

Scientists join call for major shift in understanding to protect the ocean

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Marine scientists from the University of Plymouth have contributed to a new international report calling for an urgent change in the way we think and talk about the ocean in a post-COVID world.

Published in the journal *Aquatic Conservation*, the study breaks new ground in recognizing how an effective use of language can change the trajectory of <u>ocean</u> decline and says a rethink is both essential and timely in order to improve understanding and action.



Providing recommendations for <u>decision makers</u>, scientists and NGOs it makes six, scientifically-informed points which everyone should understand and act on.

The authors include Professor of Marine Biology Jason Hall-Spencer and Professor of Oceanography Chris Reid, who were also part of research published in 2019 which highlighted urgent action needed to head off potential ecological disaster in the global ocean.

This new report points to the absence of consideration of the ocean in most discussions about how we learn from the pandemic, and that the global-scale policy change needed will not be forthcoming without an improved understanding and articulation of the role of the ocean in our lives.

It also adds that although the health of the ocean is deteriorating swiftly and to the detriment of humankind, very little is being done to address the situation.

The International Program on the State of the Ocean (IPSO) authors hope that improving knowledge about the role of the ocean in our lives—something, for example, which is not featured in many school curricula—will increase the attention paid to the ocean and the urgency with which action is taken.

Professor Hall-Spencer, one of the world's leading experts on the impacts of ocean acidification, fisheries and warming, is one of the core group of 16 scientists that advise the IPSO.

His role with the program is to consider how best to ensure the ocean continues to function as Earth's life support system at the same time as providing food and other ecosystem services to humans. He said:



"There is no such thing as "UK fish' as the ocean is interconnected. But there is a vital need to better protect resources such as fish breeding areas and seabed habitats that are easily damaged. The pandemic has made us realize the absolute importance of holding governments to account in protecting nature, and this report can be vital in bringing that to fruition."

Professor Reid, a member of the Continuous Plankton Recorder Survey group at the Marine Biological Association, is also part of the core group advising IPSO.

His main contributions to the report were in assessing long-term and potential future changes in the ocean, their links to climate change and the impacts/risks for humans. He added:

"In this paper, we call the ocean the 'lifeblood' of the world and in terms of heat distribution, from the equator to the poles, it is its 'beating heart." The ocean provides many services and regulatory processes and has a key role in reducing the impact of climate change, all of which is crucial to humanity and our future.

"Approximately 93% of the excess heat from global warming has been absorbed by the ocean with only 1% causing the warming of the atmosphere. Any reduction in the rate of this heat absorption would have major consequences for the speed of warming, and we hope our paper will be a valuable information source to policy advisers, decision makers and all stakeholders including the public."

The report includes a synthesis of key ocean functions and the changes tracked by science and is emphatic that action must be taken now in response to the scale and accelerating nature of the change and argue that we need a joined-up, whole ocean response to climate and biodiversity.



The authors say that we need a 'plan B for ocean recovery' as downward step-changes in ocean health dramatically impact humanity. They call for a new "Marshall-style' plan for the ocean, akin to the ambition and drive used to rebuild societies after World War Two.

Lead Author of the report, Professor Dan Laffoley says:

"These may seem simple, but decision makers do not act as if they were true. Humanity cannot survive without a healthy ocean performing the services that make our planet habitable and allow us to live. We have to understand that the one ocean of our planet is vital to our existence so let's start talking about it in those terms. These kind of steps are important because they change the way people understand the ocean and, for example, the fact that damage in one part of the ocean can circulate and bring harm to another part—it's all connected."

More information: The report is available online: www.stateoftheocean.org/science/current-work/

Provided by University of Plymouth

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