

Oceans threatened by mass extinction

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Declining corals could be the first step towards a mass extinction. Photo: Terry Hughes

(PhysOrg.com) -- An international panel of marine scientists has warned that the world's oceans are at risk of entering a phase of extinction of marine species unprecedented in human history.

The panel, who have released a preliminary report of their findings, gathered at Somerville College, Oxford University, to consider the latest marine research.

After examining evidence on the impact of factors such as pollution, acidification, ocean warming, overfishing and hypoxia (deoxygenation)

the group agreed that ocean ecosystems may be unable to recover after ‘being constantly bombarded with multiple attacks’.

Dr Alex Rogers of Oxford University’s Department of Zoology, who is Scientific Director of the International Programme on the State of the Oceans (IPSO) which convened the workshop, said: ‘The findings are shocking. As we considered the cumulative effect of what humankind does to the ocean the implications became far worse than we had individually realised.

‘This is a very serious situation demanding unequivocal action at every level. We are looking at consequences for humankind that will impact in our lifetime, and worse, our children’s and generations beyond that.’

The panel concluded that the combination of stresses the ocean is exposed to is creating the conditions associated with every previous major extinction of species in Earth’s history. The speed and rate of degeneration in the oceans is far faster than anyone predicted and the damage being done worse than anticipated. The decline in reef-forming corals could, scientists believe, be the first sign of a globally-significant extinction.

Dr Rogers commented that even if the destruction was limited to the extinction of coral reef ecosystems, something likely to occur by the end of this century, this would constitute in itself a ‘[mass extinction](#)’ event because of the estimated nine million species associated with coral reefs.

The report makes a series of recommendations and calls on states, regional bodies and the United Nations to act to save [ocean](#) ecosystems. These recommendations include an urgent requirement for the UN to establish effective governance of the high seas, to all nations to reduce fishing to levels which can be shown to be sustainable, the establishment of a system of marine protected areas to conserve biodiversity, and more

concerted efforts to prevent pollution of our waterways and seas.

Provided by Oxford University

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