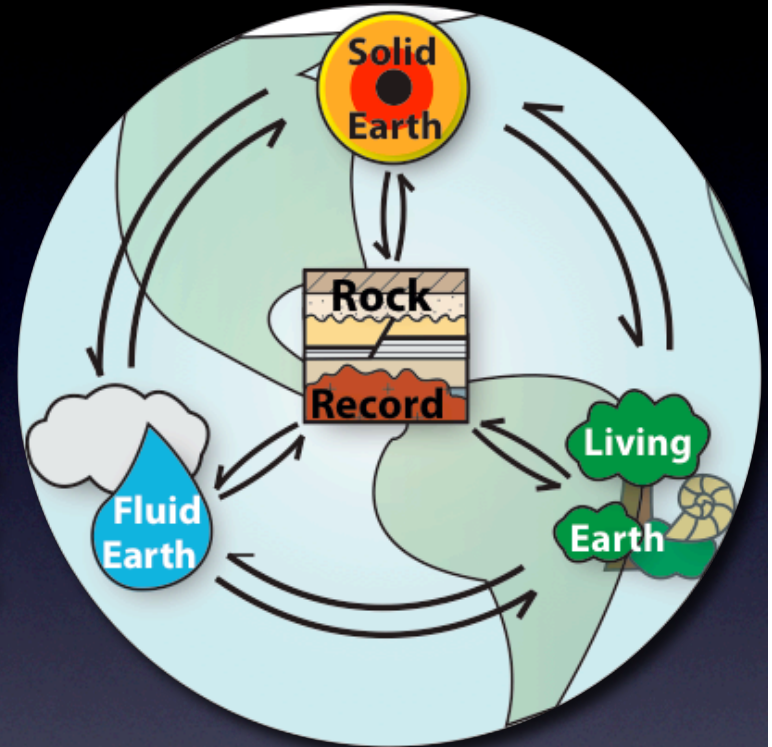


A section-based approach to quantifying the geologic record



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The spatio-temporal architecture of the rock record both chronicles and controls a wide range of earth and life processes. Using gap-bound packages as fundamental units for quantitative analysis, we are providing unprecedented levels of detail about the distribution of rocks in time and space. These data are being used to test a wide range of hypotheses in the earth and life sciences. For example, we have shown that differential rates of expansion and contraction among two important types of sedimentary environments, carbonates and siliciclastics, predict extinction selectivity in the biosphere.



Key aspects of the current database include:

- temporal ranges, thicknesses, unit names, and rock types for **25,304** gap-bound rock packages at **1,236** geographic locations in North America, the Atlantic Ocean basin and New Zealand
- developed web-based data entry and retrieval forms for sharing of data; graphical web interface for research and education in active development

