Assignment: Global environmental change - CO_2 fertilization

Mode

Partner work allowed: yes, maximum groups of three.

Create a text document of 3-5 pages (A4, 11 pt) that answers the content points listed below. You may structure the document along the given questions or as you like. Make sure that references in your text are correctly cited and that each statement is referenced. Ideally, your responses are complemented by a figure from original sources for each point. The document may be handed in as a Word, RMarkdown, or Quarto document that can be added to the repository of the LES textbook (https://geco-bern.github.io/les/).

Present this work in a presentation of 30 min.

Supervised by Laura Marqués.

Content points

1. How does increased atmospheric CO_2 affect carbon assimilation at the leaf scale?
    - (Walker et al., 2021) and Chapter 4 of LES book (https://geco-bern.github.io/les/gpp.html#sec-fvcb)
2. How does increased atmospheric CO_2 affect plant growth?
    - (Hubau et al., 2020; McMahon et al., 2010; Walker et al., 2021)
3. How do forests respond to rising CO_2 levels and which are the main processes involved?
    - (Körner, 2017; Marqués et al., 2023; Walker et al., 2021)
4. What are the key processes influencing the CO_2 fertilization effect at the ecosystem scale?
    - (Walker et al., 2021)
5. What are processes influencing the CO_2 fertilization effect at the landscape scale?
    - (Walker et al., 2021)
6. What types of observations and data provide evidence for CO_2 effects across scales?
    - (Walker et al., 2021)

References

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