

# 2011 MEDALS & AWARDS

## GILBERT H. CADY AWARD

Presented to  
William A. Dimichele



William A. Dimichele  
Smithsonian Institute

### *Citation by W. John Nelson and Howard Falcon-Lang*

This year's recipient of the Gilbert H. Cady Award is Bill DiMichele of the Smithsonian Institution, one of the world's leading paleobiologists. In the course of his prolific thirty-year career, Bill has made huge contributions to our understanding of the Carboniferous peat-forming ecosystems and hence the origin of coal. Indeed, his name is so synonymous with the 'Coal Forests' that it is almost impossible to write a paper on that topic without citing half a dozen of his 110+ publications. A brilliant researcher, Bill is also a warm, collegial and humble person, who nurtures the careers of young scientists and fosters open, collaborative networks through which science flourishes.

Bill began his research career as a doctoral student at the University of Illinois, Champaign-Urbana, in the late 1970s, working in the lab of Prof. Tom Phillips (himself a recipient of the Cady Award in 1992). Together they developed new whole-plant reconstructions for Carboniferous lycopods that emphasized the weird biology of these extinct plants. Bill teamed up with Phillips again while a professor at the University of Washington, Seattle, from 1979-1985, to pioneer studies of coal-swamp ecology. Their work caused a fundamental shift in the field, integrating neo-ecological concepts into paleobotany for the first time and prompting museums around the world

to remodel their dioramas. Twenty-five years later, one of Bill's students still remembers his "magnetic appeal" while explaining these new ideas to his graduate class.

Moving to the Smithsonian in 1985, Bill continued work on Coal Forest dynamics. Drawing on his exceptionally broad readings in theoretical biology, he explored how species distribution in time and space could be explained in terms of reproductive biology, biomass costs, and resource partitioning. However, he also became keenly aware of the "inherent strangeness of coal plants" (as one of his colleagues put it) and how the present is not always a reliable key to the past. In response, Bill explored coal mines and natural exposures across the United States (from Texas to Illinois and the Appalachians) to learn what geology could contribute to paleoecology at a time when few paleobotanists were engaged in field studies.

Through that field program, Bill became an advocate of climate change as the major controlling influence on Carboniferous peat accumulation and stratal cyclicity. In this work, Bill was again a pioneer. As one colleague has commented, "Bill did not jump aboard the climate change bandwagon; rather his vision allowed him to help set it in motion, way in advance of its present popularity". Without doubt, paleoclimate research has really played to Bill's great strength as a "renaissance man", being so adept at collaborating with experts from a wide range of disciplines including stratigraphers, sedimentologists, geochemists, soil scientists, and micropalaeontologists. We are therefore delighted that the GSA has chosen to honor someone who has done so much to advance coal geology in so many ways.

### *Response by William A. Dimichele*

Officers and Members of the Coal Division, friends and colleagues,

I would like to thank the Coal Division of the GSA for this award, named for one of the great coal geologists, who served a great geological survey, that of Illinois, with which I have been associated since graduate school. I am grateful to many people of that organization, and of my alma mater, the University of Illinois, for teaching me the basics of geology and botany, and for modeling scientific curiosity, before sending me out to join them on a path through, and all around, coal and the late Paleozoic tropical world.

The first coal I ever saw was weathering around my grandmother's disused coal chute.

From that moment on, I was fascinated by black rocks. Later travelling through the Appalachians, I saw red rocks for the first time, equally fascinating. These two, the red and the black, have dominated my research for the past 35 years.

As John Donne once, famously, wrote "No man is an island, entire of itself; every man is a piece of the continent." We rarely hear the latter part of that quotation, which, in its entirety, encapsulates modern science. My "island", shared with my collaborators, is part of the greater "continent" of science, so much of which we accept, with due caution, so that we can progress in our own small fight against ignorance. I can take full credit for little—my whole career has been collaborative, learning from others, sharing and evaluating ideas, all of us asking, to the best of our abilities, "what's this all about?" Some colleagues have played special roles. My thesis advisor, Tom Phillips, with whom I still work, taught me to love this life and work. My friend, John Nelson; no one has taught me more about how to study the earth, about personal integrity, about dirt-track racing. Blaine Cecil, friend and mentor, introduced me to the principle of total evidence and to geology as richly conceptual. Hermann Pfefferkorn, a visionary gentleman whose precocious insights helped guide much of my work. Add some hard-driving, ever-questioning, mostly younger, colleagues, Richard Bateman, John Calder, Cortland Eble, Scott Elrick, Howard Falcon-Lang, Bob Gastaldo, Bob Hook, Hans Kerp, Cindy Looy, Spencer Lucas, Isabel Montañez, Neil Tabor, who have given me their time, insights, and infusions of their great energy. I am especially indebted to my Smithsonian associate, Dan Chaney. Finally, I owe immeasurable thanks to my family, who have given me strength through trials, tested the depths of my wisdom, and continue to teach me much.

Long ago, at the University of Washington, one of my colleagues hoped that 50 years hence he would be cited without attribution in every introductory text book in his field. To do work worth remembering, that had become a truism seems a worthy goal. I should be so fortunate, but that judgment lies outside of my lifetime. In this lifetime, I would like to thank John Nelson and Howard-Falcon Lang for their generous remarks, and the Coal Division for their kind consideration.