

Dear Qiong:

Thank you for your careful review of our revised manuscript and for your suggestions for improving the presentation. We have made almost all of the revisions that you suggested and have explained the rationale for those that we did not adopt. We believe that the revisions present a more balanced representation of the advantages and disadvantages of the two approaches.

Thank you.
Darrell and Valérie

Editor's suggestions in plain font, and authors' response in **red font**.

1. For the section headline "Response to arguments favoring a separate chapter." The current headline comes across as somewhat argumentative, which might be at odds with the neutral and objective tone of a scientific manuscript. To enhance clarity and maintain a formal tone, I recommend considering a more neutral headline, such as: "Consideration of proposals for a separate chapter", "Evaluation of the case for a dedicated paleoclimate chapter". These alternatives keep the focus on the evaluation of the subject without suggesting a rebuttal.

Heading revised as suggested. Also added "and the benefits of the distributed approach" because this section includes both perspectives.

Some text in this new section contain a relatively strong argumentative tone. The wording often emphasizes direct rebuttals to the idea of a separate paleoclimate chapter, which might be seen as confrontational or overly defensive in a scientific publication. While it's important to present counterarguments, softening the language can create a more balanced and constructive tone.

Line 71-72: "Some see a separate chapter as a means to a more complete assessment of paleoscience information."

Suggested revision: "A separate chapter has been proposed as a means to facilitate a more complete assessment of paleoscience information. While this approach has advantages, there are also limitations to consider, such as the risk of isolating paleoscience from the broader context of the climate assessment."

First sentence revised as suggested. However, we did not insert the suggested second sentence because: (1) The topic of this paragraph is specifically the "completeness/thoroughness" of the assessment; the second sentence should follow the paragraph topic. (2) The point about risking isolation is already made earlier, on lines 31-33.

Line 78-80: "We argue that the limited paleoscience information that is included is most effectively deployed where it leads to integration..."

Suggested revision: "In our view, the integration of paleoscience information within other chapters offers a more effective way to demonstrate its relevance..."

Omitted and replaced the word "argue" as suggested. However, we did not remove the phrase about "the limited paleoscience information that is included..." because the point of this sentence and the paragraph is specifically the limited allotment of space available in the reports.

Line 84-86: "Some have suggested that paleoscience information should be included both in a dedicated chapter plus distributed in other chapters. However, this would be difficult to achieve in practice..."

Suggested revision: "While some have proposed both a dedicated chapter and distributed information, this presents practical challenges in terms of author selection and maintaining consistency across chapters..."

Text revised as suggested.

Line 94-95: "We argue that the contribution of the handful of paleoscience authors in IPCC reports is most critical for the integration of advances in paleoscience knowledge..."

Suggested revision: "We believe that the involvement of paleoscience authors in IPCC reports is particularly crucial for ensuring the integration of paleoscience knowledge across relevant chapters."

Text revised as suggested but retained "limited number of authors" because we want to keep the focus on the fact that there will be too few paleo authors.

2. The Introduction is comprehensive, but it jumps between contrasting viewpoints (integration vs. separation of paleoclimate in IPCC reports). The Introduction begins by briefly mentioning the scoping phase of the next IPCC report and quickly jumps into the debate between proponents of a separate paleoclimate chapter and those favoring integration (Lines 20–26).

Revised the first paragraph to progress more logically, as suggested, rather than jumping between contrasting viewpoints.

It would be smoother by introducing the overarching issue without immediately jumping into contrasting viewpoints. For example:

"As the scoping phase for the next IPCC report (IPCC, 2024a) is underway, discussions within the paleoclimate community have emerged regarding the most effective way to incorporate paleoclimate information into future reports. The role of paleoscience in providing long-term perspectives on climate change is crucial for understanding current and future climate variability."

First sentence revised as suggested. The second sentence is common knowledge among *Climate of the Past* readers and would add to already long first paragraph.

Then begins presenting the rationale for a separate paleoclimate chapter in a neutral tone, ensuring it is given a fair explanation. For example:

"Some in the paleoscience community suggest for the inclusion of a dedicated chapter on paleoclimate, as was done in previous IPCC reports (Esper et al., 2024; PAGES, 2024). Proponents of this approach claim that a separate chapter would provide a more comprehensive assessment of paleoclimate data and ensure the visibility of this important field. They argue that this approach could safeguard the representation of paleoclimate experts and emphasize the relevance of long-term climate variability in the context of modern changes."

Revised text as suggested.

After this, the authors could discuss the case for distributing paleoclimate information across multiple chapters, clearly contrasting it with the previous argument. Followed by transition into the authors' preferred approach. Then provide a brief summary of why authors believe the distributed approach is more beneficial, linking it to the overall goals of the IPCC reports.

The restructure separates the contrasting viewpoints, allowing readers to understand each perspective before moving into the authors' preference, making it easier for readers to follow the arguments.

Revised the first paragraph to progress more logically, as suggested, rather than jumping between contrasting viewpoints.

3. Abstract. For a more neutral and objective tone, the abstract should avoid the impression of a rebuttal and present the discussion as a balanced evaluation of the two approaches. Here is a suggestion to revise the abstract:

"In preparing for the 7th assessment reports by the Intergovernmental Panel on Climate Change (IPCC), the paleoscience community faces a decision on how best to present paleoclimate information. Two approaches are being considered: a dedicated paleoclimate chapter or the integration of paleoclimate data across multiple chapters. This manuscript evaluates both options, considering the potential benefits and challenges of each. While a dedicated chapter could enhance visibility and focus, integrating paleoclimate information throughout the report may provide broader context and relevance. Based on this evaluation, we suggest opportunities for improving paleoscience contributions in future IPCC reports, regardless of the approach chosen."

Revised the abstract essentially as suggested by presenting the discussion as a balanced evaluation of the two approaches. However, to say that "the paleoscience community faces a decision" is misleading. The decision is in the hands of the IPCC. Also, to say that "a

dedicated chapter could enhance visibility...” is contrary to our primary argument and would be confusing to pose it in the abstract.

3. Suggestion on overall structure

- Introduction
- Evaluation of the case for a dedicated paleoclimate chapter (change the headline from previous “Response to arguments favoring a separate chapter”)
- Paleoscience coverage in AR6-WGI compared with previous reports
- Benefits and challenges of the distributed approach (merge the “Challenges” section with benefits from previous sections)
- Opportunities for future reports (more specific for the opportunities)

Revised the second and fifth headings as suggested. Moving the discussion of benefits of the distributed approach into the fourth section along with its challenges would be difficult because the benefits are the counterarguments in response to the case for the separate chapter, which is in the second section. Instead, we revised the heading for the second section to alert readers to location of this content.