

22 November 2004

Mr. David Ahlquist
President
Board of Education
Grantsburg School District
Grantsburg, Wisconsin 54840

Dear Mr. Ahlquist,

We recently learned that the Grantsburg School Board has decided to require the teaching of “theories of origin” in addition to evolution. As geoscientists, we strongly object to the proposition that non-scientific “theories” should be given equal (or any) time in a science classroom. Such alternative “theories of origin” have no standing within the scientific community and no place in a science class. We strongly believe that your students will suffer greatly if this misguided action is not overturned.

Overwhelming geological evidence indicates that the Earth is of great age and that its biota have undergone billions of years of evolution and extinction events over its long history. Your Board’s decision will require students to contextualize these scientific data in some other, nonscientific way. If the Board’s decision stands, Grantsburg students will be misinformed about the most important concept in biology, evolution, and ill-prepared to go beyond what they have learned in high school. Additionally, the likelihood that students presented alternative “theories of origin” will be able to understand the premises of geoscience with any degree of sophistication is small. As faculty members from institutions of higher education across the state of Wisconsin, we wish to warn you that this policy will put Grantsburg high school graduates at a distinct disadvantage compared to other high school graduates when they undertake further studies in the sciences.

It is essential that students today be taught to have a grasp of science – and that grasp means that they must be able to understand the very nature of science rather than merely memorize facts. Evolutionary theory is the single most important framework for tying all of biology together into a coherent whole and underpinning everything we know about the history of the earth. Without such a framework, students are unable to integrate, organize, and compare biological and paleobiological information, which thus remains a dazzling array of isolated facts and details lacking the explanatory power that characterizes real science.

As scientists, we do not doubt the importance of religious thought or religious faith. However, they represent two very different areas of human activity and they are not interchangeable. Religion and science have different methodologies and practitioners ask different types of questions. These differences do *not* mean that either subject is more important than the other, rather it means that the two fields do not overlap and that each teaches us important, but different lessons. To conflate the two does irreparable damage to both. In his book *Rocks of Ages: Science and Religion in the Fullness of Life*, paleontologist Stephen J. Gould makes a strong case for mutual respect and

disengagement between practitioners of science and of religion because their fields do not overlap. All of us are willing to respect religious thought, and we expect the same respect for scientific thought.

We request the Grantsburg School Board reconsider the actions recently taken. Your students deserve to have access to the best education possible. Without such an education, their future options will be greatly limited. Please, for their sake, bring your science curriculum back into the 21st century.

Sincerely,

Iddrisu Adam, Assistant Professor of Geography/Geology, University of Wisconsin-Marshfield/Wood County

Rafique Ahmed, Professor of Geography and Earth Science, University of Wisconsin-La Crosse

Jean M. Bahr, Professor of Geology, University of Wisconsin-Madison

Robert W. Baker, Professor of Geology and Chair, Department of Plant and Earth Science, University of Wisconsin-River Falls

Carol Bendorf, Associate Lecturer of Geology, University of Wisconsin-Platteville

Charles R. Bentley, A. P. Crary Professor Emeritus of Geophysics, University of Wisconsin-Madison

Prajukti (Juk) Bhattacharyya, Assistant Professor of Geography and Geology, University of Wisconsin-Whitewater

Marcia Bjornerud, Professor of Geology and Chair, Department of Geology, Lawrence University

Carl J. Bowser, Professor Emeritus of Geology and Geophysics, University of Wisconsin-Madison

James A. Brey, Professor of Geography and Geology, University of Wisconsin-Fox Valley

Philip Brown, Professor of Geology and Geophysics, University of Wisconsin-Madison

Karl Byrand, Assistant Professor of Geography, University of Wisconsin-Sheboygan

Douglas Cherkauer, Professor of Geosciences, University of Wisconsin-Milwaukee

William S. Cordua, Professor of Geology/Mineralogy, University of Wisconsin-River Falls

Dyanna Czeck, Assistant Professor of Geosciences, University of Wisconsin-Milwaukee

Michael J. Day, Professor of Geography and Chair, Department of Geography, University of Wisconsin-Milwaukee

Christie Demosthenous, Lecturer of Geology, University of Wisconsin Oshkosh

R. H. Dott, Jr., Professor Emeritus of Geology & Geophysics, University of Wisconsin-Madison

Stephen Q. Dornbos, Assistant Professor of Geosciences, University of Wisconsin-Milwaukee

Steven I. Dutch, Professor of Natural and Applied Sciences, Chair, Department of Earth Science, University of Wisconsin-Green Bay

Norlene Emerson, Lecturer in Geology, University of Wisconsin-Richland
Douglas J. Faulkner, Associate Professor of Geography, University of Wisconsin-Eau Claire
C. W. Fetter, Professor Emeritus of Geology, University of Wisconsin Oshkosh
Tom Fitz, Assistant Professor of Geoscience, Northland College
Randy Gabrys Alexson, Associate Professor of Geography, University of Wisconsin-Superior
Laurel B. Goodwin, Professor of Geology and Geophysics, University of Wisconsin-Madison
Timothy J. Grundl, Professor of Geosciences, University of Wisconsin-Milwaukee
Nelson R. Ham, Associate Professor of Geology, St. Norbert College
Karen G. Havholm, Professor of Geology, University of Wisconsin-Eau Claire
Catherine H. Helgeland, Professor of Geography and Geology, University of Wisconsin-Manitowoc
Eric E. Hiatt, Assistant Professor of Geology, University of Wisconsin Oshkosh
John L. Isbell, Professor and Research Scientist of Geological Sciences, University of Wisconsin-Milwaukee
Harry Jol, Associate Professor of Geography, University of Wisconsin-Eau Claire
Norris W. Jones, Professor Emeritus of Geology, University of Wisconsin Oshkosh
Kerry L. Keen, Assistant Professor of Hydrogeology, University of Wisconsin-River Falls
Diann S. Kiesel, Associate Professor of Geography and Geology, University of Wisconsin-Baraboo/Sauk County
Joanne Kluessendorf, Director, Weis Earth Science Museum, University of Wisconsin-Fox Valley
George J. Kraft, Professor of Water Resources, University of Wisconsin-Stevens Point
Gene L. LaBerge, Professor Emeritus of Geology, University of Wisconsin Oshkosh
Sally A. LaBerge, Lecturer Emerita of Geology, University of Wisconsin Oshkosh
Thomas S. Laudon, Professor Emeritus of Geology, University of Wisconsin Oshkosh
Daniel J. Lehrmann, Associate Professor of Geology, University of Wisconsin Oshkosh
Karen A. Lemke, Professor of Geography and Geology, University of Wisconsin-Stevens Point
David L. LePain, Assistant Professor of Geology, Wisconsin Geological and Natural History Survey, University of Wisconsin Extension
Zhaohui Li, Associate Professor of Geosciences, University of Wisconsin-Parkside
Frederick Madison, Professor of Soil Science, University of Wisconsin-Madison and Wisconsin Geological and Natural History Survey, University of Wisconsin Extension
Louis J. Maher, Jr., Professor Emeritus of Geology and Geophysics, University of Wisconsin-Madison
Carol Mankiewicz, Associate Professor of Biology and Geology, Beloit College
Paul Mayer, Curator of Geology, Milwaukee Public Museum
James W. McKee, Professor Emeritus of Geology, University of Wisconsin Oshkosh
Carl V. Mendelson, Professor of Geology and Chair, Department of Geology, Beloit College
David M. Mickelson, Professor of Geology, University of Wisconsin-Madison
William N. Mode, Professor of Geology and Chair, Department of Geology, University of Wisconsin Oshkosh

Michael E. Nelson, Dean, College of Science & Allied Health, and Professor of Geology,
University of Wisconsin-La Crosse
Dan E. Olson, Professor of Natural Science, Edgewood College
Meredith E. Ostrom, State Geologist Emerita and Director of the Wisconsin Geological
and Natural History Survey Emerita, University of Wisconsin Extension
John Palmquist, Professor Emeritus of Geology, Lawrence University
Richard A. Paull, Professor Emeritus of Geology, University of Wisconsin-Milwaukee,
Past President, National Association of Geoscience Teachers
Rachel K. Paull, Adjunct Professor of Geology Emerita, University of Wisconsin-
Milwaukee
Timothy S. Paulsen, Assistant Professor of Geology, University of Wisconsin Oshkosh
Lloyd C. Pray, Professor Emeritus of Geology, University of Wisconsin-Madison
Alan Paul Price, Associate Professor of Geography and Geology, University of
Wisconsin-Washington County
James R. Rougvie, Assistant Professor of Geology, Beloit College
Nita Sahai, Assistant Professor of Geophysics, University of Wisconsin-Madison
Amy Schiebel, K-16 Science Director, Edgewood College
Colin A. Shaw, Assistant Professor of Structural Geology & Tectonics, University of
Wisconsin-Eau Claire
Peter Sheehan, Curator of Geology, Milwaukee Public Museum
Anthony J. Simo, Professor of Geology and Geophysics, University of Wisconsin-
Madison
John D. Skalbeck, Assistant Professor of Geosciences, University of Wisconsin-Parkside
Ronald D. Stieglitz, Associate Dean, Graduate Studies and Research, and Professor of
Geology, University of Wisconsin-Green Bay
Clifford Thurber, Professor of Geophysics, University of Wisconsin-Madison
Basil Tikoff, Associate Professor of Geophysics, University of Wisconsin-Madison
Jack W. Travis, Professor Emeritus of Geology, University of Wisconsin-Whitewater
John W. Valley, Professor of Geology, University of Wisconsin- Madison
Dr. Stephen J. Vavrus, Visiting Assistant Professor of Geology, Beloit College and
Associate Research Scientist, Center for Climatic Research, University of Wisconsin-
Madison
Mari A. Vice, Associate Professor of Geology, University of Wisconsin-Platteville
Jennifer M. Wenner, Assistant Professor of Geology, University of Wisconsin Oshkosh
Dean Wilder, Professor of Geography and Earth Science, University of Wisconsin-La
Crosse
Ian Williams, Professor of Geology, University of Wisconsin-River Falls

Cc: David Dahlberg, Board Member
Christine Erickson, Board Member
Russell Erickson, Board Member
Cindy Jensen, Board Member
Eric McKinley, Board Member
James Sundquist, Board Member

Dr. Joni Burgin, Superintendent

Editor, Burnett County Sentinel

Editor, Inter-County Leader