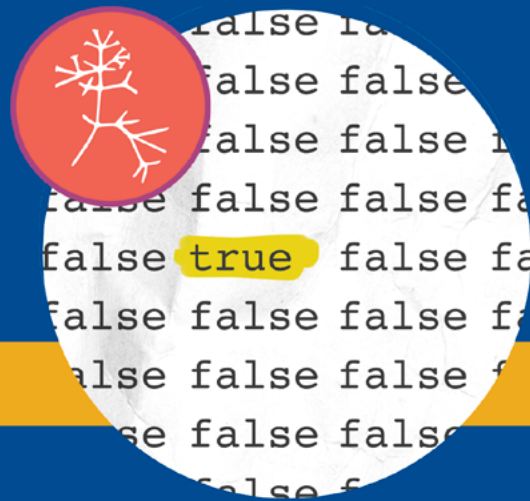
Climate Change for Kids ... and Parents Too!, the latest entry in a spate of climate change denial books aimed at a young audience, invites the reader to “[d]elve into the science of climate change and discover how science, removed from assumption and speculation, reflects the history and truth found in God’s Word” (in the words of the back cover). The reference to God’s Word is distinctive: the propaganda efforts in the same vein from the CO2 Coalition, Mike Huckabee’s EverBright Kids, and PragerU are ostensibly secular. But the authors of

Climate Change for Kids are Ken Ham, the founder of the young-earth creationist ministry Answers in Genesis, and Jessica DeFord, who, armed with a master of science degree in wildlife ecology, works for the same organization. In consequence, their book is a mix of error and fantasy, with the errors resembling those of secular climate change deniers and the fantasies emanating from their own reading of — and creative additions to — the Bible. For further discussion, see “[Climate Change Denial for Creationist Kids](#)” at the Righting America blog.

— GLENN BRANCH

SAFEGUARDING SOUND SCIENCE

Evolution Edition



LISTEN TO SEASON TWO OF SAFEGUARDING SOUND SCIENCE!

The second season of NCSE's podcast, Safeguarding Sound Science, examines the everyday impacts of evolution, the grand theory that informs our understanding of all life on this planet.



Host, Mat Kaplan

You can find it on Apple Podcasts, Spotify, or wherever you listen to your favorite podcasts.

