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IPBES promotes integration of multiple threats to biodiversity

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In a recent opinion article, Bonebrake et al. [1] promote the implementation of conservation strategies that integrate multiple threats to biodiversity acting at different timescales, including horizon threats such as climate change. They call into question the usefulness of studies featuring climate change as less urgent than other threats. They argue that showcasing the immediate impact of some threats to downplay the importance of climate change contributes to compartmentalising our understanding of environmental pressures. Bonebrake et al. [1] refer to Titeux et al. [2] as one such studies and they state that Titeux et al. [2] highlighted the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) as biased towards climate change research.

Titeux et al. [2] carried out a review of scientific studies exploring biodiversity responses to future environmental threats. They showed that these studies mostly focus on climate change impacts and seldom address other important threats such as land use change. Titeux et al. [2] emphasized the need for further integration of threats across scales. Their conclusions are therefore well aligned with Bonebrake et al. [1]'s suggestion to favour conservation strategies addressing multiple threats. Hence, we think that Bonebrake et al. [1] misrepresented Titeux et al. [2]'s recommendations when suggesting that this study could contribute to fracturing the current research panorama and conservation solutions. Titeux et al. [2] also mentioned IPBES as a timely opportunity to catalyse such an integration across threats, and not as a platform promoting research which focuses on any particular threat only.

Many assessment reports from international initiatives such as IPBES build on the review of scientific evidence available from the scholarly literature. If the literature is reviewed without full awareness of the uneven scientific knowledge across threats [3], there is a potential risk to provide biased assessments of their impacts. It is therefore of utmost importance to warn that research may disproportionately focus on some threats while neglecting others [4]. Synthesising available evidence as Titeux et al. [2] made is needed to reveal critical knowledge gaps in the context of the current biodiversity crisis

[3,4]. Highlighting these gaps has nothing to do with advocating for some causes by downplaying the importance of others, but it contributes to avoid placing too strong emphasis on well-studied threats when implementing global conservation strategies.

IPBES is paying attention to promote the integration of multiple threats. The importance of such an integration was emphasised in the IPBES methodological assessment report on scenarios and models of biodiversity and ecosystem services [5]. An IPBES expert group on scenarios and models is carrying out an integration of existing data and models to explore the future combined impacts of climate and land use change [6]. This initiative is underway, but some of the first results were included in the IPBES global assessment report on biodiversity and ecosystem services [7]. This report stresses the importance of acting immediately and simultaneously on multiple threats to biodiversity. As it came out very recently, Bonebrake et al. [1] most likely were not aware of its content when their article was in production.

IPBES reports also underline our currently limited ability to adequately evaluate the full range of impacts across different threats. Aspects of land use change that are key to biodiversity – e.g. changes in land management or intensity of use – are still poorly represented in scenarios and models for biodiversity [2,8]. Datasets representing these aspects more thoroughly are becoming increasingly available [9] and offer perspectives to increase our ability to evaluate future biodiversity responses to multiple dimensions of land use change [10]. Data scarcity is also a major obstacle to assess the impacts of other threats [3], such as direct exploitation of natural resources or invasive alien species, but two on-going IPBES thematic assessments will soon synthesize existing knowledge on these threats. The Belmont Forum and BiodivERsA network also recently launched a joint call to fund projects addressing research gaps highlighted in the IPBES methodological assessment on scenarios and models. Some successful projects will develop multi-scale scenarios of future biological invasions [11] or evaluate the combined impacts of exploitation and climate change. IPBES has therefore been playing an influential role in motivating research on multiple threats to biodiversity, but further integration is needed. We encourage the task force on scenarios and models that will take place under the next IPBES work programme to stimulate the establishment of an overarching framework for a full integration of threats across scales. Another upcoming thematic assessment (deliverable 1c of the next IPBES work programme) will focus on understanding the underlying causes of biodiversity loss and identifying leverage points at multiple societal levels and spatial scales to effect transformative change for the conservation and wise use of biodiversity. Its scoping process is underway, but we believe that this assessment could provide an adequate forum for Bonebrake et al. [1]’s suggested solutions.

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