

Study shows IPCC is underselling climate change

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A new study has revealed that the language used by the global climate change watchdog, the Intergovernmental Panel on Climate Change



(IPCC), is overly conservative – and therefore the threats are much greater than the Panel's reports suggest.

Published in the journal *BioScience*, the team of scientists from the University of Adelaide, Flinders University, the University of Bristol (UK), and the Spanish National Research Council has analysed the language used in the IPCC's Fifth Assessment Report (from 2014).

"We found that the main message from the reports—that our society is in climate emergency—is lost by overstatement of uncertainty and gets confused among the gigabytes of information," says lead author Dr. Salvador Herrando-Pérez, from the University of Adelaide's Environment Institute and Australian Centre for Ancient DNA.

"The IPCC supports the overwhelming scientific consensus about <u>human</u> impact on climate change, so we would expect the reports' vocabulary to be dominated by greater certainty on the state of climate science—but this is not the case."

The IPCC assigns a level of certainty to climate findings using five categories of confidence and ten categories of probability. The team found the categories of intermediate certainty predominated, with those of highest certainty barely reaching 8% of the climate findings evaluated.

"The accumulation of uncertainty across all elements of the <u>climate-change</u> complexity means that the IPCC tends to be conservative," says co-author Professor Corey Bradshaw, Matthew Flinders Fellow in Global Ecology at Flinders University. "The certainty is in reality much higher than even the IPCC implies, and the threats are much worse."

"Uncertainty is to science what the score is to music—but it's a twoedged sword: what the IPCC and the majority of the scientific



community regard as a paradigm of rigour and transparency is exactly what the 'merchants of doubt' put forward as a weakness," says Dr. Herrando-Pérez.

"However, climatic uncertainties are nothing but an expression of the climate risks we face, and should inspire action rather than indifference."

The team says the IPCC reports should incorporate a clear connection between the certainty of thousands of scientific findings and the certainty that humans are vastly altering the Earth's <u>climate</u>. The team recommends a new IPCC working group of communication specialists to oversee the language and effective dissemination, and convey the message accurately.

"Our <u>evolutionary history</u> tells us Earth will ultimately survive more aridity, more hurricanes, more floods, more <u>sea-level rise</u>, more extinctions and degraded ecosystems, but our society as we know it today might not unless we clearly articulate the magnitude of the threat it poses," says Dr. Herrando-Pérez.

More information: Salvador Herrando-Pérez et al. Statistical Language Backs Conservatism in Climate-Change Assessments, *BioScience* (2019). DOI: 10.1093/biosci/biz004

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