

Dear Dr. Stoy,

Thank you for your positive evaluation of our revised manuscript and for acknowledging the improvements made. We sincerely appreciate your careful attention to detail and are pleased to address the remaining minor comments as follows:

**1. Abstract unnecessarily wordy**

*Response:*

We thank the reviewer for this valuable comment. We have revised the abstract to enhance clarity and conciseness. Redundant words and less essential details were removed to better highlight the objectives, key findings, and significance of the study. As a result, the abstract has been shortened from 303 to 221 words.

**2. Didn't address question in the manuscript regarding the 72 species. What does this refer to? Is it important?**

*Response:*

We thank the reviewer for raising this point again and apologize for not fully addressing it in the previous revision. In the revised Introduction, we now clarify that seagrass meadows are marine angiosperms comprising approximately 72 species globally (Short et al., 2011). Despite their limited taxonomic diversity, these species exhibit important differences in traits such as morphology and productivity, which can influence their carbon storage potential. This clarification is now reflected in the revised text:

*“Seagrass meadows are marine angiosperms comprising approximately 72 species globally (Short et al., 2011). Although they occupy just 0.1% of the ocean's surface and have limited taxonomic diversity, they are highly productive and ecologically significant ecosystems in the marine environments (Fourqurean et al., 2012; Short et al., 2011). L39-40*

*“Nevertheless, carbon storage capacity can vary depending on species-specific traits, geographical location, and environmental conditions (Duarte et al., 2010; Fourqurean et al., 2012).” L48-L49*

**3. Line 126 – “Let the reader decide if it's feasible.”**

*Response:*

We appreciate this suggestion and have revised the sentence to present the methodological approach more objectively. The evaluative term “feasible” has been removed. The sentence now reads:

*“This method was used to quantify seagrass metabolism, particularly in subtidal systems where in situ measurements are often logistically challenging.” L119-L120*

**Additional Editorial Revisions:**

We also thank Ms. Katja Gänger for reviewing the uploaded files. In response to the notification:

- a) Page numbers have now been added to the first two pages of the manuscript.
- b) The "Author Contributions" section has been updated to use only the initials of the authors' names, in accordance with the formatting requirements.

Sincerely yours,

A handwritten signature in black ink, reading "Wen-Chen Chou". The script is cursive and fluid, with the first name and last name clearly distinguishable.

**Wen-Chen Chou**  
On behalf of all authors