

1035-00-2015

Amala Mahadevan* (amala@bu.edu), Department of Earth Sciences, Boston University, 685 Commonwealth Avenue, Boston, MA 02215. *Coupling between the carbon cycle and physical processes on multiple scales in the past and present.*

The carbon cycle, an intrinsic part of the climate system, is driven and affected by physical and biological processes on a variety of space and time scales. Using examples from our climatic history, as well as our present understanding of the ocean, I will examine physical-biological coupling and climatic feedbacks on various scales. Problems arising due to multiple scales will be identified and modeling approaches will be discussed. (Received September 21, 2007)