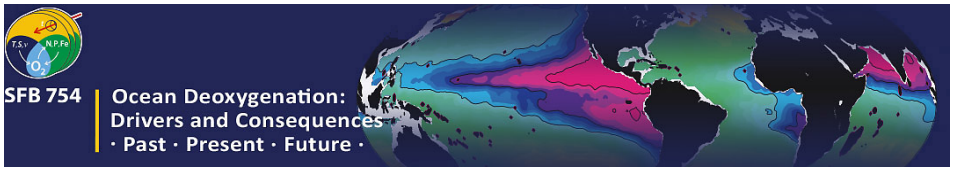

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Fish, ocean oxygen depletion and the food security of current and future generations

Thursday, 6 September 2018 10:10 (35)

It turns out that the ocean carries a heavy burden of climate change by absorbing more than 30% of the carbon produced on land. While this is a great service in the first instance it results in physical and chemical changes that are already changing the biophysics of the ocean, triggering acidification and de-oxygenation. Here, I will explore the potential food security and economic consequences of increasing depletion of ocean oxygen via its impacts on fish populations. This analysis is needed because it has been predicted that oxygen levels in the world's oceans have already declined by 2% on average in the last 50 years, with the fall in the Pacific Ocean much higher than the average. This decline is predicted to accelerate into the future if we fail to take action to reduce C02emissions. In conducting our analysis, we will develop a number of scenarios and use economic indicators such as catch, revenues and profits to explore how and to what extent de-oxygenation would likely threaten the food security (defined broadly) of both current and future generations of people through its impact on fish stocks.

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