

Interactive comment on “Ideas and perspectives: Biogeochemistry – Its Future Role in Interdisciplinary Frontiers” by Thomas S. Bianchi et al.

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Received and published: 12 November 2020

I have mixed reaction to this paper. On the one hand, how can one criticize a plea for more interdisciplinary perspectives, especially into genomics and the social sciences? And one certainly cannot criticize pleas for better communication of our results to improve science-based policy. On the other hand, all this has been said before, widely and frequently, so I really didn't learn much from this perspectives piece, nor did it offer new excitement. The very name: Bio-Geo-Chemistry, reflects the interdisciplinary roots of this field of endeavor. In several papers, Paul Falkowski and Diane Newman have reviewed how the evolutionary biochemistry of prokaryotes has left its mark on

C1

the Earth's chemical conditions. Even the importance of integrating the social sciences in environmental science is widely recognized—witness a program of coupled human and natural systems at NSF and a requirement by the agency for social science linkages in its long-term ecological research programs. Better transmission of our results to policy makers was named Translational Ecology by Schlesinger in a 2010 editorial in *Science* and now the focus of a working group at the National Socio-Environmental Synthesis Center (SESYNC) at the University of Maryland. I have a fear that the statements about rapid evolution (page 3, line 79ff) are at odds with the recognized inefficiency of eugenics. So, I have no real criticisms of this piece; I just question its novelty and potential impact amongst the crowded pages on our computers that already sap our time and energy for forward progress.

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2020-395>, 2020.

C2