Proposal for carbon status of old-growth forest

1 Title
Sink or Source? Carbon metabolism and regulating factors of old-growth forest ecosystems

2 Outline
Several researchers from both south and north hemisphere reported that old forests can be carbon sink even strong carbon sink and argued the traditional idea that old-growth forest captures and emits almost same amount of carbon. Given the importance of the world’s old-growth forests as a major terrestrial carbon store, the study on the dynamics of carbon stock capacity and carbon sink strength of old-growth forests will help to reduce the uncertainties in carbon accounting.

1) Sink or source?
   What’s old forest? Does 'old' mean equilibrium or source? The defination of 'age '
   Sink or Source? The results by eddy-covariance measurements

2) Factors and ways regulating the variability:
   Meteorological ? How the old-growth forest response the environmental variability
   Management ? Does natural forest differ significantly with artificial planted forest?
   Structure? Do biodiversities of species and age contribute significantly to differences

3) Possible change of carbon status under changing climate

3 Sites that initially would be involved
   Changbaishan, China;
   Walker Branch Watershed, USA;
   need more information to select other sites

4 Proposing group
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5 Rules applied for co-authorship
   Colleagues who contribute data and ideas can be co-authored.