This is a new version of a paper that I commented on previously. I returned to my comment and notice that the authors did not consider my arguments at all. Therefore, I just copy and paste my previous comment below.

The scope of our piece is solely to provide a perspective based on scientific observation- and experiment-driven research in exoplanets, origin of life, and Earth-systems science. Our target audience is other scientists in our fields of research. Our opinion piece is not prescriptive and does not exclude other schools of thought. It is not ontological. We are aware of the substantial literature on these topics from other disciplines, but given the constraints of the format, this is a short opinion piece, not a literature review (we are already at the word limit).

- Please note that we had changed the title in the previous revision from "To address planetary crises, we must understand our place on Earth" to "Exoplanet, origins of life and biosphere researchers offer a perspective fundamental to ensuring humanity's future". This new title unambiguously sets out the scope and goal of our piece.
- We have adjusted the text to address the reviewer's additional comment about homeostasis, as indicated below.
- Furthermore, we direct the reviewer and the editor to our previous response, which addressed the reviewer's comments point-by-point.

I add one specific observation. The authors write: “The result is a robust homeostasis: the Earth system maintains an equilibrium and is resilient to small, slow perturbations.” This confuses the concepts of homeostasis and equilibrium.

We appreciate the distinction being made between "equilibrium" and "stable disequilibrium." To avoid confusion, we have edited the above sentence to read "The result is a robust homeostasis: the Earth system is stable and resilient to small, slow perturbations [...]"

The key point of the Gaia hypothesis is that the Earth maintains homeostasis in disequilibrium. This disequilibrium is seen as one reliable indicator of life on other planets. In the ‘hybrid planet’ framework that I refer to in my comment below, the idea is that in principle, the technosphere can also achieve a similar state of homeostasis while further leveraging the thermodynamic productivity on Earth.

We thank the reviewer for highlighting this additional aspect. We make no comment on the technosphere, and this is beyond the scope of the authors' respective areas of expertise.

On this mechanism, see the blog post by Axel Kleidon: https://technosphere.blog/2019/05/03/do-humans-have-free-will-or-are-our-actions-merely-manifestations-of-a-thermodynamic-imperative-or-are-both-views-right-in-their-own-ways/. This is the physical foundation for the arguments below.

This short opinion piece makes no presumption of attempting to address the incredibly challenging problem of free will. We have, as outlined above, clarified the scope of our piece.

Here is my previous comment.
My first comment is on juxtaposing biosphere and humans. This gives sort of romantic and backward-looking picture of the Earth system which humans have transformed into a 'hybrid planet' (Frank et al., 2017).

We place humans inside the biosphere. Humans are biology, and a part of the planet-life system. The central argument of our piece is *not* to juxtapose biosphere and humans.

We state this explicitly throughout the piece. See for example in the abstract (in italics): "[...] *humanity is wholly embedded in the Earth and its biosphere. There is no escaping our planet and its history.* Only policies that build on this perspective will contribute to a flourishing future for humanity." Further, we are explicit in not promoting specific polices, and are rather here interested in stating that policies grounded in the fallacy that humanity and Nature are distinct are bound to fail because they ignore scientific reality.

There is now a rich literature on the technosphere as newly emerging regulatory sphere of the Earth system (Donges et al., 2017). How should humans locate in this complicated relationship, which, after all, is one if not the defining feature of the Anthropocene? Just arguing that we are in control anyway, and hence simply including the technosphere into the human domain, is certainly wrong (Haff, 2014).

We make no comment on the technosphere, and this is beyond the scope of the authors' respective areas of expertise. We are providing a science-based perspective, which doesn't exclude other schools of thought. Our critique comes directly from the work of scientists that is used to construct these ontological frameworks. The word "Anthropocene" does not appear. We make no argument that "we are in control anyway".

The technosphere follows its own evolutionary trajectory. There are many ways how humans can design co-evolutionary regulatory mechanisms, such as in specific context as the recently propagated 'nature-based solutions' (Herrmann-Pillath et al., 2022). I think the opinion piece needs to add more concrete references to such topics which would allow to demonstrate practical consequences of the suggested change of perspectives for policies.

As stated above, our short piece does not mention the technosphere. Further, we are keen not to be prescriptive, and seek merely to highlight to scientific colleagues that their observation- and experiment-driven research in exoplanets, origin of life, and Earth-systems science places humans fully inside the Earth-biosphere system.

The second comment continues with pointing to the rich literature in the humanities dealing with 'nature'. For example, environmental philosopher Vogel has radically deconstructed nature and widens the notion to include artefacts with higher systemic complexity, with matches with the previous comment (Vogel, 2015). Juxtaposing nature and humans reinstates

the Western epistemologies of dividing subject and object. I cannot map this rich debate here (Braidotti, 2019), but just highlight one, which is inspired by a lifelong study of and engagement with native Australians, Povinelli's concept of 'geontopower' (Povinelli, 2016).

Our piece specifically seeks to bring in a perspective from exoplanet, origins of life and Earth-system science researchers. We are not attempting an extensive literature review.

Such contributions reveal the fallacies of much of the Anthropocene debates among scientists: They overlook that we should not talk about 'humans' in general, but about those humans that were and still are responsible for the tragedy that we face. In other words, there is a deeply political dimension of the issues, related to questions such as whether and how we must radically change our economic system. Without facing such political realities, calls for arms (as Scharf uses the term) don't know the enemy. Addressing 'humans' can even dilute responsibilities and factually protect the vested interests of the current system.

We wholeheartedly agree with the fact that not every human is equally responsible for current planetary crises. We are making a perspective statement: all humans are part of Nature, not separate from it. That's a different category of statement from one that assesses responsibility. Our target audience is scientists. Scientists in general, and certainly scientists in the Global North and especially the West, are acutely responsible for these crises in complicated ways (that cannot be addressed here). Our opinion piece is therefore implicitly political: we argue that scientists have a responsibility to use their privileged position and influence to consider and act on this perspective.