

- Bowler, P.J., 1983, *The Eclipse of Darwinism: The Johns Hopkins University Press, Baltimore.*
- Clarkson, E.N.K., 1986, *Invertebrate Paleontology and Evolution: Allen and Unwin, London.*
- Gregory, W.K., 1950, "Preface: A Biographical Sketch of William Diller Matthew 1871-1930", in Matthew, W.D., *Climate and Evolution*, second edition: The New York Academy of Sciences. First printing, June 15, 1930; Second Printing, December, 1950.
- Matthew, G.F., 1863, *Observations on the Geology of St. John County, New Brunswick: The Canadian Naturalist and Geologist*, v. 8 (August, 1863), p. 241-260.
- Matthew, G.F., 1882, *Illustrations of the Fauna of the St. John Group: Royal Society of Canada, Transactions, Section 4*, p. 87-107.
- Matthew, G.F., 1885, *An Outline of Recent Discoveries in the St. John Group: Bulletin of the Natural History Society of New Brunswick*, v. 4, p. 97-102.
- Matthew, G.F., 1887, *Illustrations of the Fauna of the St. John Group: Royal Society of Canada, Transactions, Section 4*, p. 115-168.
- Matthew, G.F., 1890a, *Illustrations of the Fauna of the St. John Group, No. V: Royal Society of Canada, Transactions, Section 4*, p. 123-166.
- Matthew, G.F., 1890b, "President's Annual Address": *Bulletin of the Natural History Society of New Brunswick*, No. IX, p. 25-35.
- Matthew, G.F., 1891, *On Some Causes Which May Have Influenced the Spread of the Cambrian Faunas: Canadian Record of Science*, v. 4, p. 255-269.
- Matthew, G.F., 1898a, *Studies on Cambrian Faunas, No. 2: Royal Society of Canada, Transactions, Section 4*, p. 123-154.
- Matthew, G.F., 1898b, *Recent Discoveries in the St. John Group, No. 2: Bulletin of the Natural History Society of New Brunswick*, v. 16, p. 32-43.
- Matthew, G.F., 1898c, *A New Cambrian Trilobite: Bulletin of the Natural History Society of New Brunswick*, v. 17, p. 137-142.
- Matthew, G.F., 1902, *Notes on Cambrian Faunas: Royal Society of Canada, Transactions, Section 4*, p. 93-113.
- Matthew, G.F., 1907, *Note on Archaeozoon: Bulletin of the Natural History Society of New Brunswick*, No. 25, p. 547-552.
- Matthew, W[illiam] D[iller], 1980, *Outline and General Principles of the History of Life: Arno Press, New York.*
This book was originally printed as a synopsis of lectures in Paleontology I, by the University of California Press, Berkeley, California, 1928.
- Merrill, G.P., 1924, *The First Hundred Years of American Geology: Yale University Press, New Haven, Connecticut.*
- Miller, R.F., 1987, *George Frederic Matthew: Victorian science in Saint John: New Brunswick Museum News*, August-September.
- Parks, W.A., 1922, "Presidential Address: The Development of Stratigraphic Geology and Paleontology in Canada": *Royal Society of Canada, Proceedings and Transactions, Section IV*, p. 1-46.
- Peckham, M., 1959, ed., *The Origin of Species By Charles Darwin. A Variorum Text: University of Pennsylvania Press, Philadelphia, PA.*
- Zaslow, Morris, 1975, *Reading the Rocks: Macmillan Company of Canada, Toronto.*

Letter to the Editor

Dear Sir:

Subject: NSERC Peer Review — A Delicate Balance or Increasing Entropy?

In Volume 14 of *Geoscience Canada*, Professor Michael Church reflects on the mythology of various modes of research publication in the Earth Sciences, as well as how these publications are "valued" by the NSERC peer review system. Clearly it would be foolish to do other than agree with Professor Church that all peer review systems *must* concentrate on quality, not retreat into quantitative measures of how much was produced, nor assign "value" to the publication route to the exclusion of publication content.

How does the NSERC peer review system in earth sciences (ES) function? One of NSERC's responsibilities is to monitor the quality of peer review, being sensitive to the special characteristics of a discipline and the broad spectrum of research areas that must be reviewed by a single committee. Overall, the current ES Grant Selection Committee [ESGSC] peer review is judged to be extraordinarily strong and effective. Committee discussion centres around the significance of previous contributions, the overall level of research activity and the potential for future advances. The following passage extracted from this year's report of the [ES]GSC is witness to the committee's recognition that quality must be the central concern in an evaluation.

"The committee continued to evaluate publication records in a thoughtful fashion, not relying simply on numbers of publications in refereed journals, but instead assessing the quality of the publications and their contribution to science. The Committee continues to demand regular and consistent dissemination of results, but is realistic and careful in allowing for the varying demands and rates of publication among the various subdisciplines as well as differences in the preferred publication venues (journals, monographs, conference proceedings, maps, etc.). The perception that exists within some parts of the earth science community that this is not the case represents both a failure in communication by the ESGSC and the innocence of some members of the community."

Can the peer review system be strengthened further? The answer must be "yes"; however in Earth Sciences such changes would be refinements, not major changes in philosophy or approach. The strength of this peer review process is that it is dynamic, aware of community needs and aspirations and continually searching for more insight, yet prepared to make the difficult subjective judgements demanded by NSERC. The committee works within tight budgetary constraints given by NSERC. This, coupled with the high quality of Canadian researchers competing for the limited funds makes for a tough decision making process. While such a process cannot please all, it is a pity that the public debate does not include a few more of the many supporters. Enough bricks; pass the flowers!

Yours sincerely,

Janet E. Halliwell
 Director (Research Grants)
 Natural Sciences and Engineering Research Council of Canada