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# Variations in soil respiration along a latitudinally constant transect.

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Radiation is a primary control on ecosystem productivity. Over a suitable time scale, comparable sites along the same latitude will have approximately the same gross productivity and mean annual temperature. However, unquestionably, at any given time, the observable respiration between sites will be different.
Measuring along the same latitude, in effect, controls for variations in insolation. For soil respiration, this refers to the quality and quantity of decomposable matter provided in aboveground litter fall. It may therefore be fair to postulate that variations in respiration between sites can be ascribed to inter-site differences due to other primary drivers and co-variables of ecosystem functioning, such as antecedent rainfall patterns, historic logging and other factors that can persist in the ecosystem memory.
We present the findings from such a pioneer study that establishes an appropriate transect upon which to build a catalogue of data that will be useful to infer magnitude and direction of ecosystem interference and influence.