

Final comment by the Handling Ed

Dear Luis and Co-Authors

I have heard back from three out of the four reviewers in regard to your revised MS. One is marked “missed deadline”, but they wrote to me separately. One declined because of family commitments. One missed the deadline. However, one reviewer wrote this:

“I commend the authors for thoughtfully engaging with and incorporating an exceptionally large number of comments from the four reviewers. I believe the manuscript is now suitable for publication.

Thank you for this herculean effort. I wish you a smooth remainder of the review process.”

I echo here the reviewer’s sentiment, and congratulate you on an extremely important and well researched and clearly written article. As I said in my synthesis of reviews,

My view is that your article is extremely important, ... as the topic is so crucial, not just for the cloud phys community (CPC), but for all of geoscience. Indeed, I would argue that no science, particularly geoscience, can achieve its rightful fulfilment and do its work satisfactorily if DEI is not also a foundational pillar of the science. Fully-implemented DEI needs to be achieved if the scientific aspirations are to be achieved.

I also agree with the reviewer’s other comment about the term ‘tropical’.

“... as I noted in my initial review (and as echoed by other reviewers), I still find the "tropical" framing—and the continued insistence on retaining it—somewhat puzzling. Ultimately, however, this is the authors' choice.”

So let me here make some additional suggestions, hoping that they will find favour with you. First some notes from linguistics. Most words have one or a few basic denotations and usually also several connotations, either positive, neutral or negative – which sometimes vary in time and from one culture to another. Here is an example for the lexical item *cat*.

Concept	Nature of meaning	Scope	Primary source	Example (Cat)
Denotation	Literal / Objective	Universal	Dictionary definition	A small domesticated feline mammal.
Connotation	Implied / Associative	Cultural / Subjective	Social context & emotion	Independence (positive), stealth, or bad luck (negative).

For the terms *tropics* and *tropical*, they of course differ in regard to syntactic function or part of speech, i.e., noun and adjective. However, they differ semantically in terms of their denotations and connotations.

Tropics	Nature of meaning	Scope	Primary source	Tropics
Denotation	Literal / Objective	Universal	Geographic definition	The region of Earth surrounding the Equator, bounded by the Tropic of Cancer (23.5° N) and Tropic of Capricorn (23.5° S)
Connotation	Implied / Associative	Cultural / Subjective	Social context & imagery	Mostly positive: Warmth, exotic, lush rainforests, humidity

Tropical	Nature of meaning	Scope	Primary source	Tropical
Denotation	Literal / Objective	Universal	Meteorological / Botanical	Of, persistent in, or characteristic of the tropics (e.g., non-freezing climate, frost-free ecology).
Connotation	Implied / Associative	Cultural / Subjective	Marketing, colonialism, racism, politics, sensory perception	Some (a) positive: Vibrant colours, warmth or summer, and (b) mostly negative: Disease, hazardous, dangerous, oppressive, decay, hostile vegetation, backwardness, chaos.

While the noun *tropics* primarily carries a neutral, objective **denotation** related to physical geography and astronomy, the adjective *tropical* frequently acquires negative **connotations** depending on discourse context (such as medicine, meteorology, history, society and politics). The negative connotations of *tropical* include:

- Hazardous weather: Evokes destructive, life-threatening natural disasters (e.g., *tropical storm*, *tropical cyclone*, *tropical depression*).
- Disease & parasites: Associated with severe infectious or insect-borne illnesses specific to hot climates (e.g., *tropical disease*, *tropical fever*, *malaria/dengue risks*).
- Oppressive climate: Implies suffocating or uncomfortable conditions (e.g., *oppressive heat*, *extreme humidity*, *stagnant air*).
- Decay & overgrowth: Suggests rapid spoilage, mold, dampness, rot or impassable, hostile vegetation (e.g., *tropical rot*, *choking jungle*).
- Colonial tropes: In literary, historical or social contexts, the term can subtly imply backwardness, wildness, chaos, colonial past, even slavery, as opposed to temperate, so-called civilized (or western) order.

My feeling is that the adjective, *tropical*, smacks of imperial undertones and that the noun, *the Tropics*, is less prone to carrying such connotations, especially as it denotes a specific (mathematically determined) area of the Earth's surface. One problem with connotations is that they can reflect back on the user, i.e., a reader reading the term may, wrongly, conjure negative impressions of the writer, especially if the reader already harbours negative ideas about the topic.

So let me, here, suggest some alternative phrasings for *tropical scientist* for DEI contexts:

- To highlight equity and fight helicopter science, use *researcher based in the tropics* or *in-country scientist*. These choices clearly separate local expertise from external scholars who conduct short field trips without local partnership.
- To highlight geopolitical power structures, use *Global South researcher*. This framing aligns well with DEI discussions on funding access and publishing barriers.
- To analyse historical or colonial biases, maybe use *tropicality practitioner* or *tropical science scholar* to critique the legacy of warm-climate research framed through a Western lens. I say 'maybe', for connotation reasons mentioned above.
- You could, and I suggest strongly that you, use *tropics-based scientist* as your primary term. It flows cleanly while indicating where the main research infrastructure is located and primary work takes place.

You can also use the phrasing for other roles, e.g., *tropics-based authors*, *tropics-based researchers*, *non-tropics-based peers* (or even *temperate- and polar-based peers*).

- You could use *tropics-resident scientist* when your argument specifically hinges on living conditions, local community ties, indigenous knowledge or long-term presence in the region.

The main thing, I think, is to avoid the term *tropical*. As the reviewers and I suggest, you would probably do well to consider this seriously. If we all balked at *tropical*, then that is telling you something important.

In addition to the writing aspect, remember too that you will be read and that the prime purpose of your article is to have a positive effect on your readers and thus on the issues related to DEI, not only on cloud phys, but in the geosciences more generally. Readers of your article are likely to feel a bit uncomfortable with *tropical*, and then your message and purpose may be lessened or clouded (if you will excuse the play on words). Also, if readers feel even just a little uncomfortable with your vocabulary, it may result in fewer quotes and citations by future authors, and maybe in push backs in other citing literature.

Here are three suggestions

1. Leave the terms as they are, and run the (not so small) risk of it backfiring in various ways.
2. Adopt *tropics-based scientist* (TBS) and do not mention the alternatives that you (currently?) prefer.
3. Adopt *tropics-based scientist* and insert some text explaining that you hesitated between your term and TBS. You can insert this extra text as an additional paragraph, in a text box or in a footnote. You can even, if you wish, say that you were persuaded (against your will?) by the reviewers and handling ed.

As Reviewer 4, who is a *tropics-based scientist*!, says, “this is the authors' choice”. The Reviewer is obviously more tolerant than I am 😊. Talk this over with your co-authors and see what they say.

Please prepare your final MS, checking for overlooked details. Look at the GC guide for authors <https://www.geoscience-communication.net/submission.html>, to see if any bits have been missed. Then upload for final version. If you have a moment, drop me a line to let me know what your final decision was. No need to show me beforehand – just make sure that there are no typos, glitches, etc. One guide that might help is <https://oceansclimate.wixsite.com/oceansclimate/writing-guide>.

Congratulations on an extremely important article. Thank you for sharing your work with GC.

David Crookall, Handling Ed